

Adobe Illustrator

2026 Release



Classroom in a Book®

The official training workbook from Adobe

Brian Wood

Adobe Illustrator Classroom in a Book[®] 2026 Release

The official training workbook from Adobe

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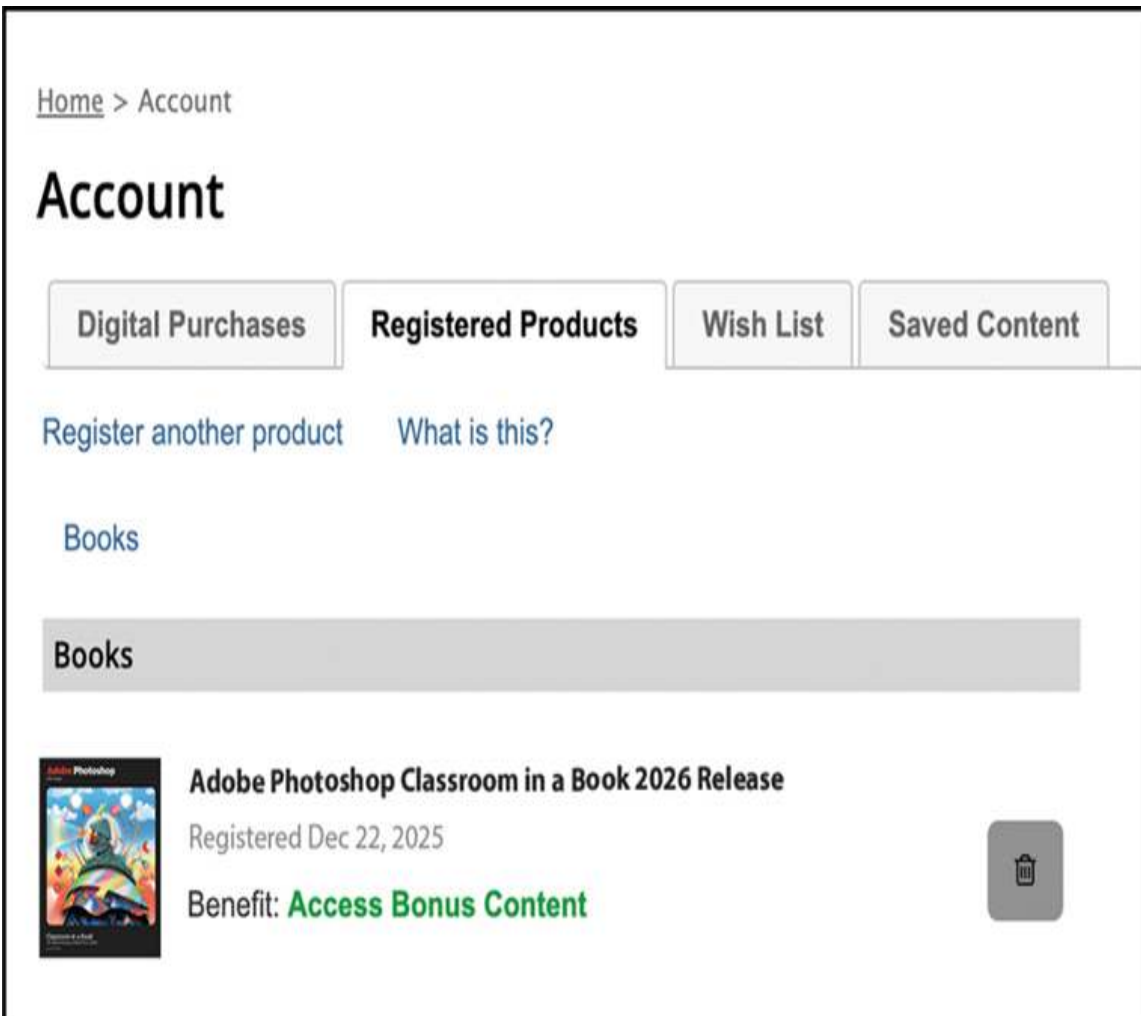
Where are the Lesson Files?

Purchase of this Classroom in a Book in any format gives you access to the lesson files you'll need to complete the exercises in the book.

1. Go to peachpit.com/register and sign in or create a new account.
2. On the Register a Product page, enter ISBN **9780135496107** and click Submit.
3. Answer the proof-of-purchase challenge question by looking in your book for the answer.
4. Navigate to the Registered Products tab on your Account page to access the lesson files.
5. Click the Access Bonus Content link below the title of your product to proceed to the download page. Click the lesson file links to download them to your computer.
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Getting Started

Adobe Illustrator is an industry-standard print, multimedia, and online graphics illustration application. Whether you are a designer or a technical illustrator producing artwork for print publishing, or an artist creating multimedia graphics, web content, or social media assets, Adobe Illustrator offers you the tools you need to get professional-quality results.

About Classroom in a Book

Adobe Illustrator Classroom in a Book 2026 Release is part of the official training series for Adobe graphics and publishing software developed with the support of Adobe product experts. The features and exercises in this book are based on the 2026 release of Illustrator.

The lessons are designed so that you can learn at your own pace. If you're new to Adobe Illustrator, you'll learn the fundamentals you need to master to put the application to work. If you are an experienced user, you'll find that Classroom in a Book also teaches some more advanced features, as well as includes tips and techniques for using the latest version of Adobe Illustrator.

Although each lesson provides step-by-step instructions for creating a specific project, there's room for exploration and experimentation. You can follow the book from start to finish or do only the lessons corresponding to your interests and needs. Each lesson concludes with a review section to quiz you on the main concepts.

Prerequisites

Before beginning to use *Adobe Illustrator Classroom in a Book 2026 Release*, you should have working knowledge of your computer and its operating system. Ensure you know how to use standard menus and

commands and how to open, save, and close files. If you need to review these techniques, see the printed or online documentation for macOS or Windows.

Installing the program

Before you begin using *Adobe Illustrator Classroom in a Book 2026 Release*, make sure that your system is set up correctly and that you've installed the required software and hardware.

● Note

When instructions differ by platform, macOS commands appear first and then the Windows commands, with the platform noted in parentheses. For example, “press Option (macOS) or Alt (Windows), and click away from the artwork.”

You must purchase the Adobe Illustrator software separately. For complete instructions on installing the software, visit helpx.adobe.com/support/illustrator.xhtml. You must install Illustrator from Adobe Creative Cloud onto your computer. Follow the onscreen instructions.

Fonts used in this book

The Classroom in a Book lesson files use fonts that are included with your Creative Cloud subscription, and trial Creative Cloud members have access to a selection of fonts from Adobe for web and desktop use.

For more information about Adobe Fonts and installation, see the Adobe HelpX article at helpx.adobe.com/creative-cloud/help/add-fonts.xhtml.

Online content


Your purchase of this Classroom in a Book includes online materials, covered next, provided by way of your Account page on peachpit.com.

Lesson files

To work through the projects in this book, you will need to download the lesson files using the following instructions.

Web Edition

The Web Edition is an online interactive version of the book providing an enhanced learning experience. Your Web Edition can be accessed from any device with a connection to the internet, and it contains:

- The complete text of the book.
- Hours of instructional video keyed to the text. Throughout the lessons, content that is available only as video content is marked with a video icon ().
- Interactive quizzes.

Accessing the lesson files and Web Edition

You must register your purchase on peachpit.com to access the online content:

1. Go to peachpit.com/register and sign in or create a new account.
2. On the Register a Product page, enter ISBN **9780135496107** and click Submit.
3. Answer the proof-of-purchase challenge question by looking in your book for the answer.
4. Navigate to the Registered Products tab on your Account page to access the lesson files.
5. Click the Access Bonus Content link below the title of your product to proceed to the download page. Click the lesson file links to download them to your computer.
6. The Web Edition can be accessed from the Digital Purchases tab on your Account page. Click the Launch link to access the product.

● **Note**

If you encounter problems registering your product or accessing the lesson files or Web Edition, go to peachpit.com/support for assistance.

▶ **Warning**

For access to the lesson files, please register and download your files by December 31, 2029.

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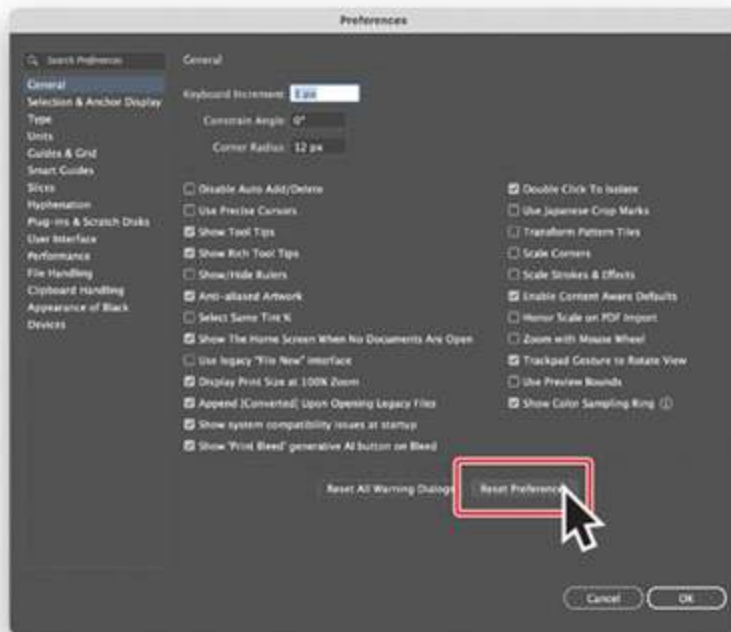
Restoring default preferences

The preferences file controls how command settings appear on your screen when you open the Adobe Illustrator program. Each time you quit Adobe Illustrator, the position of the panels and certain command settings are recorded in different preference files. If you want to restore the tools and settings to their original default settings, you can reset the Adobe Illustrator preferences.

You must restore the default preferences for Illustrator before you begin each lesson. This ensures that the tools function and the defaults are set exactly as described in this book.

To reset the current Illustrator preferences

1. Launch Adobe Illustrator.
2. Choose Illustrator > Settings > General (macOS) or Edit > Preferences > General (Windows).
3. In the dialog box that opens, click the Reset Preferences button.



4. Click OK.

5. In the warning dialog that appears, click Restart Now.



Illustrator will quit and then relaunch. When Illustrator reopens, the preferences will be reset.

Additional resources

Adobe Illustrator Classroom in a Book 2026 Release is not meant to replace documentation that comes with the program or to be a comprehensive reference for every feature. Only the commands and options used in the lessons are explained in this book. For comprehensive

information about program features and tutorials, please refer to these resources:

Adobe Illustrator Tutorials: adobe.com/learn/illustrator is where you can find and browse tutorials on [Adobe.com](https://adobe.com). In Illustrator, if you choose Help > Tutorials, the Discover panel will open where you can find and browse tutorials within the app.

Adobe Illustrator Learn & Support:

helpx.adobe.com/illustrator/desktop.xhtml is where you can find and browse tutorials, help, and support on [Adobe.com](https://adobe.com). In Illustrator, if you choose Help > Illustrator Help, the Discover panel will open where you can find and browse hands-on tutorials, tutorials, and help articles within the app.

Adobe Community: adobe.com/community lets you tap into peer-to-peer discussions, questions, and answers on Adobe products.

Resources for educators: adobe.com/education.xhtml and edex.adobe.com offer valuable information for instructors who teach classes on Adobe software. Find solutions for education at all levels, including free curricula that can be used to prepare for the Adobe Certified Associate exams.

Adobe Illustrator product home page:

adobe.com/products/illustrator.xhtml is where you can download a free trial, update to the latest version of Illustrator, and learn about new features.

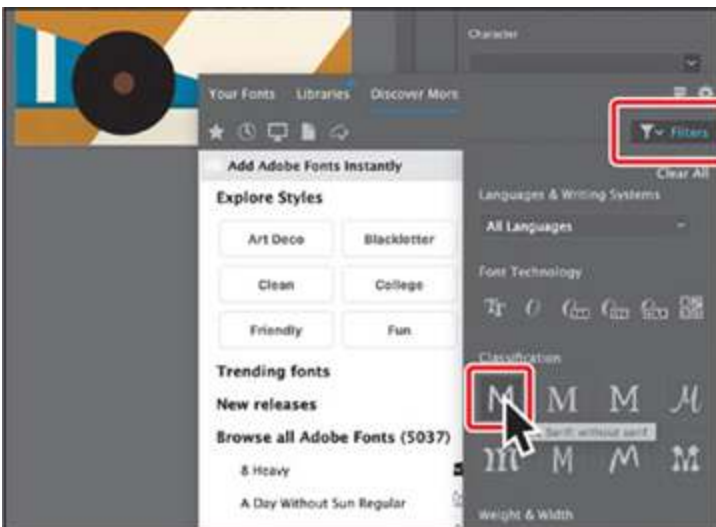
Adobe add-ons: exchange.adobe.com is a central resource for finding tools, services, extensions, code samples, and more to supplement and extend Adobe Creative Cloud.

What's New in Adobe Illustrator 2026 Release

Adobe Illustrator 2026 release has new and innovative features to help you produce artwork more efficiently for print, web, and digital video publication. The features and exercises you'll learn about in this book are based on the Illustrator 2026 release. In this section, you'll preview some of the many new features.

Overall Illustrator enhancements

(found throughout)



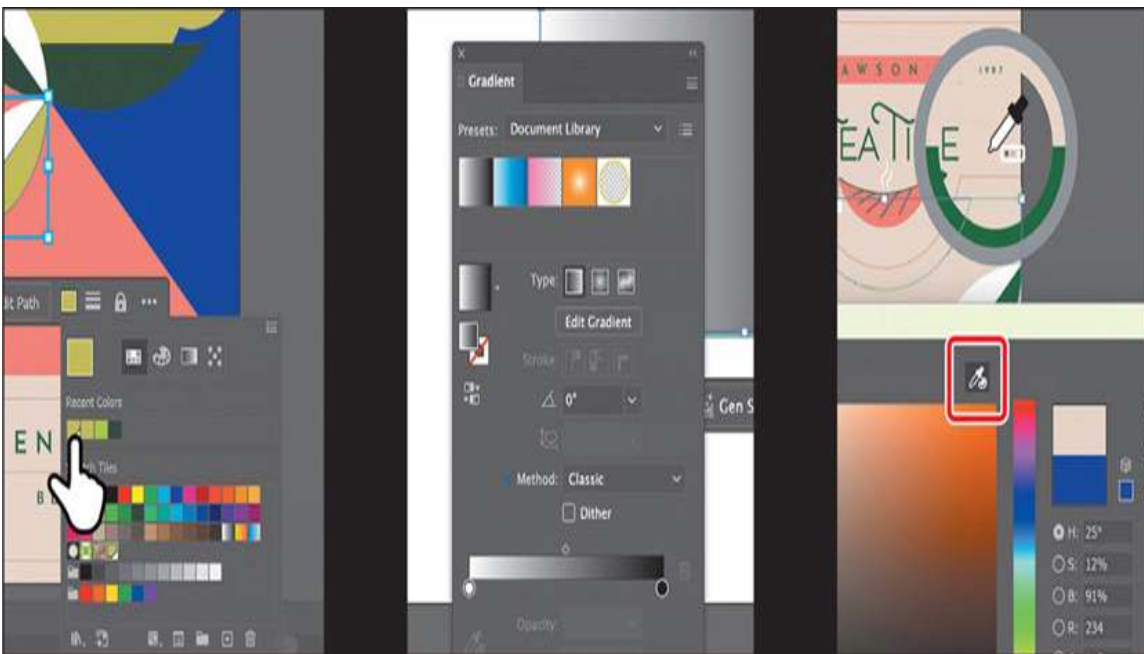
From enhanced features like Smart Guides, Image Trace, and Font Browser, to faster app launching, document save performance improvements, improved transform performance, and a whole lot more, the

Illustrator team has made great strides in improving a lot of different aspects of Illustrator.

Color improvements

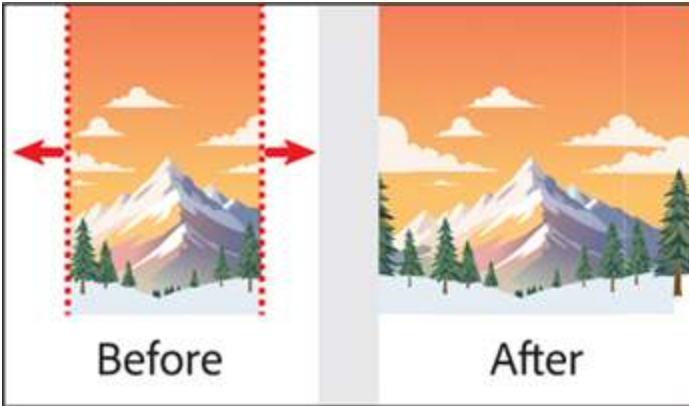
(found mostly in [Lesson 8](#))

From the addition of Recent Colors to the Swatches panel, to gradient library presets showing in the Gradient panel, to the ability to create more visually pleasing color transitions in gradients using Perceptual gradients, and more—creating color in Illustrator has never been easier.



Generative Expand

(found in [Lesson 3](#))

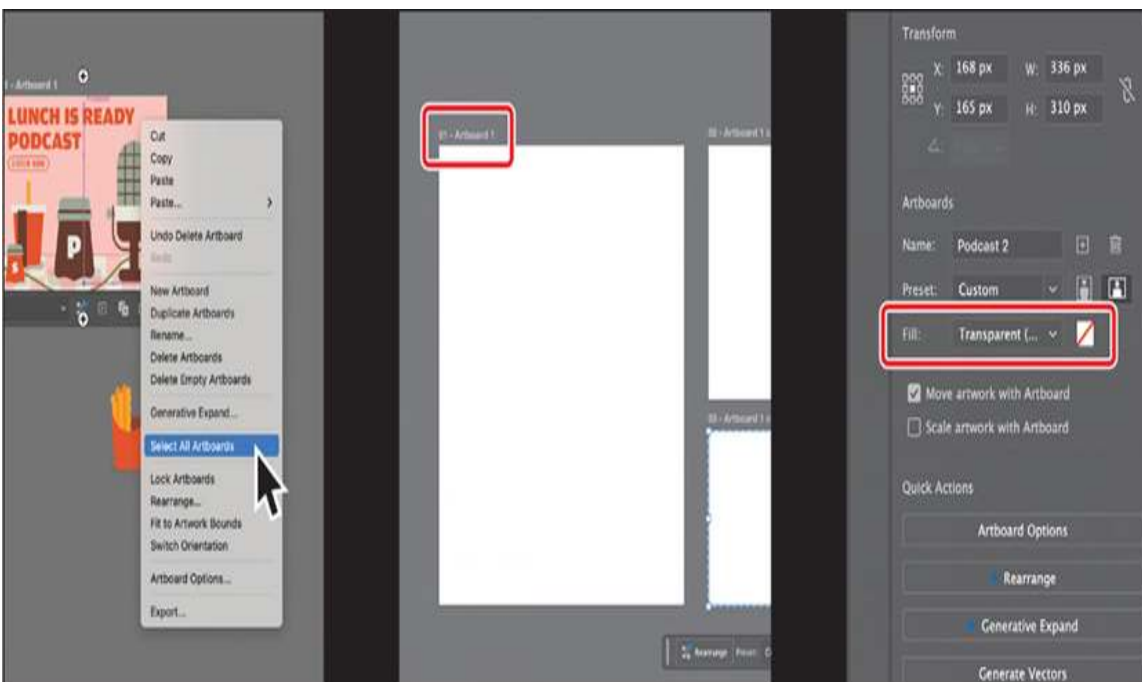


Generative Expand, powered by Adobe Firefly, generates vector graphics that extend artwork beyond its original bounds. Use it to expand artwork for ideation, adjust artboard layouts, or fill print bleed areas.

Artboard improvements

(found in [Lesson 5](#))

Like other areas of Illustrator, artboards have a number of enhancements. From seeing the artboard names right on the canvas (and being able to edit them there), to locking artboards, to having a lot of the artboard commands available in a context menu, to adding color backgrounds, and much more—there are a lot of new ways to work with artboards.



There are so many more updates to Illustrator this time around. To see a full list, visit helpx.adobe.com/illustrator/desktop/new-features/whats-new.xhtml.

Adobe is committed to providing the best tools possible for your publishing needs. We hope you enjoy working with the Illustrator 2026 release as much as we do.

—The *Adobe Illustrator Classroom in a Book*® 2026 Release team

A Quick Tour of Adobe Illustrator 2026 Release

Lesson overview

In this interactive demonstration of Adobe Illustrator 2026 release, you'll get an overview of the main features of the application.



This lesson will take about 30 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.





Explore some of the essential features of Adobe Illustrator as you create a colorful sticker.

Starting the lesson

For the first lesson of this book, you'll get a quick tour of the most widely used tools and features in Adobe Illustrator, giving you a sense of the many possibilities. Along the way, you'll create artwork for a fun sticker. First, you'll open the final artwork to see what you will create in this lesson.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, delete or deactivate (by renaming) the Adobe Illustrator preferences file. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. Choose File > Open, or click Open in the Home screen that is showing. Open the L00_start.ai file in the Lessons > Lesson00 folder you copied to your computer.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

4. Choose View > Fit Artboard In Window to see all of the artwork.

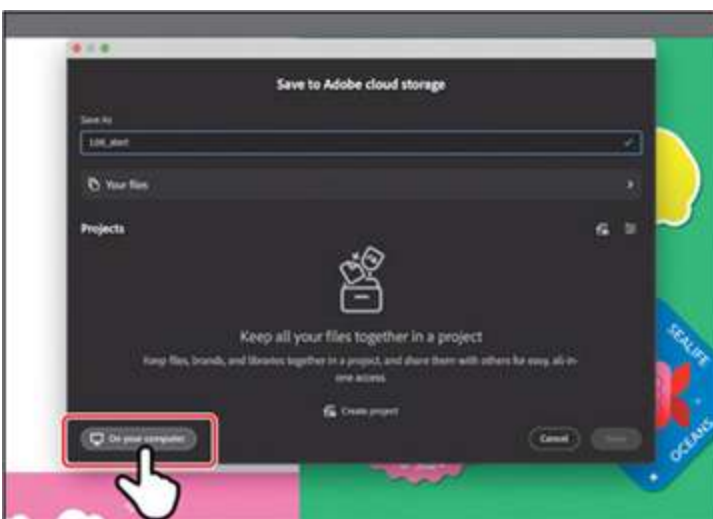


In this file, you should see a few stickers on the right. On the left is a white area where you can create your own sticker.

Saving the document

Now, save the starting file as an Illustrator document so you can create a copy for yourself.

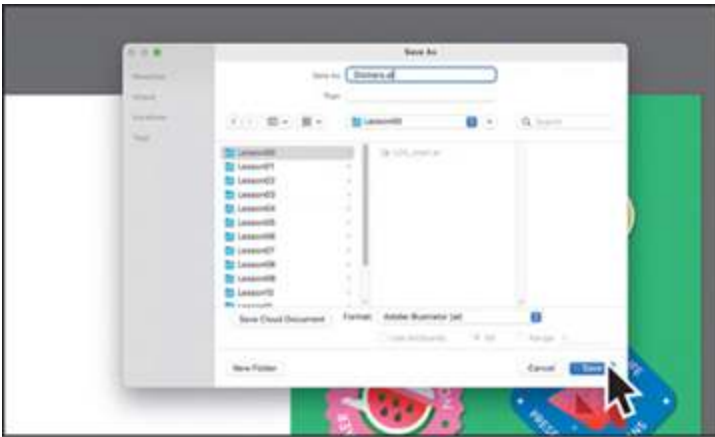
1. Choose File > Save As.
2. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer to save it to your computer.



► **Tip**

Want to learn more about what a cloud document is? Explore the section “[What is a cloud document?](#)” in [Lesson 3](#), “[Making Artwork with Shapes](#).”

3. In the Save As dialog box, set the following options:



- Change the name to **Stickers.ai**.
- Navigate to the Lessons > Lesson00 folder.
- Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows).
- Click Save.

4. In the Illustrator Options dialog box that appears, simply click OK.

With the document saved to your computer, it's time to make sure Illustrator is showing all of the tools and features you need.

5. Choose Window > Workspace, make sure “[Getting Started](#)” is selected, then choose Window > Workspace > Reset Getting Started to reset the workspace.



The rectangular area that the stickers are on is called the *artboard*, and it's where your artwork will go. Artboards are like pages in Adobe InDesign or a piece of paper on your desk. Your document can have multiple artboards, and each can be a different size. The gray area around the artboard is called the *canvas*.

Creating shapes

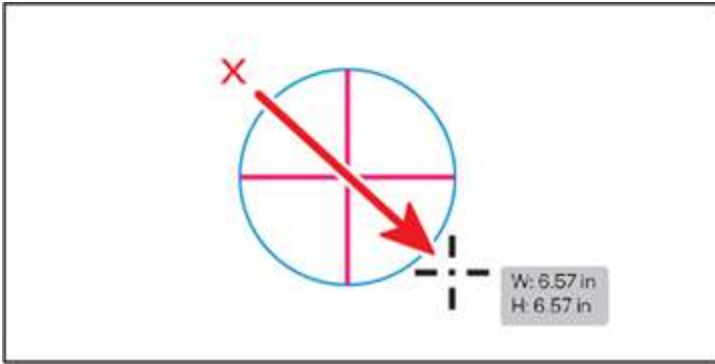
Shapes are the cornerstone of Illustrator, and you'll create a lot of them in the coming lessons. To start this project, you'll make several shapes that you'll combine to create sticker artwork.

► Tip

Explore how to make and edit all kinds of different shapes in [Lesson 3](#).

1. Select the Ellipse tool (○) in the toolbar on the left.





You'll start by making a circle for the main sticker shape.

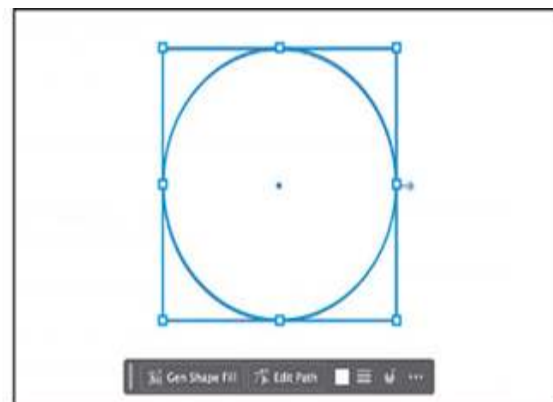
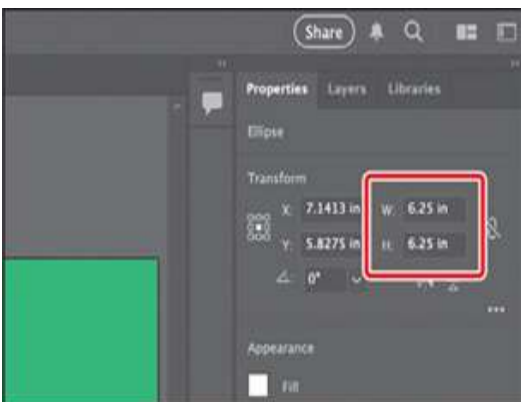
2. In the white part of the artboard, drag to make a circle.

After it's drawn, the shape will be selected. Now try making the circle a specific size in the next steps.

3. In the Properties panel on the right, change the W value (Width) and the H value (Height) to **6.25 in** by selecting the value in each field and changing it. Press Return (macOS) or Enter (Windows) to accept the last entered value.


▶ Tip

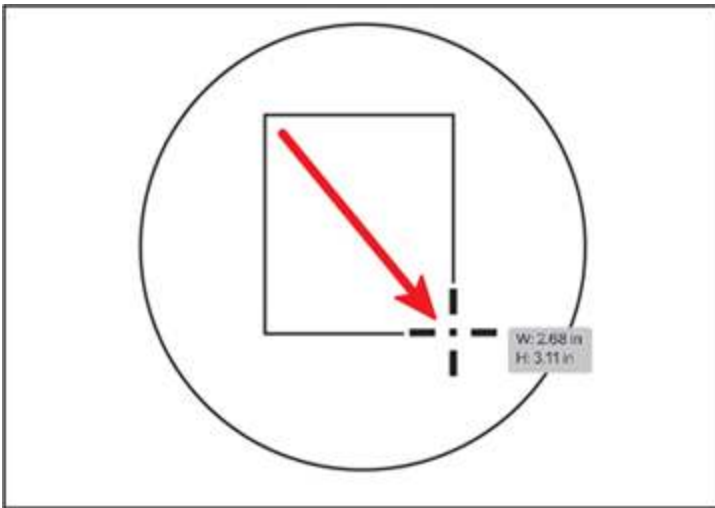
Click W: or H: in the Properties panel to quickly select the value.



4. To zoom in to the circle, choose View > Zoom In a few times.
5. To lock the circle temporarily, choose Object > Lock > Selection.

That way, you don't accidentally move or edit it in any way. Now you'll make a rectangle that will become part of a pear on the sticker.

6. In the toolbar, select the Rectangle tool (). Drag to make a rectangle within the circle. See the figure.



You'll resize it in the next section, so leave it selected.


7. Choose File > Save to save the document.

Resizing shapes

Next, you'll resize the rectangle by dragging an edge. This method lets you be less exact than when you were just using the Properties panel to resize shapes.

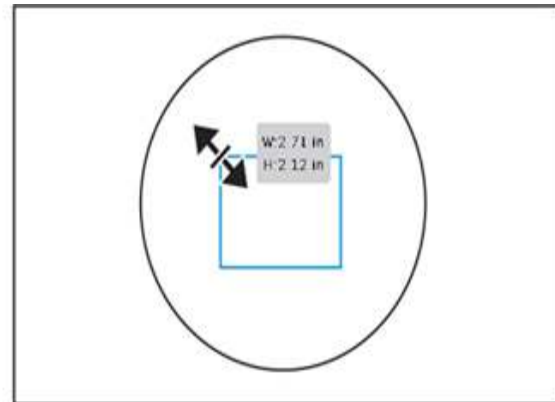
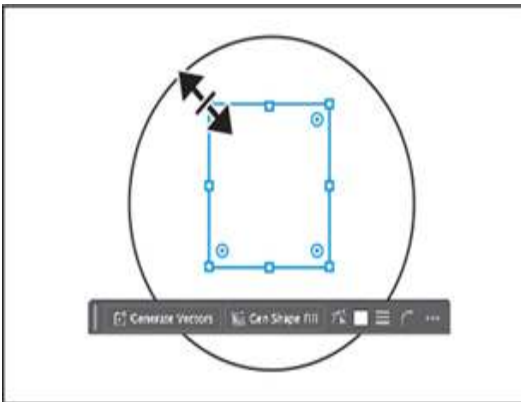
► Tip

Explore shape editing in [Lesson 3](#) and [Lesson 4](#), “[Editing and Combining Shapes and Paths](#).”

1. Select the Selection tool () at the top of the toolbar on the left.
2. With the rectangle selected, drag a corner to make it a specific size. A gray measurement label shows next to the pointer; drag until you see a width of about 2.7 in and a height of 2.1 in.

● Note

If you don't see the measurement label, make sure Smart Guides are on. Choose View > Smart Guides. A checkmark next to Smart Guides in the menu means they are on.

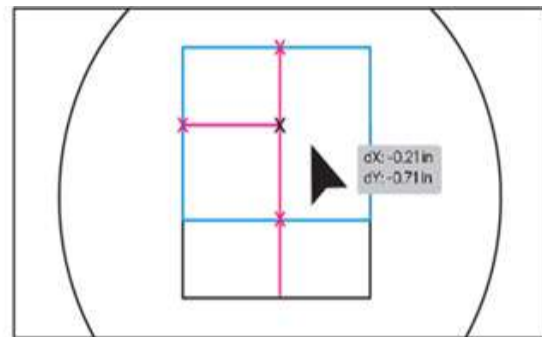
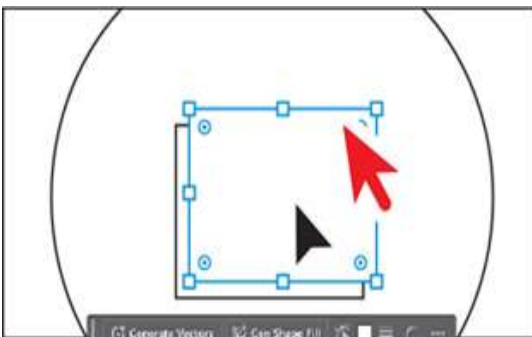


When you make or edit a shape, that gray measurement label is a part of Smart Guides, which are turned on by default.

Copying shapes

Now, you'll make a copy of the rectangle to make the top of the pear.

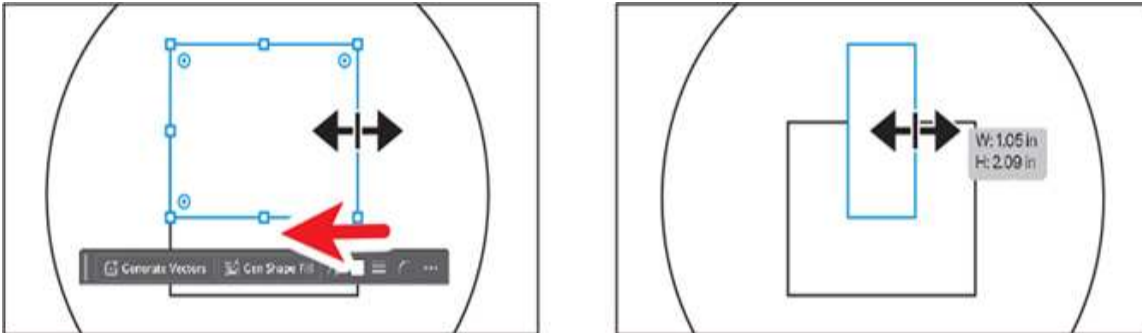
1. With the rectangle selected, choose Edit > Copy, and then choose Edit > Paste.
2. Drag the new rectangle like you see in the figure. You might see a vertical magenta guide as you drag, telling you that the shapes are aligned vertically.



Time to resize the new rectangle. Because it's already aligned with the other rectangle, you'll resize it relative to the center so it stays

aligned. The small boxes on the corners and sides of the shape are called *bounding points*. You can drag those to reshape the rectangle.

3. Press Option (macOS) or Alt (Windows) and drag the bounding point on either side of the rectangle, toward the center, to make the shape narrower. When you see a width of about 1.05 inches, release the drag and then the key.



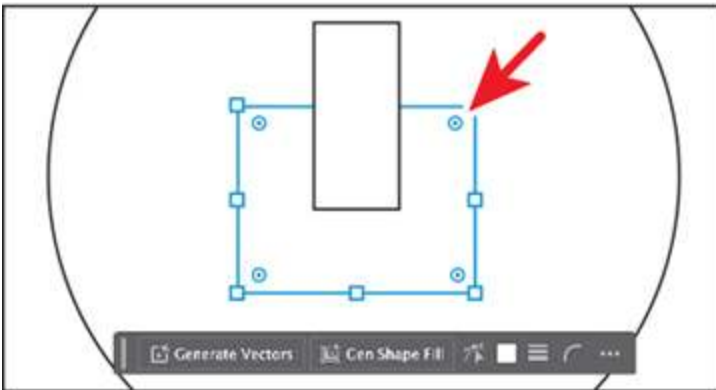
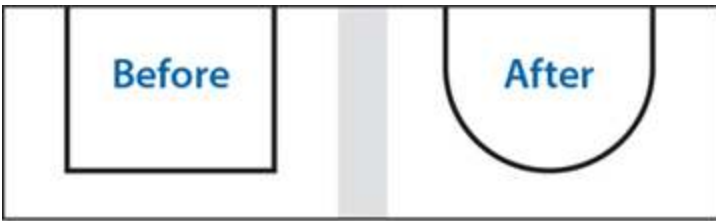
4. If necessary, drag both shapes so they are in the same relative position as you see in the previous figure. *This is important for later steps!*
5. Choose Select > Deselect so nothing is selected.

Rounding corners

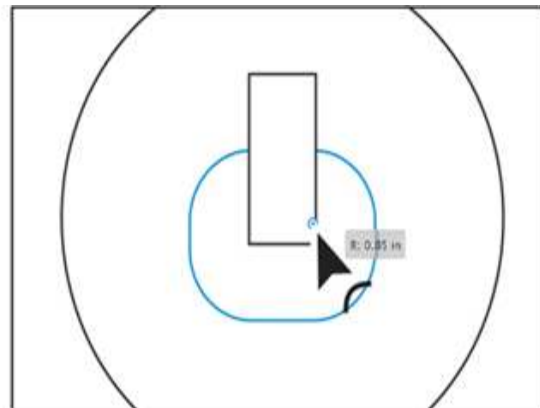
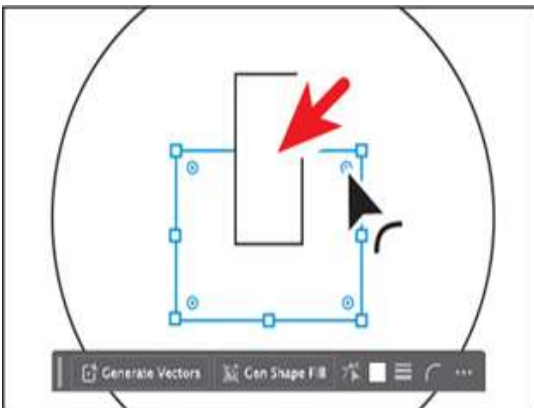
To make the bottom of the pear look more natural, you'll round the corners.

1. With the Selection tool (🖱️), click the larger rectangle to select it.

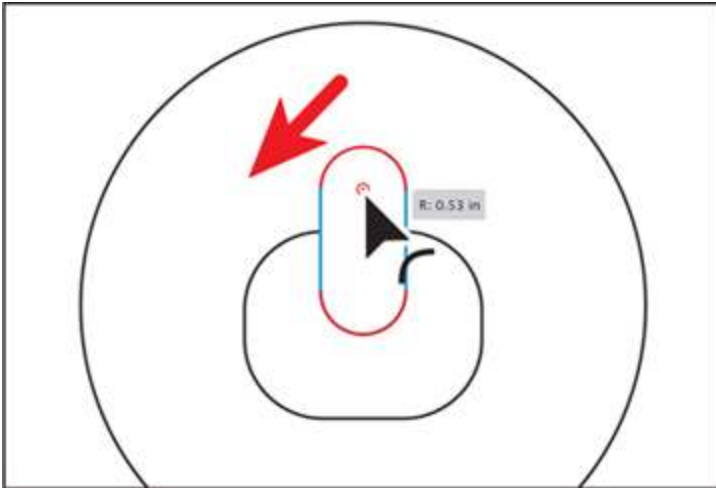
You will see a bunch of small double circles (🕯️), called *corner radius widgets*. You use these to control the roundness of the corners.




2. Drag any of the corner radius widgets (⦿) in the corners of the shape to round the corners. I stopped rounding when I saw 0.85 in the measurement label.



3. Select the smaller rectangle.




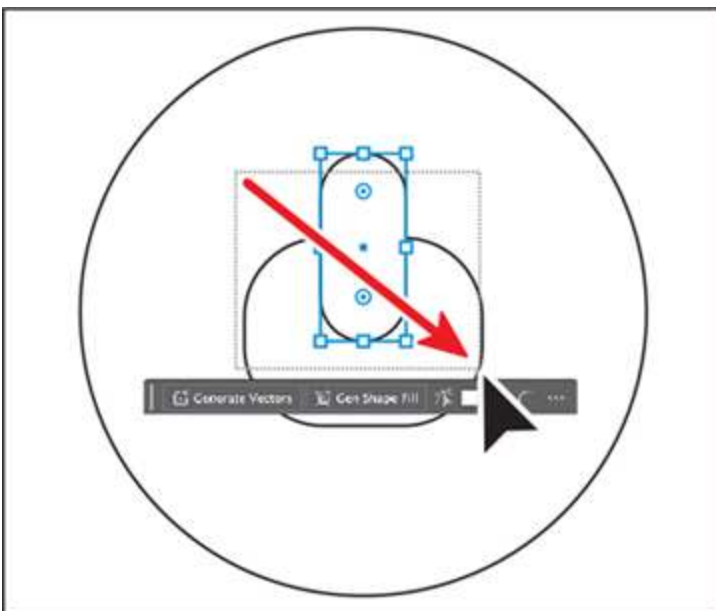
4. Round its corners as much as you can by dragging the double-circle () in any corner to the center.


When you see red on the path, that is as far as you can round it.

5. Save the file by choosing File > Save.

Combining shapes using the Shape Builder tool

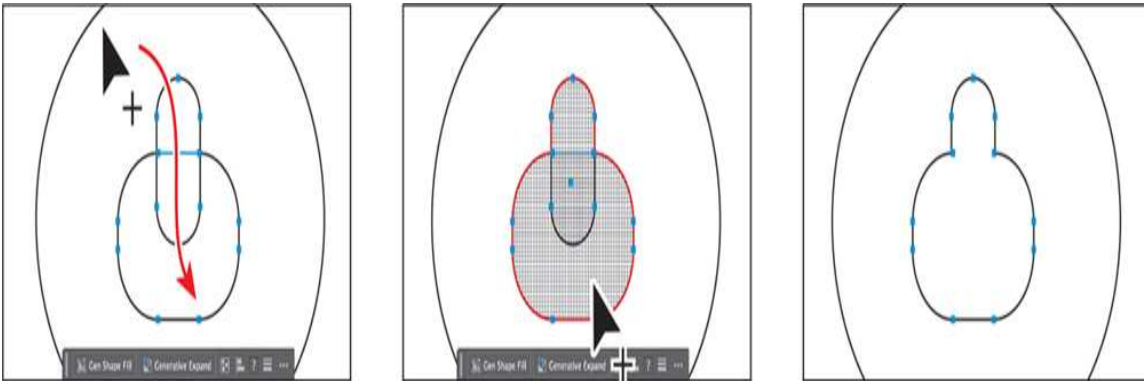
You can make more complex artwork without having to “draw,” by merging shapes with the Shape Builder tool (). Next, you’ll merge the rectangles to make the pear.



1. Starting in an empty area, drag across the two rectangles to select them.
2. Select the Shape Builder tool () in the toolbar on the left.
3. Move the pointer to roughly where you see the pointer in the first part of the following figure.
4. Drag through the shapes to combine them. Release the drag, and the shapes are combined.


► **Tip**

Didn't drag through all of the shapes? Try again!




Rounding a few corners

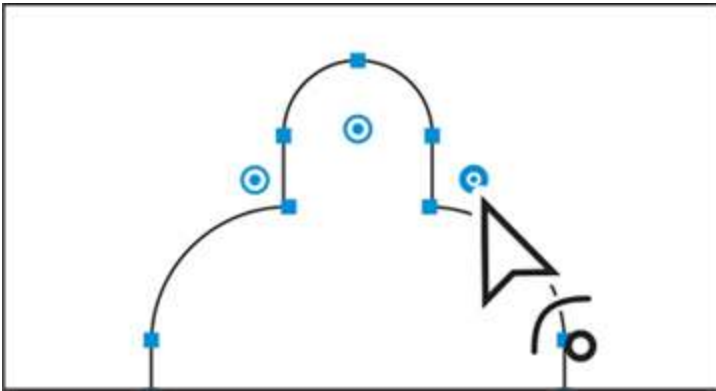
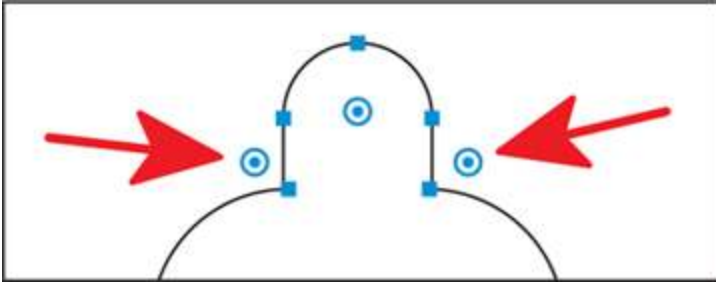
Now you'll round a few corners on the shape to make it look more like a pear.

1. Select the Direct Selection tool () toward the top of the toolbar on the left.

► **Tip**

Learn more about paths and anchor points in [Lesson 7, "Drawing with the Pen Tool."](#)

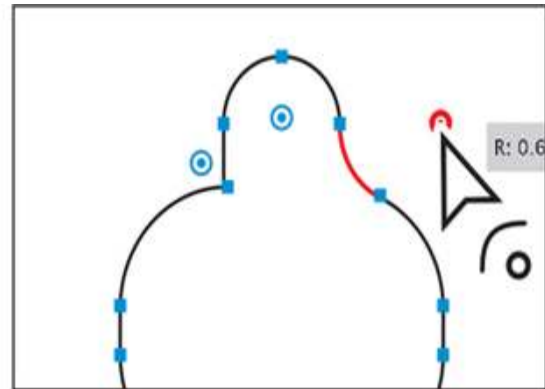
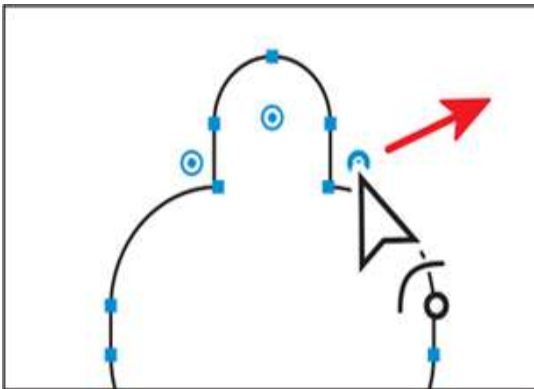
Arrows are pointing to the corner radius widgets () you will drag to round part of the shape.



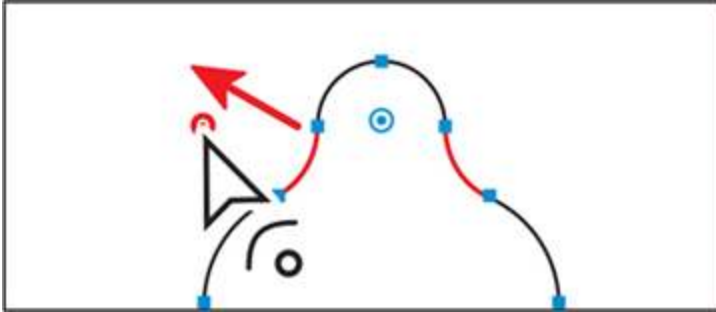
2. Click one of those corner radius widgets (⦿) so it is selected. It will now look different (⦿).

You select it first, then drag it in the next step. Otherwise *all* will change.

3. Drag the selected widget away from the shape to round the path.



4. Follow the previous step to round the other part of the shape. You will need to select the widget *first*, and then drag!



Applying and editing color

Shapes you create can have a colored stroke (border) that goes around the edge and can be filled with a color, pattern, or gradient. You can apply color, edit colors, and save colors as swatches.

► Tip

Learn more about fill and stroke in [Lesson 8](#), “[Using Color to Enhance Artwork](#).”

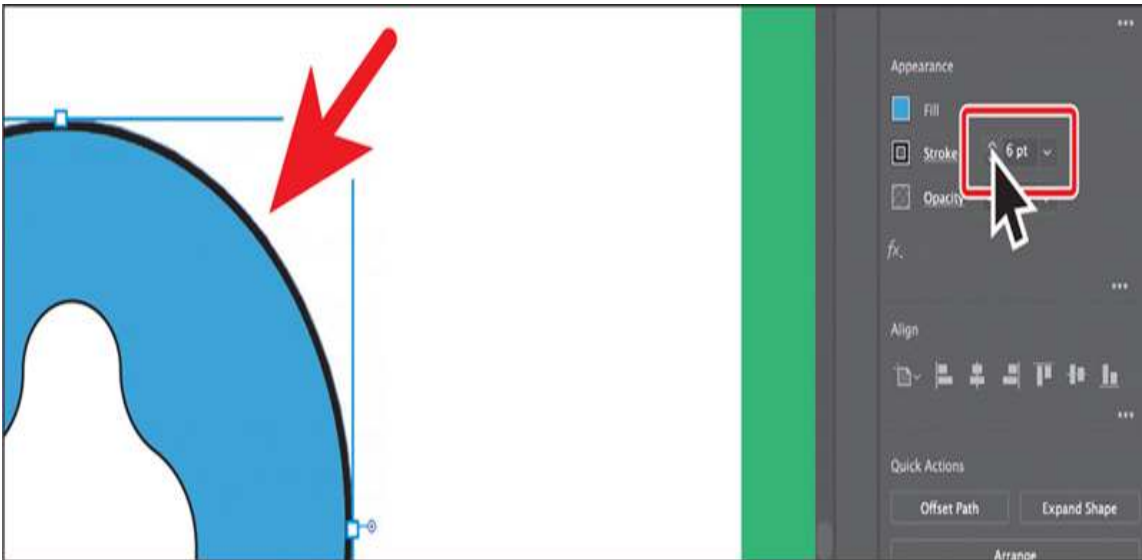
1. Select the Selection tool (▀) in the toolbar.
2. So you can select the sticker circle you made, choose Object > Unlock All. The circle should be selected.



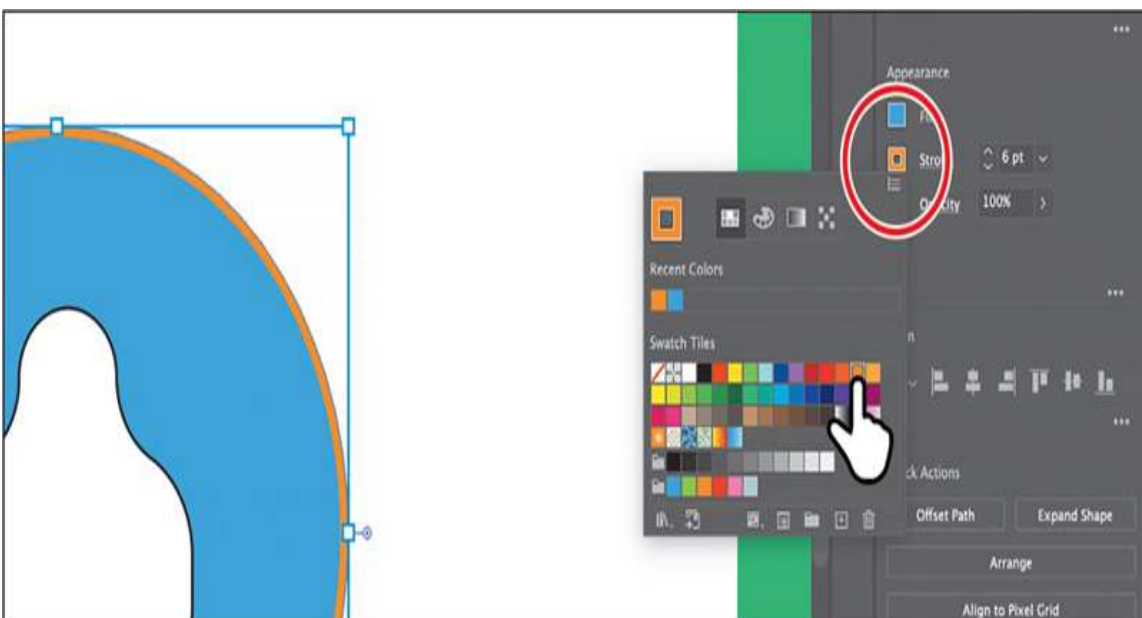
3. In the Contextual Task Bar (the little bar usually beneath the selected shape), click the white color box (□). In the color panel that opens, make sure the Swatches option (🎨) is selected at the top. Select a blue color.

The small color squares in the panel are the default saved colors, called *swatches*. You can create your own colors and save them as swatches to reuse later!

4. To make the stroke (border) larger, change the Stroke Weight to the right of the stroke color in the Properties panel. Try a weight of around 6 pt.



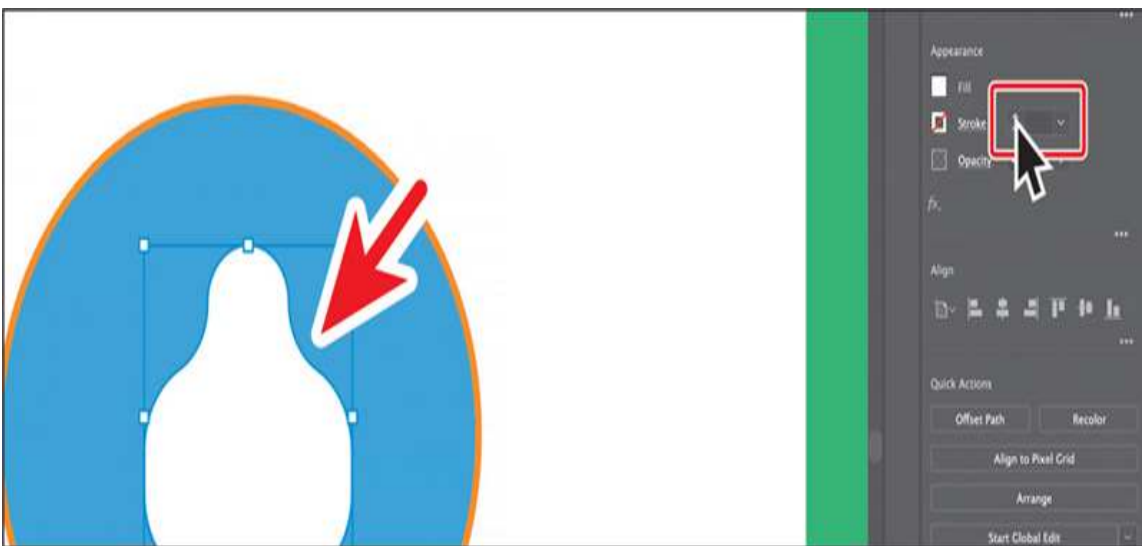
5. To change the stroke color on the shape, in the Properties panel, click the black stroke box (■). Pick another color, like an orange.



► **Tip**

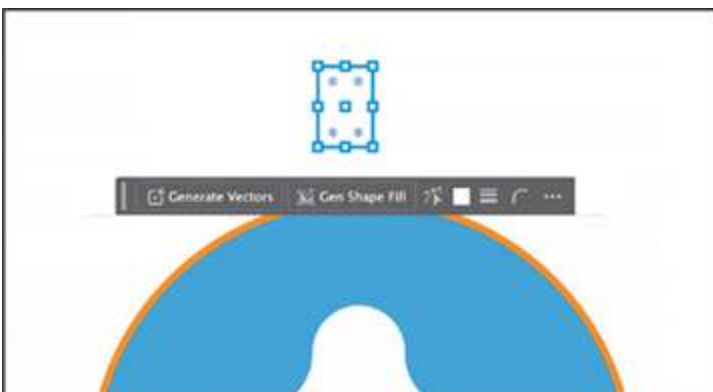
Want to change the color of a swatch? Double-click a swatch in the Swatches panel and make color changes in the Swatch Options dialog box.



6. Select the pear shape.
7. To remove the black stroke (border) on the pear shape, in the Properties panel, click the down arrow for the stroke weight until it is gone.

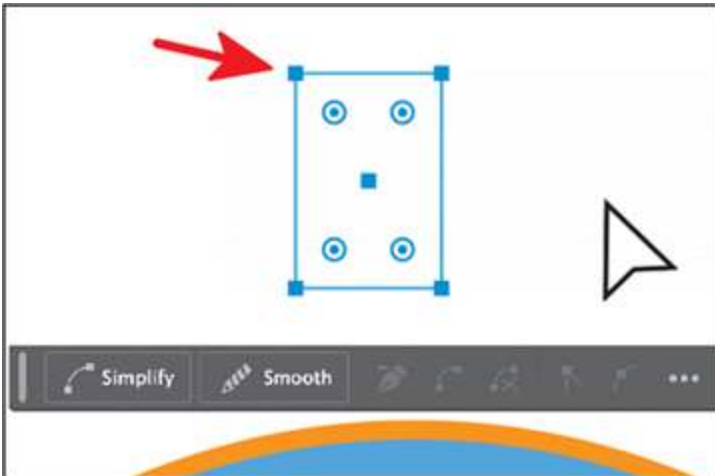


Practice: Making a leaf!


As a bit of practice, try making a leaf and then transforming it.

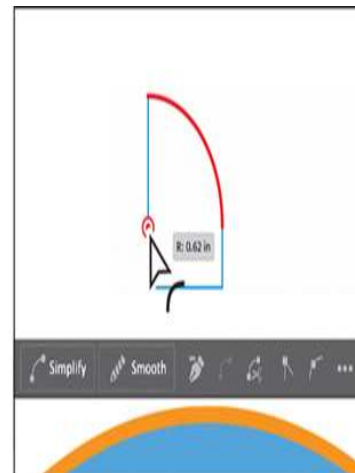
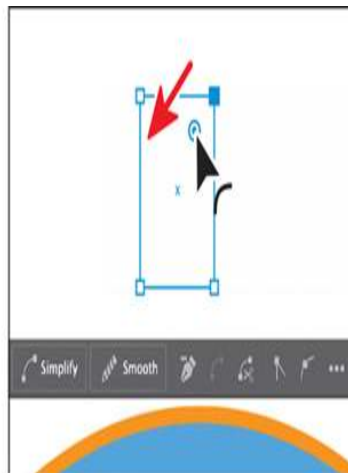
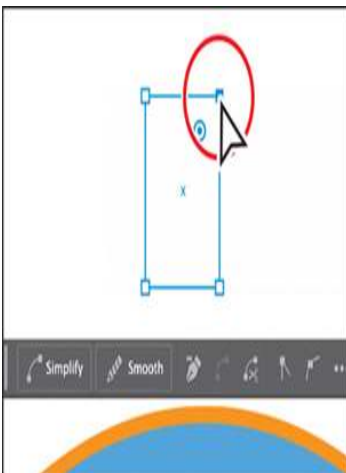


1. Select the Rectangle tool () in the toolbar, and draw a small rectangle above the sticker artwork.
2. Zoom in to it by choosing View > Zoom In.
3. Select the Direct Selection tool () in the toolbar.

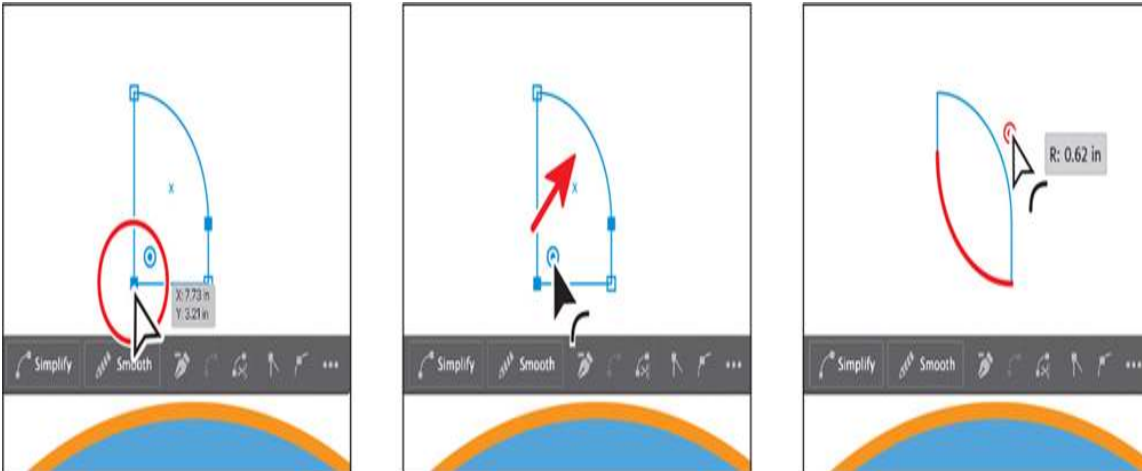


When you select a shape with the Direct Selection tool, you'll see little solid colored squares on the corners of the rectangle. Those are called *anchor points*. They are used to control the shape of the path.

4. Click the upper-right corner point on the rectangle to select it. Drag the sole corner radius widget () to round the corner as much as you can.



5. Repeat the step above for the lower-left corner point on the rectangle.

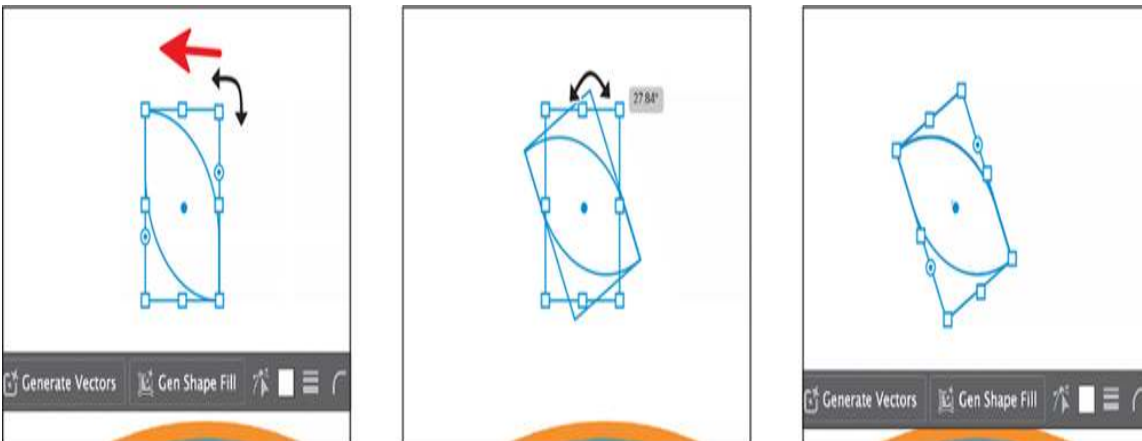


You made a leaf! Now you'll rotate it, fill it with a color, and put it on the pear.

Transforming the leaf

From rotating and scaling to moving, shearing, and reflecting, transforming artwork in Illustrator will allow you to make unique and creative content.

1. Select the Selection tool (⬮) in the toolbar.
2. To rotate the leaf, move the pointer just off a corner of the box around it. When you see curved arrows (↻), drag counterclockwise to rotate it a little.

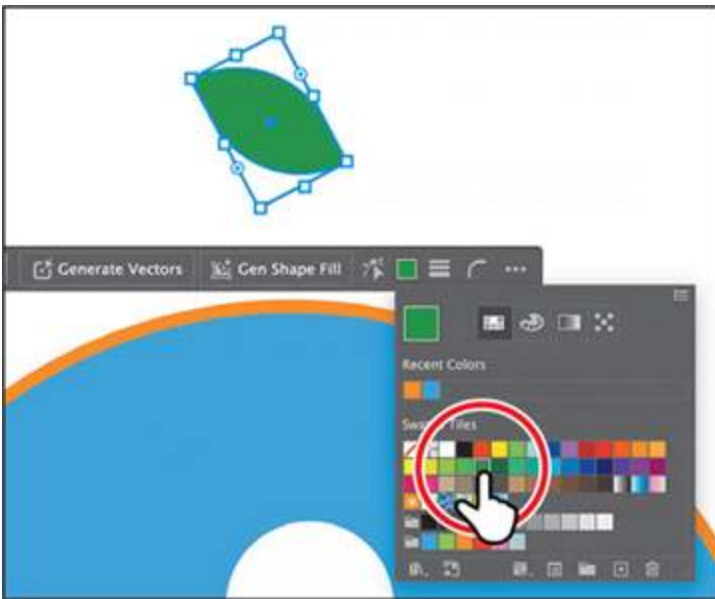


3. In the Contextual Task Bar below the shape, click the white fill (□). In the Swatches panel that opens, select a green color.

4. Click in an empty area of the white artboard to close the Swatches panel, then click again to deselect the leaf.

● **Note**

But it's already selected? When you last selected something, you selected one of the *anchor points* on the leaf. Illustrator still has that one point selected. So if you copied and pasted, it would only copy that point!



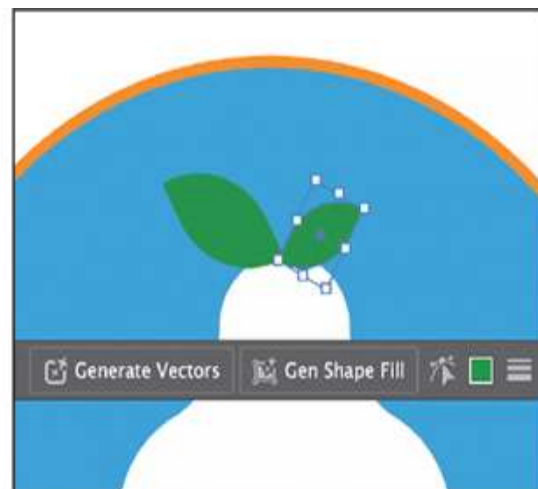
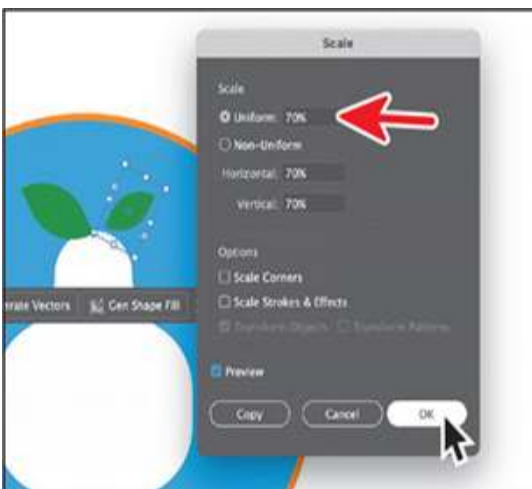
5. Click to select the leaf again.
6. Choose Edit > Copy, and then Edit > Paste In Front. A copy of the leaf is pasted right on top of the first one.
7. To flip the copy, in the Properties panel, click the Flip Horizontally button (◀▶).



8. Choose View > Zoom Out as many times as you need to see the pear.
9. Drag both leaves, one at a time, down to the top of the pear.
10. Select either leaf—I chose the leaf on the right.
11. To change the size, choose Object > Transform > Scale. Change the Uniform Scale to **70%** and click OK.

There are a lot of ways to transform your content. You'll find, as you go through the lessons, that the different methods are useful in certain situations.

12. Drag the leaf closer to the other. See the following figure.



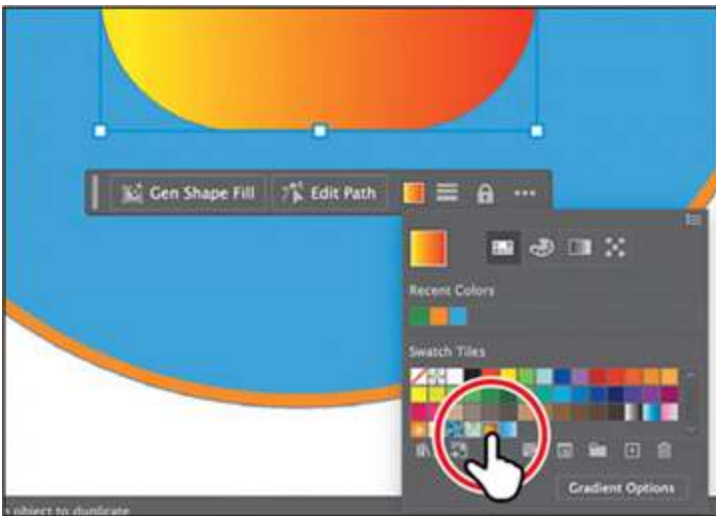
Applying a gradient

A *gradient* consists of two or more colors that gradually blend one into another over a distance. Gradients can add a lot of creative flair and realism to your artwork. Next, you'll apply a gradient to the pear and make some adjustments to it.

► Tip

Learn more about working with gradients in [Lesson 11](#), “Gradients, Blends, and Patterns.”

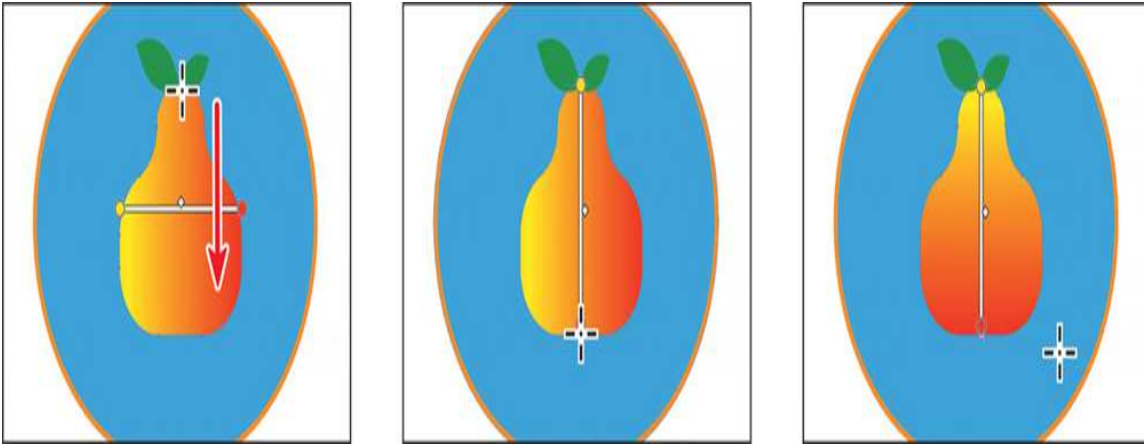
1. Select the pear.
2. If the pear is not centered in the window, choose View > Zoom In.



3. In the Contextual Task Bar, click the Fill color box, and select the yellow-red gradient swatch.
4. Select the Gradient tool (▬) in the toolbar on the left.

With the Gradient tool, you can change the gradient direction and length.

5. Starting at the top of the pear, drag down to the bottom of the pear.



Where you started dragging is yellow and where you stopped is red. In between is the transition color from yellow to red.

Practice: Apply another gradient

Now, you'll apply a gradient to the blue sticker shape and adjust it.

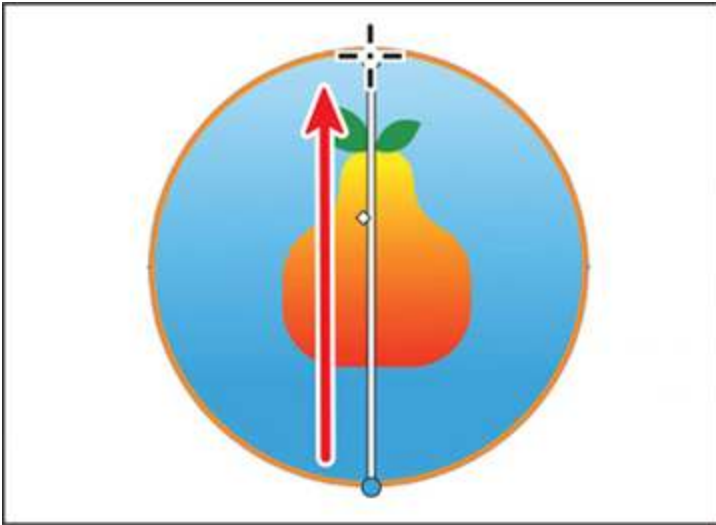
1. With the Selection tool (🖱️), select the blue circle.
2. In the Contextual Task Bar, click the Fill color box, and select the blue-light blue gradient swatch.
3. Select the Gradient tool (📏) in the toolbar.

The gradient color is blue to lighter blue if you look at the little color swatch. That means where you start dragging from will apply the first color, blue.




4. Starting at the bottom of the circle, drag to the top of the circle.

The gradient now runs bottom to top in the circle. Where you started dragging is blue and where you stopped is lighter blue. In between is the transition.





Creating with the Curvature tool

You're not limited to just shapes—you can also make *paths*, like lines that bend and curve however you want. The Curvature tool () helps you draw and tweak those lines with ease. In this next step, you'll use it to give your pear a nice, smooth stem.

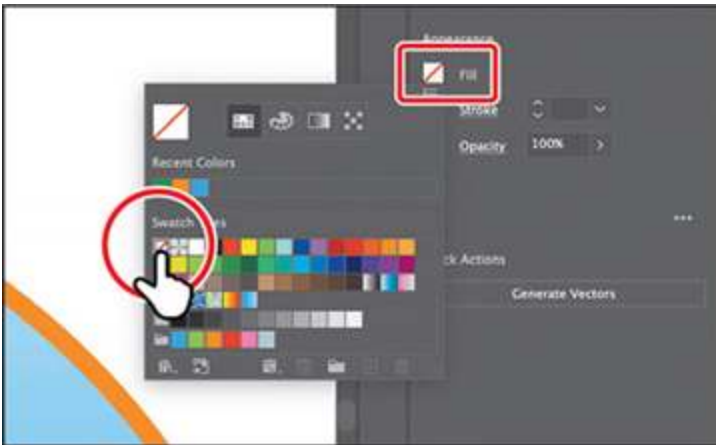
► Tip

Learn more about working with the Curvature tool in [Lesson 6](#), “[Using the Basic Drawing Tools](#).”

1. With the Selection tool () , select one of the leaves.
2. Choose View > Zoom In.
3. Choose Select > Deselect.
4. Select the Curvature tool () in the toolbar.

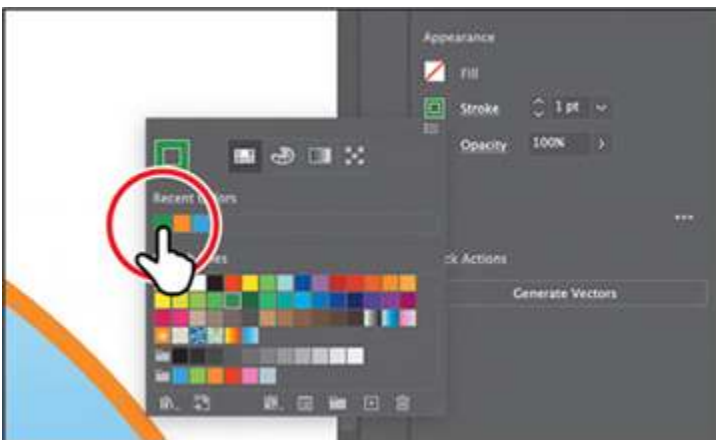
Before you start drawing, you'll remove the fill and change the stroke color.

5. Click the Fill box in the Properties panel. In the Swatches panel that appears, click to apply the None (☐) swatch to remove the fill.



6. Click the Stroke color box in the Properties panel. In the Swatches panel, click to apply the same green swatch as the leaves from the Recent Colors.

To hide the Swatches panel, you can click anywhere. Then you can start drawing next.



7. Make sure that the Stroke Weight is 1 in the Properties panel.
8. Move the pointer above the circle. Click to start drawing.
9. To make a curved shape like a “c,” move the pointer up and to the left, and click. Move the pointer away after clicking to see a curving path.

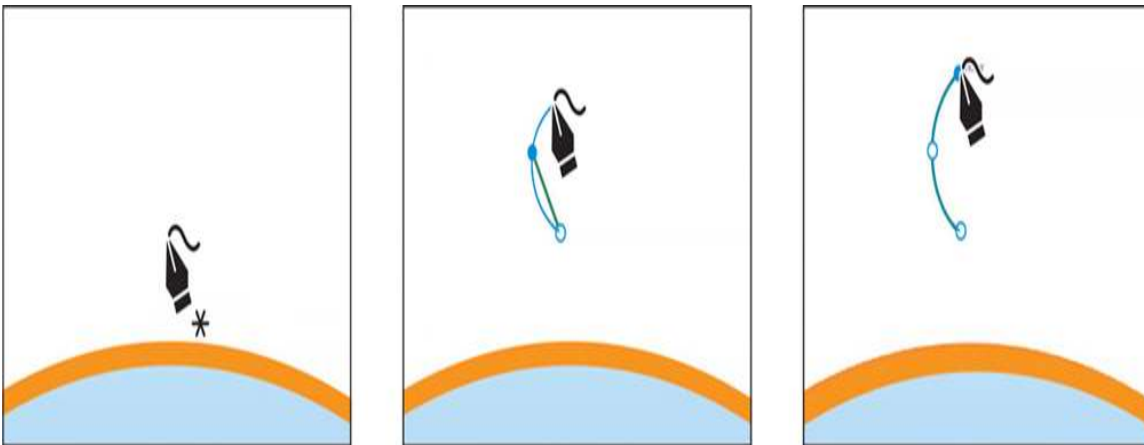
See the second part of the figure.

► **Tip**

After creating the path, you can move the pointer over any of the anchor points on the path—the little circles on the path—and drag to edit the path.

Every time you click, you create what is called an *anchor point*. As described earlier, the anchor points you add control the shape of the path.

10. To finish the path, click once more. See the figure for where to click.



11. Press the Esc key to stop drawing.

Applying a brush

With brushes, you can decorate paths with patterns, figures, brush strokes, textures, and more. Next, you'll apply a brush to the path so it looks more like a pear stem.

► **Tip**

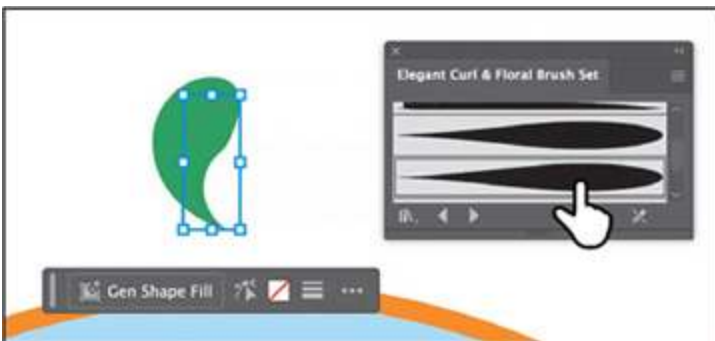
Learn more about getting creative with brushes in [Lesson 12, “Using Brushes to Create A Social Ad.”](#)

1. Select the Selection tool (▀) in the toolbar.

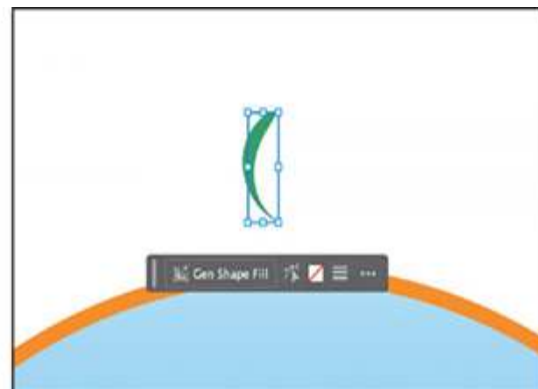
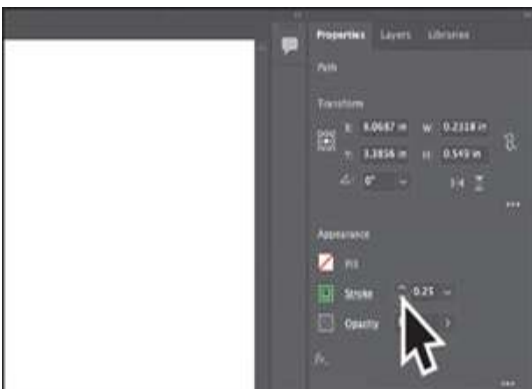
2. With the path you drew still selected, choose Window > Brush Libraries > Decorative > Elegant Curl & Floral Brush Set. It's toward the bottom of the menu.

In the panel that opens, you see some brushes that come with Illustrator.

3. Scroll in the panel, and click the brush named Drop Down to apply it.
4. Close the Elegant Curl & Floral Brush Set panel.

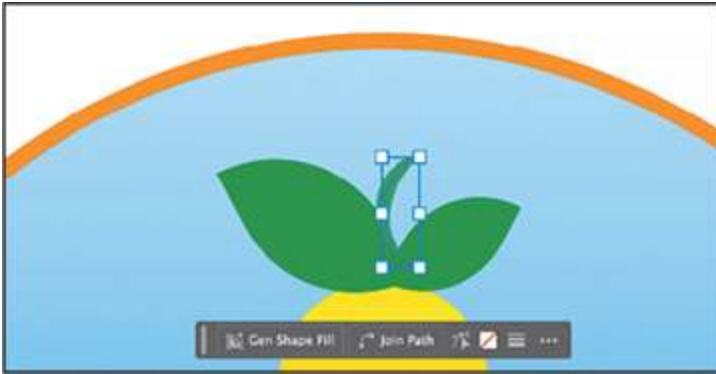


5. Change the Stroke Weight in the Properties panel to either 0.5 pt or 0.25 pt by clicking the down arrow to the right of the word "Stroke." Do whichever looks better to you.



6. Drag the little green stem down by the leaves.

Want to rotate the stem? Look back to the [“Transforming the leaf”](#) section to see how!



Adding text

Next, you'll add text to the sticker.

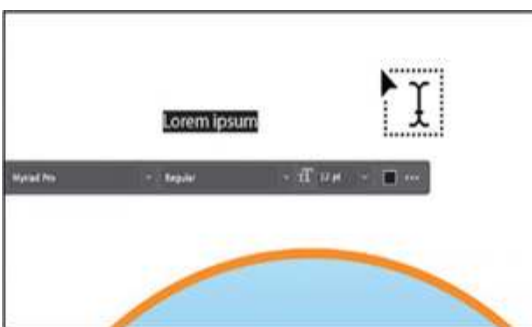
► Tip

Learn more about working with type in [Lesson 9](#), “Adding Type to a Project.”

1. Choose View > Zoom Out once or twice.
2. Select the Type tool (**T**) in the toolbar on the left, and click in the white area.

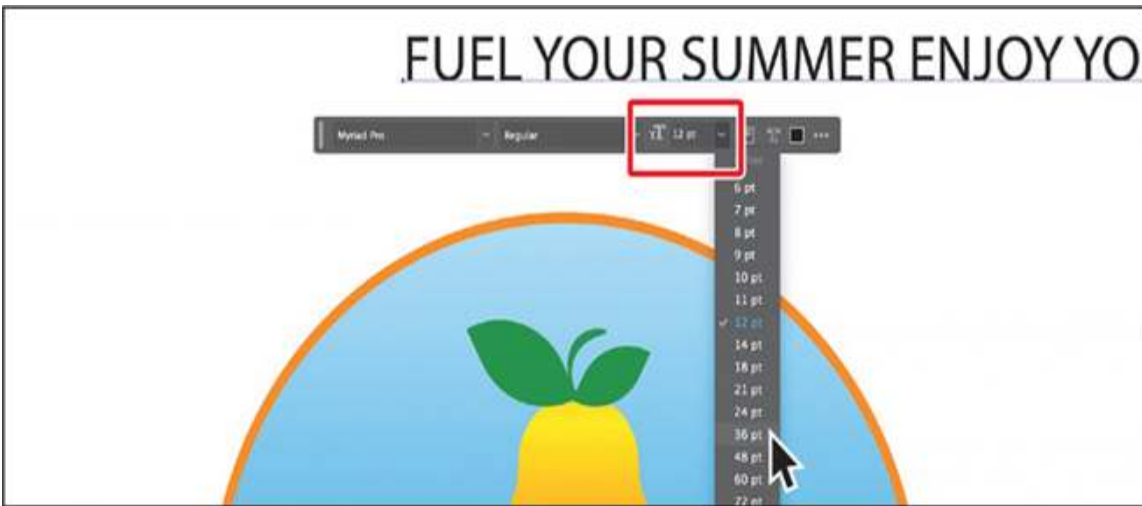
Placeholder text will appear with the selected placeholder text, “Lorem ipsum.”

3. Type **FUEL YOUR SUMMER ENJOY YOUR VITAMINS** in capital letters.



4. Select the Selection tool (▀). The text *object* is now selected, not the text.

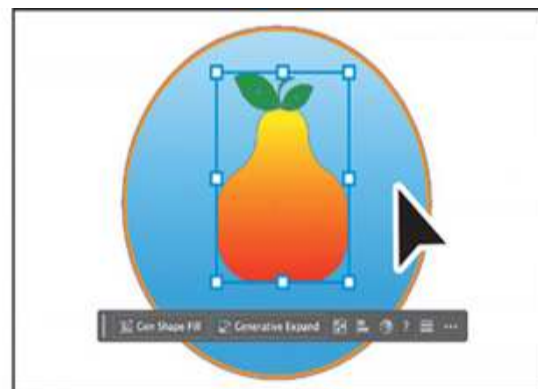
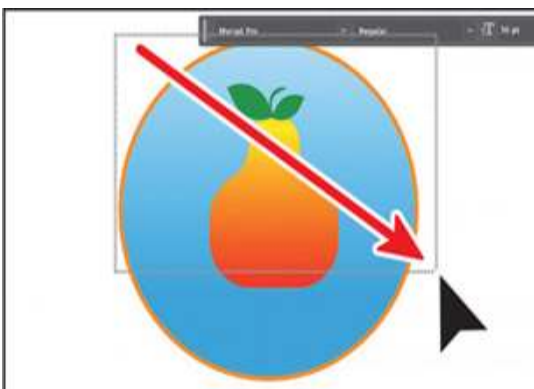
5. In the Contextual Task Bar Font Size menu, choose 36 pt.



Grouping content

You can group objects so that those objects act as a single unit. Next, you'll group the pear artwork so you can select and move it easier.

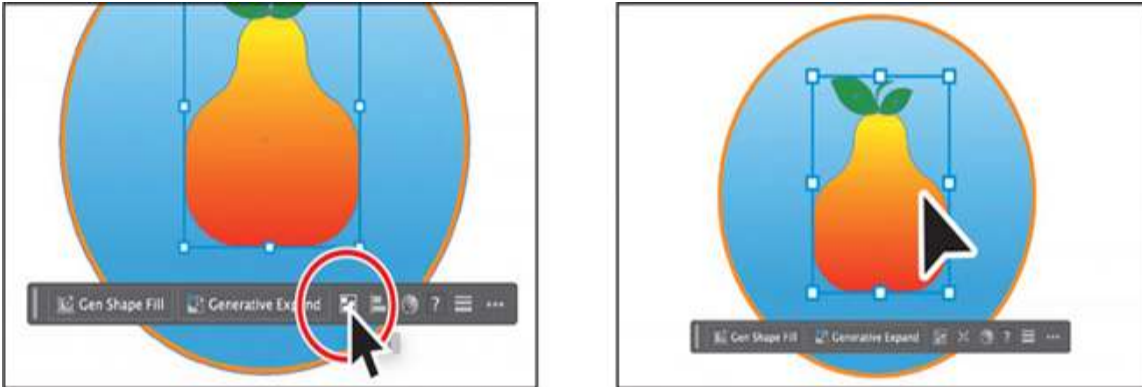
1. Choose View > Zoom Out until you can see the whole sticker, if necessary.
2. With the Selection tool (🖱️) selected, drag across the sticker circle and the pear shapes.
3. To deselect the blue circle, press the Shift key and click it.



4. Click the Group button (📦) in the Contextual Task Bar.

The objects that make up the pear are now treated as one object—a group. They won't look any different.

5. Drag the pear into the approximate center of the sticker circle.



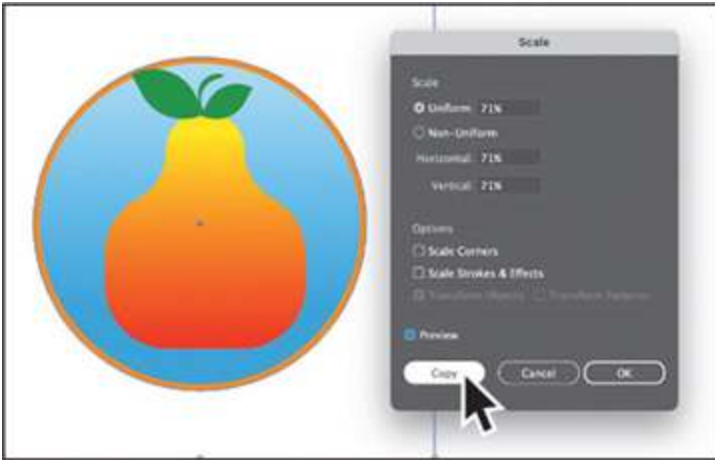
Curving text

You can create some great design effects by curving text in different ways. Next, you'll curve the text so it goes around the inside of the sticker circle.

► Tip

Learn more about curving text in [Lesson 9](#).

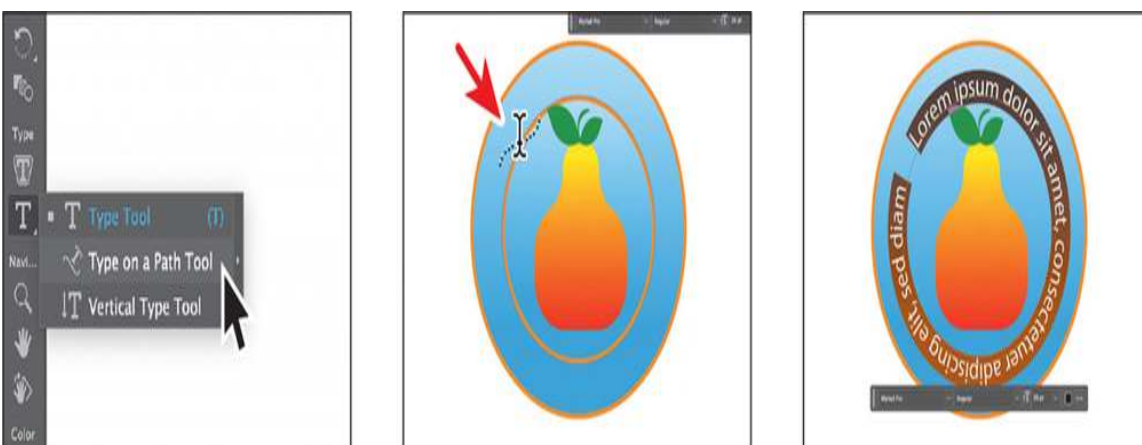
1. With the Selection tool (▀), select the sticker circle.
2. Choose View > Zoom In.
3. To copy it and make it smaller, choose Object > Transform > Scale. In the Scale dialog box, change the Uniform Size to **71%**. Click Copy.
4. Select the Type tool (**T**) and click in the “FUEL YOUR SUMMER...” text.



5. Select the text by choosing Select > All.
6. Choose Edit > Copy.
7. Press and hold the Type tool in the toolbar and select the Type On A Path tool (↷).



8. Where you see in the figure, click the smaller circle. Placeholder text is added around the circle.

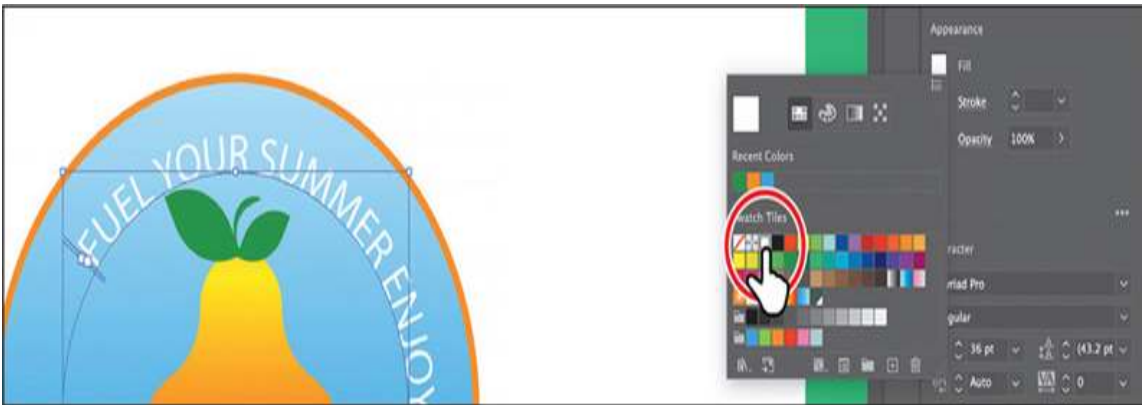


9. Choose Edit > Paste to replace the placeholder text.

Formatting the text

Try changing the color and size of the text to fit it to the path.

1. Select the Selection tool (▸).
2. Click the Fill color box (■) in the Properties panel. Click to apply white.



3. In the Contextual Task Bar, choose Bold from the Font Style menu (if you see it). Select the Font Size, enter **44**, and then press Return or Enter.



4. To add space to the text, select the Type On A Path tool. Click right before "ENJOY YOUR VITAMINS," and press the spacebar to add spaces, moving the text farther around the path.



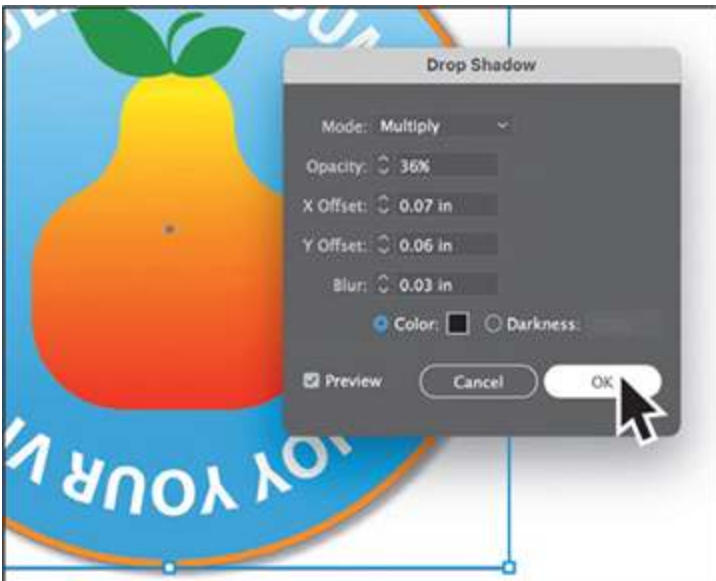
Working with effects

Effects, like drop shadows, let you really get creative with your artwork. Next you'll apply a drop shadow to the sticker circle.

► Tip

Learn more about effects in [Lesson 13](#), “Exploring Creative Uses of Effects and Graphic Styles.”

1. Select the Selection tool (▢), and select the blue sticker circle.



2. Choose Effect > Stylize > Drop Shadow. In the Drop Shadow dialog box, ensure Preview is selected, and then set the following options:

- Opacity: **36%**
- X Offset: **0.07 in**
- Y Offset: **0.06 in**
- Blur: **0.03 in**

3. Click OK.



4. Select the pear. It may be too big and run into the text. To make it smaller, press the Shift key and drag a corner. Release the drag, then the Shift key.

The Shift key resizes it proportionally.

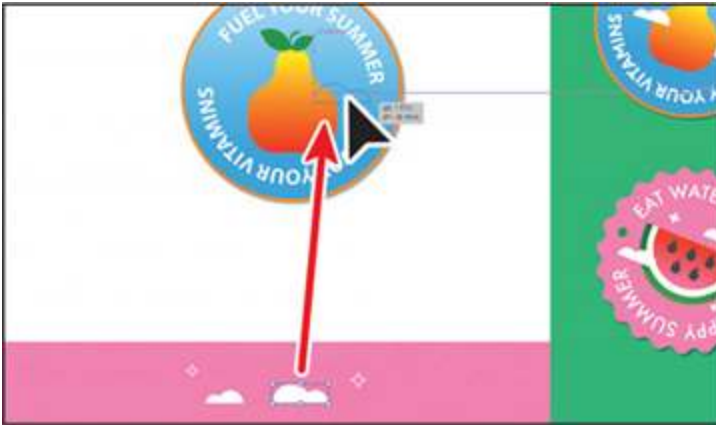
5. Drag it into the center, if you need to.

Finishing your sticker

In this last section, you'll add some fun clouds and stars to your sticker to finish it.

- 1.** Choose View > Fit Artboard In Window.
- 2.** With the Selection tool (⬮), drag one of the clouds onto the sticker.

It will “disappear” behind the sticker because the sticker was created after the cloud.



3. Choose Object > Arrange > Bring To Front so it's on top of the sticker.

► **Tip**

To get the pear in front of the cloud, like you see in the figure, I selected the pear and chose Object > Arrange > Bring To Front.

4. Do the same for the remaining stars and cloud—below your sticker.







If you want, zoom in by choosing View > Zoom In!

5. Choose File > Save, and then File > Close.

1 Getting to Know the Work Area

Lesson overview

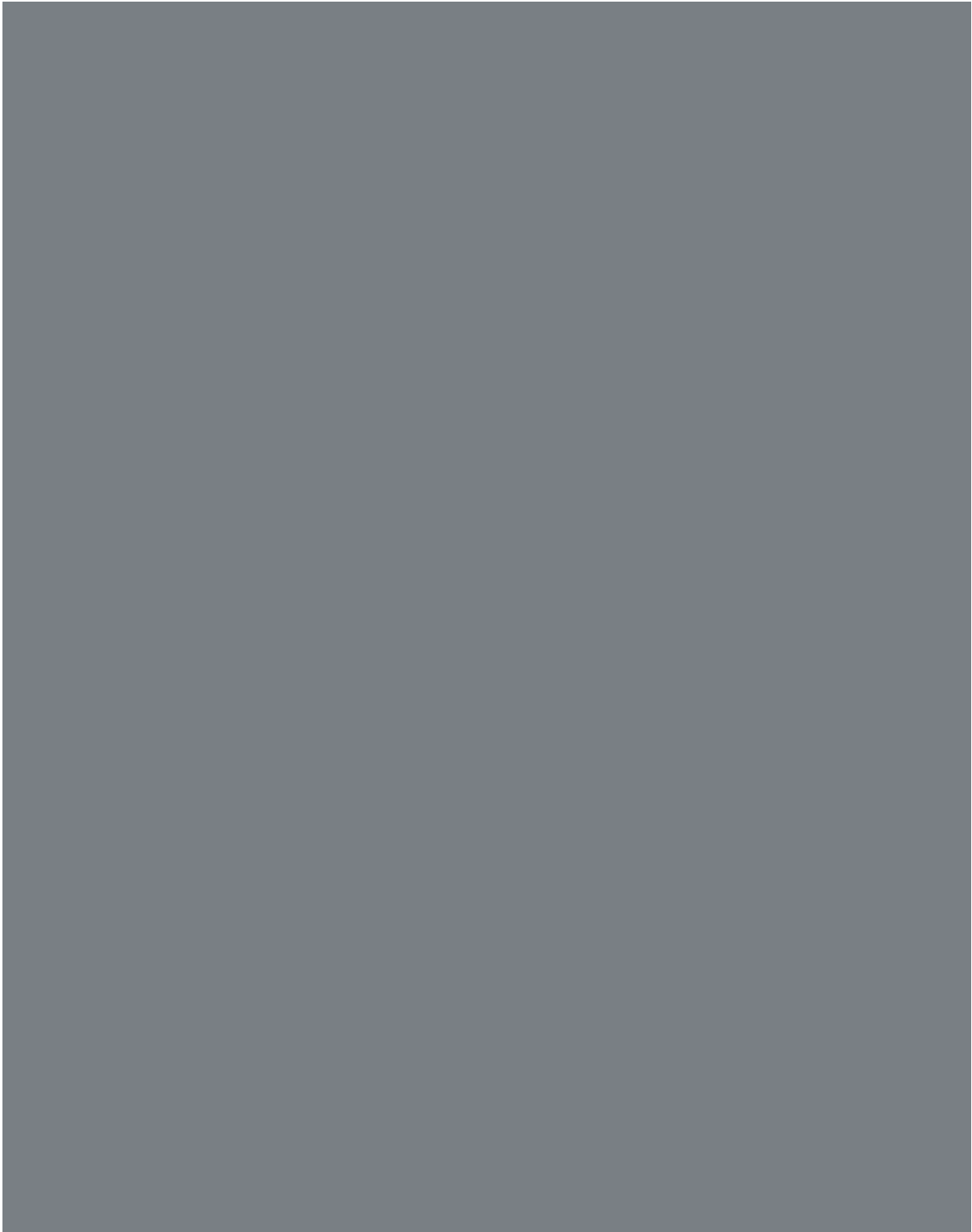
In this lesson, you'll explore the Illustrator workspace and learn how to do the following:

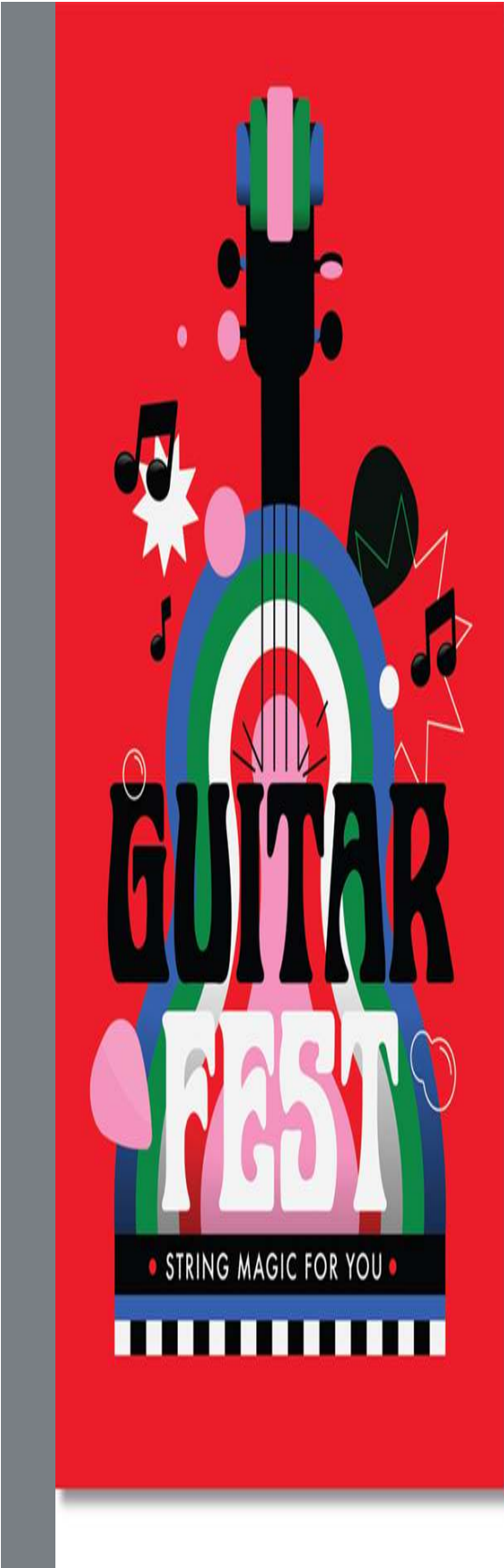
- Open an Adobe Illustrator file.
- Work with the toolbar, Properties panel, and Contextual Task Bar.
- Move the toolbar. 
- Customize the toolbar. 
- Work with panels.
- Scale the Illustrator interface. 
- Reset and save your workspace.
- Adjust the user interface brightness. 
- Use view commands.
- Pan with the Navigator panel. 
- Rotate the canvas view.
- Navigate multiple artboards.
- Arrange multiple documents .



This lesson will take about 45 minutes to complete. To get the lesson files used in this lesson refer to the instructions in

“Accessing the lesson files and Web Edition” in the “Getting Started” section at the beginning of this book.





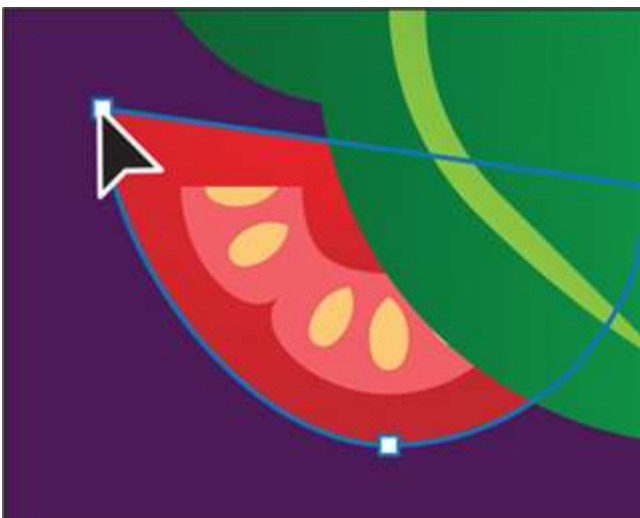
By learning how to navigate the workspace easily and efficiently, you'll be able to make the most of the extensive drawing, painting, and editing capabilities of Adobe Illustrator.

Welcome to Adobe Illustrator!

When I think of Illustrator, I think of an app for creating logos, posters, flyers, icons, social graphics, and much more. Illustrator is about making and editing what are called *vector graphics* (sometimes called *vector shapes*, *art*, or *objects*). Below are a few example projects created using Adobe Illustrator.



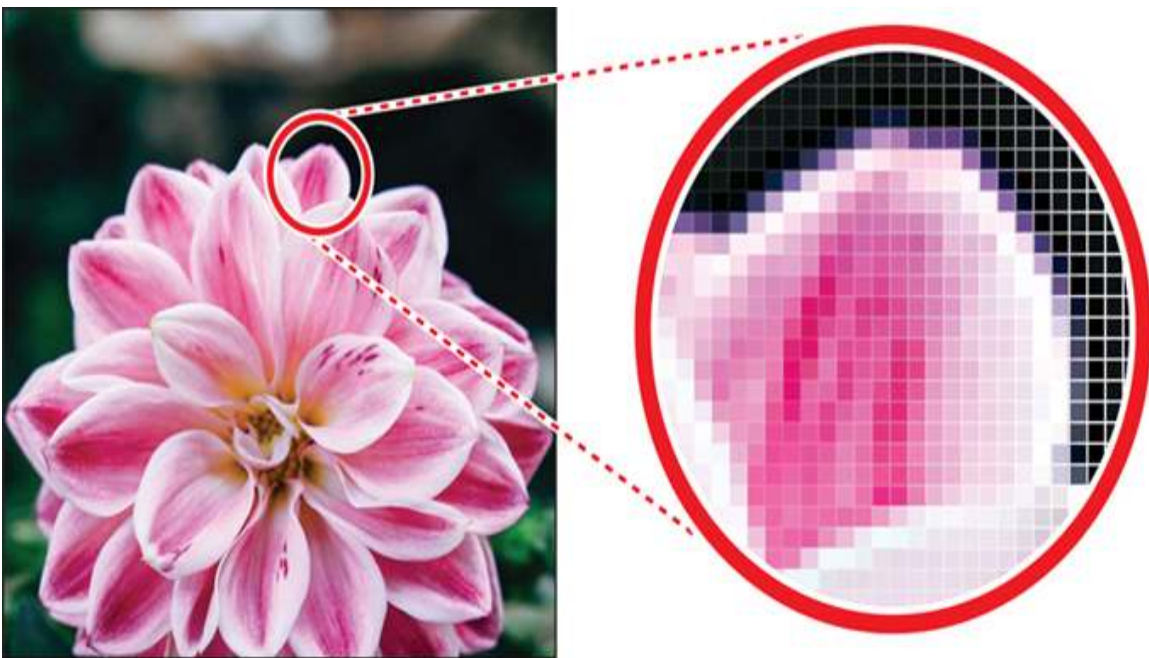
What exactly are vector graphics? Well, they are:



- Made of lines and curves defined by mathematical objects called vectors.
- Almost infinitely resizable. A vector graphic can cover the side of a building or be made as small as a social media icon without losing detail or clarity.
- The best choice for artwork, like logos, that will be used in various sizes and output media.

Vector graphics maintain crisp edges when printed to a PostScript printer, saved in a PDF file, or imported into a vector-based graphics application.

With Illustrator, you can also add bitmap images—technically called raster images—that are made up of a rectangular grid of square pixels. Each pixel in the grid has a specific color. Take a look at the image below.



Example of a raster image and a zoomed-in portion to show the pixels. I added a grid to the zoomed-in part on the right to give you the idea of pixels.

Pictures you take with your phone camera are considered *raster images*. Raster images can be created and edited in a program like Adobe Photoshop.

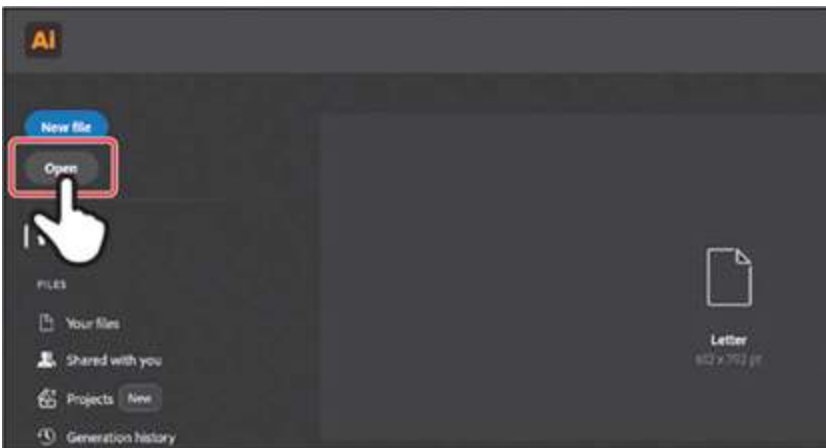
Opening an Illustrator file

In this lesson, you'll open a document and explore Illustrator by navigating, zooming, and investigating in that document and the workspace. First, you'll restore the default preferences for Adobe Illustrator. You'll reset preferences at the start of each lesson in this book to make sure that Adobe Illustrator behaves exactly as described in this lesson.

1. Launch Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.

With Illustrator open, you will see the Home screen showing starting file sizes, resources for Illustrator, your files, and more.

3. Choose File > Open, or click the Open button in the Home screen.



● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

4. Open L1_start1.ai in the Lessons > Lesson01 folder you copied to your computer.

With the file open, you’ll reset the Illustrator interface so we both see the same thing.

5. Choose Window > Workspace, and make sure Getting Started is selected.

A checkmark appears next to the name if it is selected.

6. Choose Window > Workspace > Reset Getting Started to reset the workspace.

The Reset Getting Started command ensures that the workspace, which includes all of the tools and panels, is set to the default settings. You’ll learn more about resetting the workspace later, in the section “[Switching and resetting workspaces](#).”

7. Choose View > Fit Artboard In Window.

An *artboard* is the area that contains artwork that can be output and is like a page in Adobe InDesign or Microsoft Word.

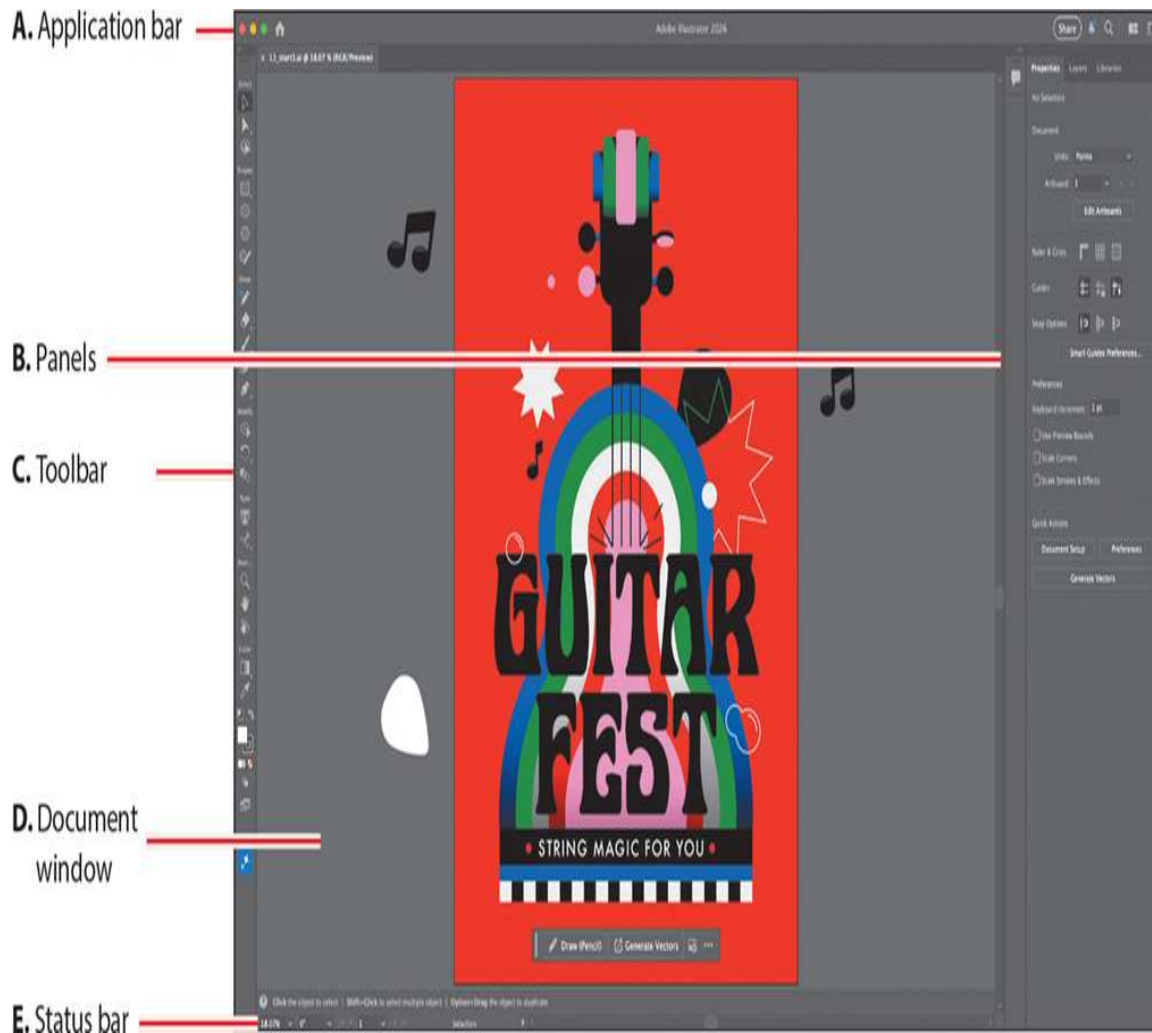
This command fits the whole artboard into the Document window so you can see the whole design.



Exploring the workspace

With a file open in Illustrator, the menus, Application bar, toolbar, and panels appear on the screen. The arrangement of these elements is called a *workspace*.

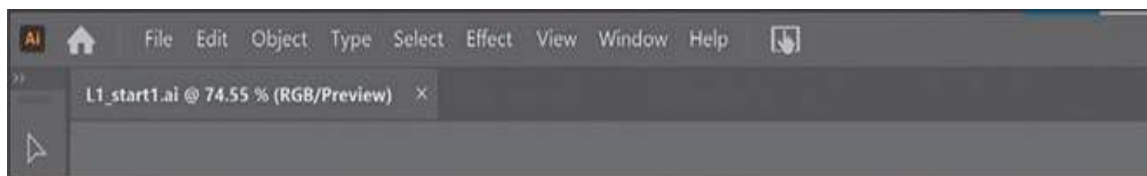
When you first start Illustrator, you see the default workspace, which you can customize. You can create and save multiple workspaces—one for editing and another for viewing, for example—and switch between them as you work.



- A.** The **Application bar**, across the top by default, contains application controls, the workspace switcher, and search. On Windows, the main menu bar items appear *inline* with the Application bar—see the following figure.

● **Note**

The screen captures in this lesson were taken using macOS and may look slightly different from what you see if you are using Windows.



- B. Panels** help you monitor and modify your work. Certain panels are displayed by default in the panel dock on the right side of the workspace, and you can display any panel by choosing it from the Window menu.
- C.** The **toolbar** contains tools for creating and editing images, artwork, artboard elements, and more. Related tools are grouped together.
- D.** The **Document window** displays the file(s) you're working on.
- E.** The **Status bar** appears at the lower-left edge of the Document window. It displays file information, zooming, and navigation controls.

Getting to know the tools

The toolbar on the left side of the workspace contains tools for selecting, drawing, painting, editing, and viewing, as well as the Fill and Stroke boxes, drawing modes, and screen modes. As you work through the lessons, you'll learn about the specific function of many of these tools.

To start, you'll make a few changes to the design with tools you select.

- 1.** Look in the toolbar on the left.

In the default Getting Started workspace, the tools in the toolbar are grouped according to their use. So, shape tools, selection tools, drawing tools, and so on. The toolbar is completely customizable.



● Note

Depending on the screen resolution, your toolbar may be two columns, not one. That's okay. If you want to see it as one column, you can click the small double-arrow at the top of the toolbar. An arrow is pointing to it in the previous figure.

2. Move the pointer over the Selection tool (▢) in the toolbar.



► Tip

You can turn rich tool tips on or off by choosing **Illustrator > Settings > General** (macOS) or **Edit > Preferences > General** (Windows) and selecting or deselecting **Show Rich Tool Tips**.

Info like the name (Selection tool) and keyboard shortcut (V) display in a tool tip.

3. Select the Selection tool, if it isn't already.
4. Drag the white guitar pick onto the poster.

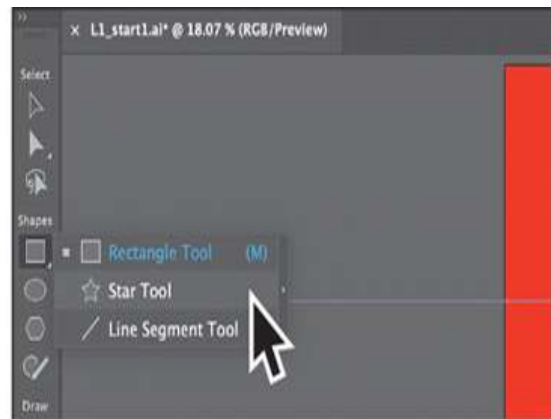


The Selection tool is one tool you will use a lot and is used for moving, resizing, and rotating content in your projects.

5. Drag the musical notes from the gray canvas area onto the poster as well—wherever you want.

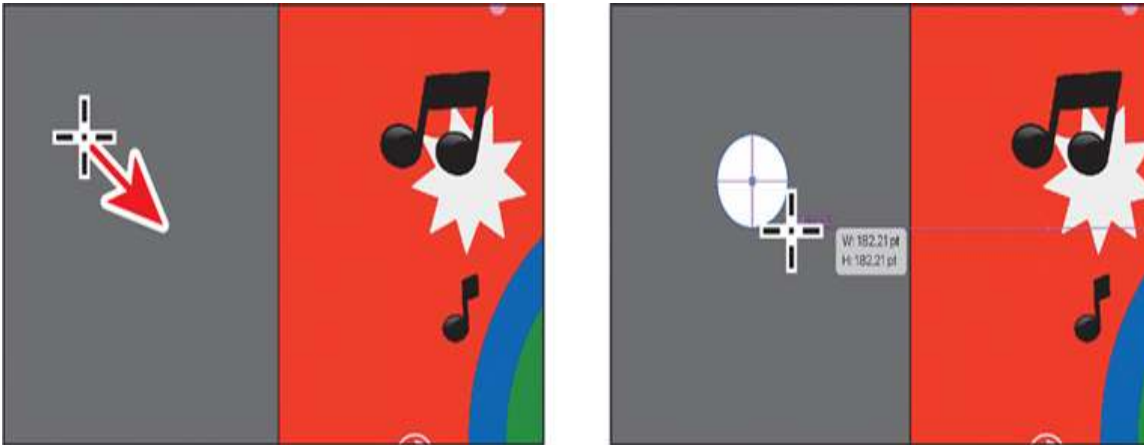


6. In the toolbar, press and hold the Rectangle tool (□) to reveal a few more shape tools.

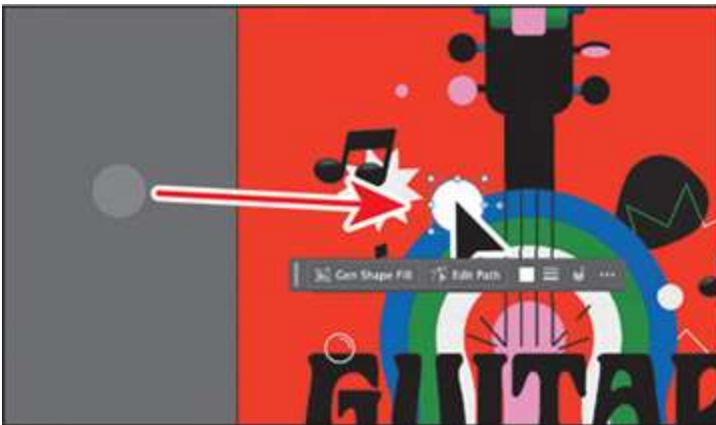


Any tool in the toolbar that displays a small triangle contains additional tools that can be selected this way.

7. Select the Ellipse tool (○)—which is out in the toolbar.
8. In the gray area to the left of the poster, drag to draw a little circle.



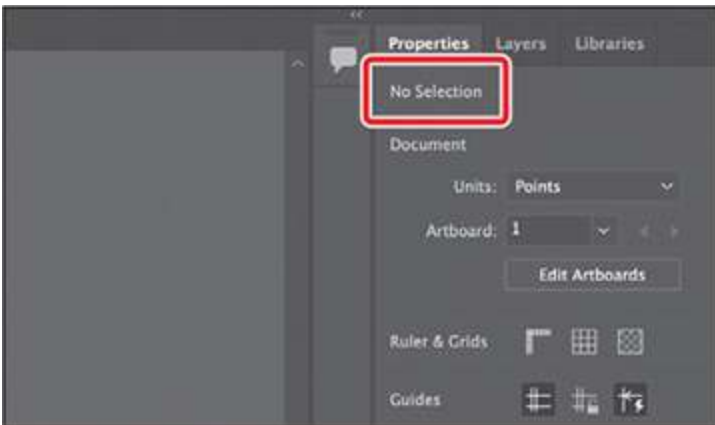
9. Select the Selection tool (▀) in the toolbar, and drag the circle onto the poster.



Working with the Properties panel

With a document open in Illustrator, you'll see the Properties panel on the right side of the workspace. The Properties panel shows options you can set for the active document when nothing is selected. It also shows appearance properties for any content you select. It's a panel you'll use quite a bit; it puts all the most commonly used options in one place. Using the Properties panel, you'll change the color of a few shapes in the poster.

1. Choose Select > Deselect so the circle is no longer selected.

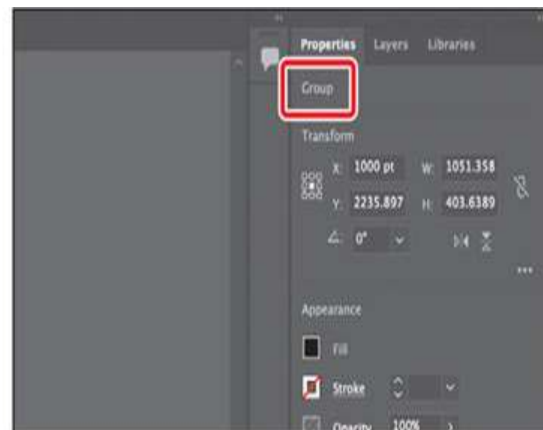


At the top of the Properties panel, you will see “No Selection.” This is the *Selection Indicator*. It’s a great place to see what type of content is selected (if any).

With nothing selected in the document, the Properties panel shows the current document properties and program preferences.

2. With the Selection tool (▀) selected, click to select the black text “FEST.”

In the Properties panel, you should now see appearance options for the selected artwork, which is a group, as indicated by “Group” at the top of the panel. You can change the size, position, color, and much more for it.



3. Click the black color box (■) to the left of the word “Fill” in the Properties panel to show a panel of colors.

4. In the panel that shows, make sure the Swatches option (🎨) is selected at the top (it's circled in the following figure), and then click any color to apply it. I chose white.

● **Note**

In the first part of the figure, you'll see a Recent Colors list in the Swatches panel. Yours will look different and that's okay!



5. Click anywhere to hide the Swatches panel.
6. Change the color of the white guitar pick you dragged into the poster, using the same method. I chose a pink color.



Exploring the Contextual Task Bar

To work faster, when you select things, you can access a few common actions and tools using the Contextual Task Bar that appears next to

selected content.

Now, you'll try it out by changing the color of the circle you drew.

1. Select the circle you drew earlier.

You should see the Contextual Task Bar showing above or below the circle. In that bar you can do things like change color, edit, and more.

2. Click the white Fill box (□) in the Contextual Task Bar and change the color. I chose the pink again from the Recent Colors list.

► Tip

You can drag the Contextual Task Bar by the little gripper area on the left edge. If you want to reset the position, choose Reset Bar Position from the More Options menu (⋮) on the right end of the Contextual Task Bar.



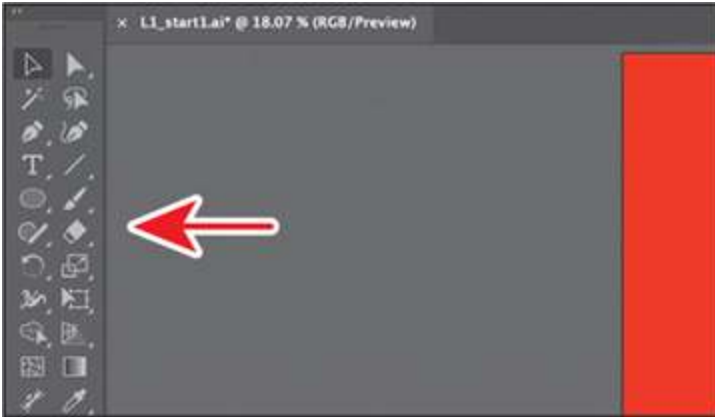
Finding more tools

In Illustrator, not all available tools are shown in the toolbar by default. As you go through this book, you'll explore some of those hidden tools. In this section, you'll see how to access all of the tools and then make an edit to the artwork.

1. Choose Window > Toolbars > Advanced.

The toolbar now contains every tool available to you in Illustrator.

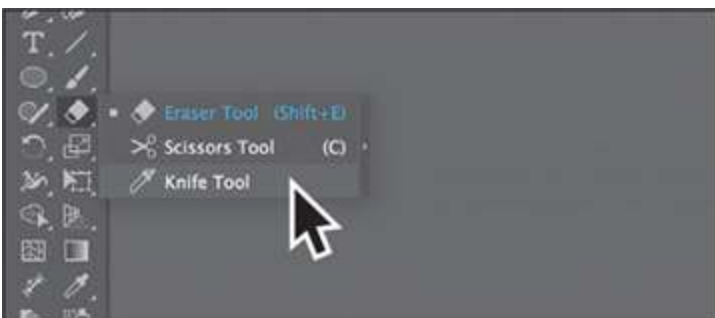
Next you'll use the Knife tool, which is a part of the Advanced toolbar, to cut a shape in two.



2. With the Selection tool (▀) selected, click the guitar pick (mine is pink).
3. To zoom closer to the shape, choose View > Zoom In a few times.



4. Press and hold on the Eraser tool (◆) in the toolbar, and select the Knife tool (🔪) from the menu.



5. Drag across the selected shape to cut it into two pieces. Use the following figure as a guide for where to drag.

● **Note**

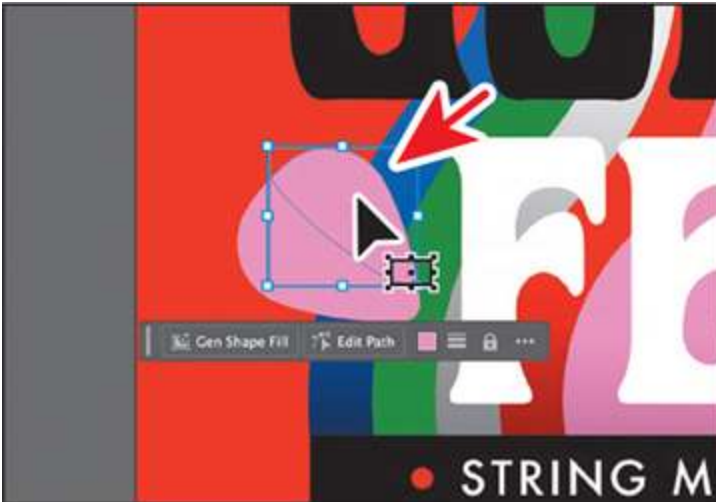
If the design moves in the Document window, you can choose View > Fit Artboard In Window to recenter it.



The cut line won't be perfectly straight—that's how the Knife tool is supposed to work!

6. Choose Select > Deselect so the two parts of the shape are no longer selected.
7. Select the Selection tool (▀) in the toolbar. Click one of the shapes you just cut.

Now you'll change the color using the Properties panel.



8. Click the Fill color box (■) in the Properties panel. In the panel that shows, select the Color Mixer (🎨) option at the top. Drag the single color slider to the left to make the color lighter. This is called a *tint*.



9. Choose Window > Toolbars > Getting Started.

The toolbar is now reset to the Getting Started toolbar again.

10. Choose View > Fit Artboard In Window so you can see the whole poster.

Moving the toolbar

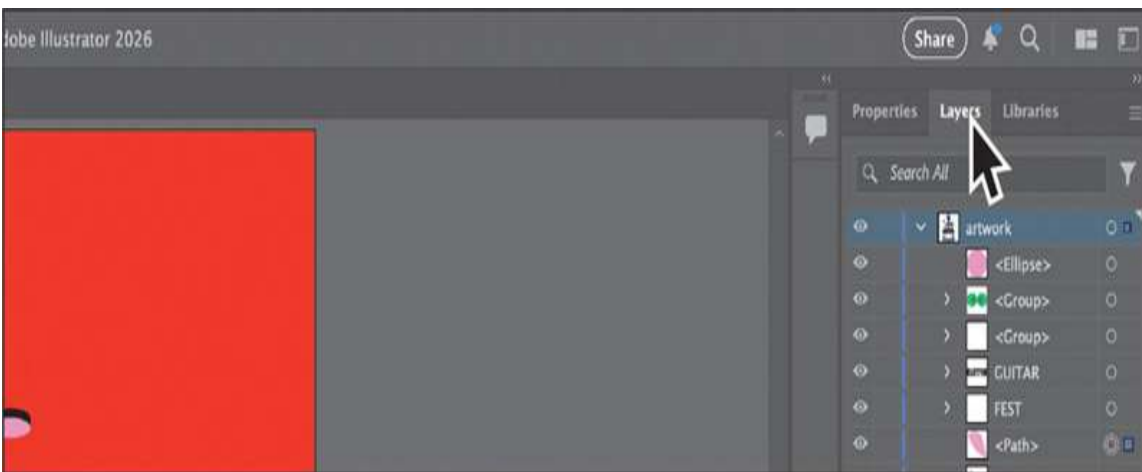
To learn how to change the appearance and location of the toolbar, check out the video *Moving the toolbar*, which is part of the Web Edition. For

more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Working with panels

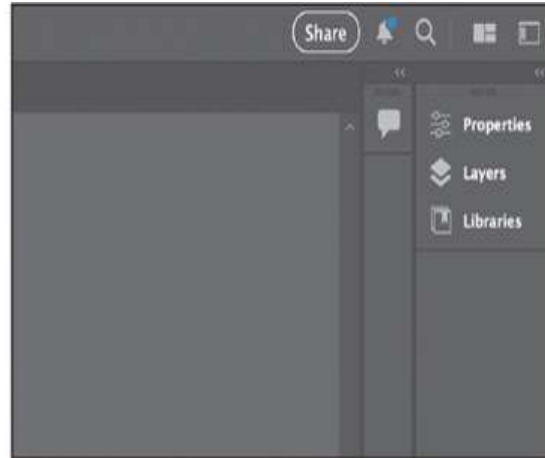
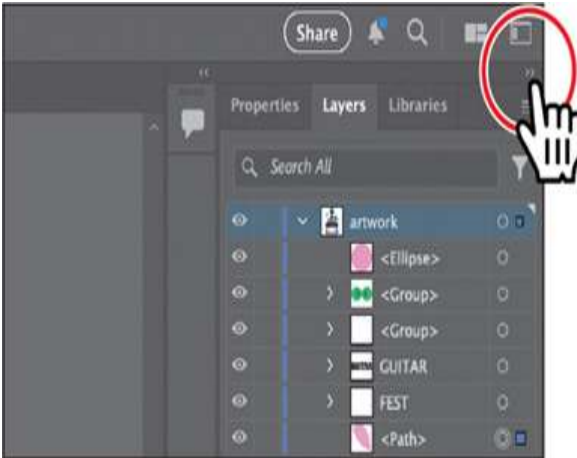
On the right side of the workspace, the Properties panel is grouped with a few other panels by default. Sometimes those panels can get in the way. Next, you’ll explore how to minimize panels and how to get them back the way they were.

1. In the upper-right corner of the application, click the Layers panel tab to the right of the Properties panel tab.



The Layers panel is grouped with two other panels—the Properties panel and the Libraries panel.

2. Click the double arrow at the top of the dock to collapse the panels.



► **Tip**

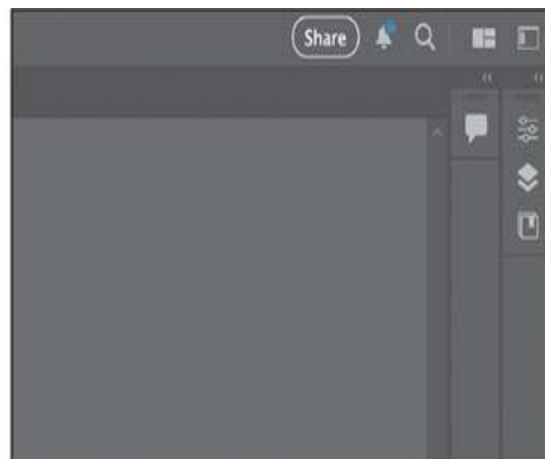
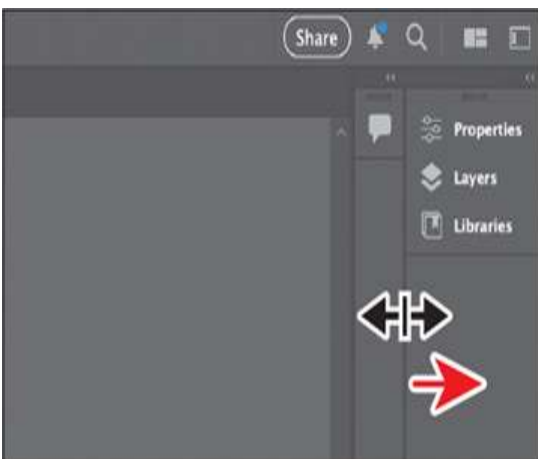
Press Tab to toggle between hiding and showing panels. You can hide or show all open panels at once, except for the toolbar, by pressing Shift+Tab to toggle between hiding and showing them.

► **Tip**


To expand or collapse the panel dock, you can also double-click the panel dock title bar at the top.

You can collapse the panels to create more room for working on your document.

3. Drag the left edge of the docked panels (Properties, Layers, and Libraries) to the right until the panel text disappears.




This hides the panel names and collapses the panel dock to icons only.

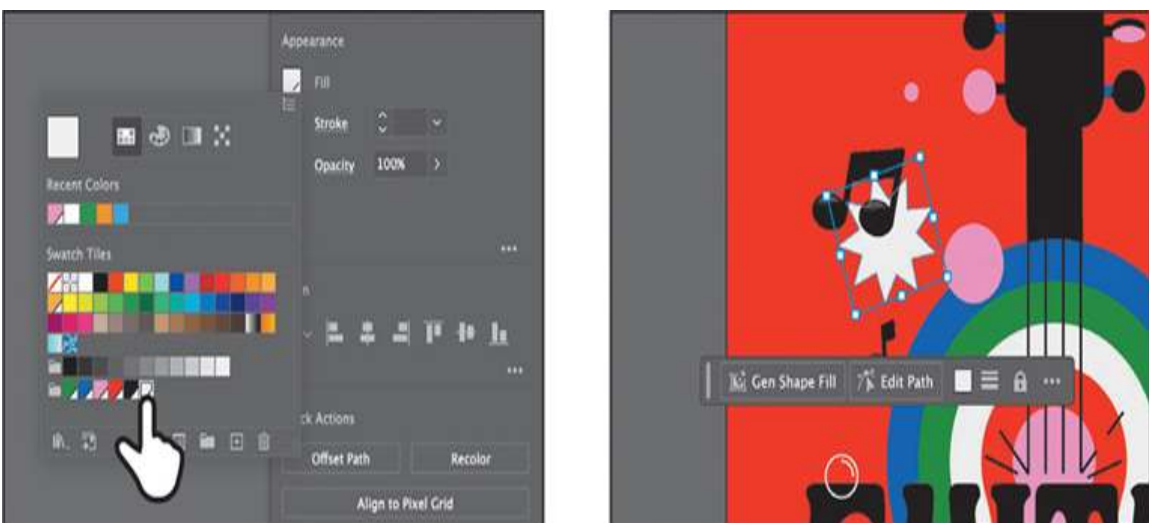
4. Click to select the solid white star in the background.
5. Click the Properties panel icon () to show the panel.




Next, you'll change the color of the shape.

6. Click the color box to the left of the word "Fill" in the Properties panel to show a panel of colors. In the panel that shows, make sure that Swatches () is selected at the top, and try another color.

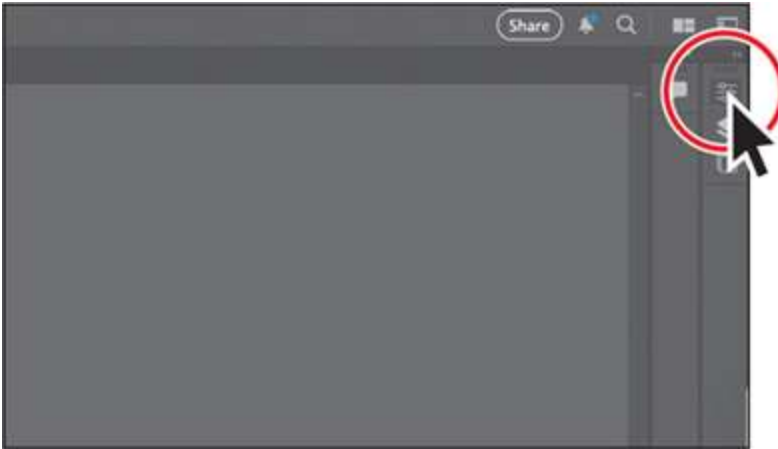
I tried some others and wound up going with a color close to white.



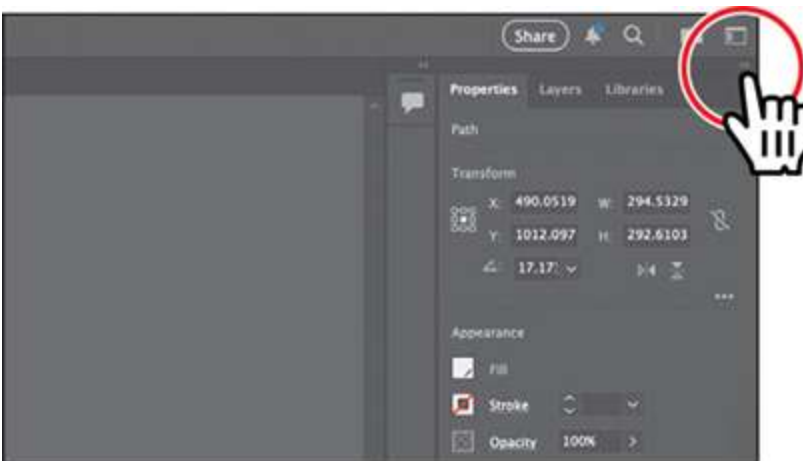
7. Click the Properties panel icon () to hide it.

● **Note**

You'll most likely need to click the icon twice: once to hide the Swatches panel and a second time to hide the Properties panel.



8. Click the double arrow again to expand the panels.



Moving and docking panels

Panels in Illustrator can be moved around in the workspace and organized to match your working needs. Next, you'll open a new panel and dock it with the default panels on the right side of the workspace.

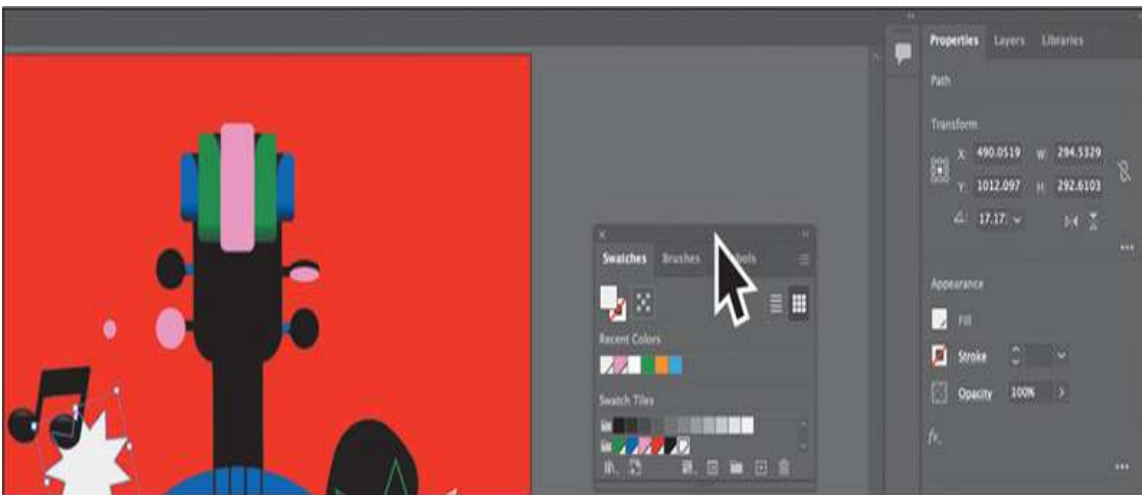
► **Tip**

A checkmark next to a panel name in the Window menu means it's already open and in front of other panels in its panel group. If you were to choose a panel name already selected in the Window menu, the panel and its group would either close or collapse.

1. Choose View > Fit Artboard In Window to see the whole poster, if necessary.
2. Open the Window menu at the top of the screen to see all of the panels available in Illustrator. Choose Swatches from the Window menu to open the Swatches panel and the panels grouped with it by default.

Panels you open that do not appear in the default workspace are free-floating. That means they are not docked and can be moved around. You can dock free-floating panels on the right or left side of the workspace.

3. Drag the Swatches panel group *by the title bar above the panel names* to move the group closer to the docked panels on the right.



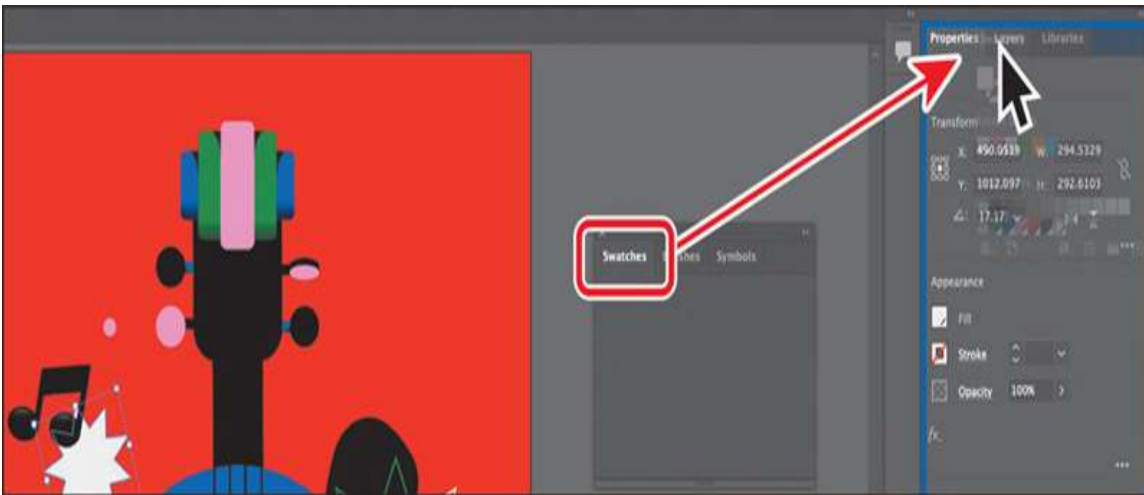
Next, you'll dock the Swatches panel with the Properties panel group.

4. Drag the Swatches panel *by its panel tab* onto the Properties, Layers, and Libraries panel tabs on the right. When a blue highlight appears

around the entire panel dock, release the drag to dock the panel in the group.

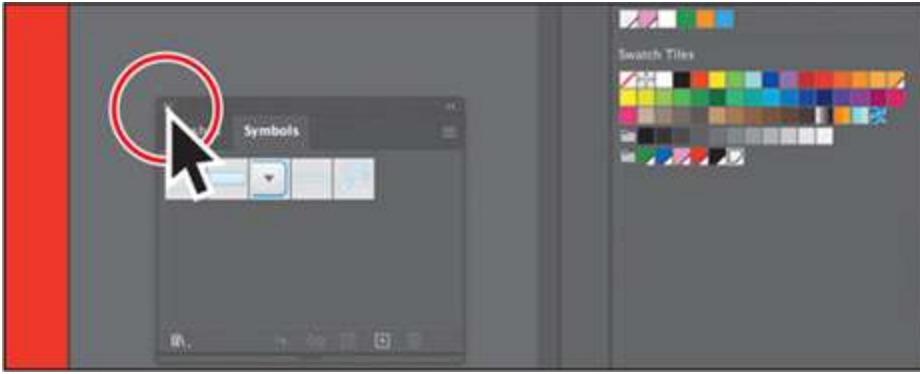
● **Note**

When dragging a panel to the dock on the right, if you see a blue line *above* the docked panel tabs before releasing, you'll create a new panel group above rather than docking the panel with the existing panel group.



5. Close the free-floating Brushes and Symbols panel group.

You might be thinking to yourself, “The Swatches panel has the same colors I’ve seen in other places.” Why put the panel out here when you can access the same colors in other ways? I like to put the Swatches panel in the workspace because with other methods, artwork needs to be selected to see the swatches. If I want to make a color without having anything selected, I can use the Swatches panel!




Scaling the Illustrator interface

To learn how to scale the user interface of Illustrator based on your screen resolution, check out the video *Scaling the Illustrator interface*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Switching and resetting workspaces

As you’ve seen, you can customize parts of your workspace, like the toolbar and panels. As you make changes, like opening, closing, and positioning panels, you can save that arrangement as a workspace—and switch between workspaces while you work. Illustrator also comes with a host of workspaces that are tailored to various tasks. Next, you’ll switch workspaces and learn about some new panels.

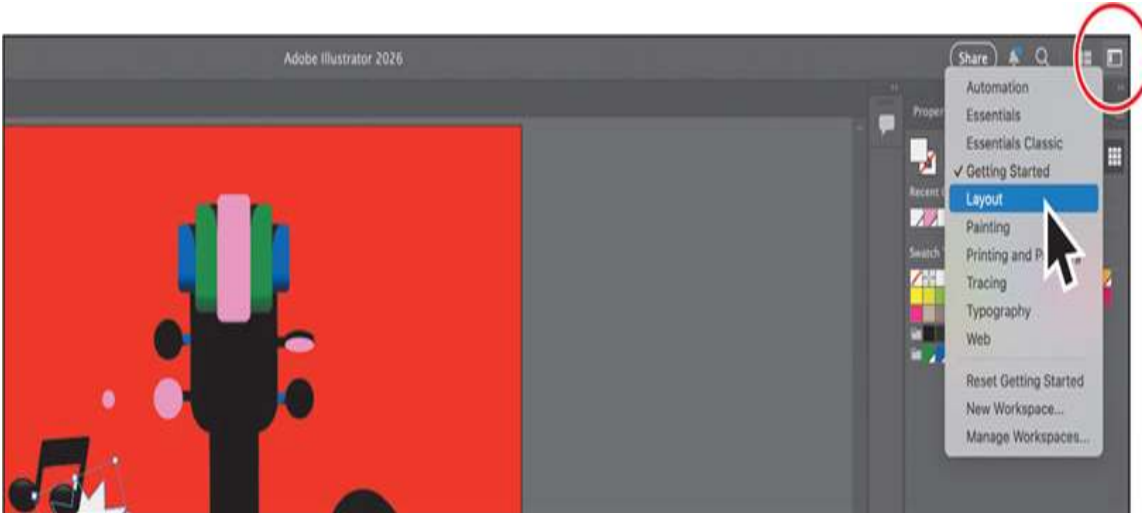
1. Above the docked panels, click the workspace switcher () at the right end of the Application bar.

► Tip

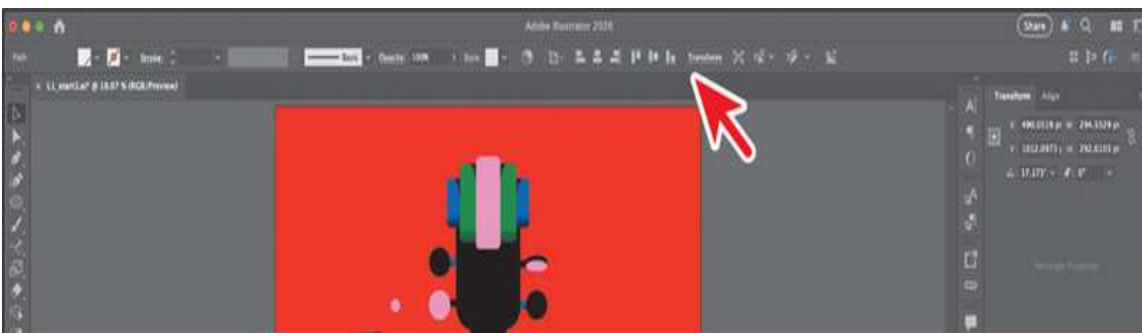
You can also choose Window > Workspace > Layout (or another workspace).

You’ll see a number of workspaces listed; each has a specific purpose and will open panels and arrange your workspace accordingly.


2. Choose Layout from the workspace switcher menu to change workspaces.



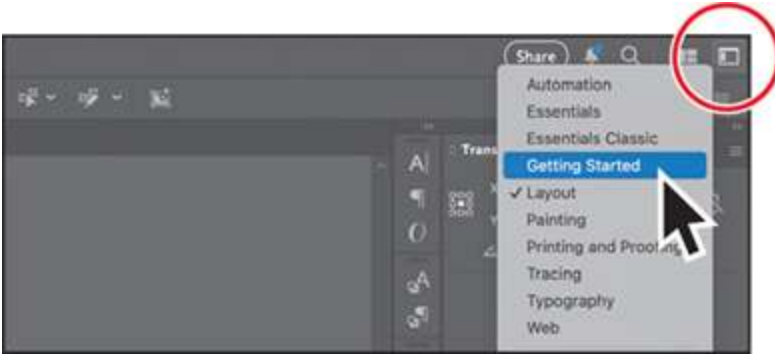
You'll notice a few major changes in the workspace. One of the biggest is the Control panel, which is now docked at the top of the workspace, just above the Document window (an arrow is pointing to it in the following figure). Similar to the Properties panel, it offers quick access to options, commands, and other panels, like Stroke and Transform, relevant to the currently selected content.



Also, notice all of the collapsed panel icons on the right side of the workspace. In workspaces, you can create groups of panels that are stacked on top of others. That way, a lot more panels are visible.

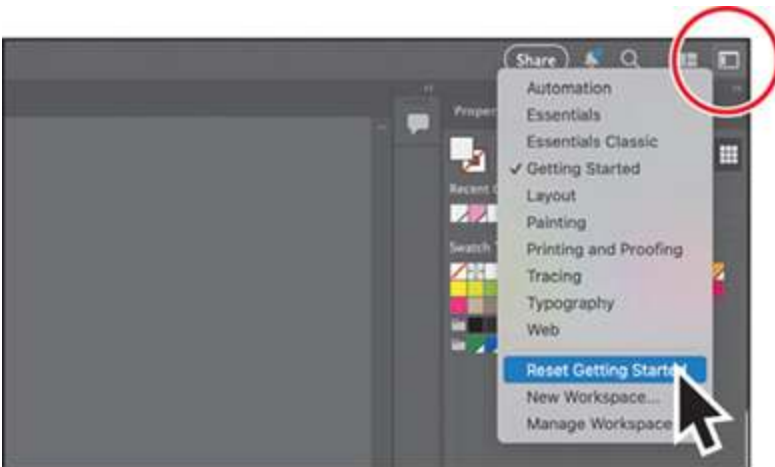
3. Choose Getting Started from the workspace switcher () to switch back to the Getting Started workspace.

Notice that the Swatches panel is still docked in the panels.



4. Choose Reset Getting Started from the workspace switcher in the Application bar.

When you switch back to a previous workspace, it remembers any changes you made, like grouping the Swatches panel. To completely reset a workspace to its default settings, the Getting Started workspace in this case, you'll need to reset it.



Saving your own workspace

If you get all the panels you want out and set them right where you want them, you can save a custom workspace. To save your own workspace:

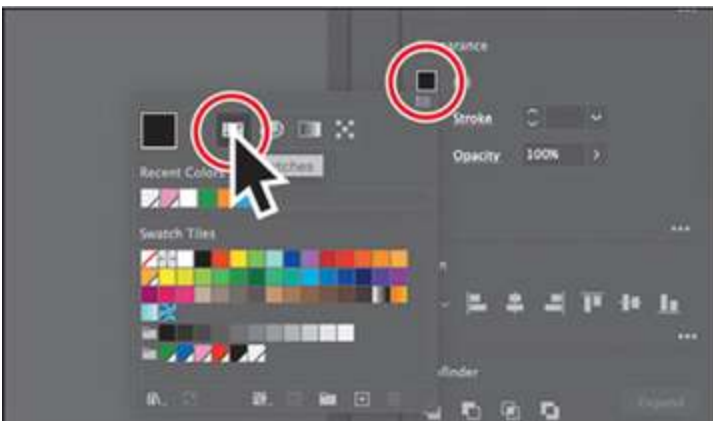
1. Ensure your panels are where you want them.
2. Choose Window > Workspace > New Workspace.
3. Change its name to whatever makes sense to you in the New Workspace dialog box, and click OK.

You can now select that workspace from the workspace switcher!


Using panel and context menus

Most panels in Illustrator have more options available in a panel menu, found by clicking the panel menu icon (☰ or ☷) in the upper-right corner of a panel. These additional options can be used to change the panel display, add or change panel content, and more. Next, you'll change the display of the Swatches panel using its panel menu.


1. With the Selection tool (☛) selected, select the “GUITAR” text.

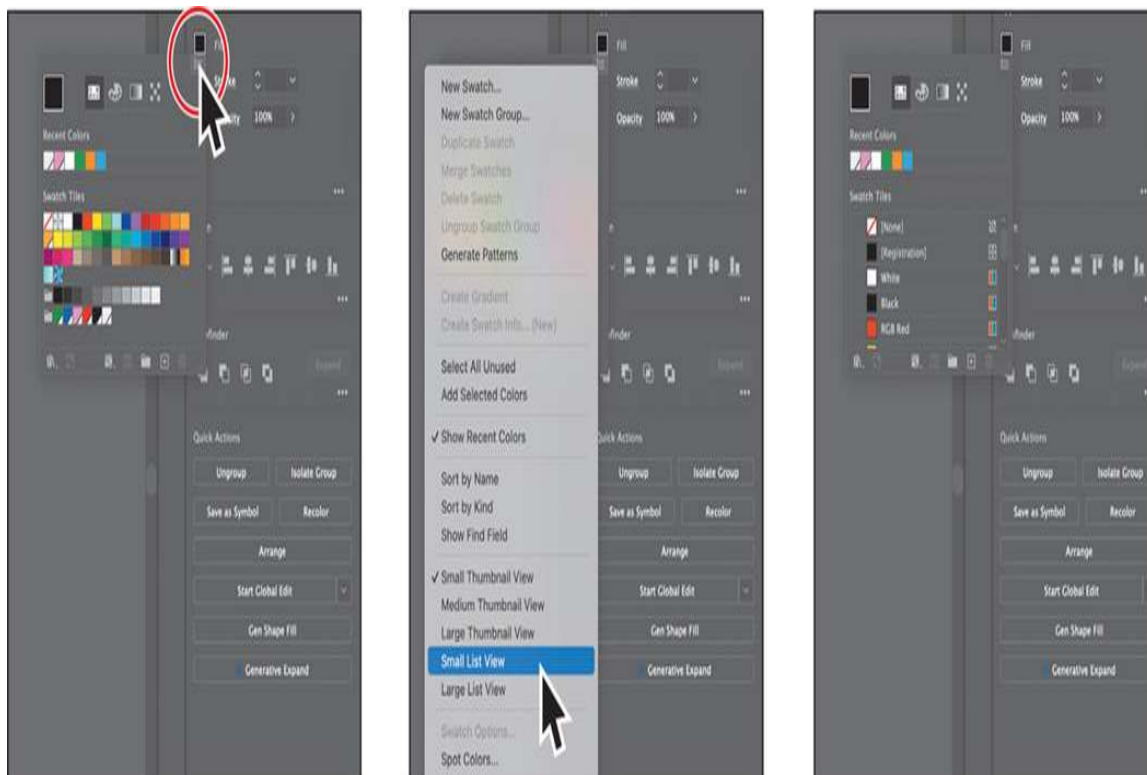


2. Click the Fill color box, to the left of the word “Fill,” in the Properties panel.


3. In the panel that appears, make sure that Swatches () is selected. It's circled in the figure.

By now, changing the fill color should be relatively familiar to you.

4. Click the panel menu icon () in the upper-right corner of the panel, and choose Small List View from the panel menu.



This displays the swatch names, together with thumbnails and is applied to only the active panel, so only the Swatches panel view is affected.

5. Click the same panel menu icon () in the panel showing, and choose Small Thumbnail View to return the swatches to their original view.
6. Click anywhere to hide the Swatches panel.
7. Choose Select > Deselect so the text is no longer selected.

Another type of menu you can show is a context menu, which appears when you right-click, showing commands relevant to the active tool, selection, or panel. These commands usually exist

elsewhere in the workspace, but using the context menu is often faster.

8. Move the pointer over the dark gray area surrounding the poster. Then, right-click to show a context menu that displays commands specific to the open document.

► **Tip**

If you move the pointer over the tab or title bar for a panel and right-click, you can close a panel or a panel group from the context menu that appears.



9. Choose Zoom Out to make the poster appear a little smaller.



The content of context-sensitive menus will change depending on what the pointer is positioned over; in other words, it changes depending on its context.

Adjusting the user interface brightness

To learn about changing the brightness of the Illustrator interface, check out the video *Adjusting the user interface brightness*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Changing the view of artwork

While working in files, you’ll likely need to change the magnification level and navigate between artboards. The magnification level, which can range from 3.13% to 64000%, is displayed in the title bar (or document tab) next to the filename and in the lower-left corner of the Document window.

There are many ways to change the zoom level in Illustrator, and in this section, you’ll explore several.

Using view commands

One way to zoom in or out of your project is to use view commands. They are found in the View menu and are an easy way to enlarge or reduce the view of artwork. I zoom in to and out of my artwork most often using these commands.

1. Choose View > Zoom In twice to enlarge the display of the artwork.

► Tip

The keyboard shortcut for the View > Zoom In command is Command and + (macOS) or Ctrl and + (Windows). You can zoom out using the keyboard shortcut Command and – (macOS) or Ctrl and – (Windows).

Using the viewing tools and commands affects only the display of the artwork, not the actual size of the artwork. Each time you choose a zoom option, the view of the artwork is resized to the closest preset zoom level. The preset zoom levels appear in a menu in the lower-left corner of the Document window, identified by a triangle next to a percentage (an arrow is pointing to it in the figure).



2. Choose View > Fit Artboard In Window to see the entire poster again.

By choosing View > Fit Artboard In Window or using the keyboard shortcut, the entire artboard (page) is centered in the Document window:

- Command+0 [zero] (macOS)
- Ctrl+0 [zero] (Windows)

3. Click the text “STRING MAGIC FOR YOU” to select it.

If you need to zoom in to a specific area of your design—like the “STRING MAGIC FOR YOU” text—you can select that content first and then use the View > Zoom In command to zoom in to what’s selected.

4. Choose View > Zoom In, twice, to zoom in.



5. Press the Shift key and select the red circles on either side of the text to select them as well.
6. Click the Group button in the Contextual Task Bar to group the text and circles together.



7. Choose Select > Deselect.
8. Click the text “STRING MAGIC FOR YOU” and the whole group will be selected—the text and the red circles.

Grouping objects makes moving things like the text and circles so much easier. You’ll learn more about grouping in [Lesson 2](#), “[Selecting Artwork](#).”

9. Choose View > Fit Artboard In Window to see the whole poster.
10. Choose Select > Deselect so the group is no longer selected.

Using the Zoom tool

In addition to the View menu commands, you can use the Zoom tool (Q) to magnify and reduce the view of artwork to predefined magnification levels. I tend to use the Zoom tool when I need a closer look at a particular area and zoom in or out a lot.

1. Select the Zoom tool (Q) in the toolbar, and then move the pointer over the poster. Notice that a plus sign (+) appears at the center of the pointer.
2. Move the Zoom tool pointer over the word “GUITAR,” and click once.

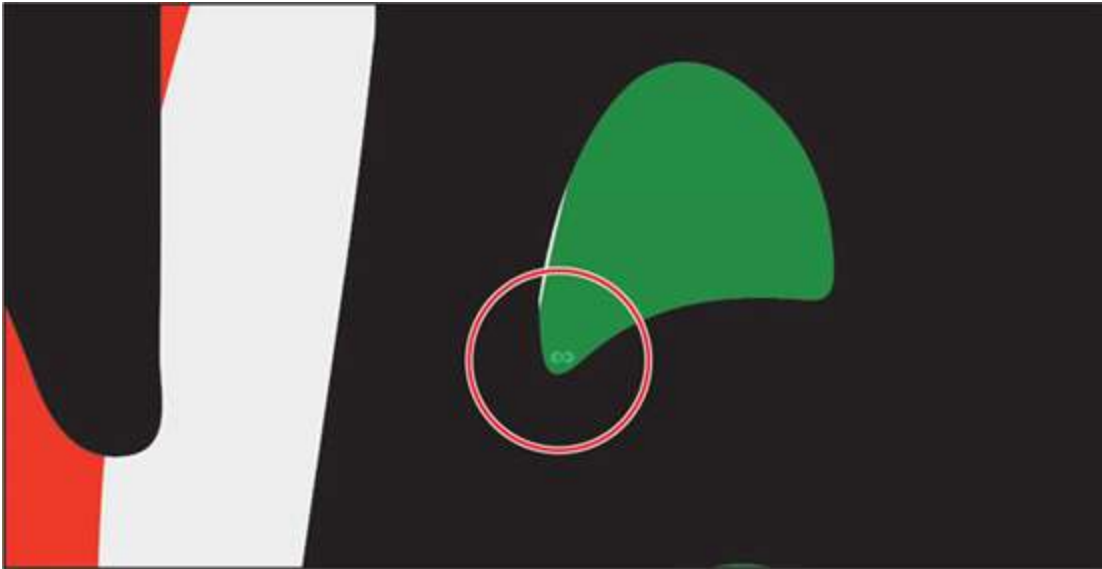


The artwork is displayed at a higher magnification, depending on your screen resolution. Notice that where you clicked is now in the center of the Document window.

3. Click the “A” in the word “GUITAR” until you are close enough to see the cartoon eyes in the top of the “A.”

► **Tip**

Zoom In too far in the wrong place? Choose View > Fit Artboard In Window and try again.



Being this close to the artwork can make it easier to see smaller details and possibly make it easier to select things. Let's remove the eyes.

4. Select the Selection tool (▢), and click the eyes artwork.
5. Press Delete (macOS) or Backspace (Windows) to remove it.
6. Select the Zoom tool, and press the Option (macOS) or Alt (Windows) key. A minus sign (–) appears at the center of the Zoom tool pointer. With the Option or Alt key pressed, click the artwork a few times to *reduce* the view of the artwork.



● **Note**

If your computer does not meet the system requirements for GPU performance, you will instead draw a dotted rectangle, called a *marquee*, when dragging with the Zoom tool.

Using the Zoom tool, you can also drag in the document to zoom in and out. By default, if your computer meets the system requirements for GPU performance and it's enabled, zooming is animated. To find out if your computer meets the system requirements, see the sidebar [“GPU performance”](#) following this section.

7. Choose View > Fit Artboard In Window.
8. With the Zoom tool still selected, drag from the left side of the document to the right to zoom in. The zooming is animated. Drag from right to left to zoom out.



Zooming this way can be challenging at first. If you pause before dragging, it will zoom without control. The secret is not to pause—rather, just drag.

9. Choose View > Fit Artboard In Window to fit the artboard in the Document window.

The Zoom tool is used frequently during the editing process to enlarge and reduce the view of artwork. Because of this, Illustrator allows you to select the Zoom tool using the keyboard at any time without first deselecting any other tool you may be using.

- To access the Zoom tool using your keyboard, press Command+spacebar (macOS) or Ctrl+spacebar (Windows).
- To access the Zoom Out tool using your keyboard, press Command+Option+spacebar (macOS) or Ctrl+Alt+spacebar (Windows).

► **Tip**

If Command+spacebar does open Spotlight on macOS, try pressing spacebar first, then Command!

In certain versions of macOS, the keyboard shortcuts for the Zoom tool (Q) open Spotlight or the Finder. If you decide to use these shortcuts in Illustrator, you may want to turn off or change those keyboard shortcuts in macOS System Settings. Here's how: Open macOS System Settings, and click Keyboard in the scrolling list at left. In the Keyboard Navigation area, click Keyboard Shortcuts. In the window that opens, click Spotlight to access the keyboard shortcut settings for Spotlight and Finder search.

GPU performance

The graphics processing unit (GPU), found on video cards and as part of display systems, is a specialized processor that can rapidly execute commands for manipulating and displaying images. GPU-accelerated computing offers faster performance across a broad range of design, animation, and video applications.

This feature is available on compatible macOS and Windows computers and means you get a big performance boost.

It is turned on by default in the latest version of Illustrator, and options can be accessed in your preferred settings by choosing Illustrator > Settings > Performance (macOS) or Edit > Preferences > Performance (Windows).

To learn more about GPU performance, visit helpx.adobe.com/illustrator/kb/gpu-performance-preview-improvements.xhtml.

Panning in a document

In Illustrator, you can use the Hand tool (✋) to move or *pan* to different areas of a document. Using the Hand tool allows you to push the document around much like you would a piece of paper on your desk. This can be a useful way to move around in a document with a lot of artboards or when you are zoomed in. In this section, you'll access the Hand tool a few different ways.

1. Select the Selection tool (👉), and select the “STRING MAGIC FOR YOU” group.
2. Choose View > Zoom In twice to zoom in to the group.

Now, suppose you need to look at the top of the poster. Instead of zooming out and then zooming in to the other area, you can simply pan or *drag* to see it.

3. Select the Hand tool (✋) in the toolbar.
4. Drag down in the Document window. As you drag, the artboard and the artwork on it move with the hand.




As with the Zoom tool (Q), you can select the Hand tool with a keyboard shortcut without first deselecting the active tool.

5. Click any tool *other than* the Type tool (T) in the toolbar, and move the pointer into the Document window. Hold down the spacebar on the keyboard to temporarily select the Hand tool, and then drag to bring

the artwork back into the center of your view. Release the drag and then the spacebar.

● **Note**

The spacebar shortcut for the Hand tool () does not work when the Type tool (**T**) is active and the cursor is in text. To access the Hand tool when the cursor is in text, press the Option (macOS) or Alt (Windows) key.


6. Choose View > Fit Artboard In Window.

Panning with the Navigator panel

To learn about a different way to pan around in a document, check out the video *Panning with the Navigator panel*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

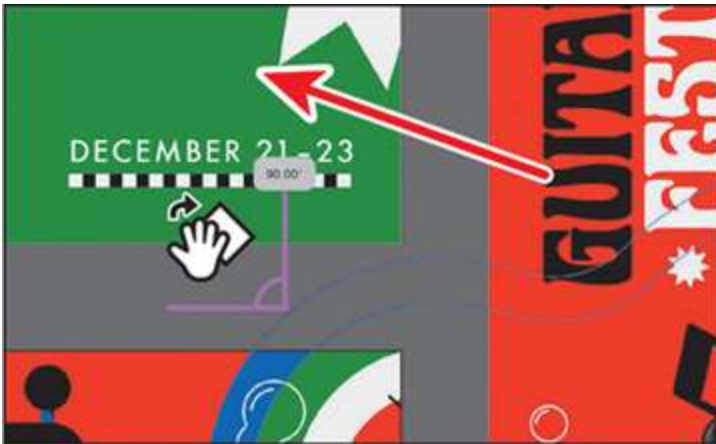
Rotating the view

Projects like packaging designs, logos, or any projects that contain rotated text or artwork can be easier to work on when you rotate the document temporarily. Think of a large drawing on paper. If you wanted to edit part of the drawing, you might turn the paper on your desk. In this section, you’ll see how to rotate the whole canvas with the Rotate View tool to make editing text easier.

1. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson01 folder, and select the L1_start2.ai file on your computer. Click Open to view three social ads for the poster event.
2. Choose View > Fit All In Window to see three different ads.
3. Select the Rotate View tool () in the toolbar.
4. Drag counterclockwise in the Document window to rotate the entire canvas. As you drag, press the Shift key to rotate the view in 15-degree increments. When you see 90 degrees in the measurement label, release the drag and then the key.

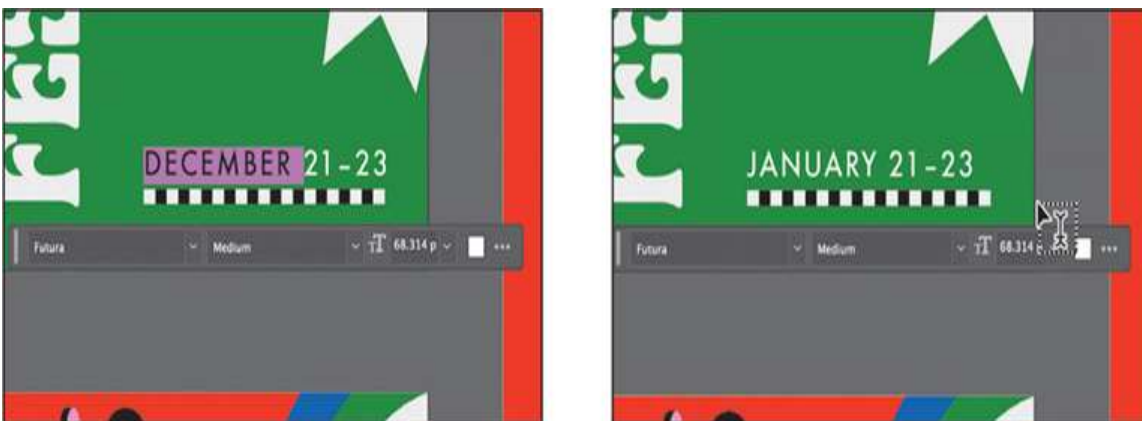
► **Tip**

To automatically align the canvas view to a rotated object, you can choose View > Rotate View To Selection to rotate the canvas.



The artboards, which are on the canvas, rotate as well.

5. Select the Type tool (**T**) in the toolbar. Double-click to select the word “DECEMBER” and type **JANUARY** to replace it. The text now reads “JANUARY 21-23.”



When finished, you can reset the canvas.

6. Select the Selection tool (**V**), and click in an empty area to deselect.
7. Click the down arrow to the right of the 90° you see in the Status Bar below the document to show a menu of canvas rotation values. Choose 0 from that menu to set the canvas back to the default rotation.



► Tip

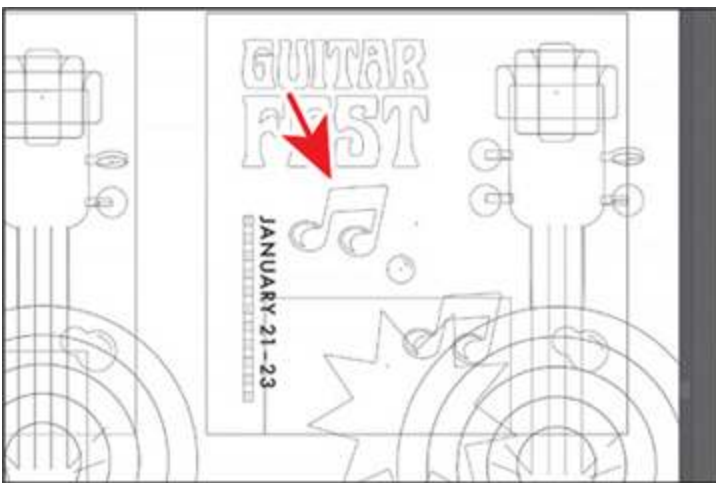
To reset the rotated canvas view, you can also press the Esc key, choose View > Reset Rotate View, or press Shift+Command+1 (macOS) or Shift+Ctrl+1 (Windows).

8. Choose View > Fit All In Window.

Previewing artwork

When you open a file, the artwork is displayed in Preview mode, which means you see all of the content with fills, strokes, and other appearances. Illustrator offers other ways of viewing your artwork, such as outlined and rasterized. When working with large or complex illustrations, to see hidden artwork behind, and more, you may want to view only the outlines or paths of objects in your artwork. This is called *Outline mode*. Next, you'll take a look at the different methods for viewing artwork and understand why you might view artwork each of these ways.

1. Look at the ad with the green background. Notice that there is only one pair of musical notes. An arrow is pointing to it in the figure.



2. Choose View > Outline.

► **Tip**

You can press Command+Y (macOS) or Ctrl+Y (Windows) to toggle between Preview and Outline modes.

Only the outlines of objects are displayed. You can use this view to find and select things that might be hiding behind other objects.

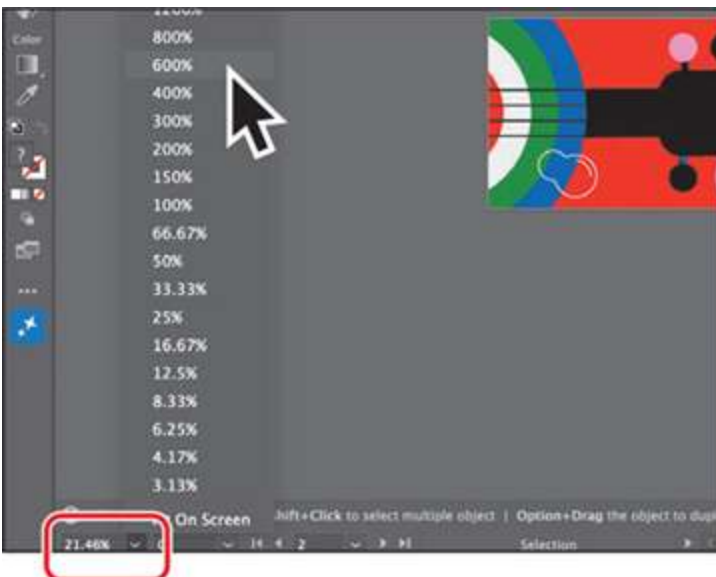
Do you now see the second pair of musical notes? An arrow is pointing to it. It is hidden behind the green shape.

3. With the Selection tool (▢), click the edge of the musical note you now see, and press Delete or Backspace to remove it.

4. Choose View > Preview (or GPU Preview) to see all the attributes of the artwork again.
5. Now choose View > Pixel Preview.
6. Click the musical notes on the ad with the green background. See the figure.

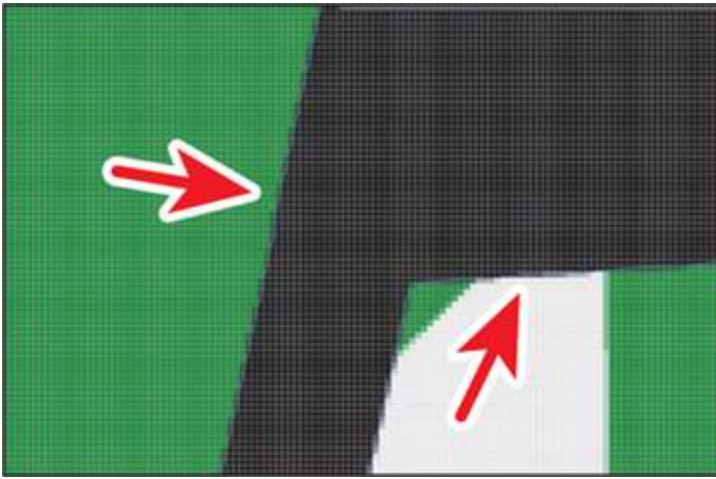


7. Choose 600% (or something around there) from the zoom level menu in the lower-left corner of the application window to more easily see the edges of the artwork.



Pixel preview shows you how the artwork would look if it were rasterized—as if it were saved as a JPG or PNG—and viewed

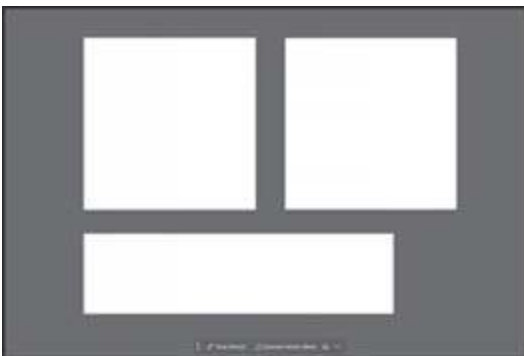
onscreen in a web browser. Note the “jagged” edge on some of the artwork. Arrows are pointing to it in the figure.



8. Choose View > Pixel Preview to turn off Pixel preview.
9. Choose Select > Deselect so the musical notes are no longer selected.

Navigating multiple artboards

Artboards hold the artwork to be output, like pages in Adobe InDesign. You can use them to crop, organize, or position artwork. Multiple artboards let you create multipage PDFs, prints of various sizes, web elements, video storyboards, social media posts, or animation assets for Adobe Animate or After Effects.



Artboard examples

Illustrator supports up to 1,000 artboards per file (depending on the size of the artboards). You can add, remove, or edit artboards when creating or

after opening a document.

Next, you'll learn how to navigate artboards in your open file.

1. Choose View > Fit All In Window to make sure that you see all three ads.

► **Tip**

You'll learn about other methods for navigating artboards, like the Artboards panel, in [Lesson 5](#), “[Transforming Artwork](#).”



Notice that there are three artboards in the document; as I said earlier, these are three different ads for the poster from L1_start1.ai.

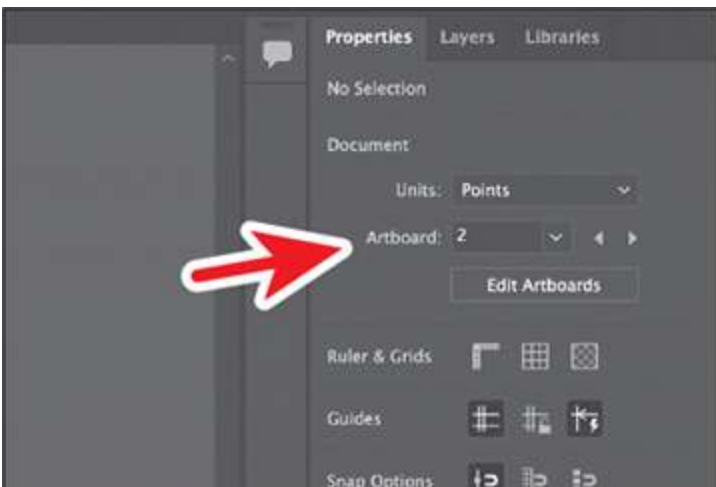
2. Select the Selection tool (⬮) in the toolbar, and click to select the *vertical* “JANUARY 21 – 23” text on the artboard with the green background.
3. Choose View > Fit Artboard In Window.

When you select artwork, it makes the artboard that the artwork is on the *active*, or selected, artboard. By choosing the Fit Artboard In Window command, the currently active artboard is fit into the Document window.



4. Choose Select > Deselect.
5. Look in the Properties panel. With nothing selected, you can see the Artboard menu, which lists all of the artboards by number.

Notice the arrows to the right of the Artboard menu in the Properties panel. You can use these to navigate to the previous (◀) and next (▶) artboards. You'll learn about artboard numbering in [Lesson 5](#).



6. Click the Previous navigation button (◀) in the Properties panel to view the previous artboard (artboard 1) in the Document window.

► Tip

Look in the Status bar below the document. The Artboard menu and navigation arrows *always* appear in the Status bar regardless of whether something is selected or not.



7. Choose File > Close for all open documents without saving so you can practice again, if you like!



Arranging multiple documents

To learn about arranging multiple open documents, check out the video *Arranging multiple documents*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Review questions

- 1 What is the Properties panel for?
- 2 Describe two ways to change the view of a document.
- 3 How do you save the locations and visibility of panels?
- 4 Describe a few ways to navigate between artboards in Illustrator.
- 5 How can you rotate the canvas view?


Review answers

- 1** The Properties panel in Illustrator is in the default workspace; it allows you to access settings and controls for items that are selected on the artboard, as well as settings and controls for the entire document when nothing is selected.
- 2** You can choose commands from the View menu to zoom in or out of a document or to fit it to your screen; you can also use the Zoom tool () in the toolbar and click or drag over a document to enlarge or reduce the view. In addition, you can use keyboard shortcuts to magnify or reduce the display of artwork.
- 3** You can save panel locations and visibility preferences by choosing Window > Workspace > New Workspace to create custom work areas and to make it easier to find the controls you need.
- 4** To navigate between artboards in Illustrator, you can choose the artboard number from the Artboard menu in the Properties panel, with nothing selected. You can choose the artboard number from the Artboard Navigation menu in the Status bar below the document, or you can use the Artboard Navigation arrows in the Properties panel or Status bar to go to the previous and next artboards.
- 5** To rotate the canvas view, drag in the Document window with the Rotate View tool () , choose a rotate value from the Rotate View menu in the Status bar, or (bonus!) choose a rotate value from the View > Rotate View menu.

2 Selecting Artwork

Lesson overview

In this lesson, you'll learn how to do the following:

- Discover the various selection tools and use selection techniques.
- Recognize Smart Guides.
- Explore Enclosed mode selections. 
- Hide, lock, and unlock items.
- Save selections for future use.
- Use tools and commands to align shapes and points to each other and the artboard.
- Align objects to a path.
- Group items.
- Work in Isolation mode.
- Arrange objects.



This lesson will take about 45 minutes to complete. To get the lesson files used in this lesson refer to the instructions in [“Accessing the lesson files and Web Edition”](#) in the [“Getting Started”](#) section at the beginning of this book.



Selecting content in Adobe Illustrator is one of the most important tasks you can master. In this lesson, you'll learn how to select objects using selection tools; protect objects by

grouping, hiding, and locking them; align objects to each other and to the artboard; and much more.

Starting the lesson

In this lesson, you'll learn the fundamentals of selections—which includes selecting, hiding, locking, aligning, and grouping artwork—using different methods to finish a postcard. Let's jump in!

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. With Illustrator open, choose File > Open. Open L2_end.ai in the Lessons > Lesson02 folder you copied to your computer.

Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.1

This file contains the finished project.



4. Choose File > Open. Open the L2_start.ai file in the Lessons > Lesson02 folder on your computer.

You'll finish this postcard, but first you'll save it so you can work on it.



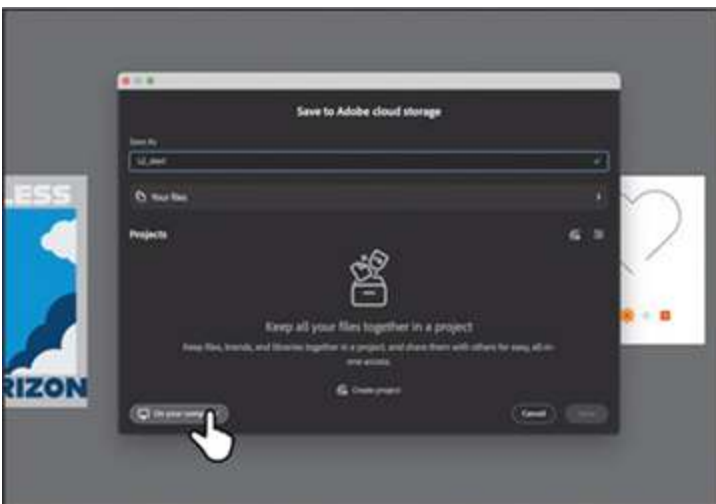
5. Choose File > Save As.

Note

To learn more about saving as a cloud document, visit the sidebar “[What is a cloud document?](#)” in [Lesson 3](#), “[Making Artwork with Shapes](#).”

When saving as in Illustrator, you may see the following dialog box. If you do, you can choose to save either to Creative Cloud as a cloud document or to your computer. For this lesson, you’ll save the lesson file to your computer.

6. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer to show the Save As dialog box; otherwise, skip to the next step.



7. In the Save As dialog box, name the file **Postcard.ai**, and save it in the Lessons > Lesson02 folder. Leave Adobe Illustrator (.ai) chosen from

the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and click Save.

8. In the Illustrator Options dialog box, simply click OK.
9. Choose Window > Workspace and make sure “[Getting Started](#)” is selected, then choose Window > Workspace > Reset Getting Started to reset the workspace.

Selecting objects

Whether creating artwork from scratch or editing existing artwork in Illustrator, you’ll need to become familiar with how best to select objects. There are many methods and tools for selecting and editing, and in this section, you’ll explore the most widely used, which are the Selection (▢) and Direct Selection (▧) tools.

Using the Selection tool

The Selection tool (▢) is one tool you will use a lot. You can select, move, rotate, and resize objects with it. To start, you’ll assemble flower pieces using the Selection tool.

1. Zoom in to the flower pieces on the far right artboard.

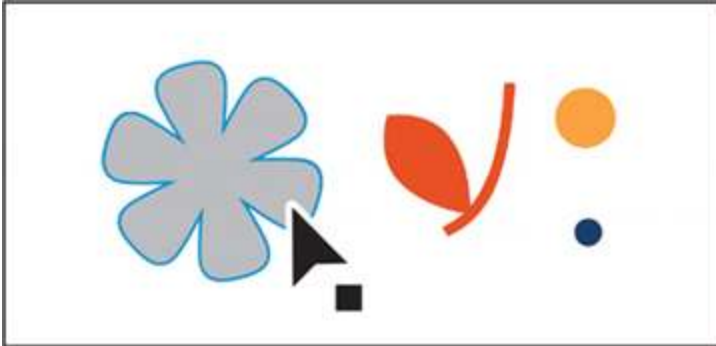
Don’t forget what you learned in [Lesson 1](#)! You can zoom using a bunch of methods and then move around using the Hand tool.



2. Select the Selection tool (▢) in the toolbar on the left.

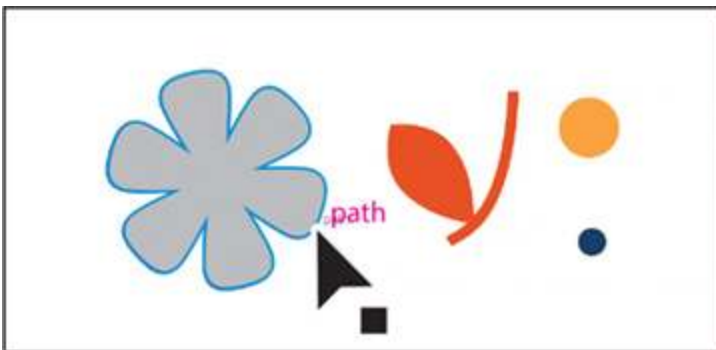
3. Move the pointer over the different objects on the artboards—*don't click*.

The little box that appears next to the pointer (☞) as it passes over objects indicates that there is artwork under the pointer. When you hover over something, that object has a thin color outline, like blue in this instance.



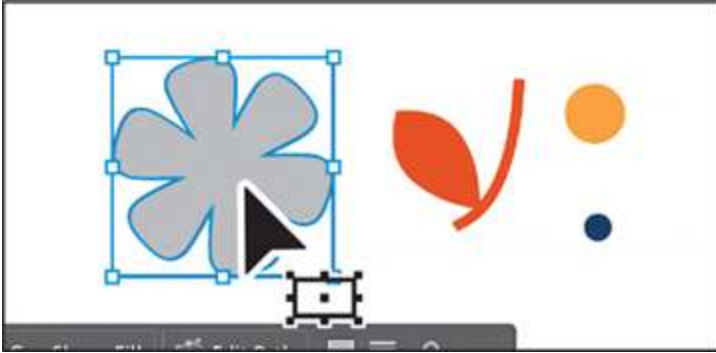
4. Move the pointer over the *edge* of the gray flower shape.

A word such as “path” or “anchor” might show next to the pointer because Smart Guides are on by default (View > Smart Guides). Smart Guides are temporary guides that help you align, edit, and transform things.



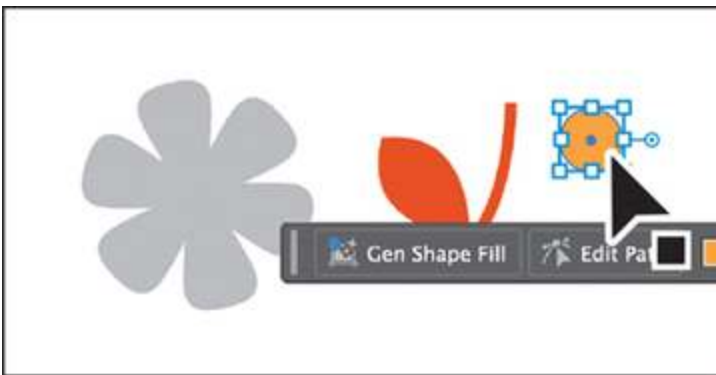
5. Click anywhere inside the same gray shape to select it.

A *bounding box* with eight handles appears around the circle when it is selected. All content displays a bounding box upon selection, which can be used to modify the content—for example, by resizing or rotating it.

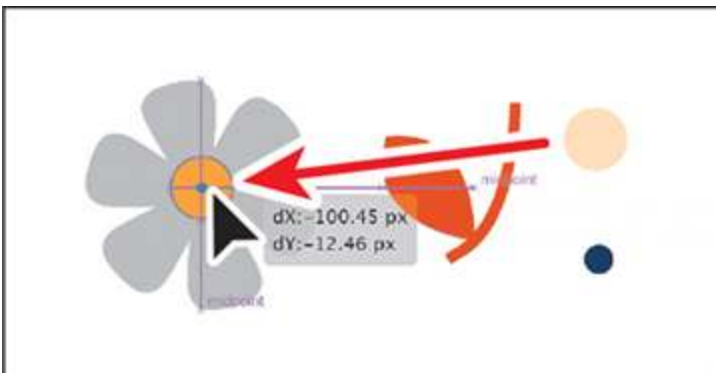


6. Click in the orange circle to the right of the selected shape.

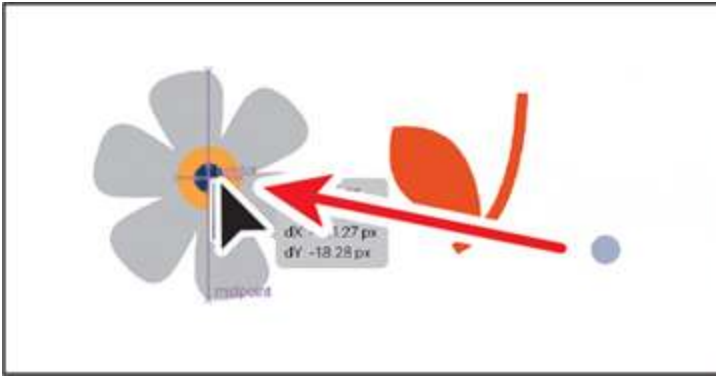
Notice that gray shape is now deselected and only the orange circle is selected.



7. Drag the orange circle onto the gray flower shape.



8. Now drag the small dark blue circle onto the orange circle to stack all three shapes.

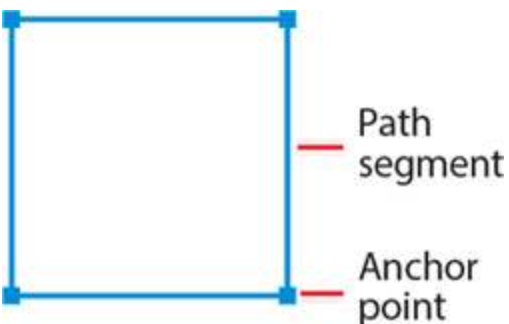


If you are zoomed out far enough, selecting a small shape like this last circle might be challenging. You'll find you zoom in and out of your project a fair amount while creating.

Selecting and editing with the Direct Selection tool

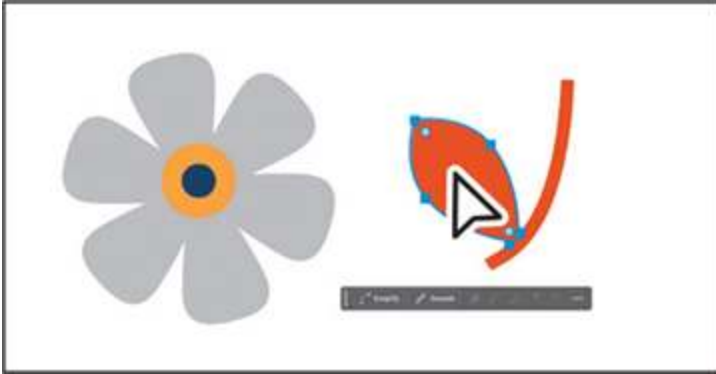
Selecting with the Selection tool is great for moving a whole object. But what if you want to move *part* of a shape? Maybe to lengthen a square into a long rectangle?

Shapes and paths are made of *anchor points* (sometimes just called *points*) and path segments. Anchor points control the shape of a path segment and work like pins holding a wire in place.



A shape like a square is made of at least four anchor points on the corners with path segments connecting the anchor points. You can change the shape of a path or shape by dragging its anchor points or path segments with the Direct Selection tool (⌘). Next, you'll use the tool to reshape a flower leaf and stem.

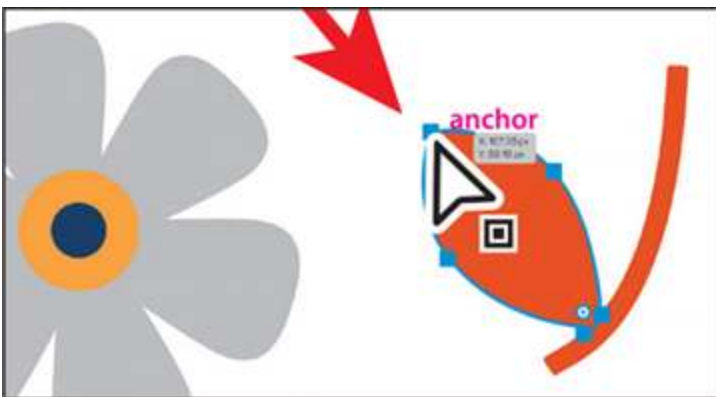
1. Select the Direct Selection tool (⌘) in the toolbar on the left. Click inside the orange leaf to select it and to see its anchor points.



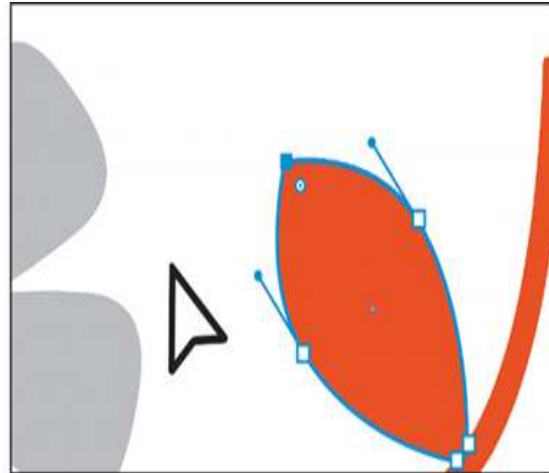
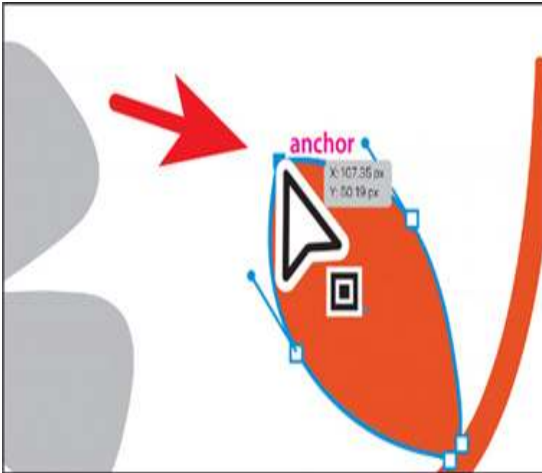
Notice the square anchor points on the edge of the shape that are all filled with a blue color, which means they are all selected. Also notice the little double-circles in the shape. Those are for rounding the path around the anchor points.

2. Choose View > Zoom In once or twice so it's easier to see the shape up close.
3. Move the pointer directly over the tip of the leaf.

With the Direct Selection tool selected, when the pointer is right over an anchor point, the word “anchor” appears. Also, notice the little white box next to the pointer (☐). A tiny dot in the white box indicates that the pointer is over an anchor point.

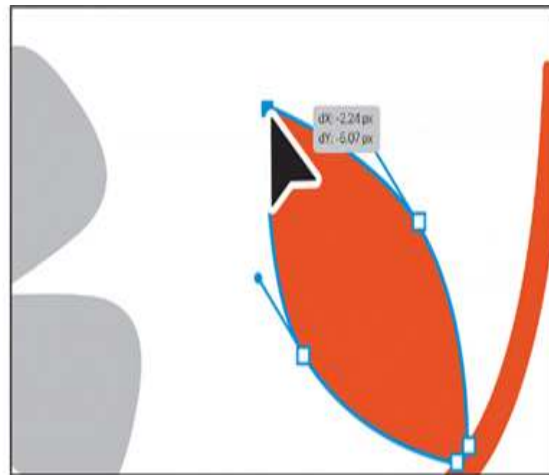
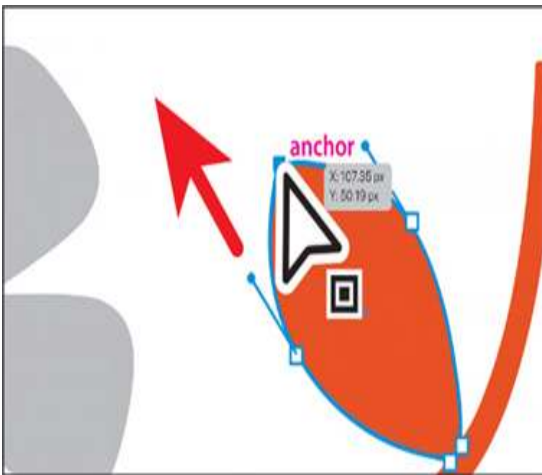


4. Click to select that anchor point, and then move the pointer away from it.



Notice that only the anchor point you clicked is now filled with blue, indicating that it's selected. The other anchor points in the shape are now hollow (filled with white), indicating that they are not selected.

5. Move the pointer back over the selected anchor point, and then drag it to make that leaf a little longer.



6. Choose Select > Deselect so nothing is selected.

Anchor points too small?

The anchor points, handles, and bounding box points may be difficult to see at times. In the Illustrator preferences, you can adjust the size of those features.

- On macOS, choose Illustrator > Settings > Selection & Anchor Display.
- On Windows, choose Edit > Preferences > Selection & Anchor Display.

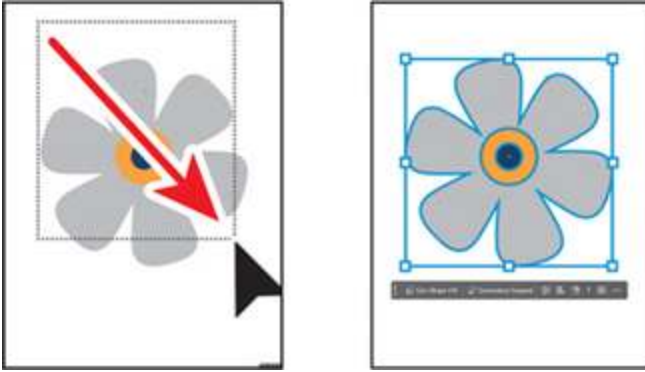
In the Anchor Points, Handle, and Bounding Box Display section of the Preferences dialog box, drag the Size slider to change the size!

Selecting objects with a marquee

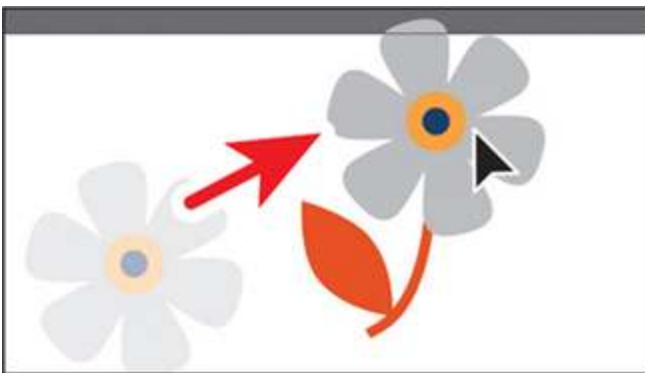
Another way to select content is by dragging across what you want to select, called a *marquee selection*, which you can do with either the Selection tool or the Direct Selection tool selected. This can make selecting multiple objects or points easier.

1. Select the Selection tool (🖱️) in the toolbar.
2. To select the gray flower shape and circles, move the pointer above and to the left of all objects. Drag to overlap at least part of them. Release the drag.

Selecting by dragging is the same as Shift-clicking to select multiple objects. Know that when dragging with the Selection tool (🖱️), you need to encompass only a small part of something to select it.



3. Drag the selected content onto the flower leaf and stem to the right.



Selecting anchors by dragging across them

You can also select multiple anchor points by dragging across them, which allows you to move them together and change other properties. You can either do this with the Direct Selection tool or the Lasso tool.

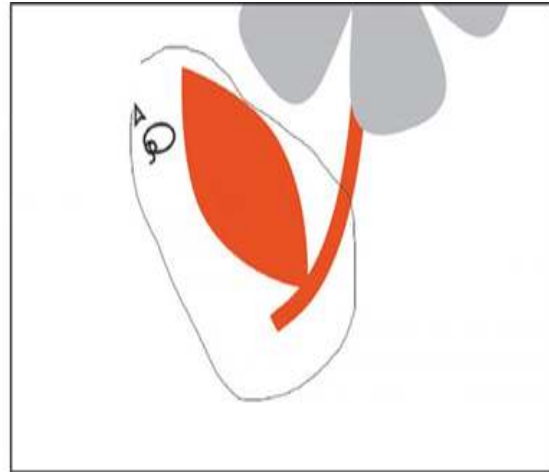
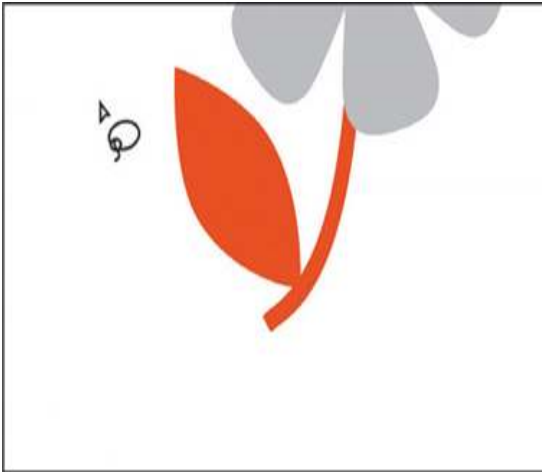
1. Select the Lasso tool (🔗) in the toolbar.

The Lasso tool is kind of fun and you can “draw” around anchor points to select them. Any points within that shape become selected.

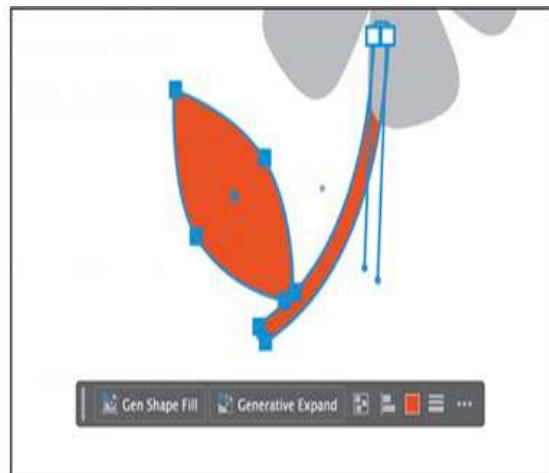
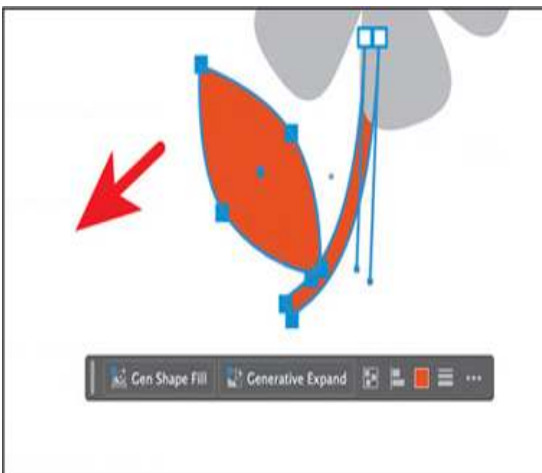
2. Drag around the leaf and bottom of the stem, like you see in the following figure, and release the drag. Make sure you don’t touch the gray flower shape!

● **Note**

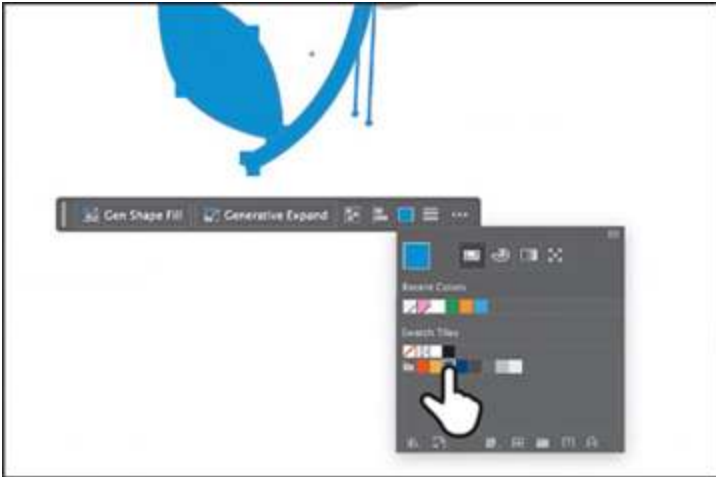
If you accidentally select points on the gray flower shape, choose Select > Deselect and try again!



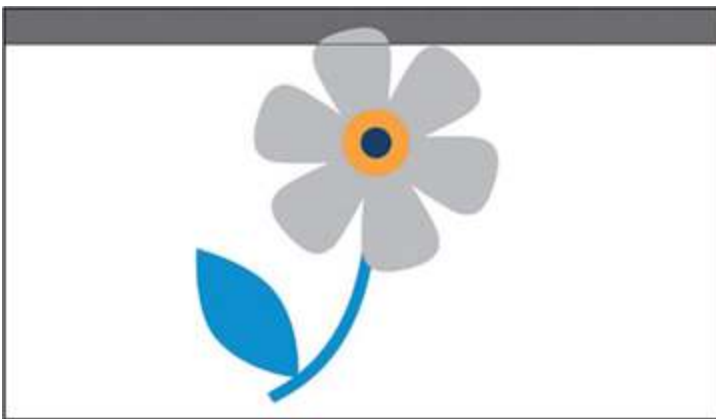
3. Press the Left and Down Arrow keys a few times to move the selected anchor points together. You want the leaf to move a little further from the flower.



4. Click the orange Fill box (■) in the Contextual Task Bar and change the color. I chose a blue.



5. Choose Select > Deselect and then choose File > Save.



Exploring Enclosed mode

To learn about Enclosed mode marquee selections, check out the video *Exploring Enclosed mode*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Hiding objects

Another way to focus on specific content and make selections easier is to temporarily hide content. To select content on the front of the postcard, you'll hide artwork that is covering it.

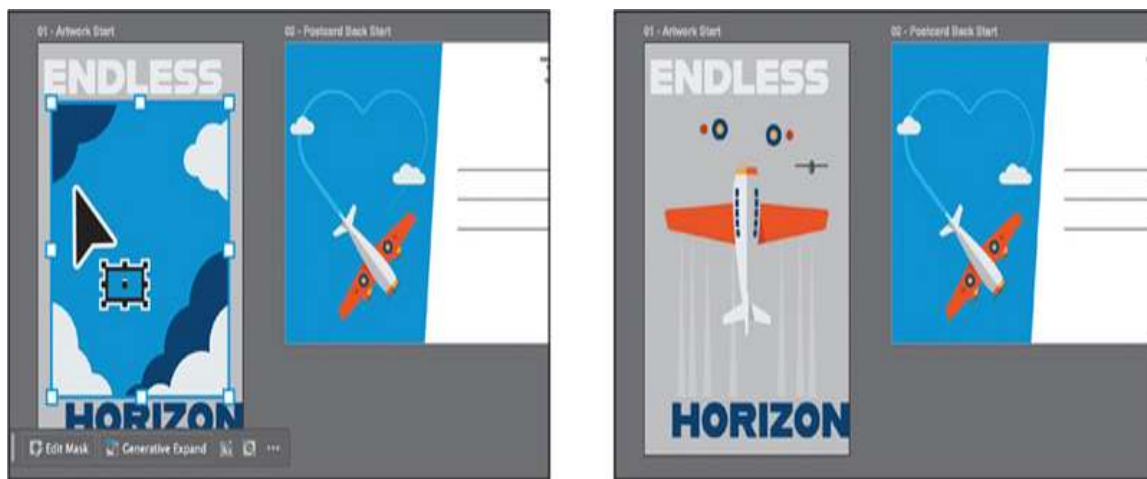
1. Choose View > Fit All In Window so you can see the front of the postcard on the left.

The blue rectangle with the clouds inside is covering other artwork. You need to hide it temporarily so you can get to the other artwork.

2. Select the Selection tool (▀), and then select the blue sky rectangle.
3. Choose Object > Hide > Selection.

► **Tip**

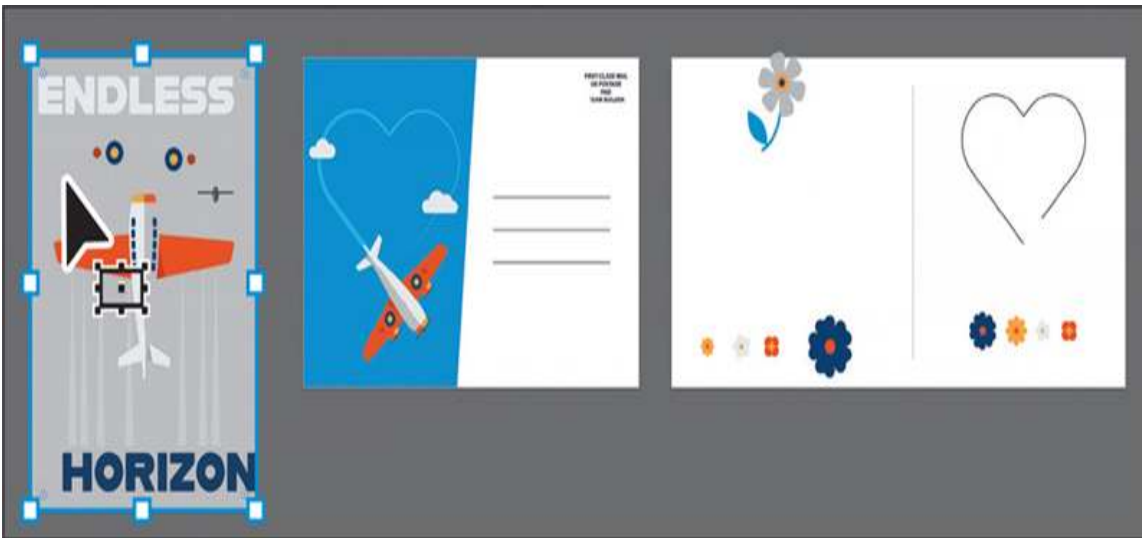
You can also press Command+3 (macOS) or Ctrl+3 (Windows) to hide content.



Locking objects

Selecting artwork can be challenging in Illustrator when objects are stacked one on another or when there are lots of objects in a small area. In this section, you'll learn a common way to make selecting objects easier by locking content.

1. With the Selection tool (▀) selected, click the gray shape in the background of the same artboard to select it.



2. Choose View > Fit Artboard In Window.

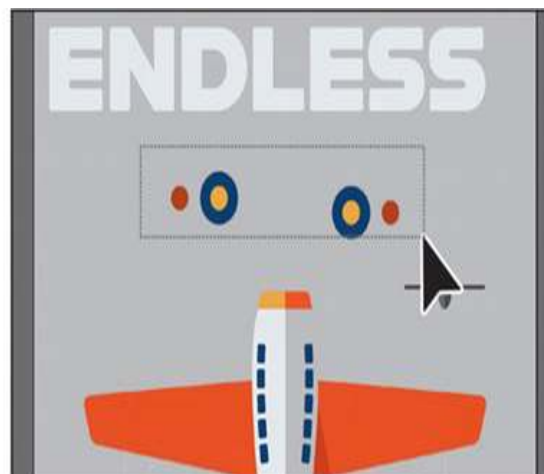
3. Choose Object > Lock > Selection.

► **Tip**

You can also press Command+2 (macOS) or Ctrl+2 (Windows) to lock selected content.

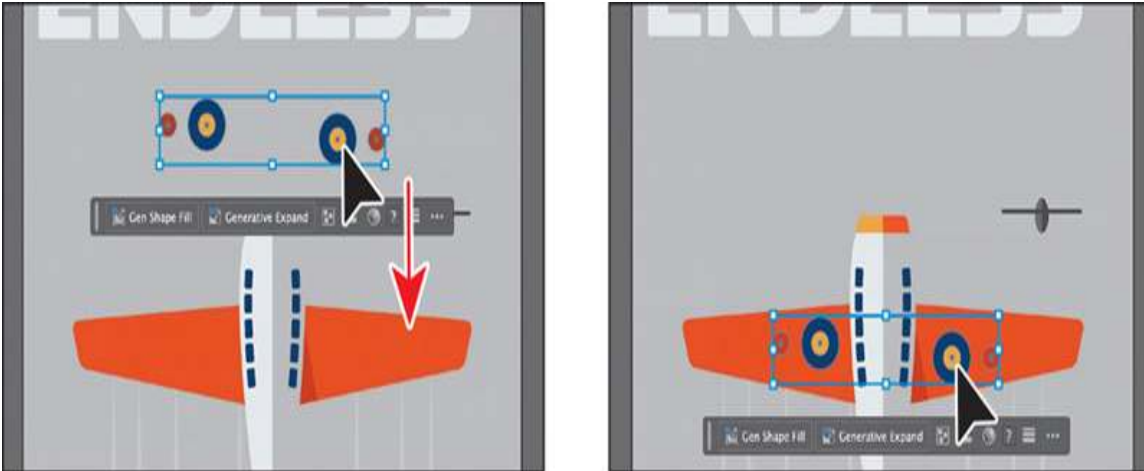
You can no longer select it. Locking objects prevents you from selecting and editing them. Now you'll move the circles below the word "ENDLESS" onto the wings of the airplane.

4. Drag across the circles to select them.



If you select more than the circles, choose Select > Deselect and try again.

5. Drag one of the circles down onto the airplane wing to move them all.



Unlocking objects

If you find you want to edit something that is locked, you can easily unlock it. In this case, the gray rectangle in the background needs to have a different color fill to look better. To do so, you first need to unlock it.

1. Choose Object > Unlock All to unlock everything in the document.

The gray rectangle is now unlocked and should be selected in the background. If not, make sure it is by clicking it.

2. To change the color of the shape, click the Fill color box in the Contextual Task Bar and select the yellow/orange color.



3. Choose Object > Lock > Selection to lock the background shape again.

Selecting similar objects

Using the Select > Same command, you can select artwork based on similar fill color, stroke color, stroke weight, and more. This can make selecting objects with a similar appearance easy. Next, you'll select several objects with the same fill and stroke applied.

1. With the Selection tool (🖱️), click to select one of the light colored lines coming from behind the plane.



2. Choose Select > Same > Fill & Stroke.

► **Tip**

In [Lesson 14](#), “Exploring Time-Saving Techniques” you’ll learn about another method for selecting similar artwork using Global Edit.

All the shapes with the same fill color and stroke weight and color are now selected.

You can also save a selection if you know that you’ll need to reselect a series of objects. Saved selections are a quick way to make the same selection later. Selections you save are saved only with this document.

You’ll save the current selection next.



3. With the shapes still selected, choose **Select > Save Selection**.
4. Name the selection **Stripes** in the Save Selection dialog box, and click **OK**.



Now that you’ve saved the selection, you’ll be able to choose these shapes quickly and easily from the bottom of the **Select** menu when

you need them.

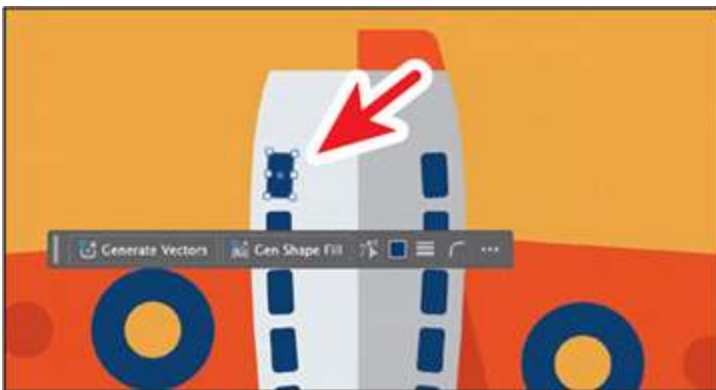
5. Choose Select > Deselect, and then choose File > Save.

Selecting in Outline mode

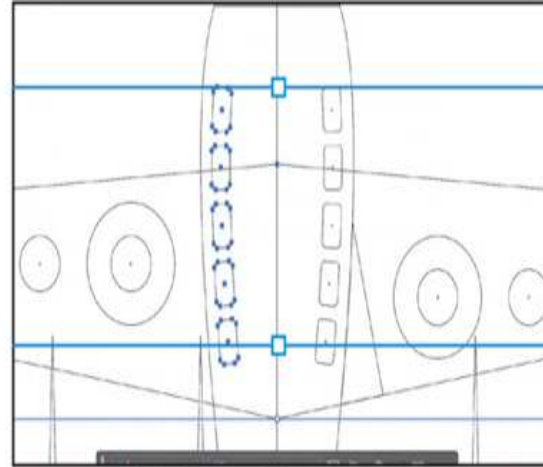
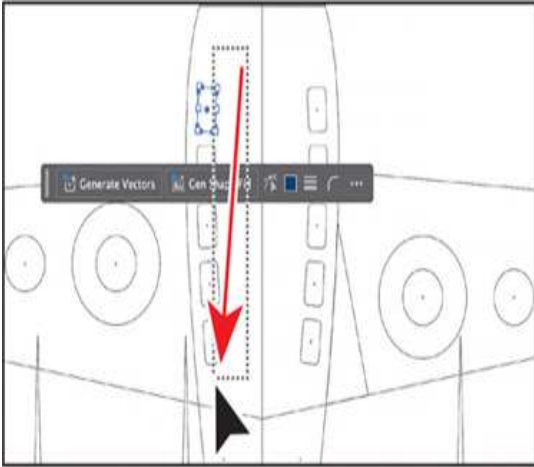
By default, Adobe Illustrator displays all artwork with its attributes, like fill and stroke (border) showing. If you prefer, you can view artwork in Outline mode, which temporarily hides attributes like fill and stroke and displays only outlines (or paths).

Outline mode can be useful if you want to more easily select objects within a series of stacked objects. Now you'll use Outline mode to select a series of objects.

1. With the Selection tool (▀), select one of the small blue windows on the airplane.
2. Choose View > Zoom In a few times.
3. Choose View > Outline to view artwork as outlines.

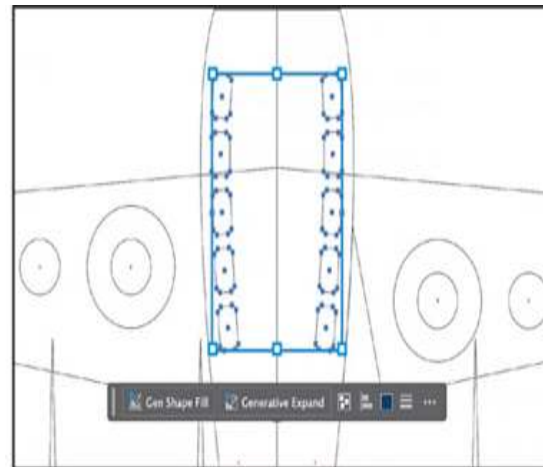
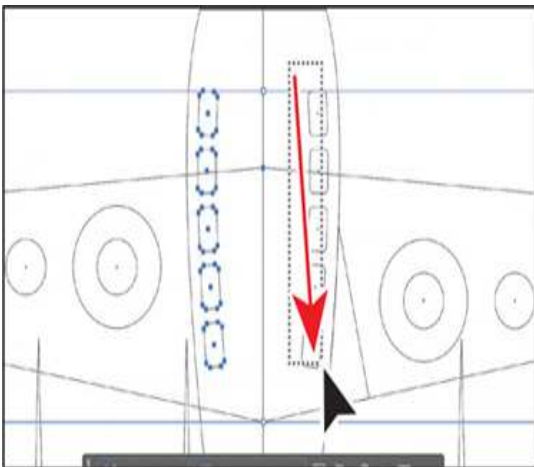


4. Drag across the string of windows on the left side of the airplane. To avoid selecting the airplane, you'll need to select from right to left.




Notice that you also selected the wing shape!

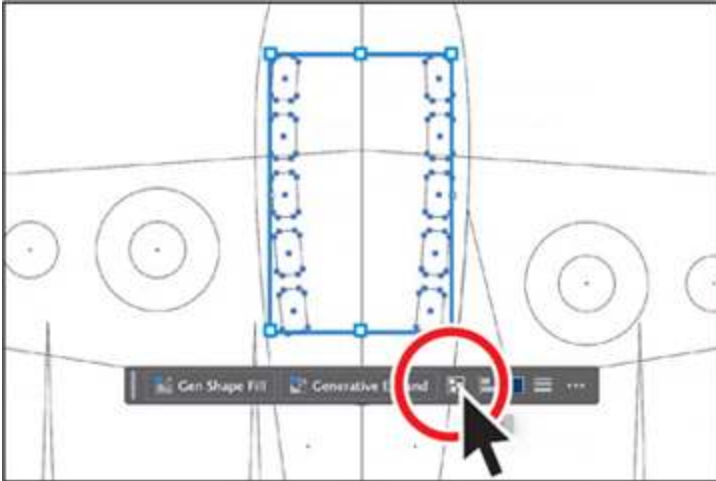
5. To select the windows on the right side, press the Shift key and drag across them.



This deselects the wing, and now only the windows should be selected.

6. Click the Group button () in the Contextual Task Bar beneath the artwork to group the shapes together.
7. Press the Up Arrow a few times to move the windows up a little.

You'll learn more about groups in a few sections.



8. Choose View > Preview (or GPU Preview) to see the artwork color.
9. Choose Select > Deselect.

Aligning objects

Say you made a bunch of fence posts in Illustrator and you need them all to line up with each other. Or you need to align your artwork to the center of a poster. Illustrator makes it easy to align or distribute multiple objects relative to each other, the artboard, or a key object. In this section, you'll explore the different options for aligning objects.

Aligning objects to each other

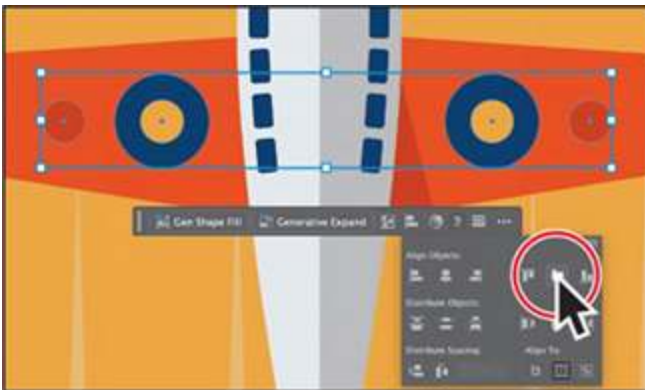
One way to align objects is to each other. This can be useful if, for instance, you want to align the top edges of a series of selected shapes to each other. Next, you'll align the circles you dragged onto the airplane wings to each other.

1. Press the Shift key, and with nothing selected, click each of the circles you dragged onto the airplane wings. Note that each of the yellow and blue circles need to be selected individually.

Wouldn't it have been great not to have to reselect these circles one at a time? If only you knew a way to save a selection!

2. Click the Align button () in the Contextual Task Bar. Then click the Vertical Align Center button ().

Notice that all of the selected objects moved to align to the vertical center of the shapes.



Aligning to a key object

A *key object* is an object that you want other objects to align to. This can be useful when you want to align a series of objects and one of them is already in the perfect position. You specify a key object by selecting all the objects you want to align, including the key object, and then clicking the key object again. Next, you'll align the airplane propeller to the nose cone using a key object.

1. Select the gray airplane propeller.



2. Shift-click to select the yellow/orange nose of the airplane to select both.



3. Release the Shift key, if you haven't already.

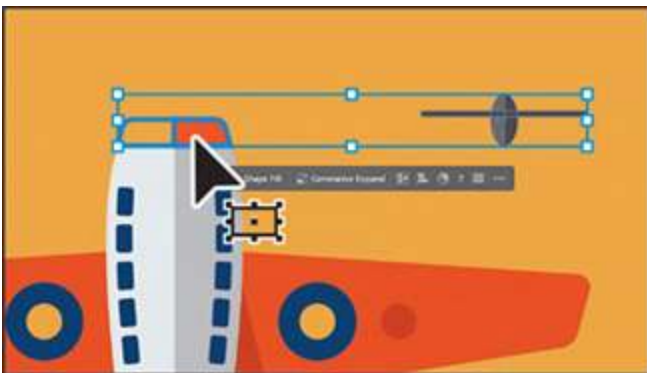
The propeller needs to align to the nose of the airplane, because the nose is already in place. You will make the nose the key object so the propeller aligns to it.

4. Click the yellow/orange nose of the airplane again.

Note

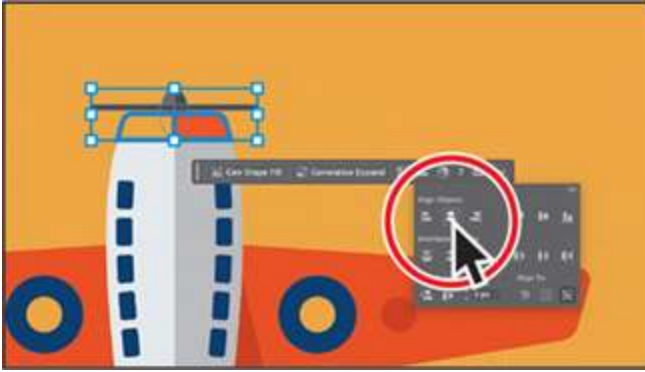
The key object outline color is determined by the layer color that the object is on. You'll learn about layers in [Lesson 10](#).

That object is now the key object. When selected, the key object has a thick outline, indicating that other objects will align to it.



5. Click the Align button () in the Contextual Task Bar. Then click the Horizontal Align Center button ().

Notice that the propeller moved to align to the center of the nose.



6. Choose Select > Deselect.

Distributing objects

Aside from aligning, you can also distribute objects. *Distributing* objects means you distribute the spacing equally between the centers or edges of those objects. For instance, maybe you have a series of icons in a web page design and they need to be spaced evenly. Next, you will make the spacing between shapes the same.

1. Choose View > Fit Artboard In Window to see everything.
2. Choose Select > Stripes to select those shapes again.
3. Click the Align button (⌵) in the Contextual Task Bar. Click the Horizontal Distribute Center button (⌵) in the panel that appears.



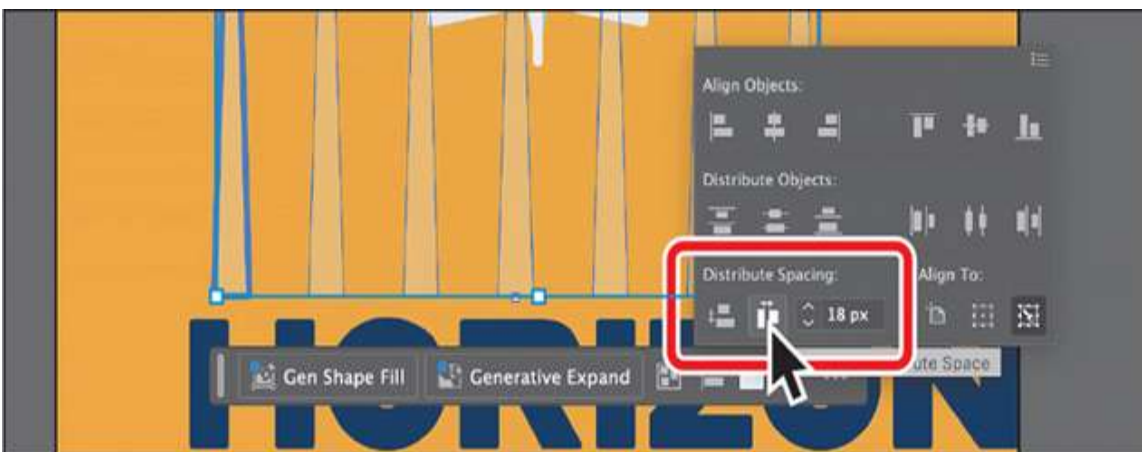
Distributing this way moves all of the selected shapes, *except for the first and last*, so that their centers are spaced an equal distance apart.

This looks fine, but you need the shapes to be a little closer. You can do that by setting the distance between using distribution.

4. With the shapes still selected, click the leftmost shape to make it the key object.
5. Click the Align button (⌂) in the Contextual Task Bar.



6. Make the Distribute Spacing value **18** pixels, and then click the Horizontal Distribute Space button (⌂).



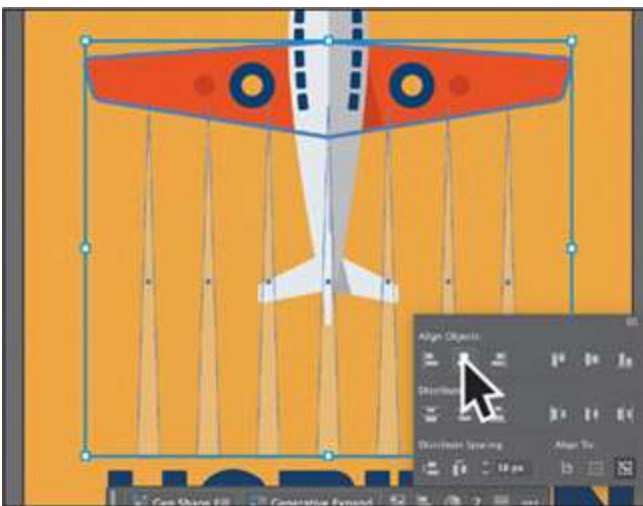
Distribute Spacing applies the same spacing between selected objects. This is a great way to set a specific distance between objects.

7. Click the Group button (⌂) in the Contextual Task Bar to group them together. You will align them to the artboard later.
8. Choose Select > Deselect, and then choose File > Save.

Practice: Align those stripes to the airplane wings!

Align the shapes to the airplane wings using the key object alignment you learned about.

- Select the group of shapes, then Shift-click the wings.
- Release the Shift key and select the wings again to make them the key object.
- Click the Align button (≡) in the Contextual Task Bar and choose an alignment!



Aligning anchor points

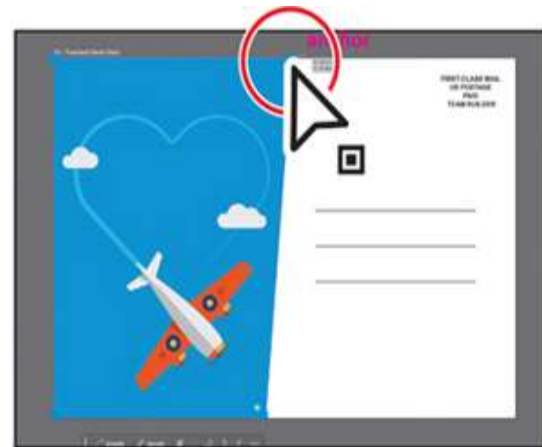
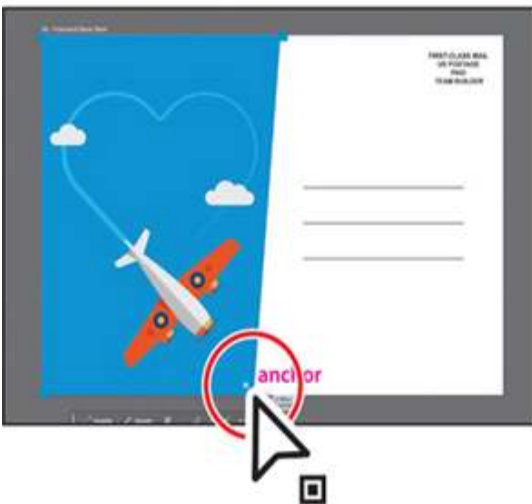
Next, you'll align two anchor points to each other using the Align options. As with setting a key object in the previous section, you can also align anchor points to a key anchor point you select.

1. With the Hand tool (🖱️) selected, drag to the left in the Document window until the postcard back is centered in the window.
2. Select the Direct Selection tool (🔍) in the toolbar, and select the blue shape in the background.


You should see anchor points on the corners. Now, you'll fix the right edge of the shape so it's vertical rather than at an angle.

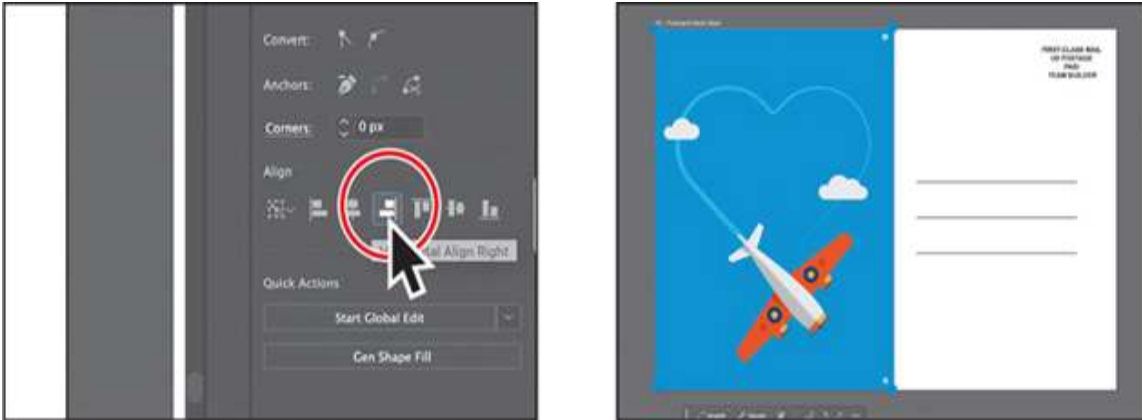


3. Click the lower-right corner point of the shape (first part of the following figure).
4. Press the Shift key, and click to select the upper-right point of the same shape to select both anchor points (second part of the following figure).



The last selected anchor point is the *key anchor point*. All other selected anchor points will align to that point.

5. Click the Horizontal Align Right button () in the Properties panel on the right.



The first anchor point selected aligns to the last-selected anchor point selected, making the right edge of the shape straight.

6. Choose Select > Deselect.

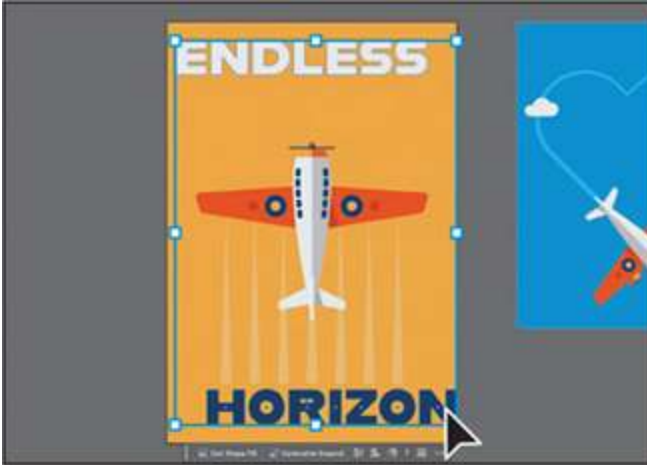
Aligning to the artboard




You can also align content to the active artboard (page) rather than to a selection or a key object. Aligning to the artboard aligns each selected object *separately* to the edges of the artboard.

Next, you'll align the selected shape to the left edge of the artboard.

1. With the Hand tool (🖐️) selected, drag to the right in the Document window until the postcard front is centered in the window.
2. Select the Selection tool (🔍) in the toolbar, select the “ENDLESS” text, then Shift-click the “HORIZON” text.

The text isn't centered. You could try to drag it to the center of the artboard, but to make sure it's exactly aligned, using alignment methods is sometimes best.




3. Click the Align button () in the Contextual Task Bar. In the Align To area, click Align To Artboard (). Any content you align will now align to the *artboard*.
4. Click the Horizontal Align Center button ().



5. Choose Select > Deselect, and then choose File > Save.

Aligning objects to a path

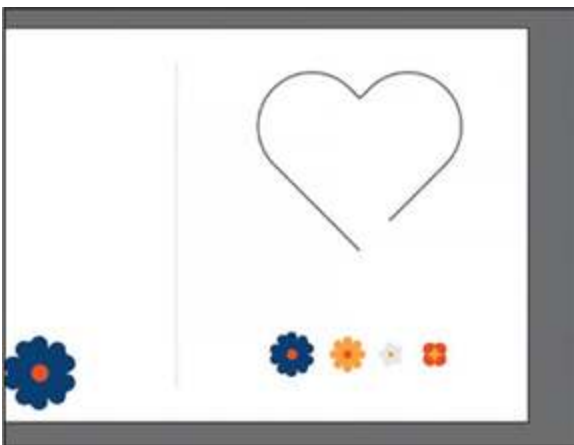
Suppose you want to add a series of shapes and have them follow a path, like you see at right. You can accomplish this with a click using the Objects On Path tool ().



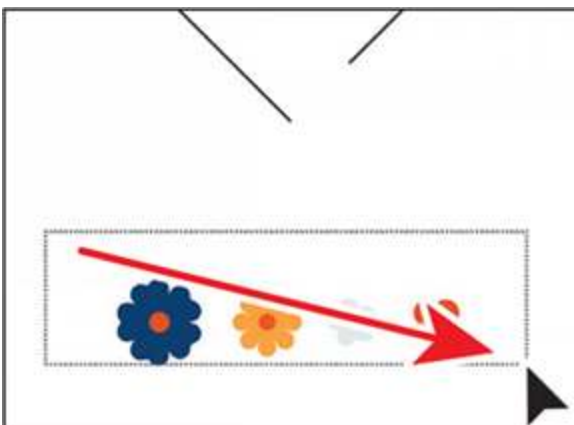
1. Choose Window > Toolbars > Basic.



The Objects On Path tool isn't available in the current toolbar, so you needed to switch to see it.

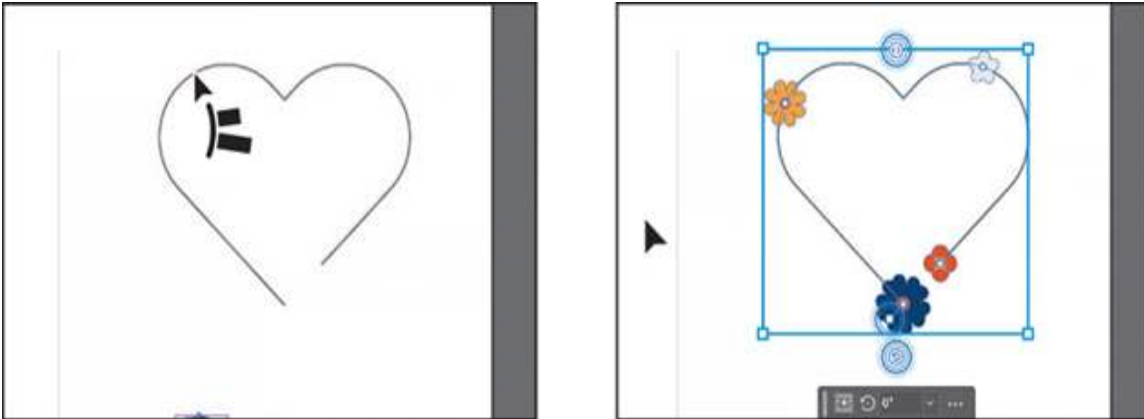
2. With the Hand tool (🖐️) selected, drag to the left in the Document window to see the pieces artboard at the far-right.



3. With the Selection tool (🔍) selected, drag across the flowers below the heart path to select them.



4. Select the Objects On Path tool () in the toolbar.
5. Move the pointer over the heart path shown in the figure. When the pointer changes to this: () , click the path directly to add the shapes to it.




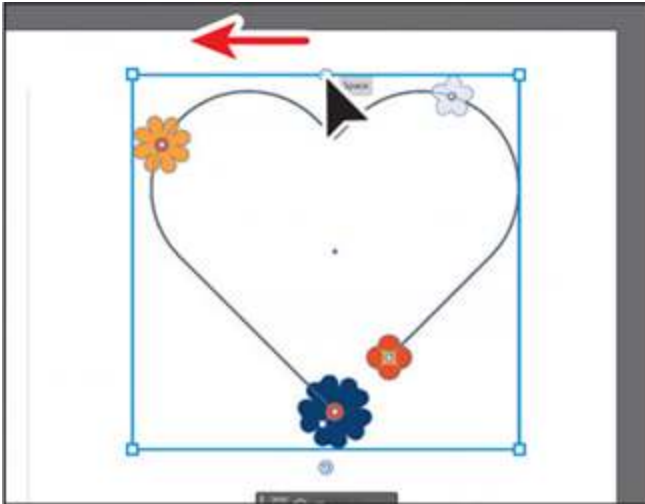
The flowers are aligned to the path and are grouped with it. Notice that the Selection tool is now selected. You'll change the flower spacing next!

6. Choose View > Zoom In to zoom in a little.

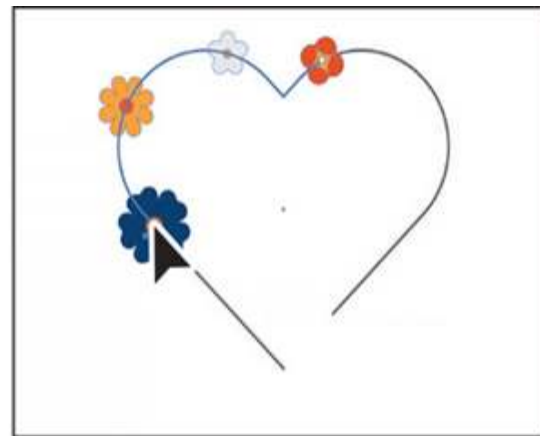
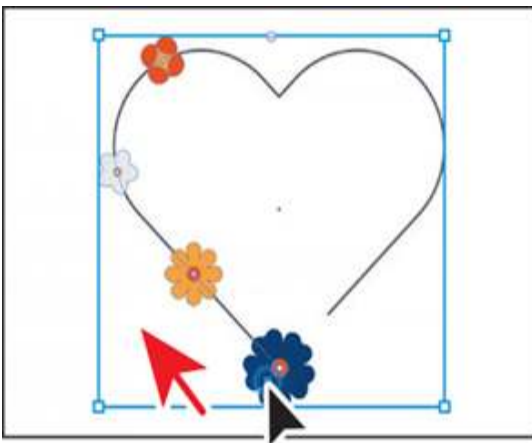
Editing the objects on the path

Now let's adjust the flowers on the path. You may want to zoom in to them.

1. Drag the Space widget () at the top of the box to move the flowers much closer together. The figure at right shows *before* dragging. See the first part of the following figure for the flower spacing.

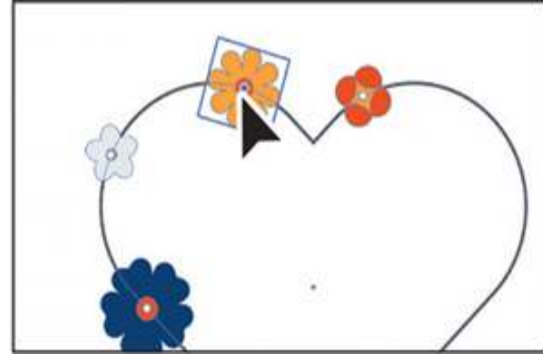
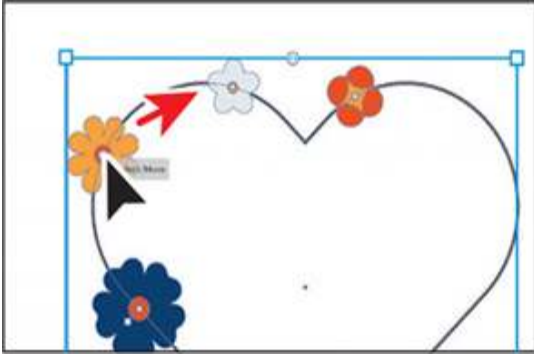


2. To reposition where the flowers start on the path again, drag the Move All widget (◊). See the figure.



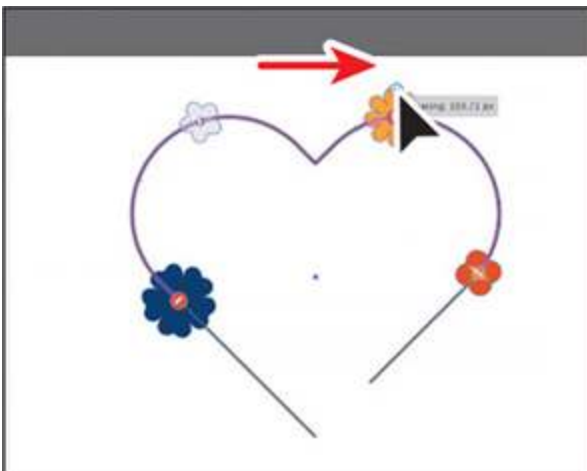
You can also change the ordering of the flowers and collective or individual size and appearance.

3. Move the pointer over the any of the flowers. Drag it from the Select/Move circle in the center (○) onto another flower to switch them.

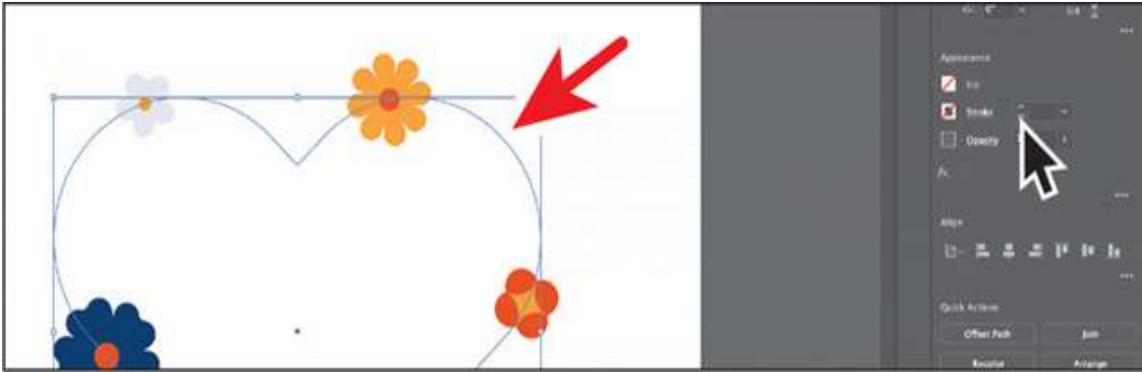


Lastly, you'll remove the stroke on the path so it doesn't show anymore.

4. Drag the Space widget (⊞) again at the top of the box to move the flowers away from each other (more spacing between). See the figure.
5. Choose Select > Deselect.
6. Select the Direct Selection tool (⬮).
7. Click the black heart-shaped path that the flowers are following to select it.



8. In the Properties panel, change Stroke Weight to 0.



9. Choose Window > Toolbars > Getting Started to get the toolbar back to the default toolbar.

Working with groups

Earlier you grouped objects so that the objects act as a single unit. With a group, you can move or transform several objects without affecting their individual attributes or positions relative to each other. It can also make selecting artwork easier.

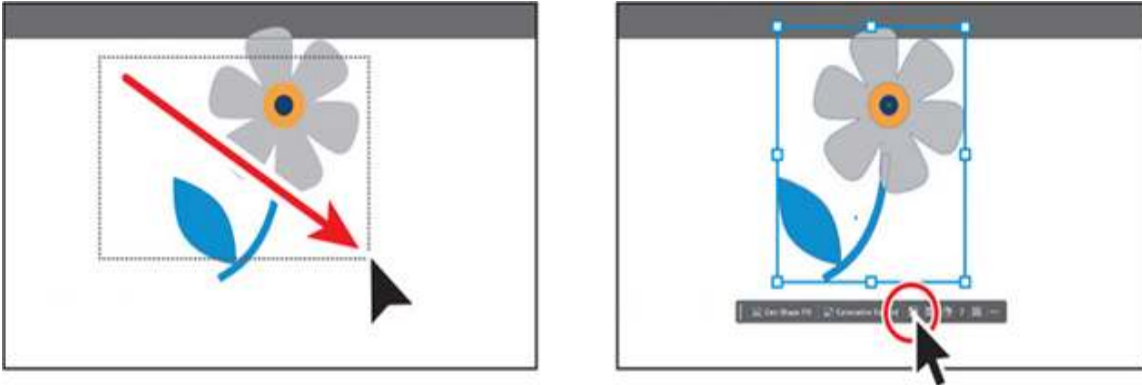
Grouping items

Next, you'll select the pieces of a flower and create a group from them.

1. Choose View > Fit Artboard In Window.
2. With the Selection tool (▀) selected, drag across the flower pieces to select them. See the figure.
3. Click the Group button (📦) in the Contextual Task Bar to group the selected artwork together.

► **Tip**

After this step is performed, the Group button in the Contextual Task Bar (and Properties panel) now shows as Ungroup. Clicking the Ungroup button will remove the objects from a group.



4. Choose Select > Deselect.
5. With the Selection tool (►) selected, click one of flower shapes in the new group. Because they are grouped together, all are now selected.

Editing a group in Isolation mode

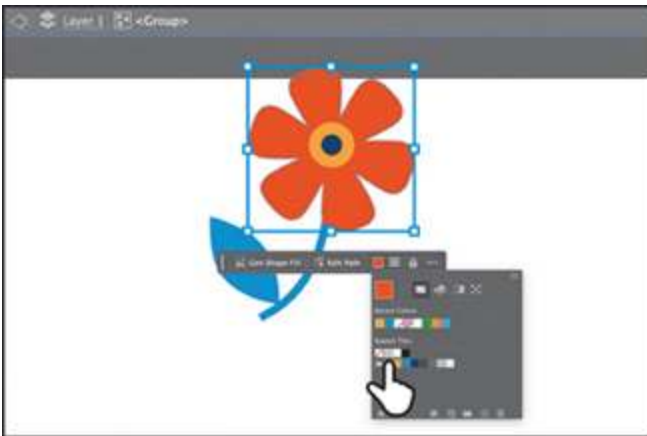
Isolation mode lets you isolate groups to easily select and edit specific objects or parts of objects without having to ungroup the objects. In Isolation mode, all objects outside the isolated group are locked and dimmed so that they aren't affected by your edits. Next, you will edit a group using Isolation mode.

1. Double-click any part of the flower group to enter Isolation mode.

Notice that the rest of the content in the document appears dimmed (you can't select it). At the top of the Document window, a gray bar appears with the words "Layer 1" and "<Group>." That bar indicates that you have isolated a group of objects on Layer 1, and they are now temporarily ungrouped.



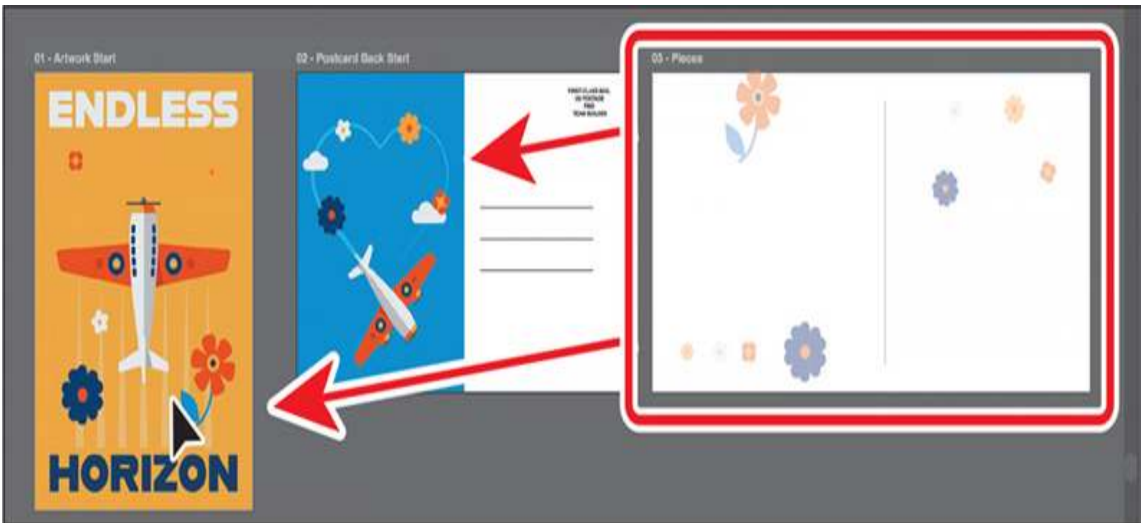
2. Click to select the gray flower shape. Change the Fill color in the Contextual Task Bar to an orange.



3. Double-click outside the shapes within the group to exit Isolation mode.

You can also click the gray arrow in the upper-left corner of the Document window twice or press the Escape key when in Isolation mode. The flower is once again grouped, and you can also now select other objects.

4. Choose View > Fit All In Window.
5. Choose Select > Deselect.
6. From the pieces artboard on the right, drag the flower you just edited and the individual flowers onto the postcard front.
7. Drag the flowers on the heart-shaped path from the pieces artboard to the postcard back—lining it up with the heart you see.



Exploring object arrangement

Illustrator puts objects one on top of another in order as you create them, beginning with the first object created. This ordering of objects, called *stacking order*, determines how they display when they overlap. You can change the stacking order of objects in your artwork at any time, using either the Layers panel or the Arrange commands.



Arranging objects

Next, you'll work with the Arrange commands to finish the postcard artwork.

1. Choose Object > Show All to show the blue rectangle with clouds you hid early on.

Right now, the blue rectangle with clouds is on top and needs to be behind the airplane and other artwork. A command called Send To

Back would put it behind everything, including the orange rectangle. So it would be hidden under it. You will also select the orange rectangle and send both behind everything else.



2. Choose Object > Unlock All so you can select the orange rectangle.
3. With the orange rectangle selected, Shift-click the blue rectangle with clouds to select it as well.
4. Choose View > Fit Artboard In Window.



5. Choose Object > Arrange > Send To Back to send the artwork behind everything else on the artboard.



6. Choose View > Fit All In Window to see both sides of the postcard in the Document window.
7. Choose Select > Deselect.
8. Choose File > Save, and then File > Close.






Review questions

- 1 How can you select an object that has no fill?
- 2 Explain how you can select an item in a group without ungrouping.
- 3 Of the two selection tools (Selection [▼] and Direct Selection [▶]), which allows you to edit the individual anchor points of an object?
- 4 What should you do after creating a selection that you are going to use repeatedly?

- 5 To align objects to the artboard, what do you first need to change in the Properties panel or Contextual Task Bar before you choose an alignment option?
- 6 Sometimes you are unable to select an object because it is underneath another object. Explain a way to get around this issue.

Review answers




- 1 You can select an object that has no fill by clicking the stroke or by dragging a marquee across any part of the object.
- 2 You can double-click the group with the Selection tool selected to enter Isolation mode, edit the shapes as needed, and then exit Isolation mode by pressing the Escape key or by double-clicking outside the group. Read [Lesson 10](#) to see how you can use layers to make complex selections. Also, using the Group Selection tool () , you can click once to select an individual item within a group (not discussed in the lesson). Click again to add the next grouped items to the selection.
- 3 Using the Direct Selection tool () , you can select one or more individual anchor points to change the shape of an object.
- 4 For any selection that you anticipate using again, choose Select > Save Selection. Name the selection so that you can reselect it at any time from the Select menu.
- 5 To align objects to an artboard, first, choose Align To Artboard from the Align options.
- 6 If your access to an object is blocked, you can select the blocking object, then choose Object > Hide > Selection to hide the blocking object. The object is not deleted. It is just hidden in the same position until you choose Object > Show All.
BONUS! You can also use the Selection tool () to select an object that's behind other objects by pressing the Command

(macOS) or Ctrl (Windows) key and then clicking the overlapping objects until the object you want to select is selected.

3 Making Artwork with Shapes

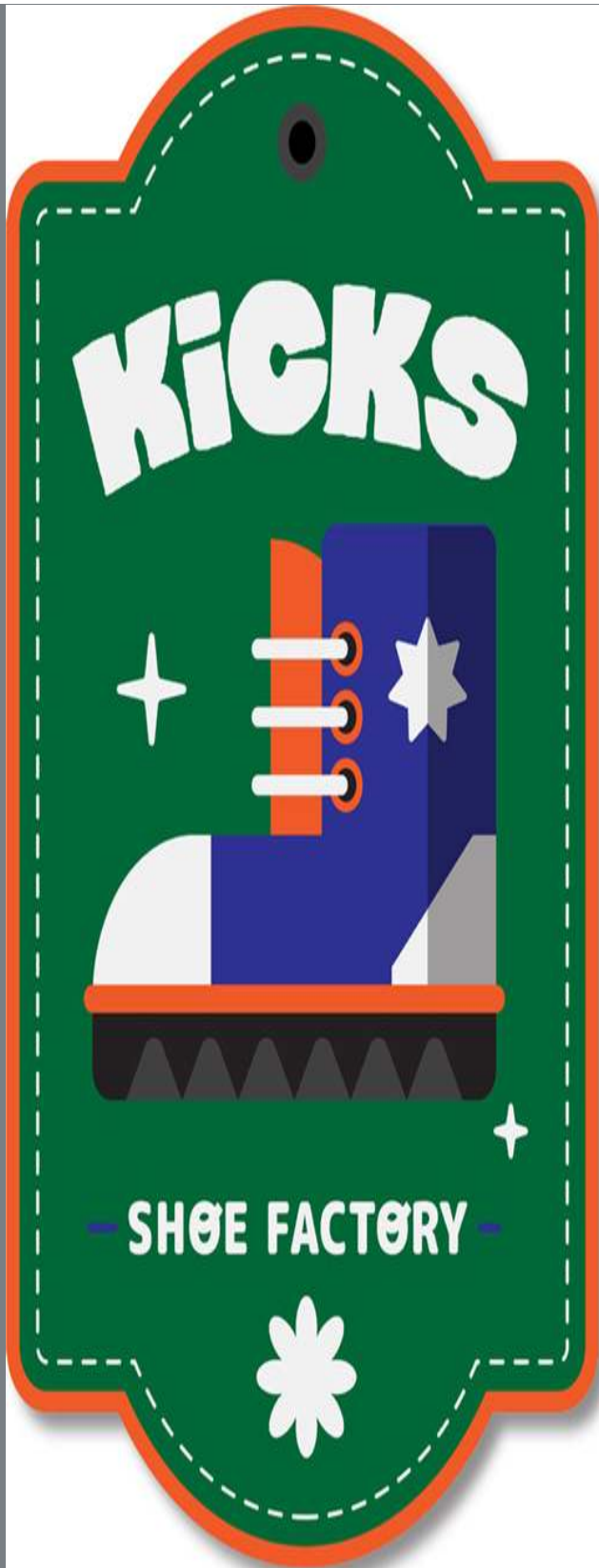
Lesson overview


In this lesson, you'll learn how to do the following:

- Create a new document.
- Change bleed size and document settings. 
- Use tools and commands to create a variety of shapes.
- Understand Live Shapes.
- Create rounded corners.
- Discover other ways to round corners. 
- Work with drawing modes.
- Use Image Trace to create shapes.
- Simplify paths.
- Create with Generative AI.
- Explore Generative Expand for bleeds .



This lesson will take about 75 minutes to complete. To get the lesson files used in this lesson refer to the instructions in [“Accessing the lesson files and Web Edition”](#) in the [“Getting Started”](#) section at the beginning of this book.





Creating shapes and editing them are essential to creating Illustrator artwork. In this lesson, you'll create a new document and then use the shape tools to create and edit a series of shapes for a clothing badge.

Starting the lesson

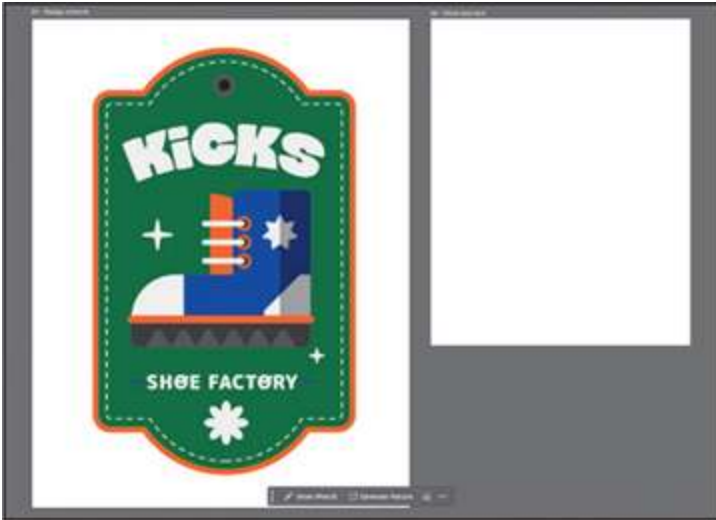
In this lesson, you'll explore various ways of creating artwork by using the shape tools and other methods to create a clothing badge for a shoe company.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. Choose File > Open. Open L3_end.ai in the Lessons > Lesson03 folder you copied to your computer.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

This file contains the finished project that you'll create in this lesson.

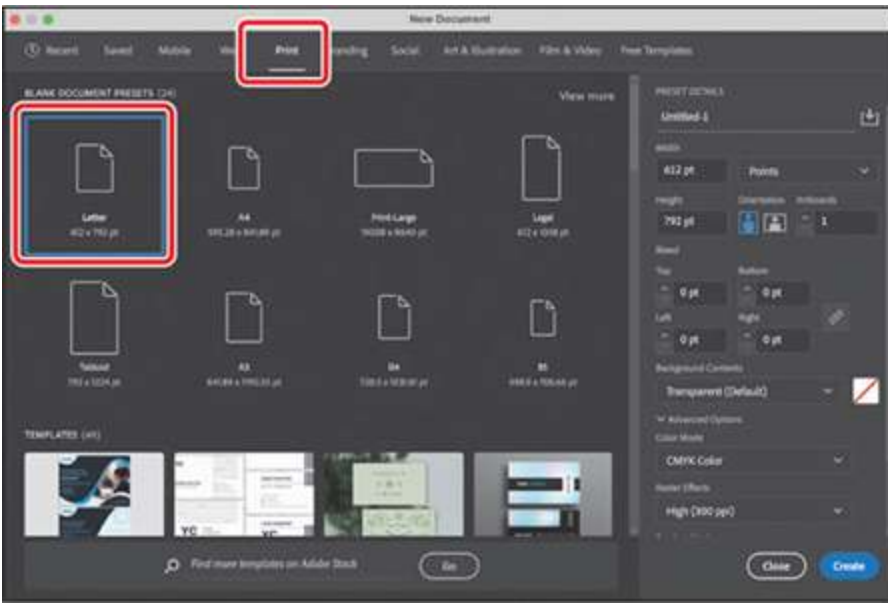


4. Choose View > Fit All In Window; leave the file open for reference, or choose File > Close.

Creating a new document

To start, you'll create a new document for the project.

1. Choose File > New.
2. In the New Document dialog box, change the following options:
 - Click the Print category at the top of the dialog box.
 - Click the Letter blank document preset, if it isn't already selected.




You can set up a document for different kinds of output, such as print, web, video, and more, by choosing a category.

For example, if you are designing a flyer or poster, you can select the Print category and select a document preset (size). The document will be set with the units in points (most likely), the color mode as CMYK, and the raster effects to High (300 ppi)—all optimal settings for a print document.

3. On the right side of the dialog box, in the Preset Details area, change the following:

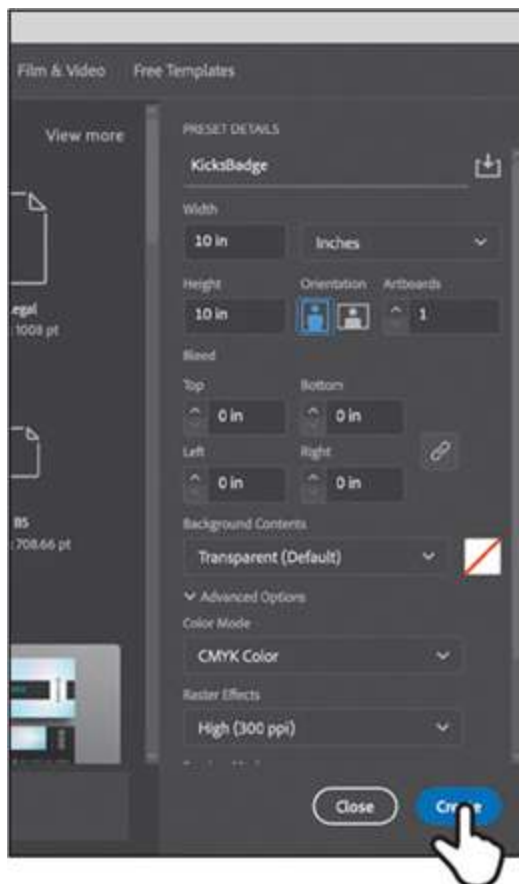
- Enter a name for the document under Preset Details: **KicksBadge**.

The name will become the name of the Illustrator file when you save it later.

- Units: Choose Inches from the units menu to the right of the Width field.
- Width: Select the Width value, and type **10**.
- Height: Select the Height value, and type **10**.
- Orientation: Portrait (.
- Artboards: 1 (the default setting).

● Note

You can set the units to whatever makes sense to you. Know that inches are used throughout the lesson. There is a note in the “[Creating rectangles](#)” section that will help when it comes to entering the value I give you in inches.



At the bottom of the Preset Details section, you will also see Advanced Options and a More Settings button (you may need to scroll to see it). They contain more settings for document creation that you can explore on your own.

4. Click Create to create a new document.

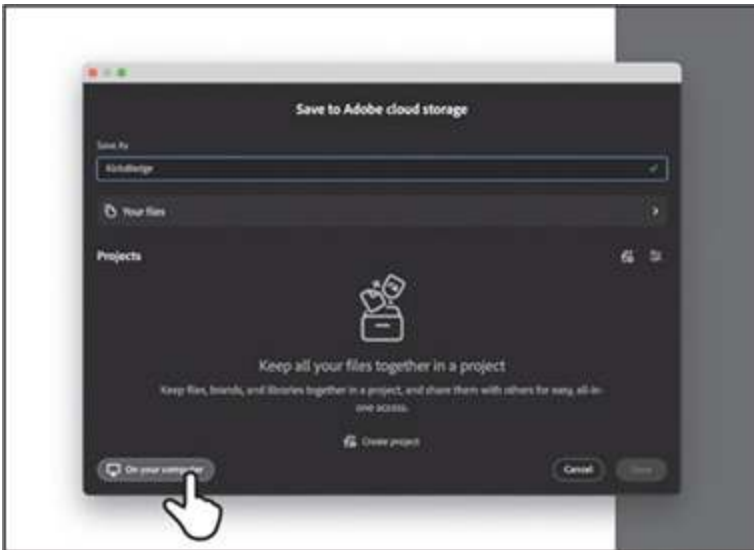
Saving your document

With the document open, now you'll save it locally.

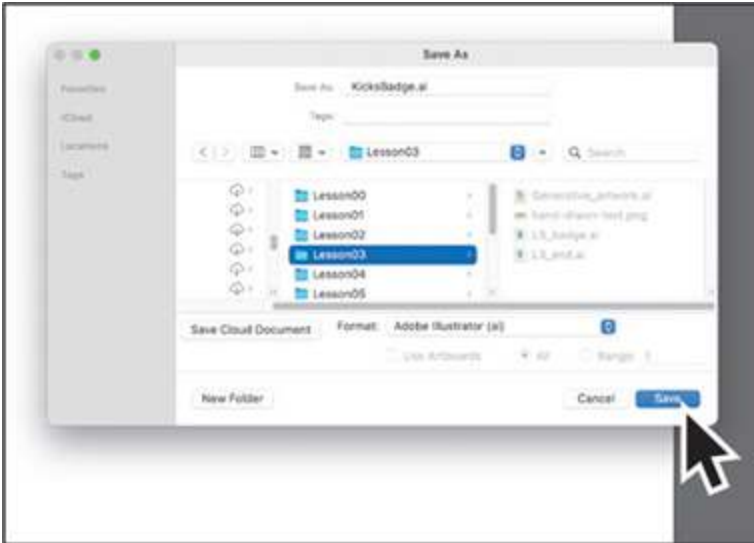
1. Choose File > Save.

2. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer to save the document locally.

To learn more about cloud documents, see the sidebar “[What is a cloud document?](#)” after this section.



3. In the Save As dialog box, set the following options:
 - Filename: **KicksBadge.ai**
 - Saved in the Lessons > Lesson03 folder.
 - Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows).



4. Click Save.

Adobe Illustrator (.ai) is called a *native format* and is your working file. That means it preserves all Illustrator data so you can edit everything later.

5. In the Illustrator Options dialog box that appears, leave the options at their default settings, and click OK.

The Illustrator Options dialog box is full of options for saving the Illustrator document, from specifying a version for saving to embedding any files that are linked to the document. You usually won't have to change anything in there.

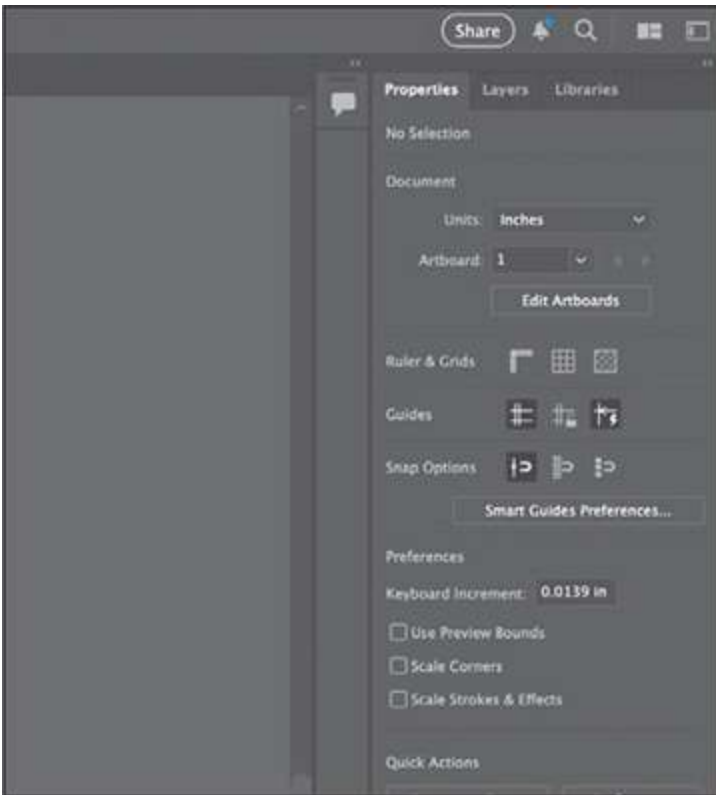


6. Choose Window > Workspace and make sure Getting Started is selected, and then choose Window > Workspace > Reset Getting Started to reset the workspace.

7. Look in the Properties panel on the right.

With nothing selected in the document, you'll see settings for the document like the units, navigating and editing artboards, showing and hiding useful features like rulers and guides, and much more.

If you were to click the Document Setup button, you would be able to set options like the document bleed and more.



8. Choose View > Fit Artboard In Window to ensure that you can see the entire artboard (page).



Change bleed size and document settings

To learn about document bleeds, check out the video *Edit document settings*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

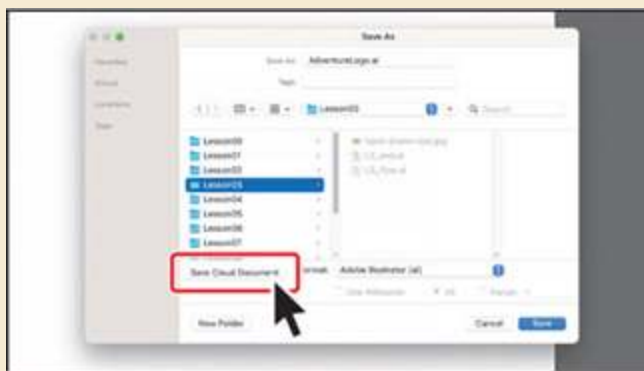
What is a cloud document?

Aside from saving your Illustrator documents locally, you can also save them as cloud documents. A *cloud document* is an Illustrator document that is stored in Adobe Creative Cloud and can be accessed *anywhere* you sign in to Illustrator.

Here's how to save as a cloud document and access cloud documents.

- After you create a new document or open a document from your hard drive, you save the file as a cloud document by choosing File > Save As.

The first time you do this, you *may* see the Save As dialog box. If you do, and you want to save as a **cloud** document, you can click the Save Cloud Document button.

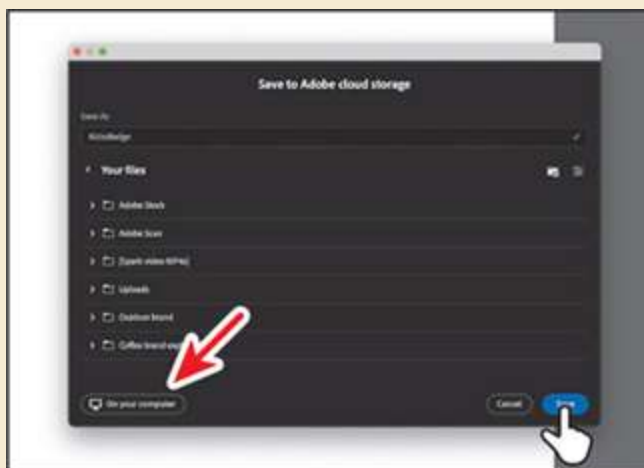


- In the Save To Adobe Cloud Storage dialog box that opens, you have options to create a project or save as a cloud document. To save as a cloud document, you would click Your Files and then click the Save button. See the figure.



When working on cloud documents, changes are automatically saved, so the document is always up to date.

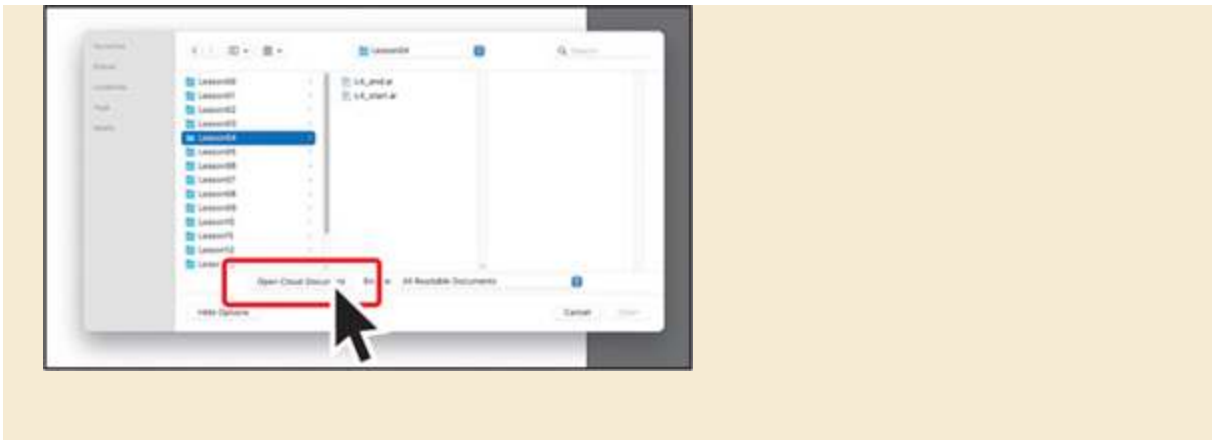
Tip: If you change your mind and want to save the file locally when in the Save To Adobe Cloud Storage dialog box, you can click On Your Computer in that dialog box (an arrow is pointing to it in the figure).



Want to open a cloud document?

1. Choose File > Open.
2. In the Open dialog box, click the Open Cloud Document button.

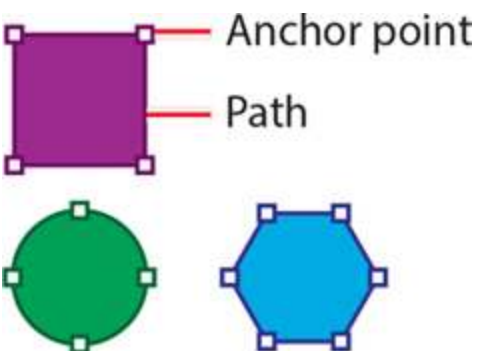
You can then open a cloud document from the dialog box that appears.



Creating with basic shapes

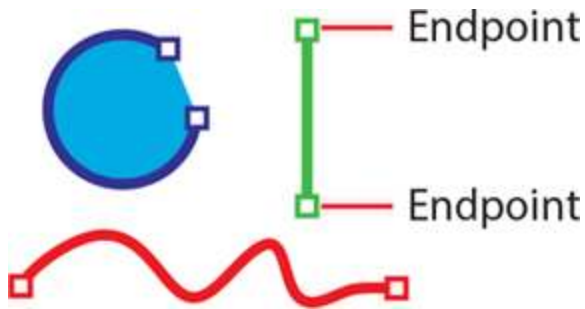
In the first part of this lesson, you'll create all kinds of shapes, including rectangles, ellipses, and polygons.

Shapes you create are made of *anchor points*, with paths connecting the anchor points.



Examples of closed paths

For instance, a basic square is made of four anchor points on the corners, with paths connecting those anchor points (see the upper figure at right). A shape is referred to as a *closed path* because the ends of the path are connected.

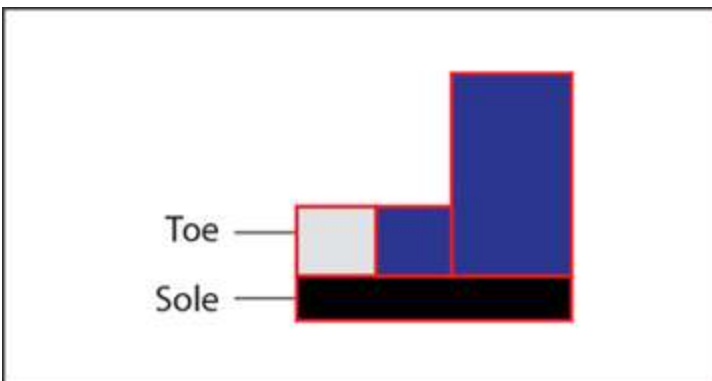



Examples of open paths

A path like a line is an *open path*. An open path has distinct anchor points on each end, called *endpoints* (see the figure at right). You can fill both open and closed paths with color, gradients, or patterns.

Creating rectangles

The main artwork for the clothing badge will be a shoe. First you'll create the main shape of the shoe with several rectangles. The rectangles you'll make in this section are highlighted in red in the figure.



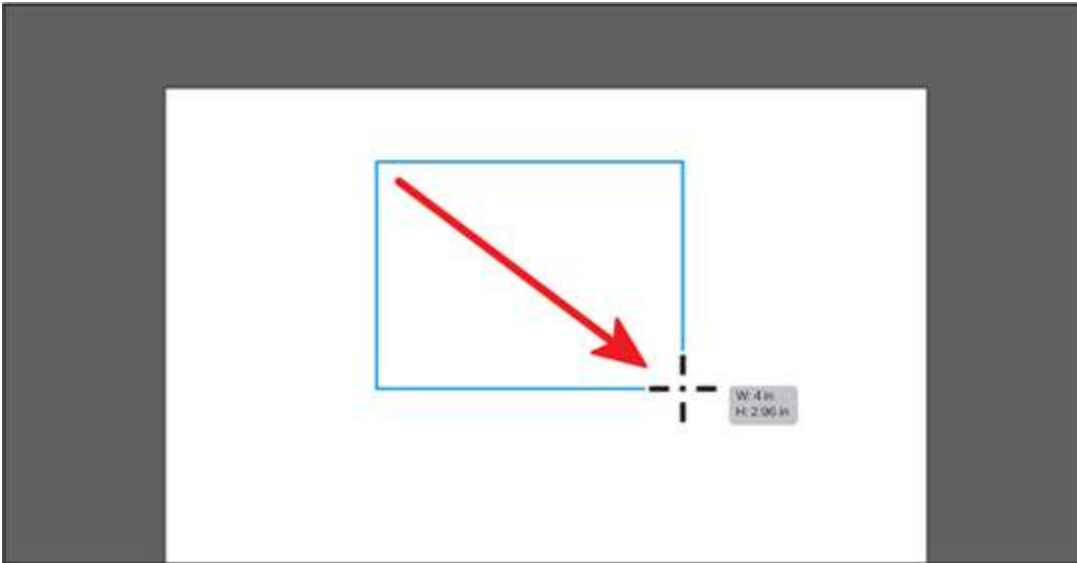
1. Select the Rectangle tool () in the toolbar.

To start, you'll draw a rectangle. As you draw it, notice the width and height in the little gray tool tip next to the pointer.

2. On the artboard, drag to create a rectangle of any size and shape, and then release the drag.

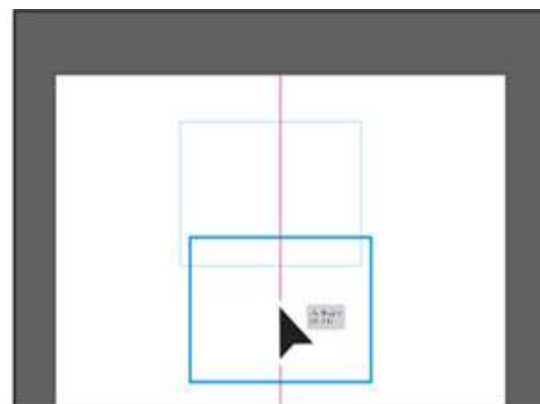
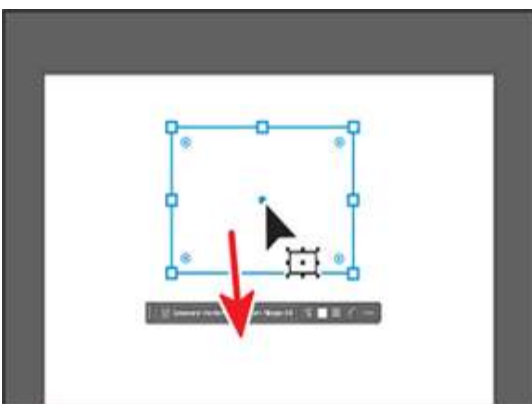
► **Tip**

Don't see the tool tip? Choose View > Smart Guides. A checkmark will appear next to Smart Guides in the menu if they are on.



The gray tool tip next to the pointer is called the *measurement label*. That label is a part of Smart Guides.

3. Move the pointer over the blue dot in the center of the rectangle—called the *center point widget*. When the pointer changes (🖱️), drag the shape into the middle of the artboard.

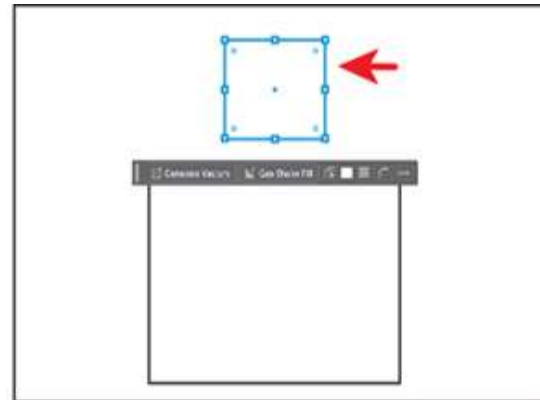
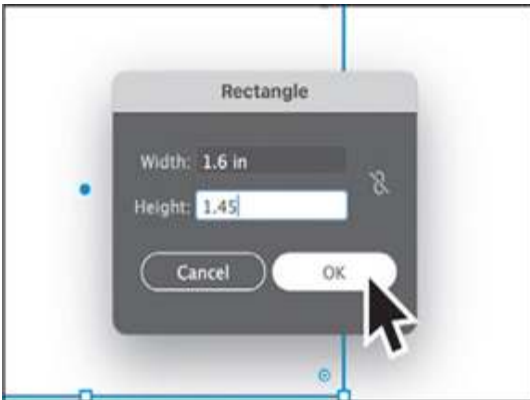


4. With the Rectangle tool (▭) selected, click above the first rectangle you made, to open the Rectangle dialog box.

5. In the dialog box, change the Width to **1.6** inches and the Height to **1.45** inches. Click OK to create a new rectangle where you clicked.

● **Note**

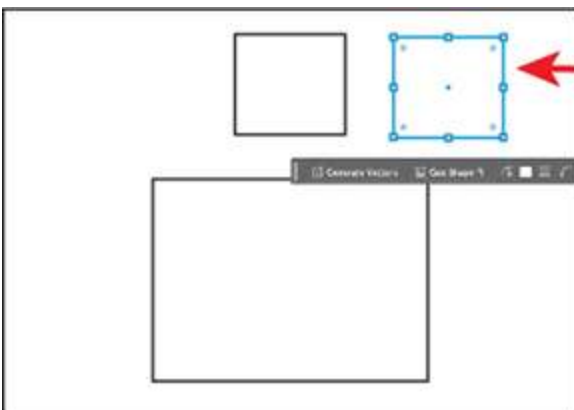
If your document has different units set, say points, you can type **1.6 in** (include the unit) and it will be converted to points!



Let's make one more rectangle the same way.


6. Click next to the rectangle you just made to open the Rectangle dialog box.
7. In the dialog box, ensure that Width is **1.6** inches and Height is **1.45** inches. Click OK to create a new rectangle of the same size, where you clicked.

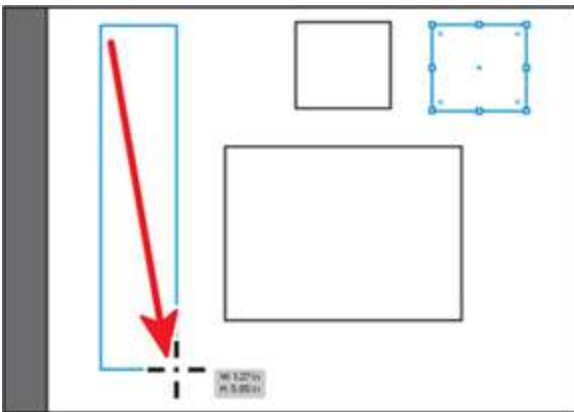
You now have three rectangles. Creating a rectangle by clicking can be useful when you need to make shapes of a specific size.



Practice: Make another rectangle!


The shoe needs one more rectangle. You'll make the sole (bottom) of the shoe for practice!

1. With the Rectangle tool () selected, to the left of the other rectangles, draw a longer vertical rectangle. Don't worry about matching the figure exactly—you'll edit it soon.
2. Choose Select > Deselect.
3. Choose File > Save to save the file.



Editing rectangles

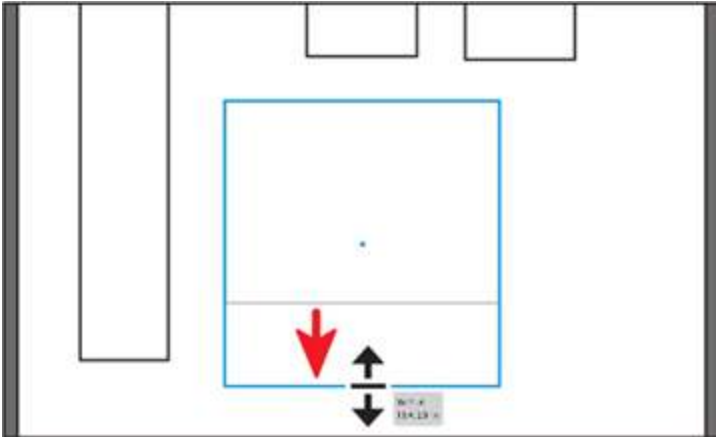
With four rectangles created, you'll switch to the Selection tool and make some changes to them so they look more like a shoe and are scaled relative to each other.


1. Select the Selection tool () in the toolbar.
2. Click anywhere in the *first* rectangle you made, to select it.

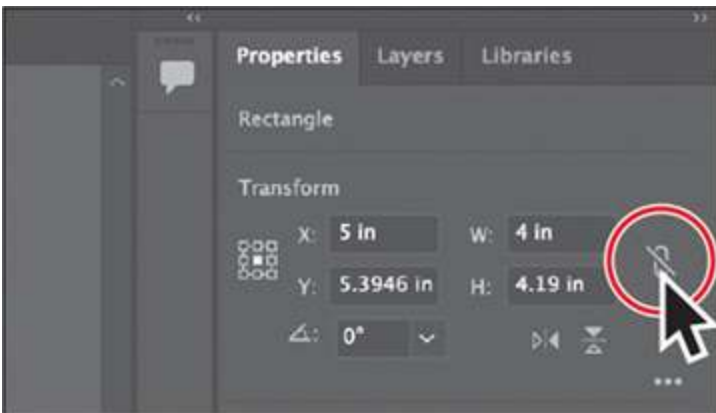
In [Lesson 2](#) you learned about the bounding box and its points. Now you'll resize the rectangle using them!

3. Drag the bottom, middle point of the rectangle until you see a height of approximately 4.2 inches in the gray tool tip next to the pointer and release.

Because your rectangle might have been bigger or smaller, I didn't tell you which way to drag (up or down). You can resize shapes with more precision in the Properties panel.

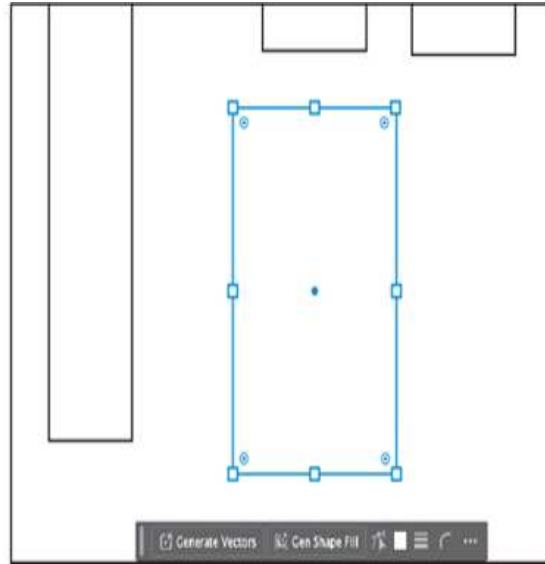
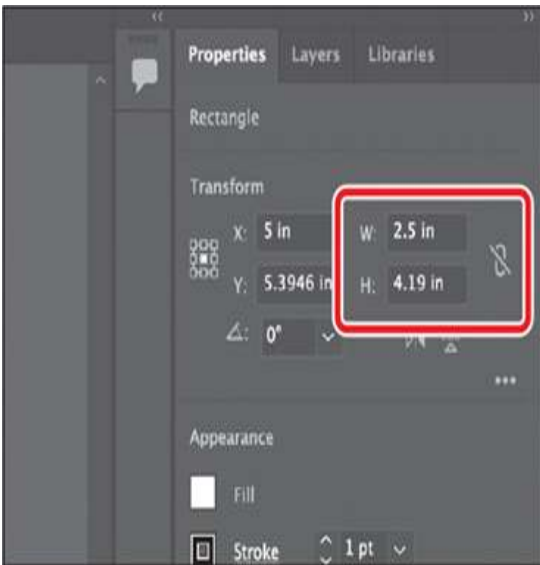


4. In the Transform section of the Properties panel on the right, make sure Maintain Width And Height Proportions to the right of Width (W:) and Height (H:) is *not* selected (it looks like this: ).



Setting Maintain Width And Height Proportions (turning it on) is useful when you change the height or the width and want the other value to change proportionally.

5. Select the Width (W:) value, and type **2.5 in**. Press Return (macOS) or Enter (Windows) to accept the change.



Next, you'll resize and then rotate the vertical rectangle (the sole) to be horizontal.

6. Click the vertical rectangle to select it.

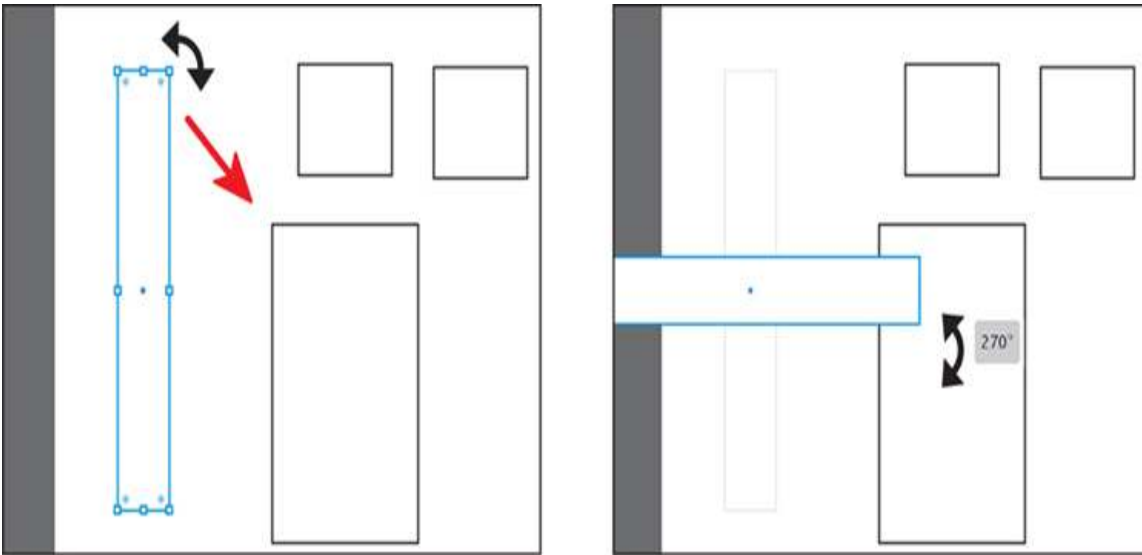
With the Selection tool, you can select a shape by clicking within its bounds, as long as it's filled with a color, pattern, or gradient.

7. Practice by changing the Width in the Properties panel to **0.9 in** and the Height to **5.8 in**.

8. Move the pointer just off a corner of the rectangle. When rotate arrows (↻) show, drag clockwise to rotate the shape. As you drag, press the Shift key to constrain the rotation to increments of 45 degrees. When the rectangle is horizontal, release the drag and then the key.

► **Tip**

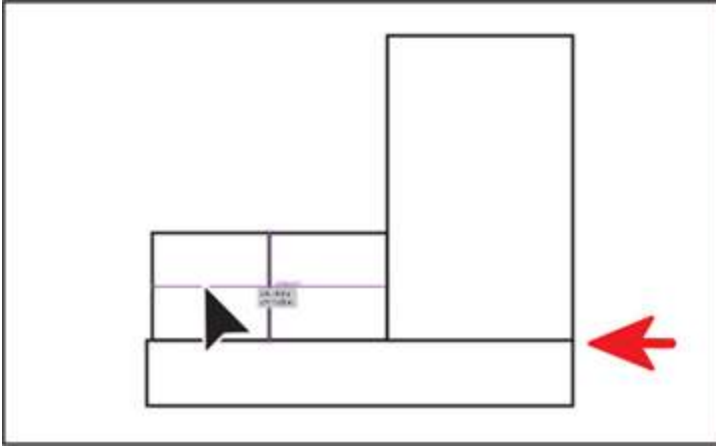
Look in the Properties panel and you'll also see a Rotate value you can edit to something specific. There are multiple ways to do almost everything in Illustrator.



Your four rectangles don't look like a shoe yet—time to fix that by dragging them into place!

9. Drag the rectangles together so they look like the figure. *Make sure the sole and the biggest rectangle are aligned on their right edges.* An arrow is pointing to where I mean.

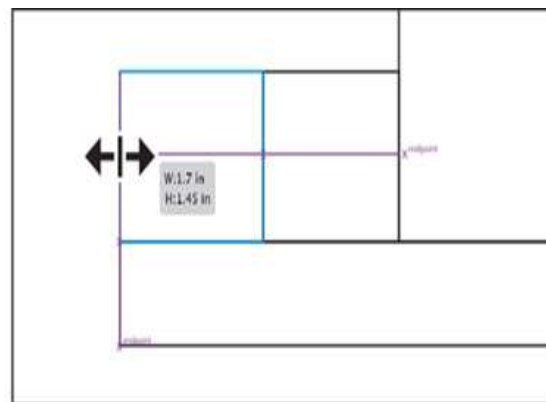
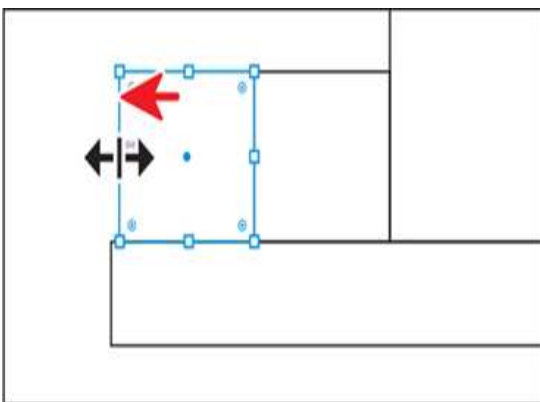
As you drag shapes close to each other, notice that they snap and align to each other. This is because of the Smart Guides. Sometimes this can be annoying, but now it's helpful!



10. Click the toe rectangle to select it (see the figure). To make sure the sole rectangle lines up with the toe rectangle, drag the point on the left edge so it aligns with the left edge of the sole rectangle.

► Tip

Sometimes when things are really close to aligned already, objects won't snap to each other. Try dragging to make the toe rectangle too wide or narrow, release, then drag it to snap to the sole rectangle.



Great job! You now have the makings of a proper shoe.

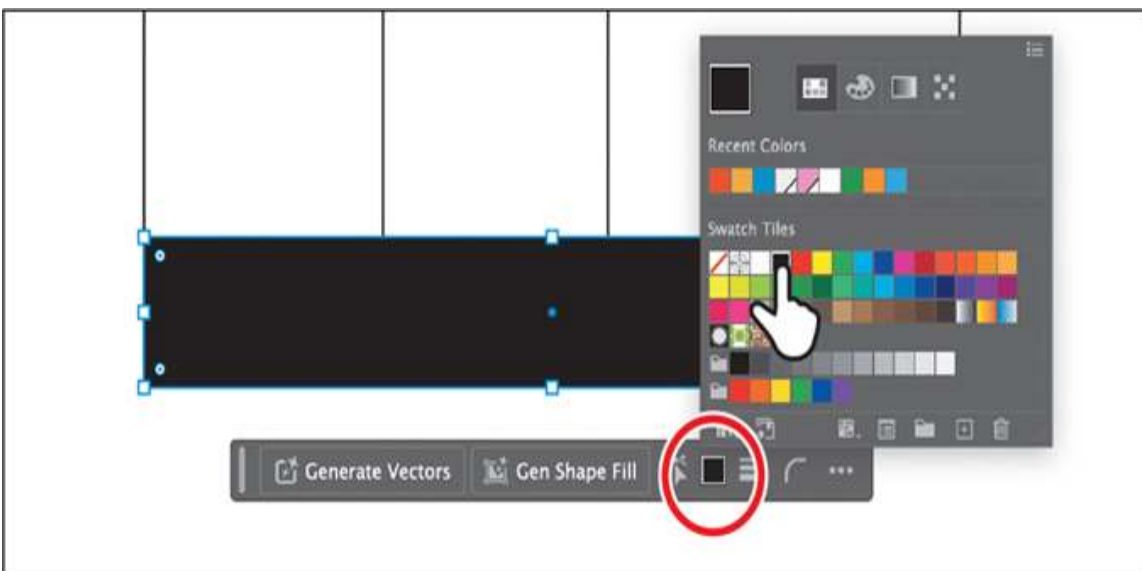
Changing the color of the shapes

By default, shapes are filled with white and have a black stroke (border). Next, you'll change the color of the rectangles to add some personality to the shoe.

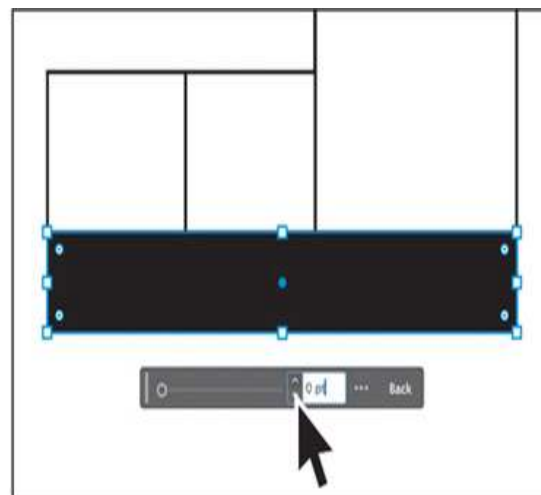
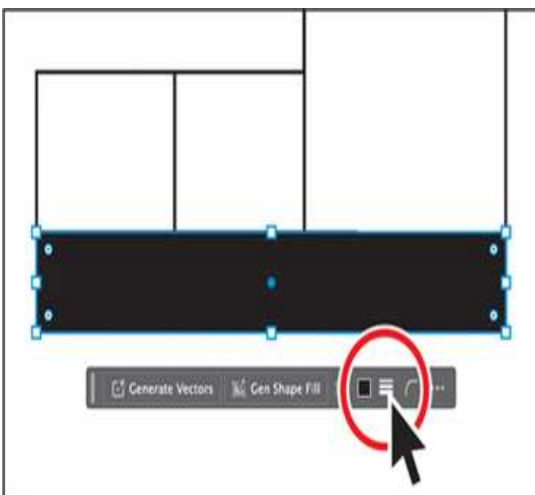
1. With the Selection tool (🔍), select the sole rectangle, then click the Fill color box (◻) in the Contextual Task Bar.
2. In the panel that opens, make sure that Swatches (🎨) is selected. Select black to fill the shape.

● **Note**

The Recent Colors you see may not match what you see in the figure. That's okay!

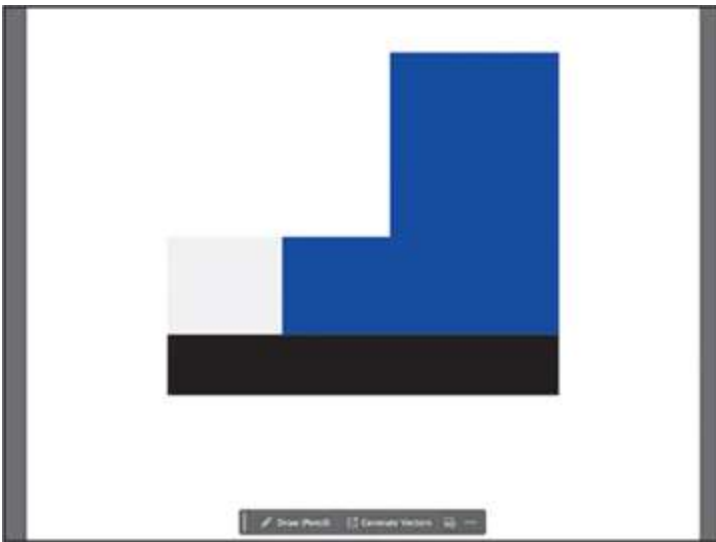


3. Click the Stroke option (≡) in the Contextual Task Bar, and change the Stroke Weight to 0 (zero).



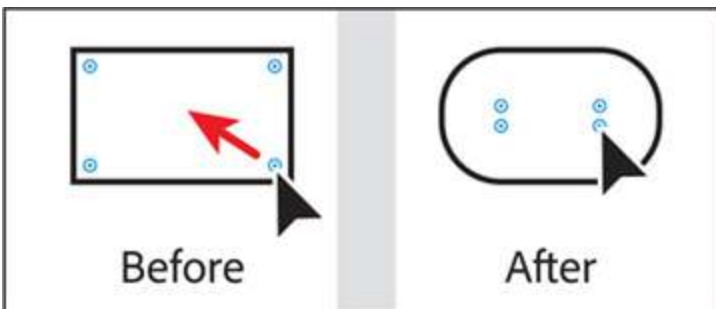
Practice: Change the color of the other rectangles

1. For practice, follow the previous steps to:
 - Change the fill color of the toe rectangle to a light gray, and the remaining two rectangles to a blue.
 - Set the Stroke Weight to **0** (zero) for the three rectangles.
2. Choose Select > Deselect.



Rounding rectangle corners by dragging

The rectangles you created would look better if the corners were a little rounded. Shoes don't have sharp corners, after all. Luckily, you can round the corners of a lot of different kinds of shapes.



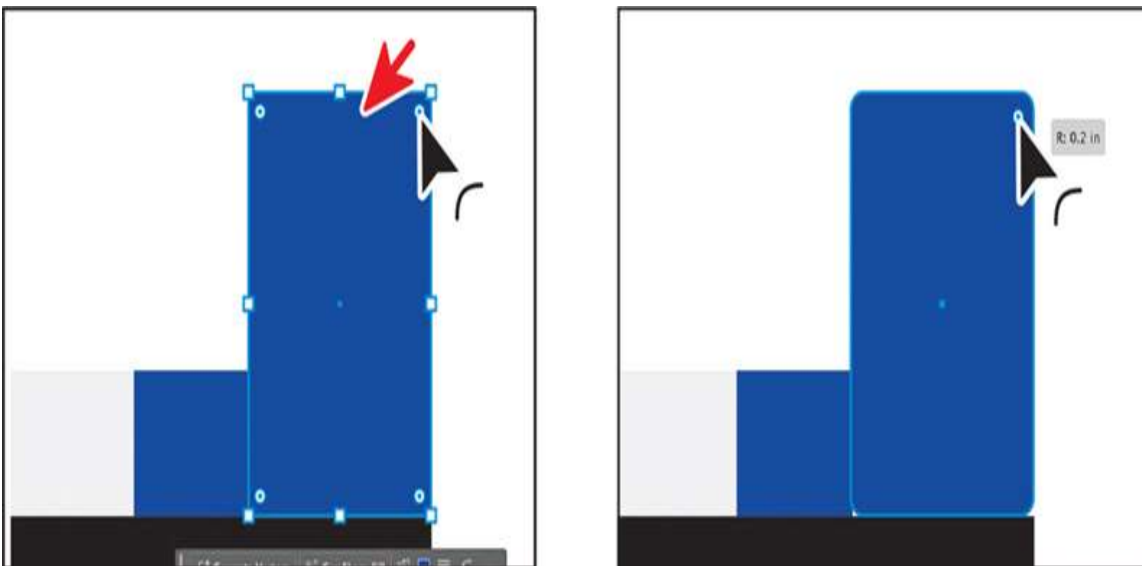
1. Select the larger blue rectangle.

You need to see the Corner Radius widgets (⦿) in each corner of the rectangle. If you are zoomed out far enough, those widgets are hidden on the shape. If you don't see them, zoom in until you do (View > Zoom In).

● **Note**

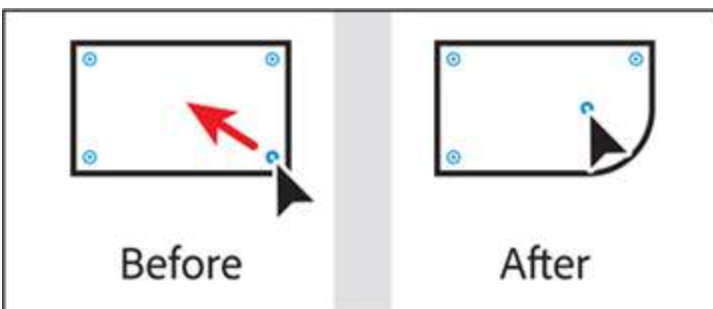
Some people also refer to the Corner Radius widgets as Live Corner widgets or simply Corner widgets.

2. Drag any of the Corner Radius widgets (⦿) in the rectangle toward the center to round all of the corners a little.



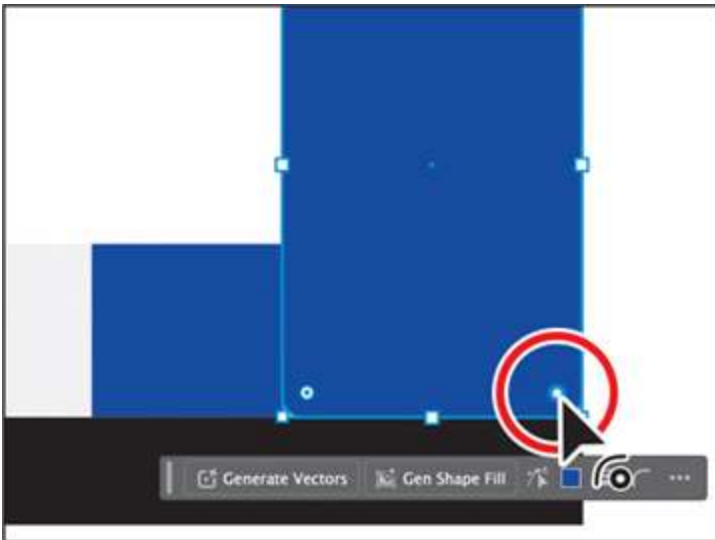
Rounding individual corners

You can also round individual corners using the Selection tool. Next, you'll explore rounding the individual corners of a few of the rectangles.



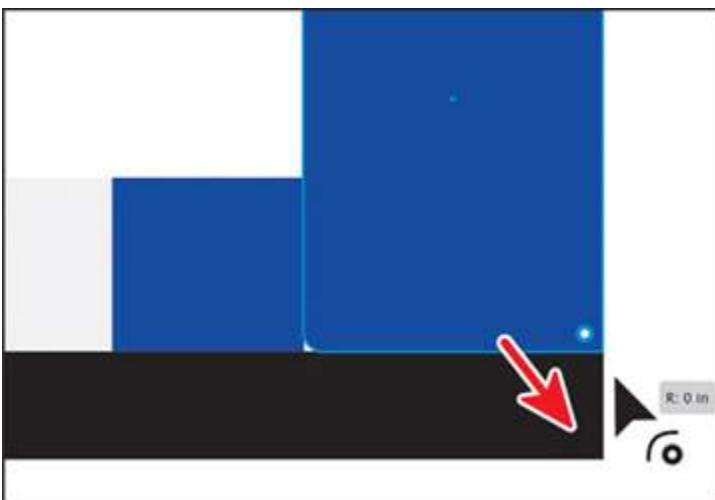
1. With the rectangle still selected, click the Corner Radius widget (⦿) in the lower-right corner to select it, and then release.

If you move the pointer away, you will see that the widget has changed in appearance, from this (⦿) to this (◉). If you drag that corner widget now, it will be the only one that changes.

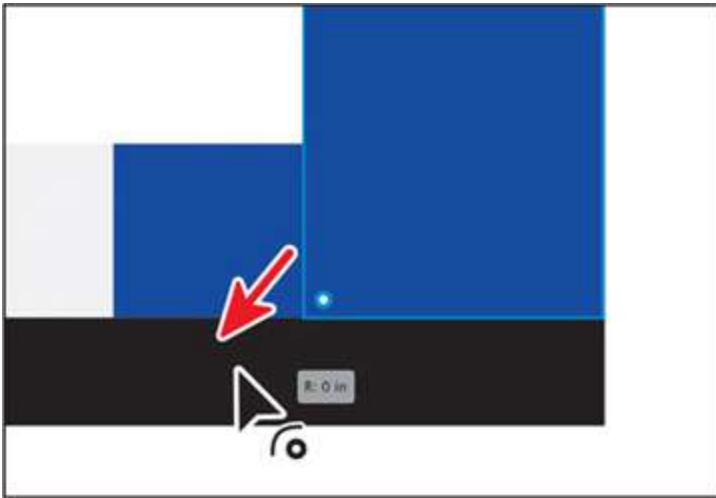


2. Now, drag the selected corner widget away from the center of the shape to completely remove the rounding.

Be careful! If you don't click, release, and then drag, you won't select just the one corner widget. Instead, you'll change them all!



3. Follow the previous steps to remove the rounding from the lower-left corner of the rectangle as well.



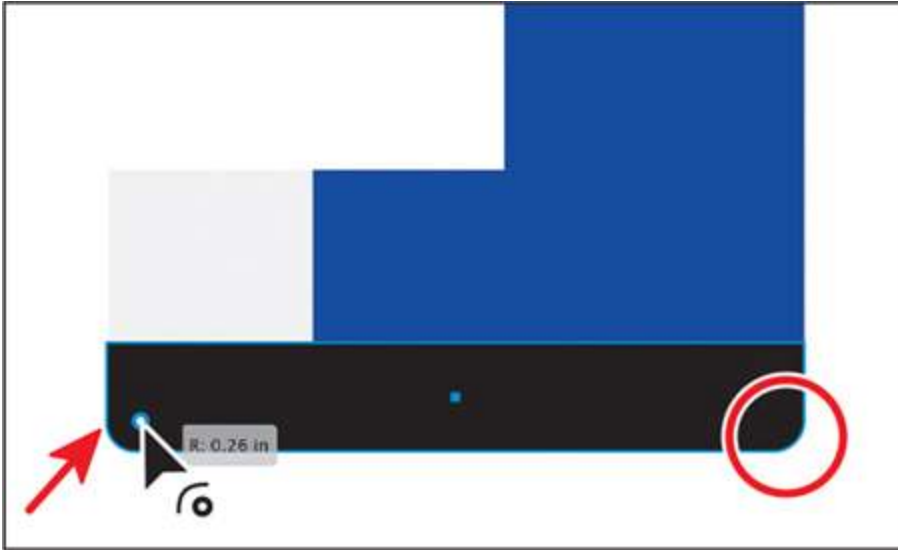
Practice: Round more corners!

For practice, follow the previous steps for the shoe toe rectangle (light gray) and the sole of the shoe (black). You'll round individual corners on each.

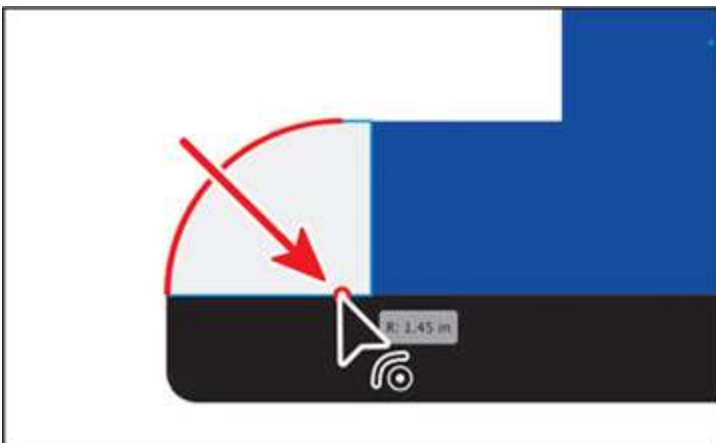
1. Select the black rectangle that is the sole of the shoe. Round the lower-right and lower-left corners a little. As a guide, you can round to roughly 0.26 inches.

► **Tip**

At this point you might be asking, “Can I round two corners at once?”
Yes! If you were to select one Corner Radius widget, then Shift-click to select another as well, you could drag either to round both!



2. Select the rectangle that is the toe of the shoe. Round the upper-left corner as much as you can. A red arc should appear on the shape, indicating you've reached the maximum corner radius.



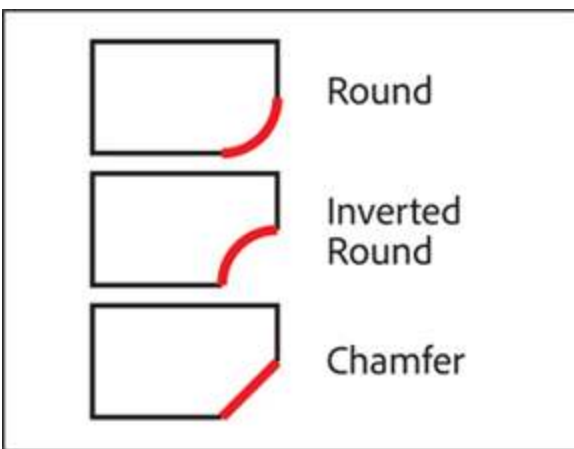
3. Choose Select > Deselect.
4. Choose File > Save.

Discover other ways to round corners

There are many ways to round corners. To learn more, check out the video *Discover other ways to round corners*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

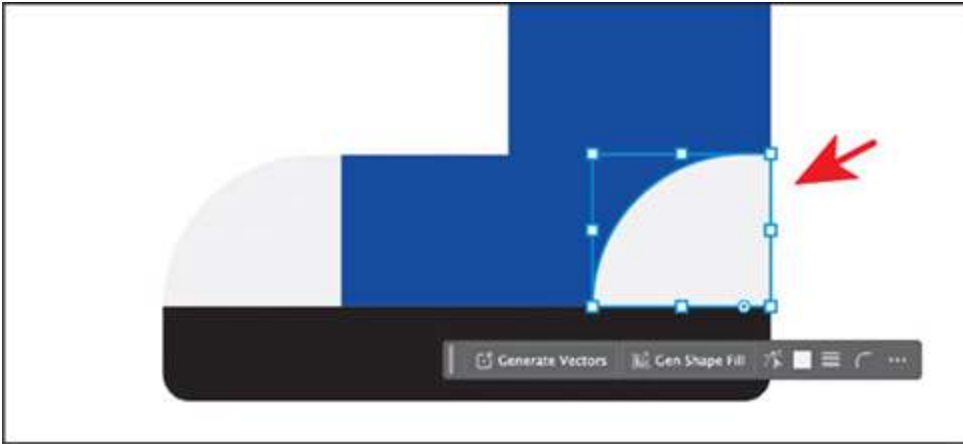
Changing a corner type


Aside from rounding corners, you can also change the corner type. The three types are shown in the figure at right.



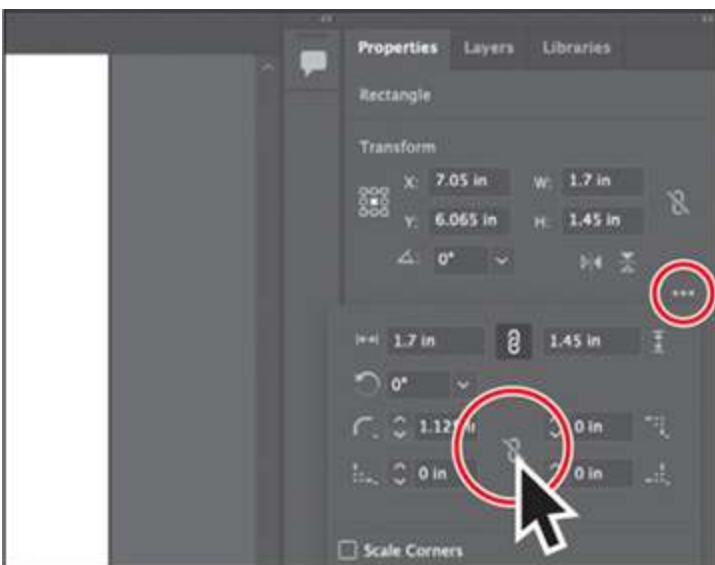
Now you'll make a copy of a rectangle and change the corner type for it. This rectangle will become the heel of the shoe.

1. Select the gray toe rectangle, and to copy it, choose Edit > Copy, and then paste it by choosing Edit > Paste.
2. Drag the copy onto the shoe where you see in the figure.

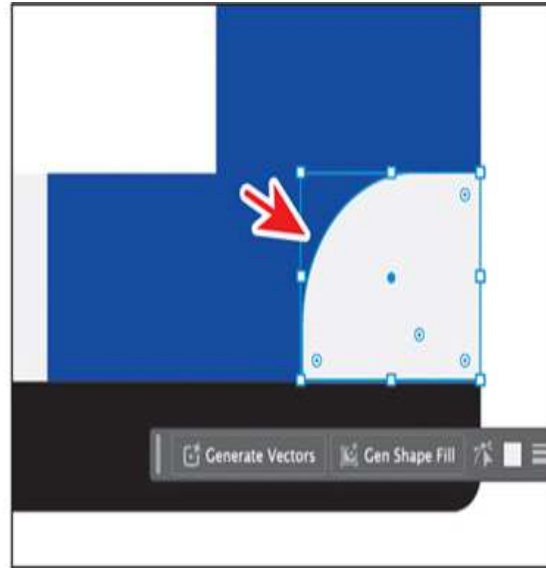
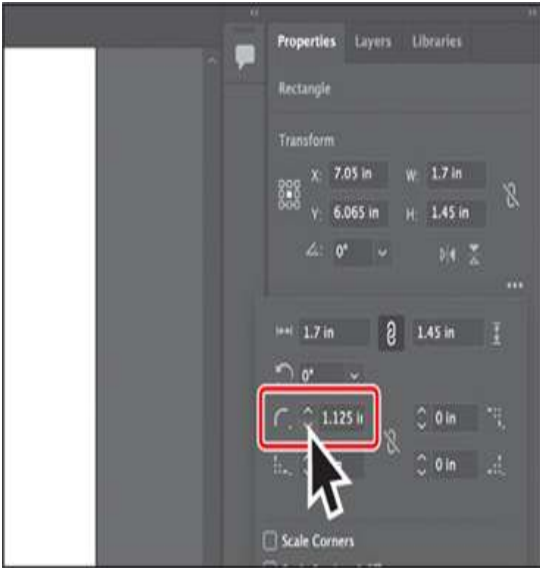


3. In the Properties panel, click More Options (**...**) in the Transform section to show more options. It's circled in the following figure.
4. Ensure that Link Corner Radius Values is *off*—it should look like this: . You can click the button to toggle it on and off. It's circled in the figure.

Each corner value in the panel corresponds to a corner in the shape.




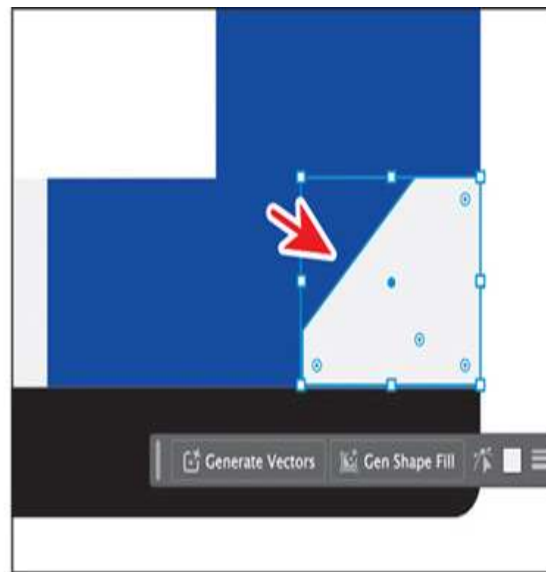
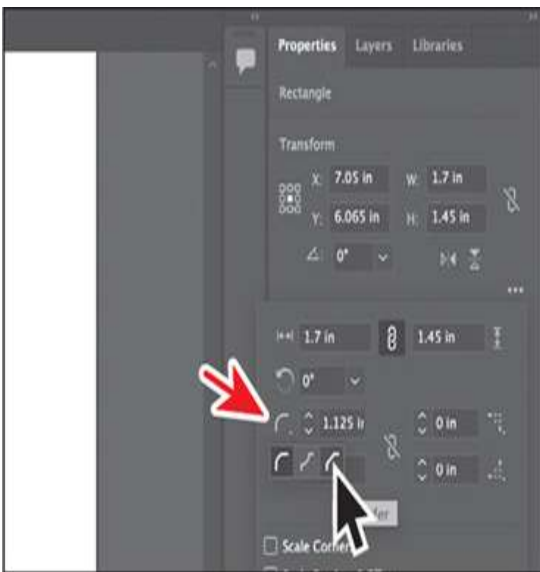
5. Change the upper-left corner to **1.125** inches.



Because the corner was already rounded, it will make it less round most likely.

Aside from changing the corner radius, you can also change the corner type. You can choose between Round (default), Inverted Round, and Chamfer.

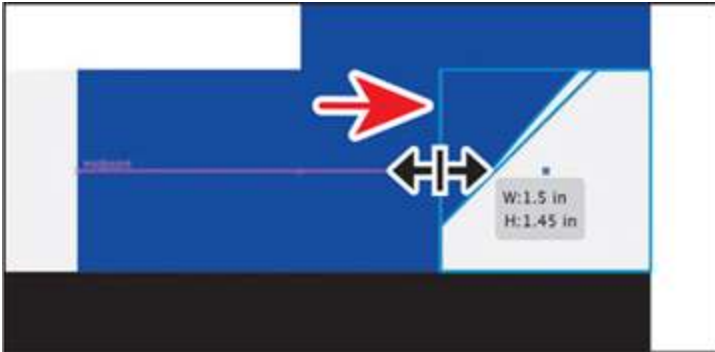
6. Change the Corner Type setting for the upper-left corner to Chamfer ().



7. Press the Escape key to close the options panel, and leave the shape selected.

8. Drag the left side handle to make the shape a little narrower. See the figure.

I made it so it's around 1.5 inches in width.



Creating an ellipse

The Ellipse tool is used to create ellipses and perfect circles. Next, you'll create an ellipse with the Ellipse tool (○) to make eyelets for laces.

1. Select the Ellipse tool (○) in the toolbar.

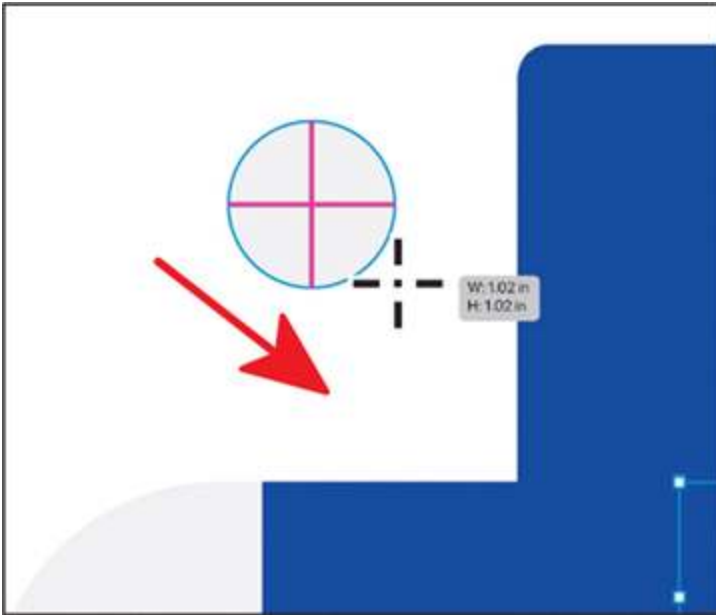
When you draw shapes, you can make them bigger than they will be in the end so you can work with them more easily.

2. In an empty area of the artboard, Shift-drag to make a perfect circle. As a reference, I made mine about 1 inch in width and height. Release the drag and then the key.

▶ Tip

When an ellipse is a perfect circle, you will see magenta crosshairs in it as you are drawing it (with Smart Guides turned on [View > Smart Guides]).

3. Zoom in to the circle a little by choosing View > Zoom In once or twice or by pressing Command and + (macOS) or Ctrl and + (Windows).

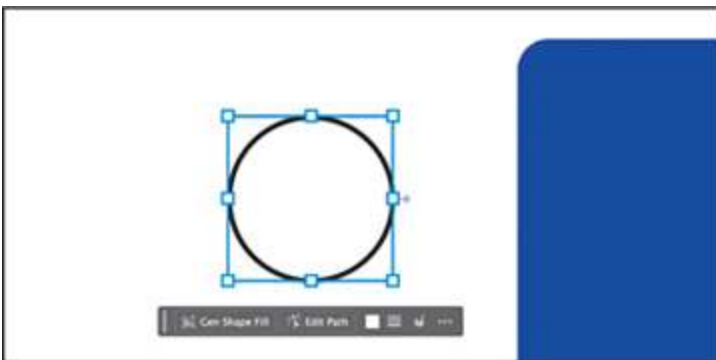


Editing an ellipse

With the circle made, now you'll change the appearance and put it in place.

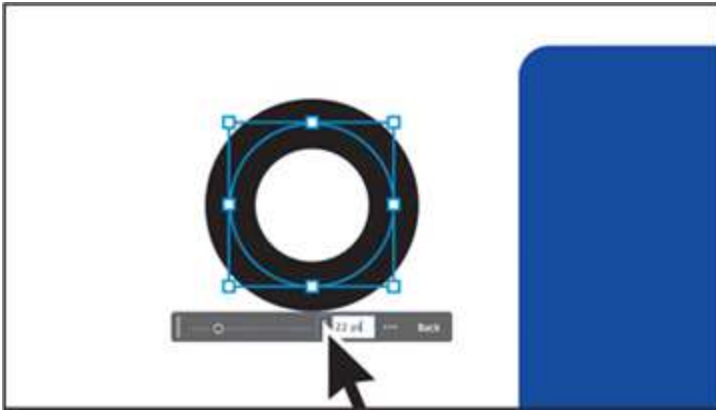
1. Press the D key to apply the default of a white fill and black stroke.

This is a keyboard shortcut that I use a lot to remove formatting from shapes and get them back to a default (that's what the "D" stands for) appearance of a white fill and black stroke.

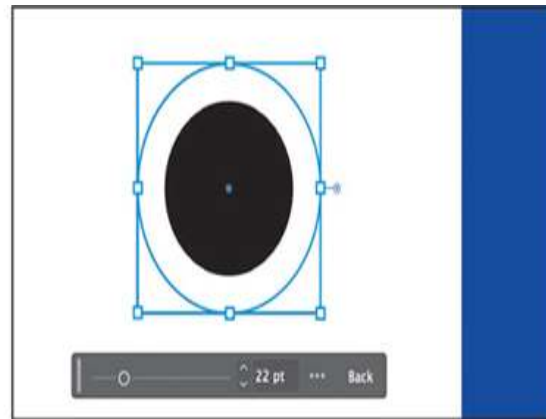
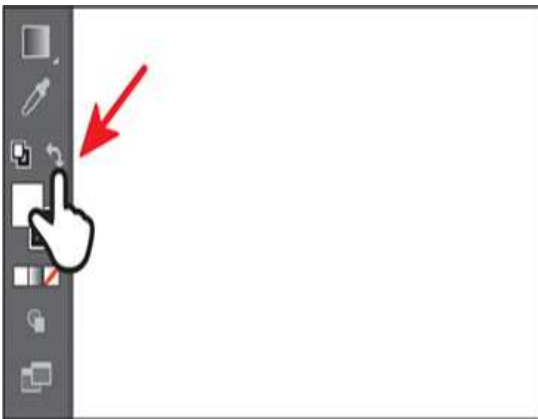


2. Click the Stroke option (≡) in the Contextual Task Bar, and change the Stroke Weight to **22 pt**.

Now, you need the fill to be black and the stroke to be another color. To make it easier on yourself, you can swap colors between the stroke and the fill.

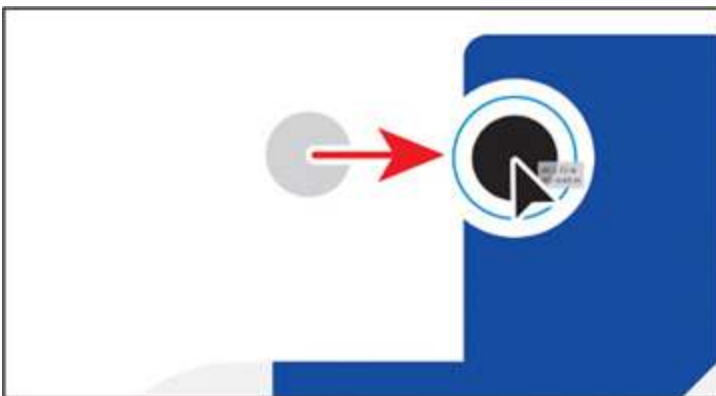


3. To swap the fill and stroke colors, click the Swap Fill And Stroke arrow (↻) toward the bottom of the toolbar on the left.

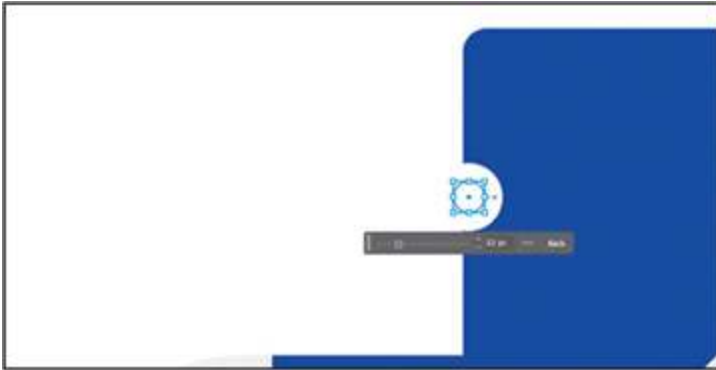



4. Drag the circle by the blue dot in the center, onto the blue shoe shape to the right, as you see in the figure.

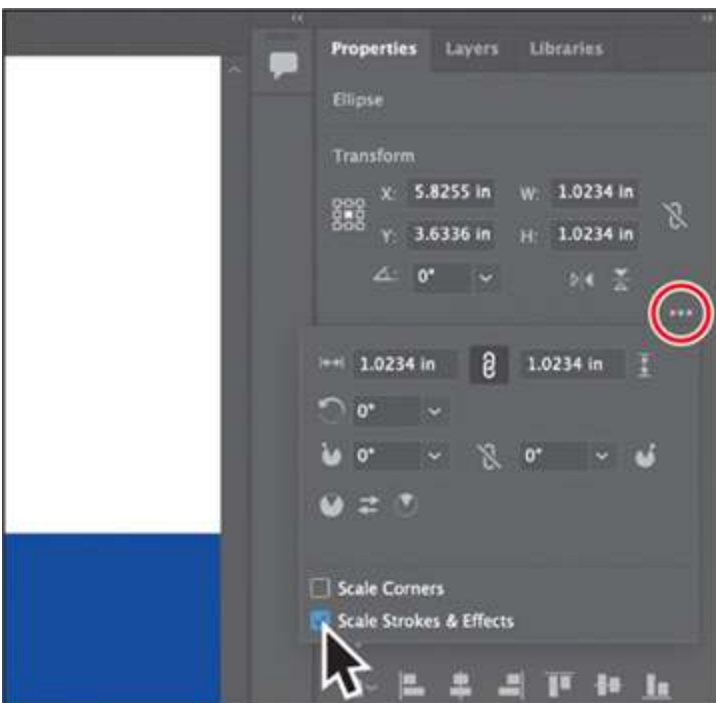
Next you'll make the eyelet circle smaller. By default, stroke weights stay the same when the shape resizes.



Say you make the circle a lot smaller, the stroke weight would stay 22 pt and look too big. See the figure. If you turn on an option, you can scale the stroke at the same time as the circle.

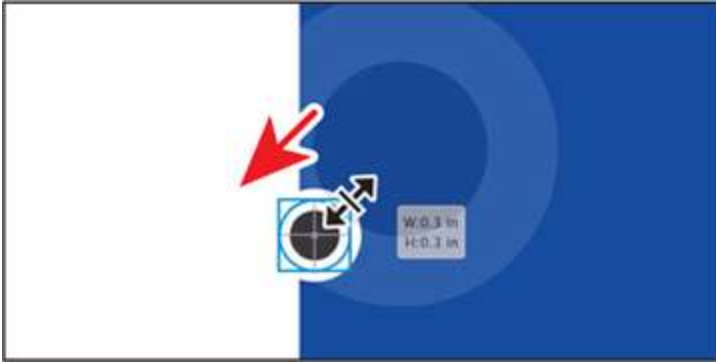


5. Click the More Options button () in the Transform section of the Properties panel. Select Scale Strokes & Effects in the panel that opens.

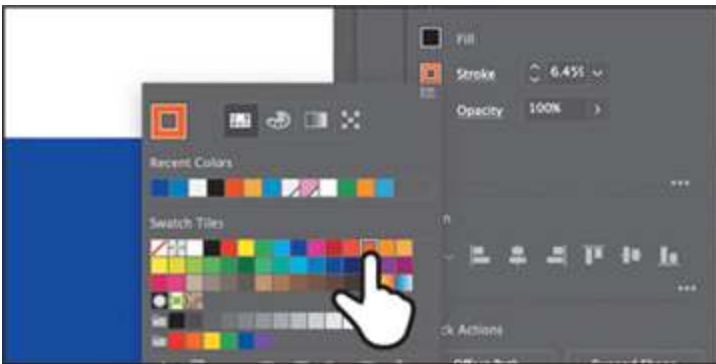


6. Shift-drag the circle to make it smaller, release the drag and then the key.

I made it around 0.3 inches in size.

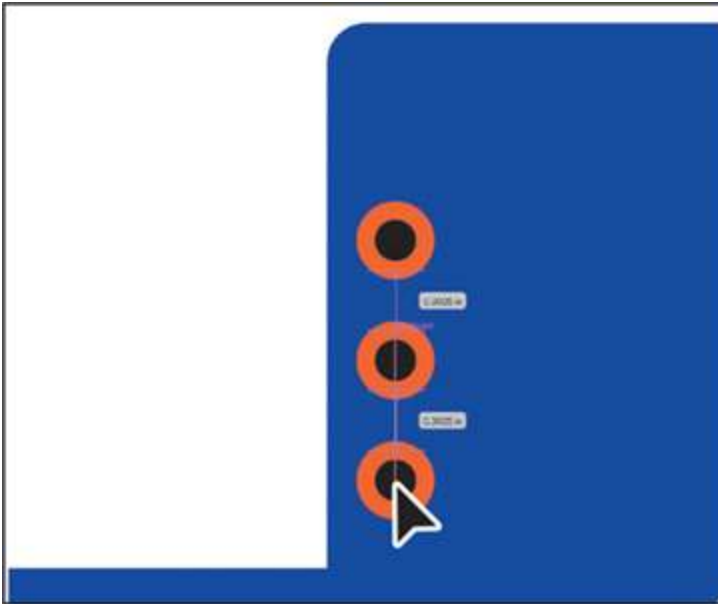


7. With it still selected, change the stroke color by clicking the Stroke color box (□) in the Properties panel. In the panel that opens, make sure that Swatches (■) is selected. Select an orange color.



8. Select the Selection tool (▀). Make two copies, Edit > Copy and Edit > Paste, and drag them into alignment with each other.

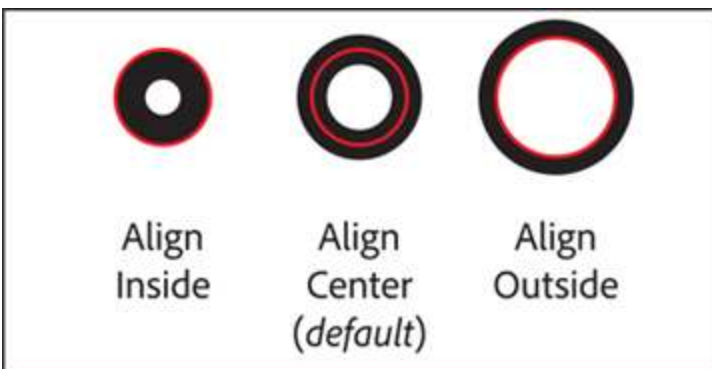
Smart Guides will tell you when they are the same distance apart. In [Lesson 2](#), you learned all kinds of ways to align and distribute things.



9. Choose File > Save.


Changing stroke alignment

As you've seen, strokes are borders of an object or path. By default, strokes *center* on a path, which means that along the path, half the stroke weight is on one side and half is on the other.



You can adjust this alignment so the stroke appears in the center (default), inside, or outside. Next, you'll change the strokes of the three circles you just created.

1. With one of the eyelet circles selected, Shift-click to select the other two.

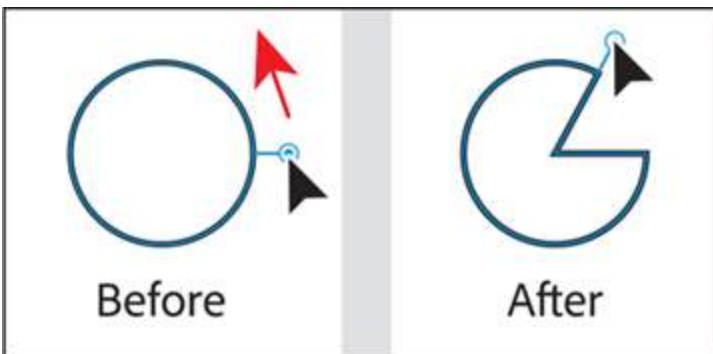
2. Zoom in by pressing Command and + (macOS) or Ctrl and + (Windows) a few times.
3. Click the word “Stroke” in the Properties panel to open the Stroke panel.
4. In the Stroke panel, click the Align Stroke To Outside button () to align the stroke to the outside edge of each circle.




5. Choose Select > Deselect.

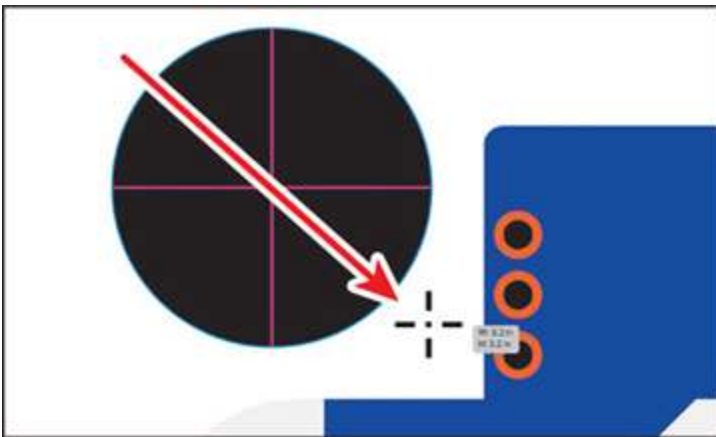
Creating a pie shape from an ellipse

Ellipses have a pie widget that you can drag to create a pie shape. Next, you'll make a new circle and turn it into the tongue of the shoe.

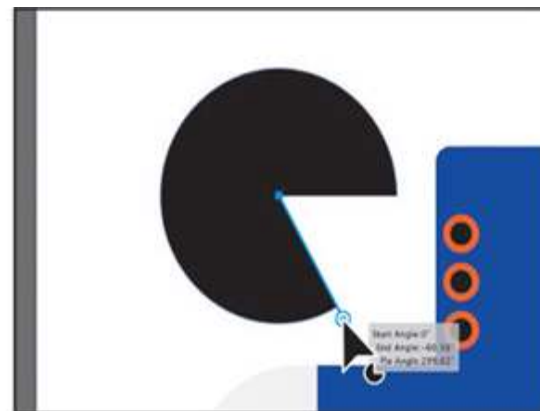
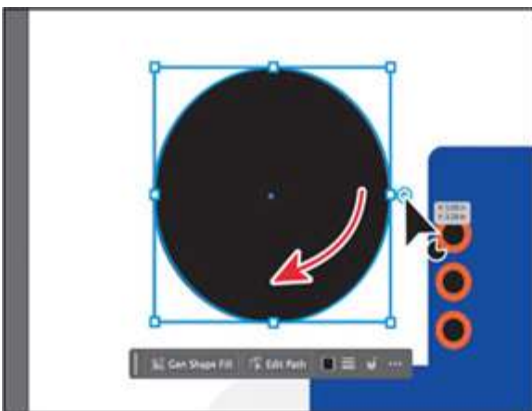


1. Choose View > Fit Artboard In Window.
2. Select the Ellipse tool (), and change the Stroke Weight in the Properties panel to 0.
3. Shift-drag to make a larger circle. For a guide, the circle in the figure is 3.2 inches.

With it selected, look for the pie widget (—⊙) on the right side of the shape. You can drag that to make a pie shape.



4. Drag the pie widget clockwise around the bottom of the ellipse, and then release.

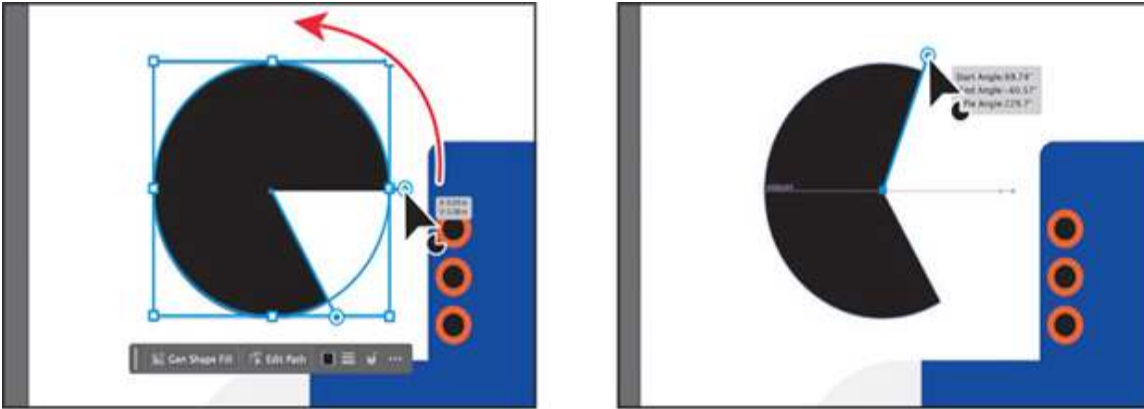


Notice that there is another pie widget in the same place from which you started dragging this one. The pie widget you just dragged is called the *pie start angle*, and the other pie widget is called the *pie end angle*.

5. Drag the other pie widget (the *pie end angle*) from the same place counterclockwise around the top of the ellipse. Don't worry about how far.

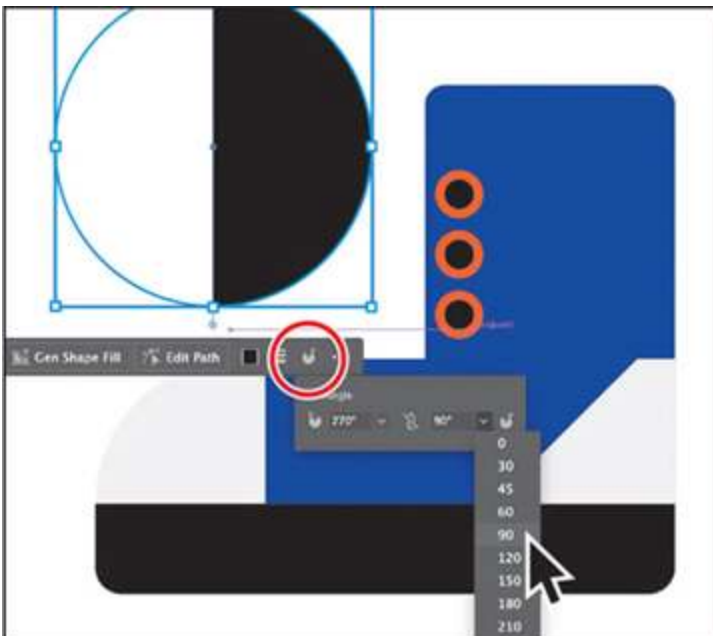
► **Tip**

Need to remove the pie angle change and go back to a whole circle?
Double-click either pie widget!



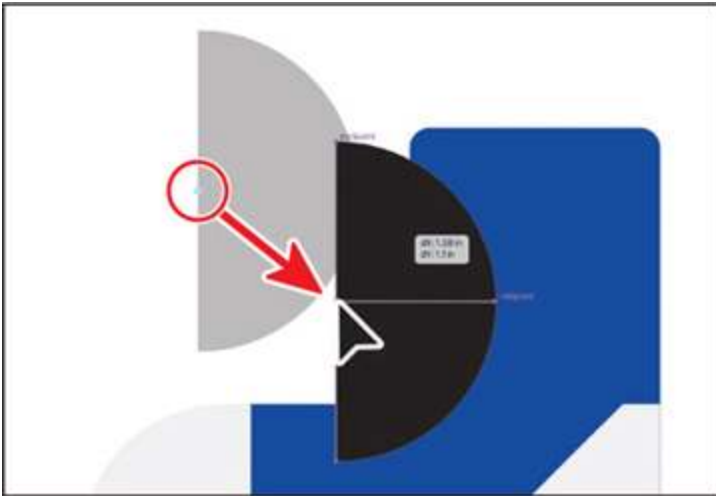
The shoe tongue shape you are making will look best if we see exactly half of it. That requires the two pie widgets you dragged to be at precise angles to each other—showing 180 degrees of the circle. Next, you'll adjust them with precision.

6. In the Contextual Task Bar, click the Ellipse Properties button (🔍).
7. Choose 270° from the Pie Start Angle (🔍) menu.
8. Choose 90° from the Pie End Angle (🔍) menu.

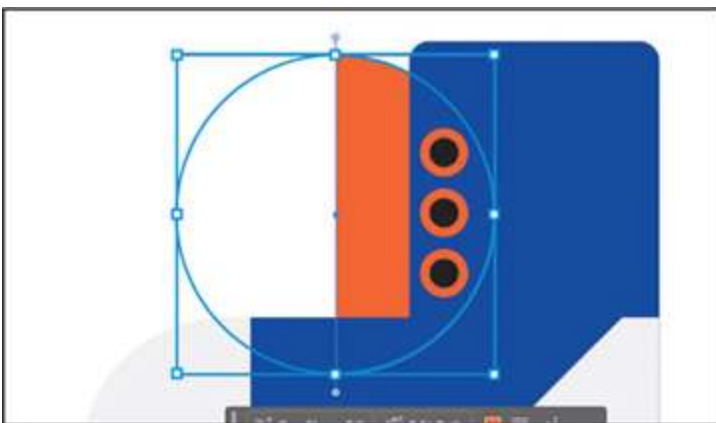


9. From the blue center point, drag the half-circle onto the shoe like you see in the figure.

Yes, the blue dot is in the center of what *used to be* a whole circle, but is now only a half!





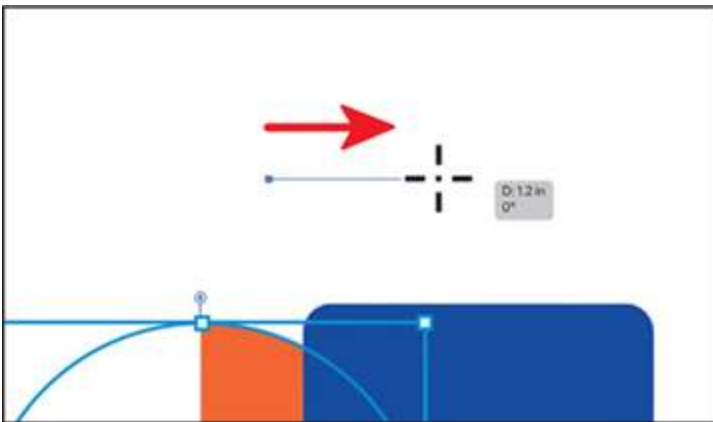
10. With the shape still selected, change the Fill color in the Properties panel to the same orange as the stroke on the eyelets you just made. You can select it from the Recent Colors in the Swatches panel.
11. Choose Object > Arrange > Send To Back to send the tongue behind the shoe.
12. Choose File > Save.



Drawing lines


Lines created with the Line Segment tool are Live, and similarly to Live Shapes, they have many editable attributes after they are drawn. Next, you'll create a few lines with the Line Segment tool that will become shoelaces and a detail on the sole.

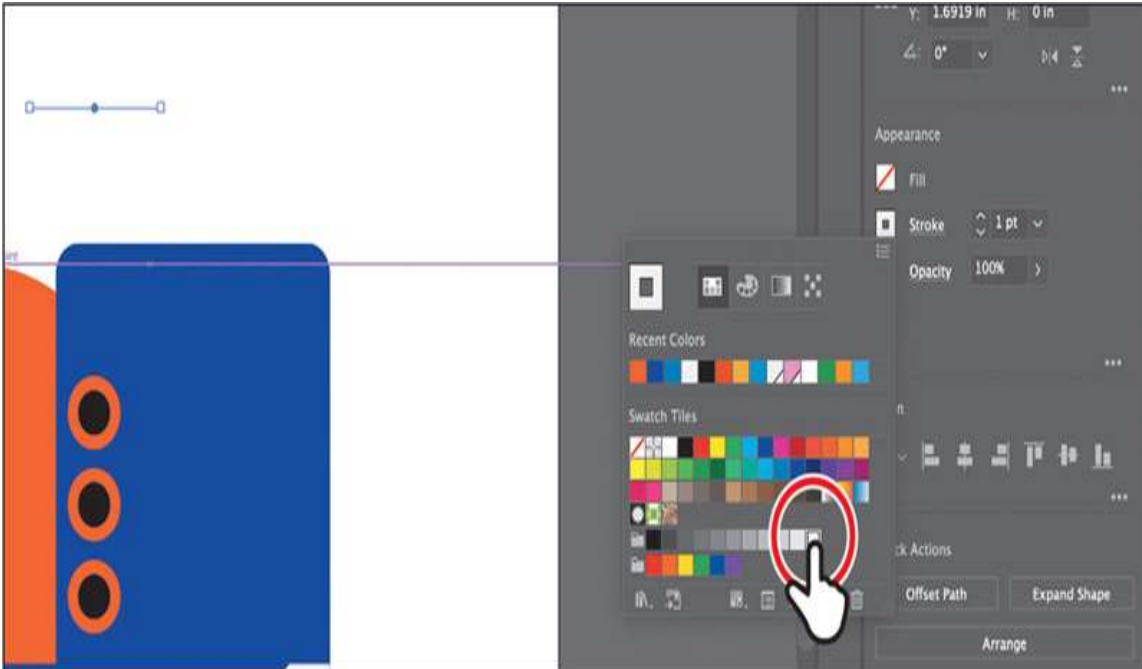
1. Press and hold on the Rectangle tool () in the toolbar, and select the Line Segment tool ().
2. In an empty area of the artboard, drag in any direction to draw a line. *Don't release the drag yet.*
3. As you drag, press the Shift key to constrain the line to a multiple of 45 degrees. Drag directly to the right until the line is around 1.2 inches in length. Release the drag and then the key.



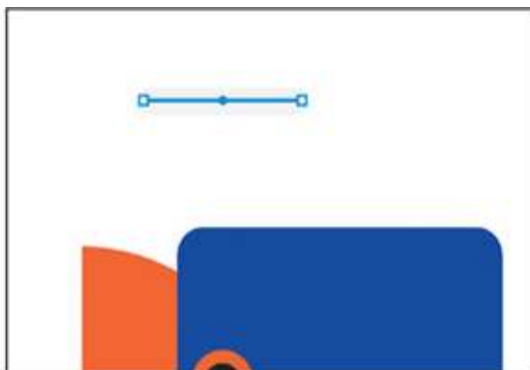
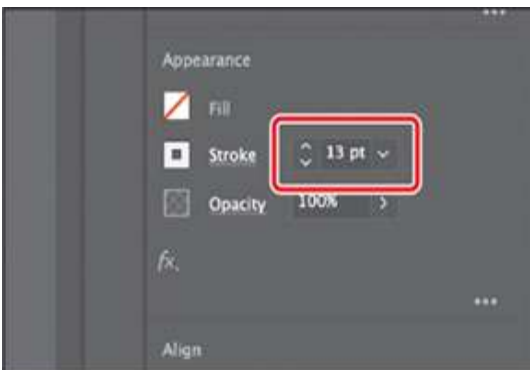
Editing a line

Now you'll change the color and stroke weight of the shoe lace (line).

1. Click the Stroke color box in the Properties panel, and make sure that the Swatches option () is selected in the panel that appears. Select the same light gray as the shoe toe shape.

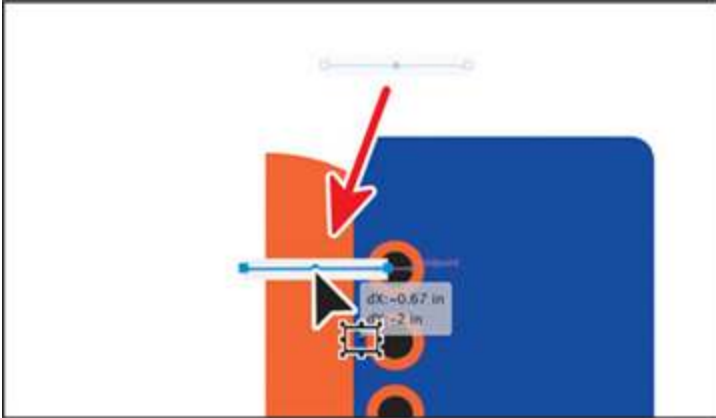


2. With the line selected, change the stroke weight to **13 pt** in the Properties panel to the right of the document.

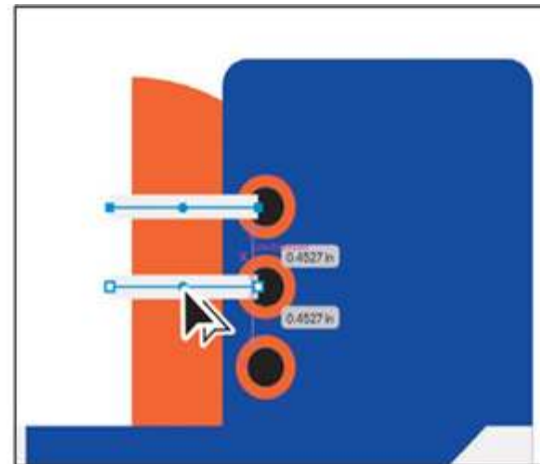
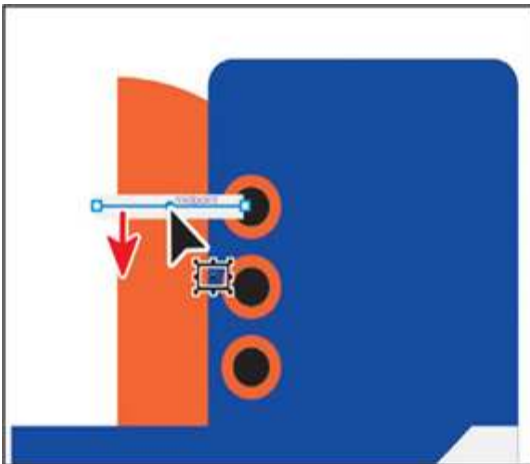


3. Select the Selection tool (▀) in the toolbar, and drag the line by the center point onto the shoe, like you see in the figure.

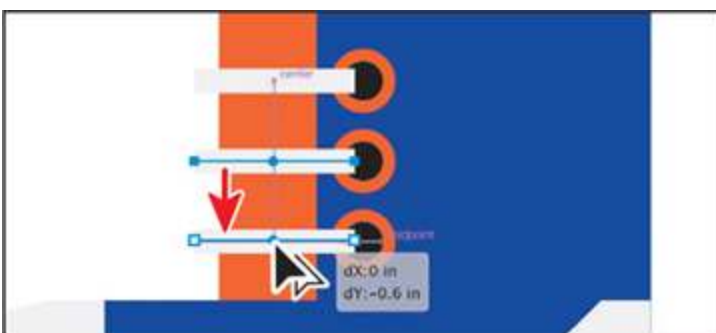
Now you'll make a copy by dragging!



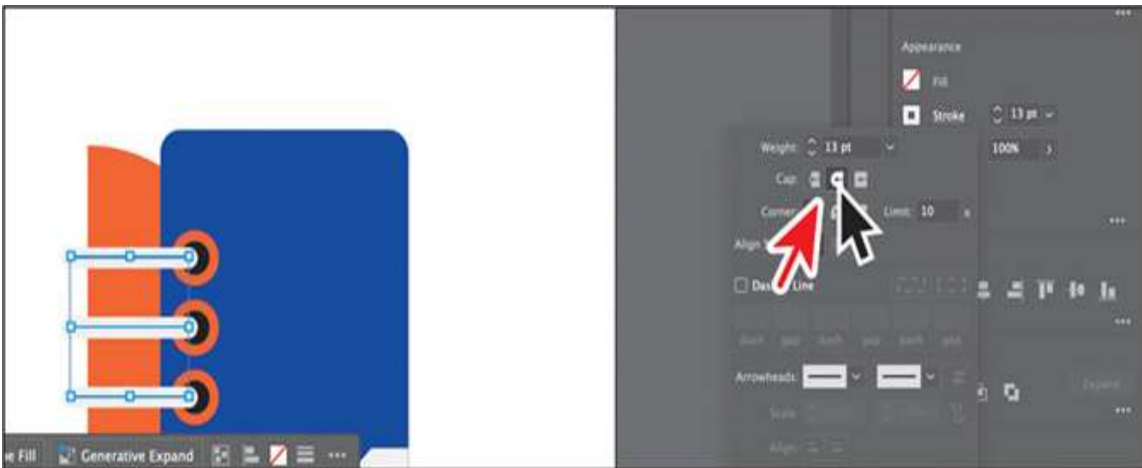
4. Make a copy of the line by Option-dragging (macOS) or Alt-dragging (Windows) the line from the center point, to make another shoe lace. Release the drag and then the key. See the following figure.



5. Create a third shoe lace (a third line) using the previous step as guidance, like you see in the figure.
6. Select all three lines by Shift-clicking those that are not already selected.




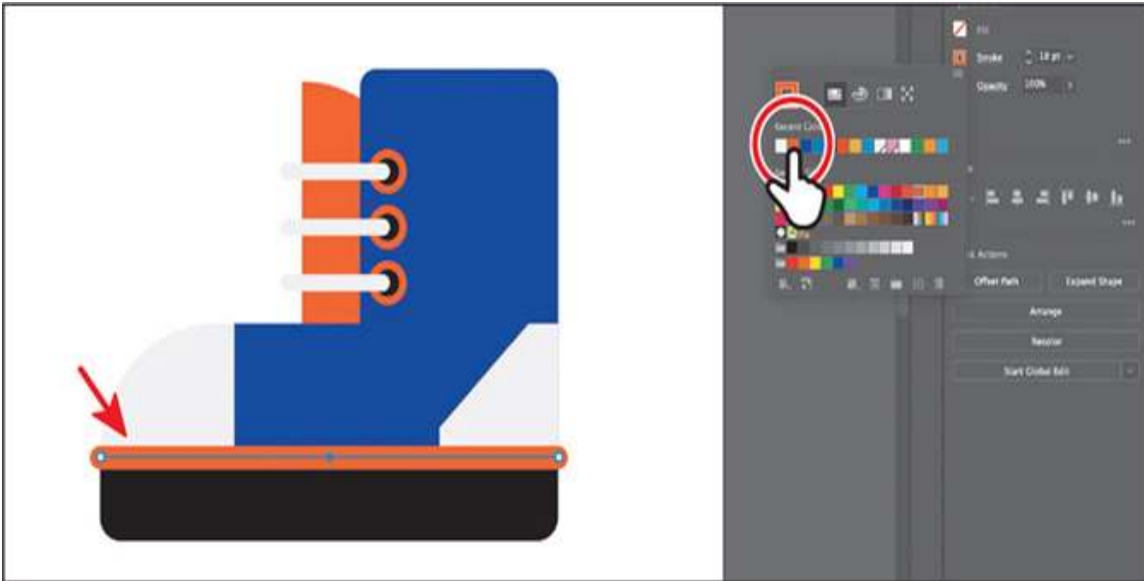
7. Click the Stroke option in the Properties panel. In the Stroke panel, select Round Cap to round the ends of the shoelaces.



Practice: Create one more line!

For practice, follow the previous steps to make one more line that is a detail above the sole of the shoe.

1. Select the Line Segment tool () and drag to draw a horizontal line. As you drag, press the Shift key to constrain the line. Release the drag and then the key.
2. With the Selection tool, drag the line in place, like the figure.
3. If you need, drag either end of the line to make it shorter or longer to fit the width of the shoe.
4. Change the Stroke Weight to **18 pt**.
5. Change the Stroke color to the same orange you've already used. You can select it from the Recent Colors in the Swatches panel.

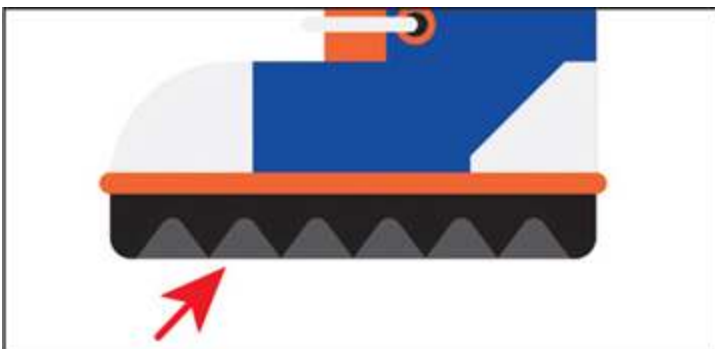


Creating polygons

Using the Polygon tool (⬡), you can create shapes with multiple straight sides. By default, the Polygon tool draws hexagons (six-sided shapes). What's different about polygons is that they are drawn from the center. Polygons are also Live Shapes, which means attributes such as size, rotation, number of sides, and more remain editable after you create them.

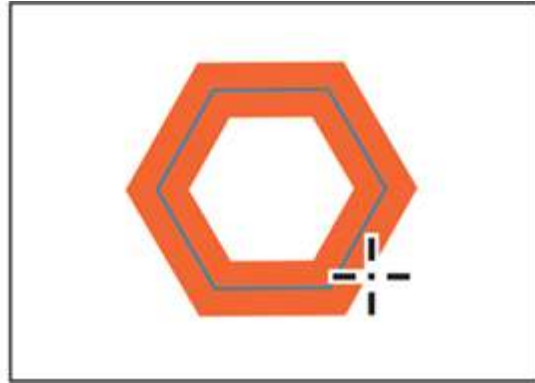
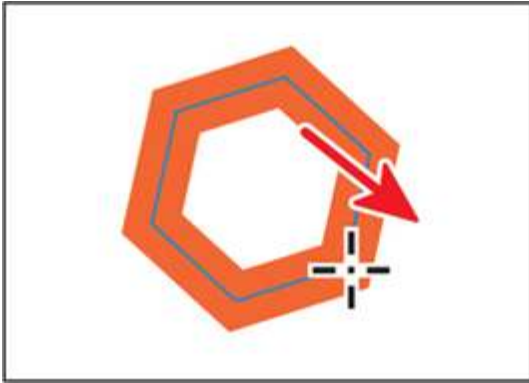
Next, you'll create a series of polygons that will become tread on the sole of the shoe.

1. Select the Polygon tool (⬡) in the toolbar.





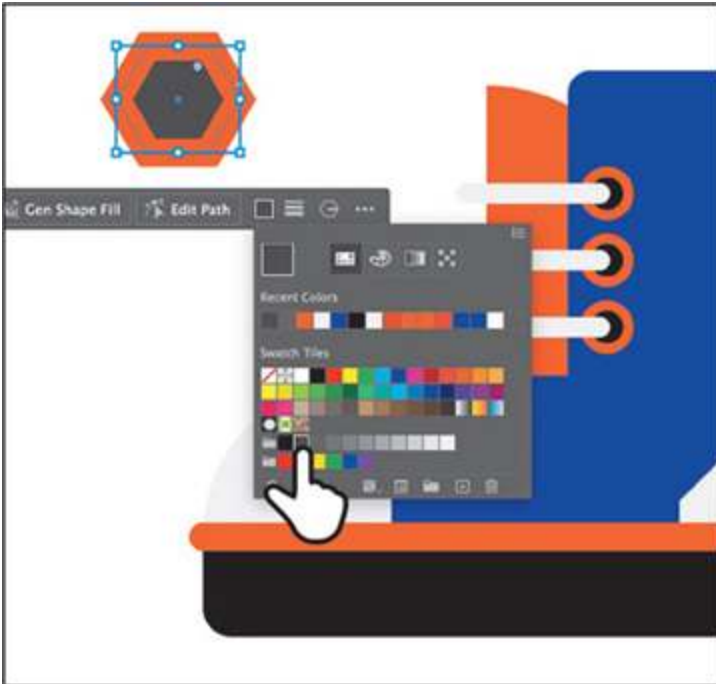
2. Choose View > Smart Guides to turn them off.
3. Choose Select > Deselect.

4. Move the pointer into an empty area of the artboard. Drag to the right to draw a polygon. As you drag, press the Shift key to straighten the shape. Release the drag and then the key.



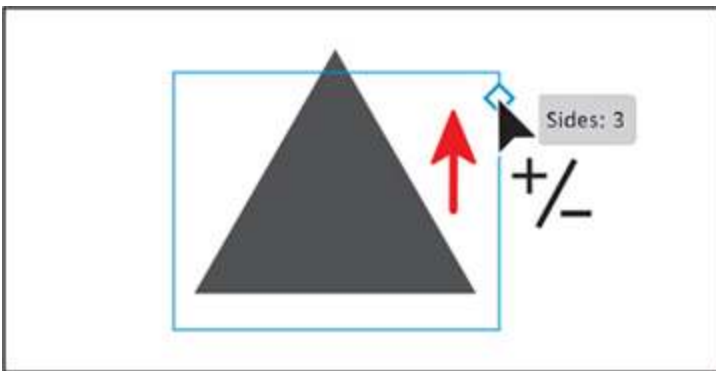
Notice that you didn't see the gray measurement label (the tool tip), since it's part of the Smart Guides that you turned off. Smart Guides can be helpful in certain situations, such as when more precision is necessary—maybe you want to know how large the shape is—and can be toggled on and off when needed.

5. Click the Fill color box () in the Properties panel, make sure that the Swatches option () is selected, and change the color to a dark gray.
6. Change the Stroke Weight in the Properties panel to **0** (zero).
7. Choose View > Smart Guides to turn them back on.



Next, you'll make it a triangle.

8. With the Polygon tool still selected, drag the little side widget (◊) on the right side of the bounding box up to change the number of sides to 3, making a triangle.



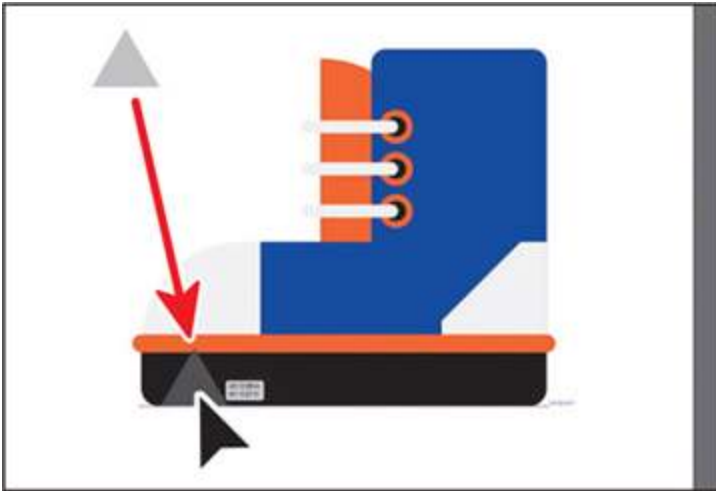
9. Choose File > Save.

Editing a polygon

Now, you'll change the size of the polygon and create a nail from it.

1. Select the Selection tool (▮) in the toolbar.

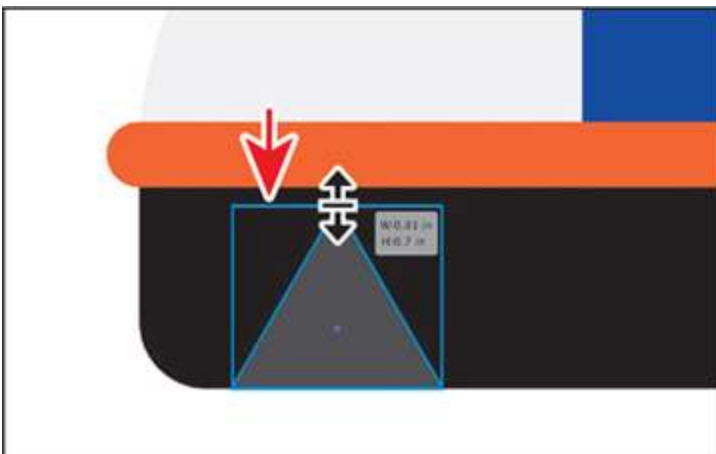
2. Drag the polygon to the bottom of shoe. See the figure for where. It should snap to the bottom of the black line.
3. Zoom in to the polygon by pressing Command and + (macOS) or Ctrl and + (Windows) a few times.



4. To make it smaller, press the Shift key and drag the top center handle to change the width and height proportionally (together). When it looks like the figure, release the drag and then the key.

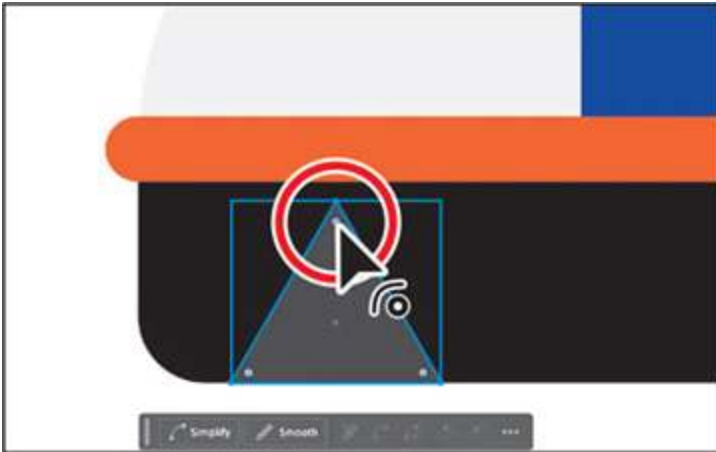
● **Note**

Depending on how big your polygon was to start, you made it either larger or smaller in this step to match the suggested height.



The polygon shape looks a little sharp, but rounding the top point will help.

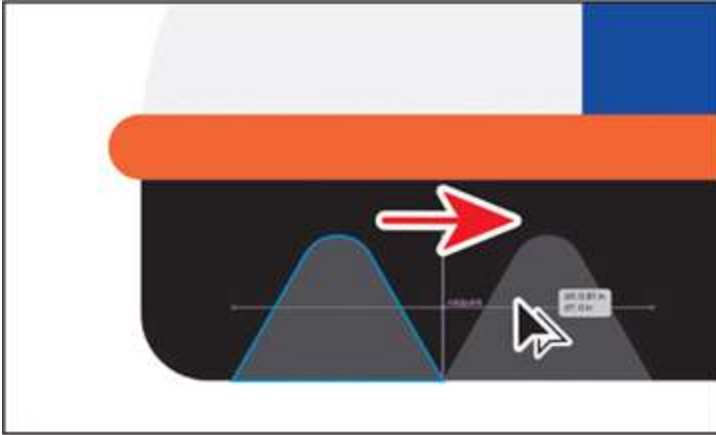
5. Select the Direct Selection tool (⌘) in the toolbar, and click the Corner Radius widget (⦿) in the top corner of the triangle.



6. Drag the selected widget toward the center of the triangle to round the top corner a little.

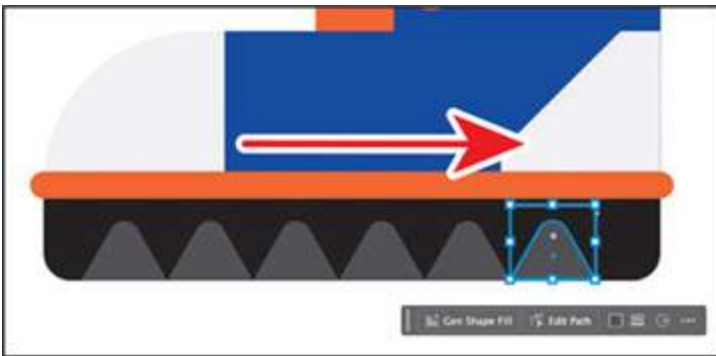


7. Select the Selection tool (⌘). To make a copy, Option-drag (macOS) or Alt-drag (Windows) the polygon to make another one directly to the right. Release the drag and then the key.

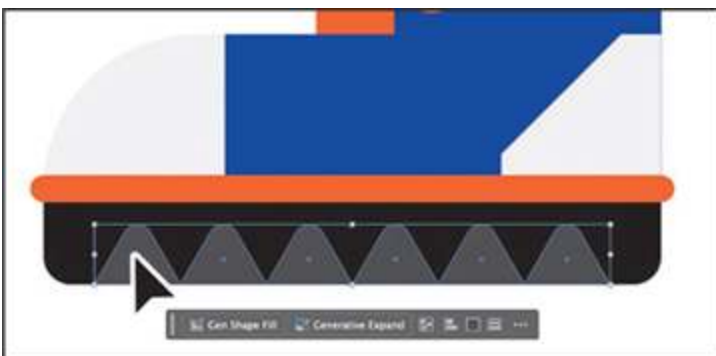


8. To make a few more, choose Object > Transform > Transform Again four times total.

You'll want to learn the keyboard shortcut for Transform Again: Command+D (macOS) or Ctrl+D (Windows).



9. Shift-click to select all of the polygons, and drag them so they are mostly centered on the black sole shape.



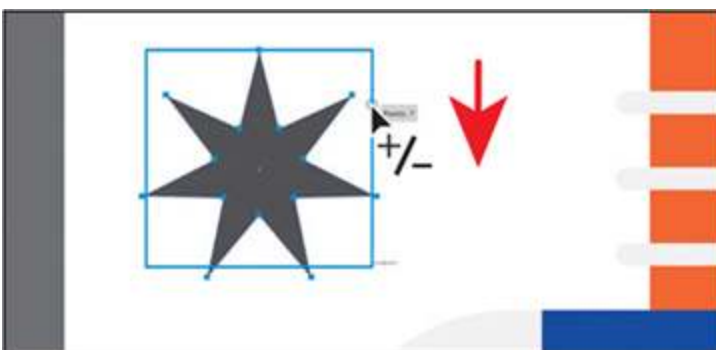
Creating a star

Next, you'll use the Star tool (☆) to create a star that will become a detail on the shoe. The Star tool also creates Live Shapes, so editing the star after the fact is made easy.

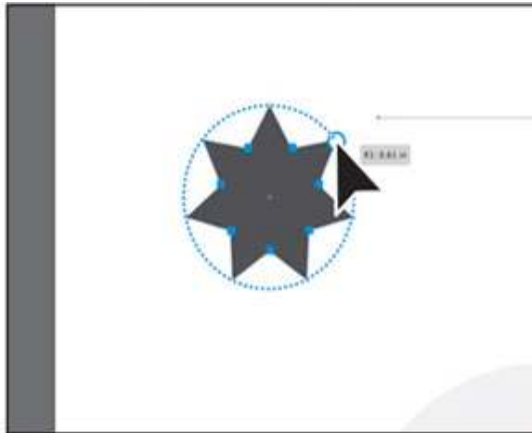
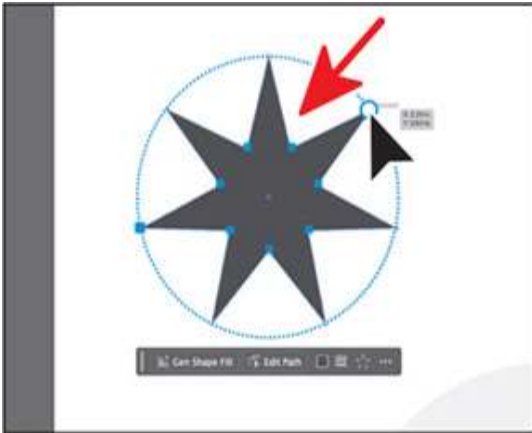
1. Press and hold the Line Segment tool (／) in the toolbar, and select the Star tool (☆).
2. In an empty area of the artboard, drag to make a star. As you drag, press Shift to straighten it. Drag until the measurement label shows a width of about 1.8 inches. Release the drag and then the key.



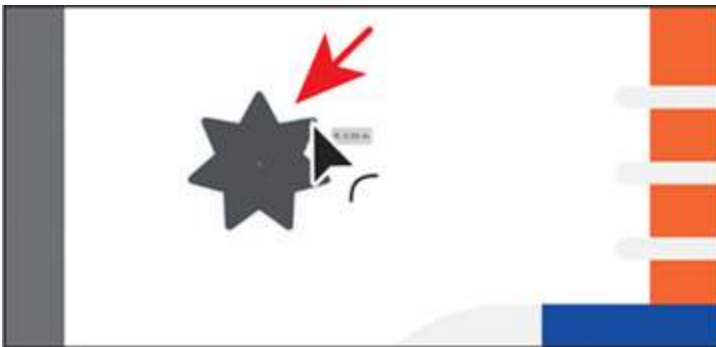
3. Zoom in a bit to make it easier to see.
4. To change the number of points on the star, drag the Side widget down to increase the number to seven (7).



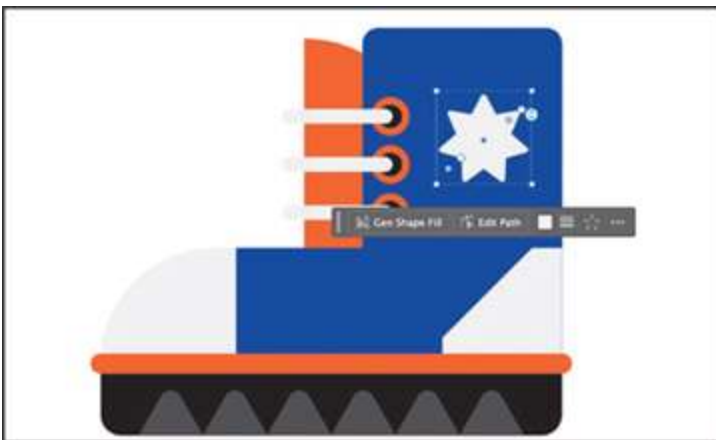
5. To make the arms shorter, drag the Radius 1 widget toward the center.



6. Drag the Corner Radius widget (⦿) to round each point a little.
7. Click the Fill color box in the Properties panel, make sure that the Swatches option (📖) is selected, and change the color to the same light gray as before from the Recent Colors.



8. Choose View > Fit Artboard In Window.
9. Drag it into position from the center, as you see in the figure.



Working with drawing modes

Illustrator has three drawing modes that allow you to draw shapes in different ways. They are found near the bottom of the toolbar: Draw Normal, Draw Behind, and Draw Inside.



- **Draw Normal mode:** Every document starts by drawing in Normal mode, which stacks shapes on top of each other.
- **Draw Behind mode:** This allows you to draw behind all artwork on a layer if no artwork is selected. If artwork is selected, the new object is placed beneath the selected object.
- **Draw Inside mode:** This mode lets you draw objects or place images inside other objects, automatically creating a clipping mask of the selected object.

● Note

A clipping mask is a shape that hides parts of other artwork. You will learn more about clipping masks in [Lesson 15](#), “[Placing and Working with Images](#).”

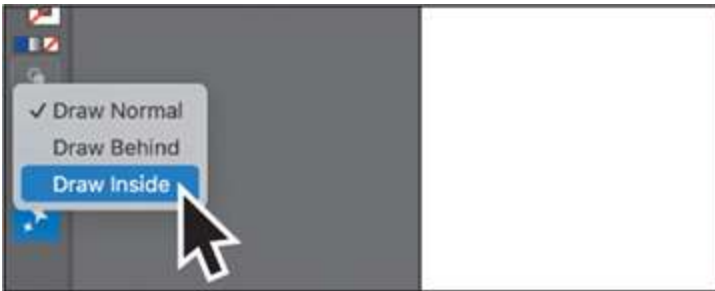
Using Draw Inside mode



Now you’ll add some depth to the shoe by drawing inside of a shape using the Draw Inside mode. This can be useful if you want to hide (mask) part of the artwork. You can draw, place, or paste content into a shape with Draw Inside mode active.

1. Select the Selection tool () and click to select the larger blue shoe shape.
2. Choose Draw Inside from the Drawing Modes menu () near the bottom of the toolbar.

● **Note**

If the toolbar you see is displayed as a double column, you will see all three of the drawing modes as buttons toward the bottom of the toolbar.

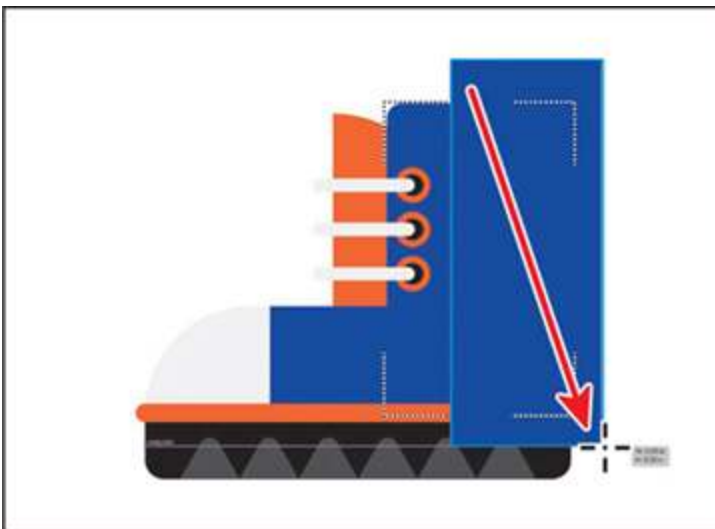


3. Select the Rectangle tool () in the toolbar. It's under the Star tool ().

4. Draw a tall rectangle that covers the right side of the shoe shape. See the figure.

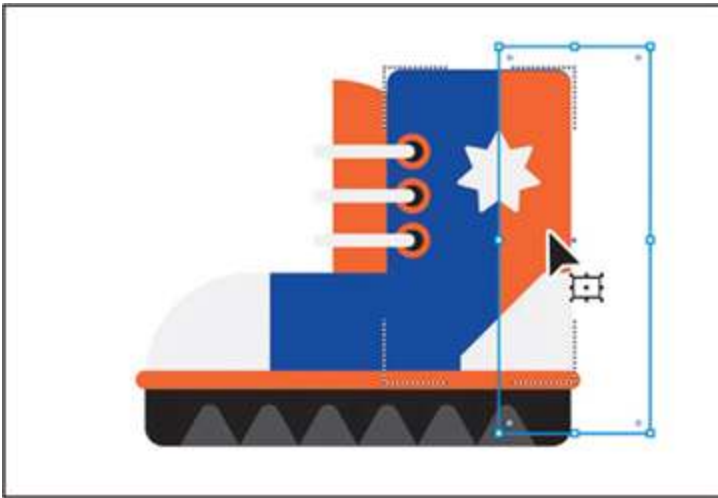
Notice after drawing, that parts of the shape are hidden.

5. Change the fill color to orange.

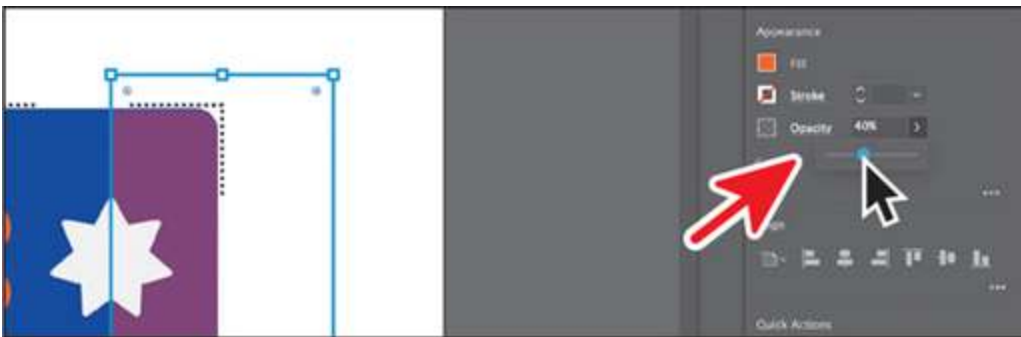


6. With the Selection tool selected, drag the rectangle into the position you see in the figure.

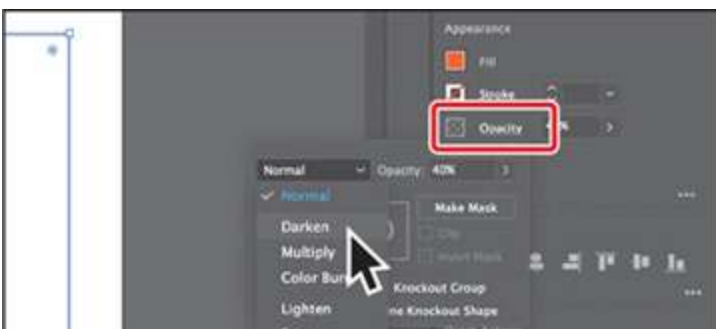
Now you'll change the opacity of the shape and make it so you can see through it.



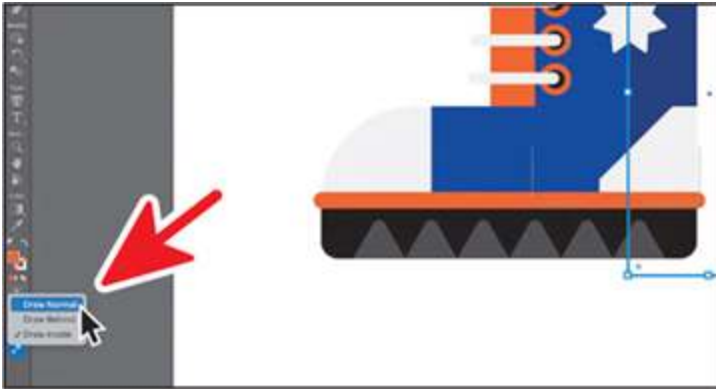
7. In the Properties panel, change the Opacity to 40%.



8. Click the word Opacity in the Properties panel, and choose Darken from the Blend mode menu.



9. Choose Draw Normal from the Drawing Modes menu (🔍) toward the bottom of the toolbar.



When you're finished adding content inside a shape, choose Draw Normal so that any new content will be added normally (stacked rather than drawn inside).

10. Choose Select > Deselect.

Editing content drawn inside

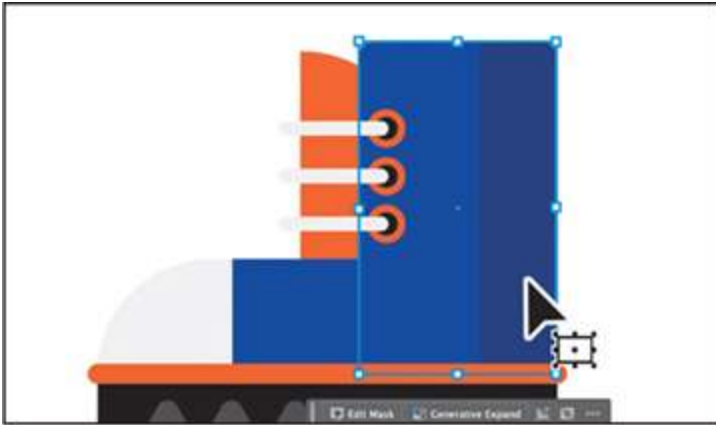
Next, you'll make adjustments to the shape you just made to see how you can edit an object inside another object after you create it.

- 1.** With the Selection tool (▸), select the star and the heel shape.
- 2.** Choose Edit > Cut.



- 3.** Click the darker shape inside the blue shape.

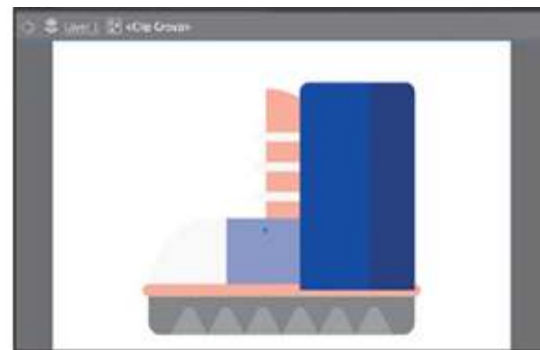
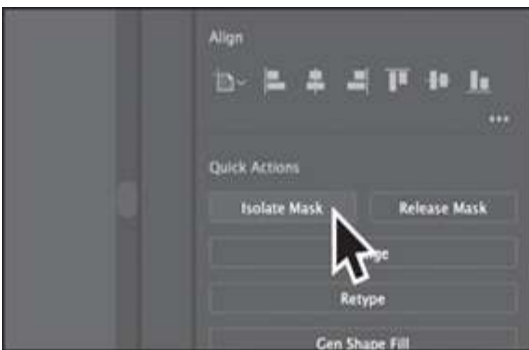
You'll wind up selecting the blue shape. The blue shoe shape is now a mask (called a *clipping path*). That shape and the rectangle you drew inside make a *clip group*. Looking at the top of the Properties panel, you will see "Clip Group."



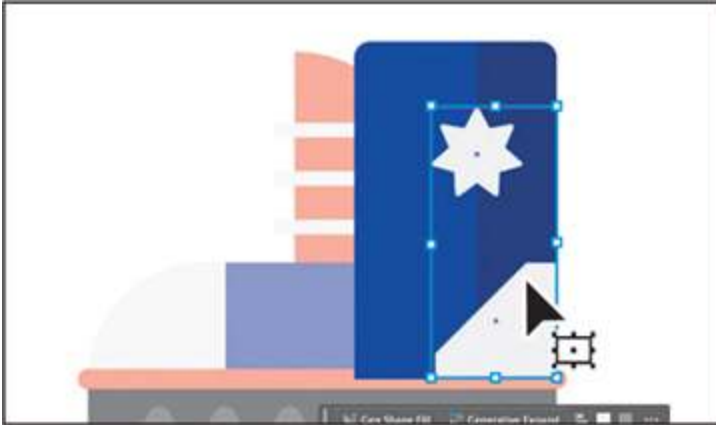
4. With the clip group selected, click the Isolate Mask button in the Properties panel to enter Isolation mode. Now you can select either the clipping path (the blue shoe shape) or the orange rectangle you drew within.

► **Tip**

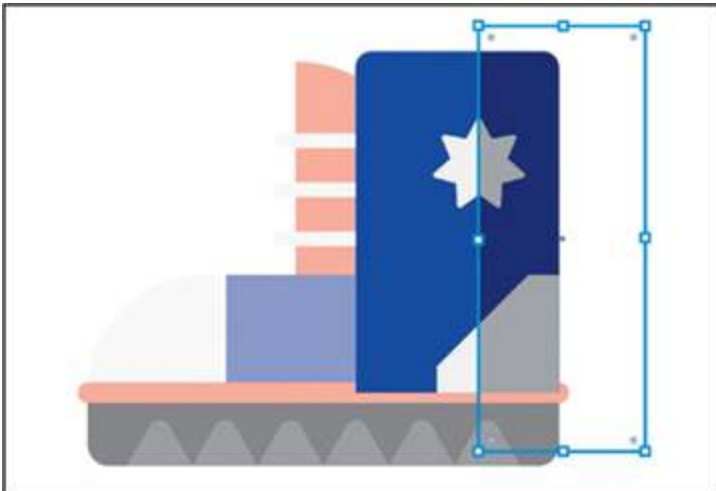
As with a group, you can also double-click the clip group to enter Isolation mode.



5. Choose Edit > Paste In Place to paste the star and heel shape inside of the blue shape.
6. Choose Object > Arrange > Send To Back.



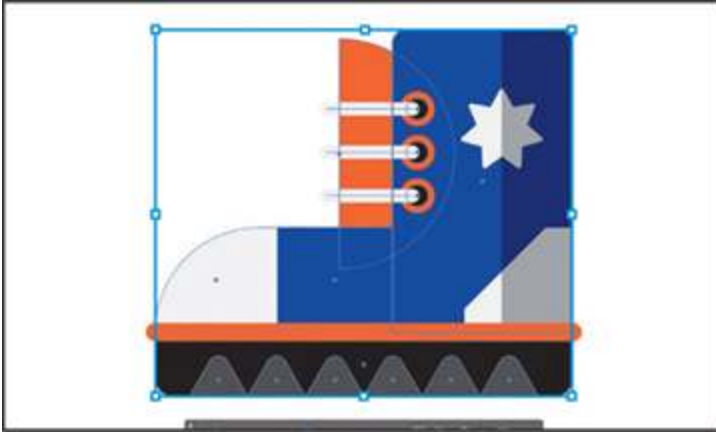
7. Select the orange shape, and change the fill color to black.
8. Double-click in an empty area of the artboard to exit Isolation mode.



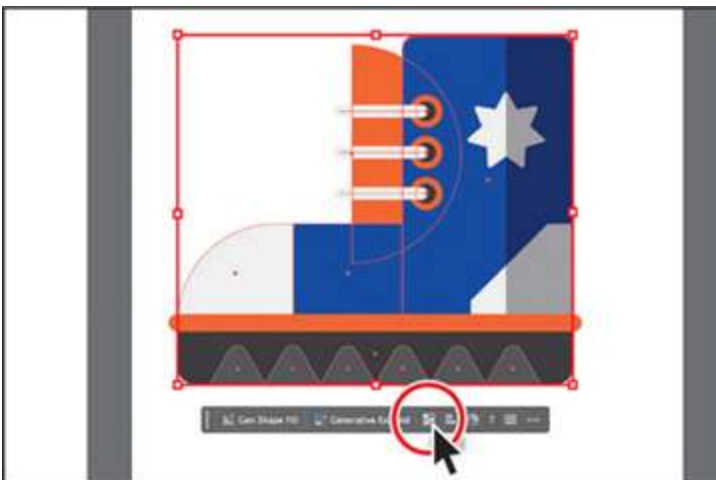
Pasting artwork between documents

Next you'll paste the shoe you've created into another Illustrator document.

1. To select all of the shoe artwork, choose **Select > All On Active Artboard**.
2. Copy it by choosing **Edit > Copy**.
3. Choose **File > Open**. Open L3_badge.ai in the Lessons > Lesson03 folder you copied to your computer.



4. Click in the blank artboard on the right to make it active, and fit the artboard in the window by pressing Command+0 (macOS) or Ctrl+0 (Windows).
5. Choose Edit > Paste to paste the shoe artwork.
6. Click the Group button in the Contextual Task Bar below (or above) the artwork to group it.
7. Choose Select > Deselect.



Using Image Trace to convert images into editable vector art

In this part of the lesson, you'll learn how to work with the Image Trace command, which converts a raster image, like a JPEG, into editable vector artwork. Tracing can help turn something you drew on paper—for instance,

a logo, a pattern or texture, or hand-drawn type—into editable vector art. In this section, you'll trace hand-drawn text that will become a part of the final design.

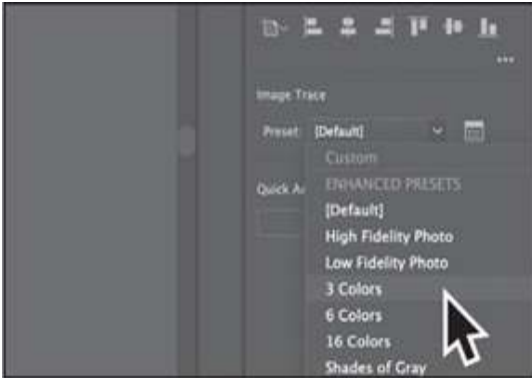
1. Choose File > Place. In the Place dialog box, select the hand-drawn-text.png file in the Lessons > Lesson03 folder on your computer, leave all options at their defaults, and click Place.
2. Click in the artboard to place the image.
3. With the image selected, click the Image Trace button in the Contextual Task Bar.

This image is converted into vector art and is now called an *image tracing object*. You can't edit the vector content yet, but you can still try other tracing settings.



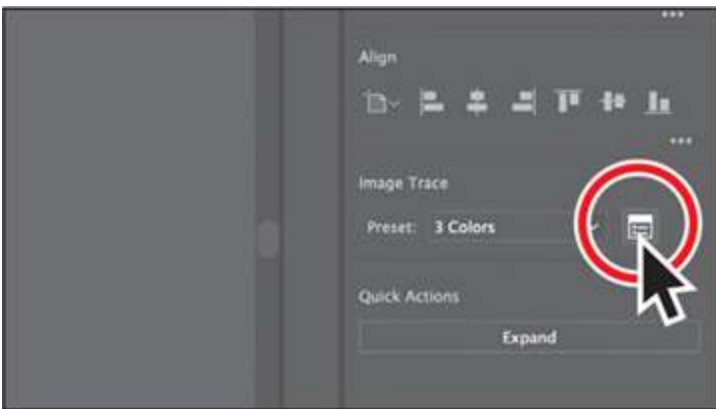
An image tracing object comprises the source image and the tracing result, which is the vector artwork. By default, only the tracing result is visible. However, you can change the display of both the original image and the tracing result.

4. Choose 3 Colors from the Preset menu in the Properties panel.



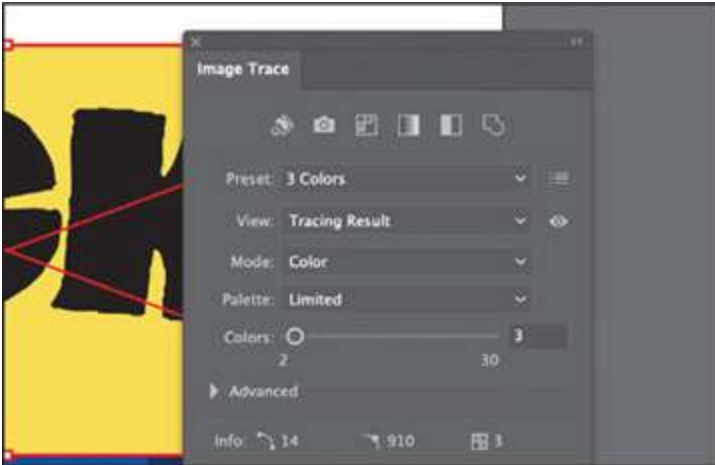
You can choose from trace presets, depending on the raster image you are tracing.

5. Click the Open The Image Trace Panel button () in the Properties panel.



The buttons at the top of the Image Trace panel are for converting the image to grayscale, black and white, and more. Below these buttons, you'll see the *Preset* menu. This menu has the same options as in the Properties panel.

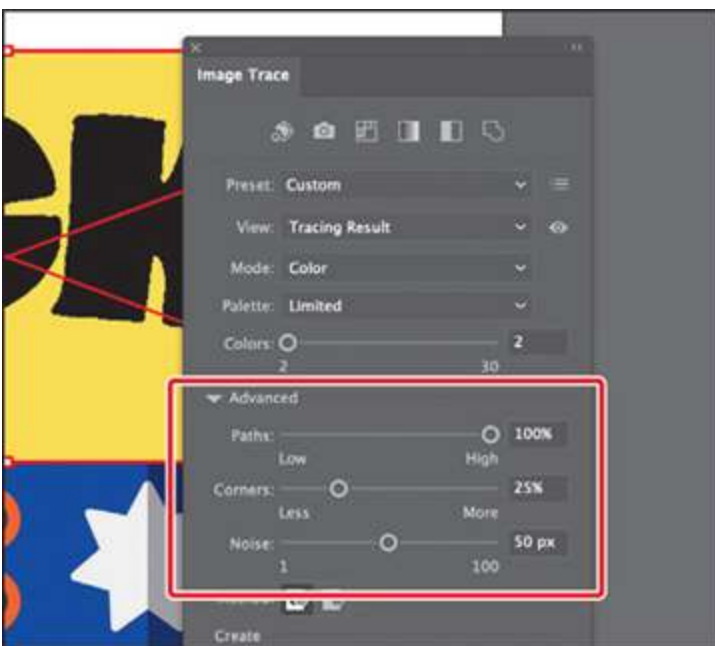
The *Mode* menu allows you to change the color mode of the resulting artwork (color, grayscale, or black and white). The *Palette* menu is also helpful in limiting the color palette or assigning colors from a color group.



6. In the Image Trace panel, click the triangle to the left of the Advanced options to reveal them. Change the following options in the Image Trace panel, using these values as a starting point:

► **Tip**

You can deselect Preview at the bottom of the Image Trace panel when modifying values so Illustrator won't apply the trace settings to what you are tracing every time you make a change.



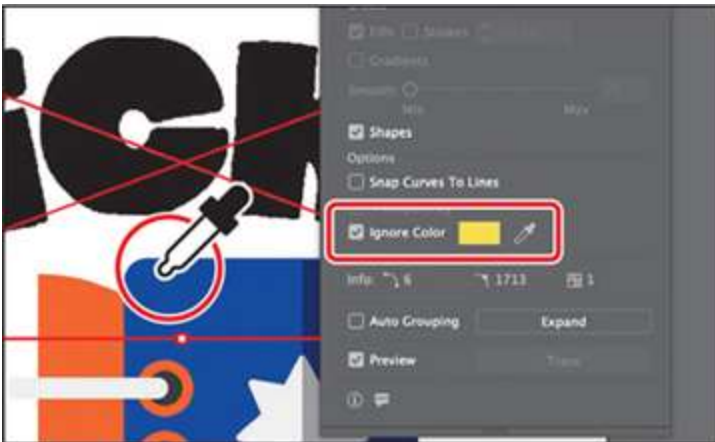
- Colors: 2

- Paths: **100%** (For path fitting. A higher value means a tighter fit.)
- Corners: **25%** (A higher value means more corners.)
- Noise: **50 px** (Reduces noise by ignoring areas of a set pixel size. A higher value means less noise.)

7. In the panel still, select Ignore Color. This lets you sample a color that will be excluded from the tracing.

8. Click the Eyedropper icon (👉) next to the Ignore Color option and click to sample the yellow color in the text background.

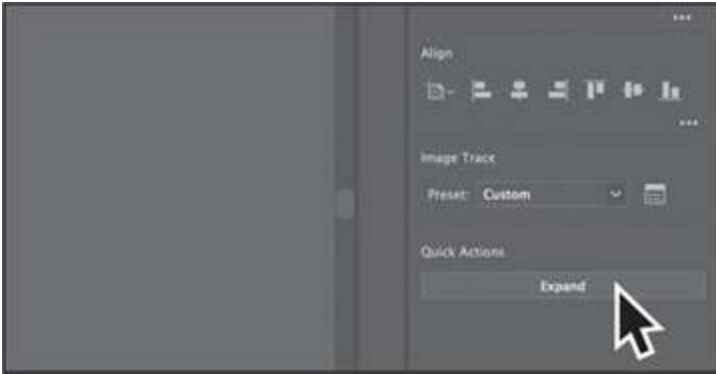
There are a lot of options in the Image Trace panel for you to explore.



9. Close the Image Trace panel.

10. With the text still selected, click the Expand button in the Properties panel.

The text is no longer an image tracing object but is composed of shapes and paths that are grouped together.



Cleaning up traced artwork

Because the text image has been converted to shapes using the Image Trace command, you can refine the shapes to make the text look better. You'll apply the Simplify command to make the edges a bit smoother. The Simplify command reduces the number of anchor points the path is made of without affecting the overall shape much. It can be used to remove imperfections in the traced path when using Image Trace.

1. With the text selected, choose Object > Path > Simplify.

In the Simplify options that appear, the Reduce Anchor Point slider is set to an auto-simplified value by default.

2. Drag the slider all the way to the left to remove a lot of points and see what the text looks like.

Dragging the slider to the left reduces the anchor points and simplifies the path. The closer the slider is to the minimum value on the left, the fewer the anchor points there are, but the path will most likely look different. The closer the slider is to the maximum value, the more it will look like it did before you applied the Simplify command.



3. Click the Auto-Simplify button (YA) in the Simplify options bar to set the default amount again.



4. Click the Advanced Panel option (⚙️) in the Simplify options bar. In the dialog box that opens, make sure Preview is selected to see the changes happen.

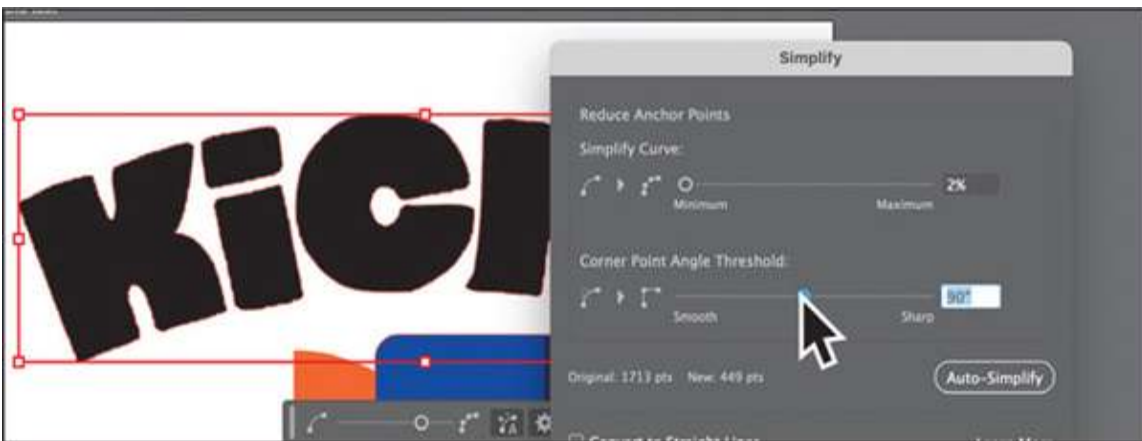
You can see the original number of anchor points (Original) of the text and the number of anchor points after applying the Simplify command (New).



5. In the Simplify dialog box, drag the Simplify Curve slider all the way to the right (Maximum).

This is a great starting point, and the artwork will look like it did before you applied the Simplify command.

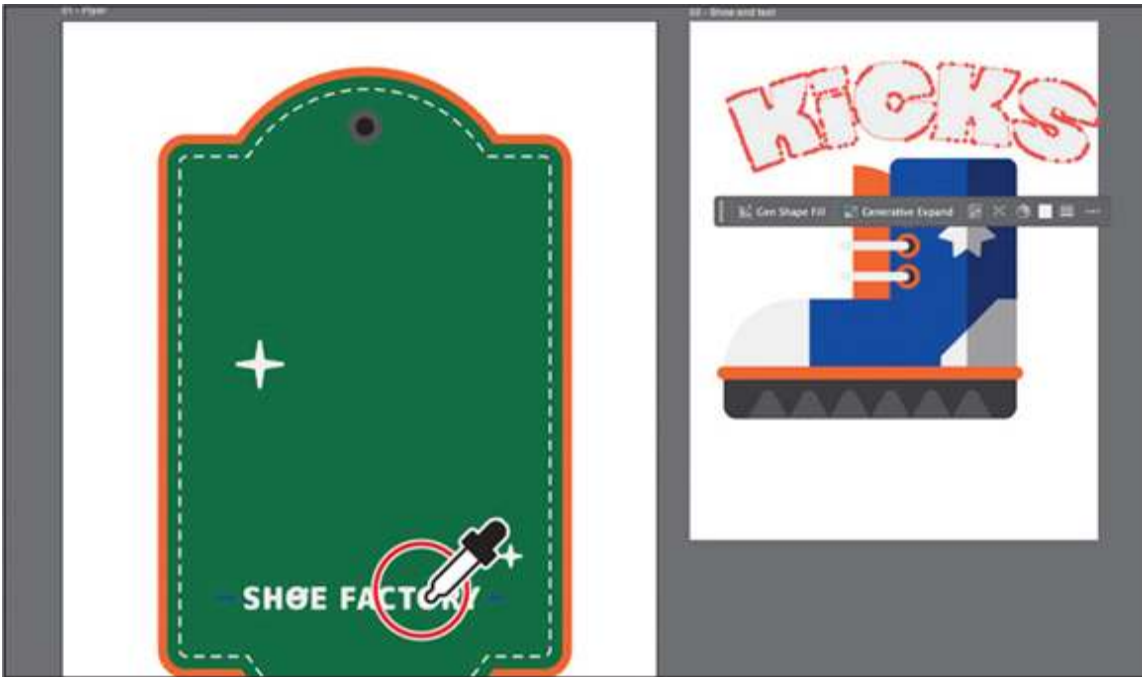
6. Drag the same Simplify Curve slider to the left until you think it looks smoother on the edges. I set the Simplify Curve option to almost 0%.
7. Do the same for the Corner Point Angle Threshold. Drag the slider until there are fewer ripples in the edge of the text. I set it to 90°.



For the Corner Point Angle Threshold, if the angle of a corner point is less than the angle threshold, the corner point is not changed. This option helps keep corners sharp, even if the value for Curve Precision is low.

8. Click OK.

9. Choose View > Fit All In Window.
10. Select the Eyedropper tool (🔍) from the toolbar and click in the “SHOE FACTORY” text in the badge to sample the color and apply it to the “KICKS” text.



Adding the text and shoe to the badge

You'll now move the shoe artwork and the text into place.

- With the Selection tool (🔍), drag the shoe and the text into the badge and arrange them however you like.

If you want to resize either, do so with the Selection tool, pressing the Shift key to maintain proportions.




Using Generative AI

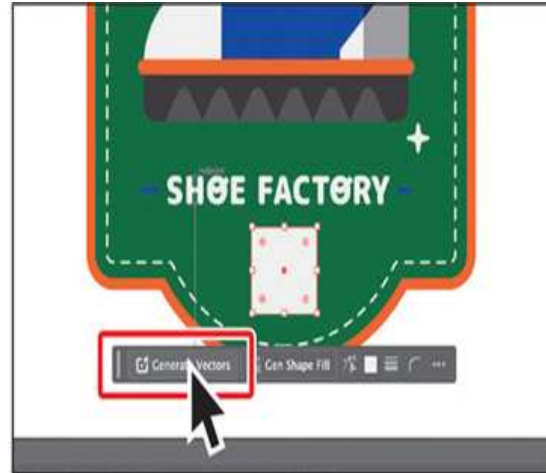
Using Text To Vector Graphic, Generative Shape Fill, and Generative Expand, you can generate all kinds of vector content based on a simple, everyday-language text prompt. This can be an incredible way to spark creativity and accelerate your workflows with generative AI in Illustrator. *Keep in mind as you go through the remaining sections that these features are always changing.*

Creating with Text To Vector

1. Choose View > Fit Artboard In Window.

You can generate artwork using Text To Vector Graphic with nothing selected, or, if you want to control the size, you can select a placeholder shape to generate artwork within it. You'll add a rectangle to the badge so it is used as a roughly sized placeholder.

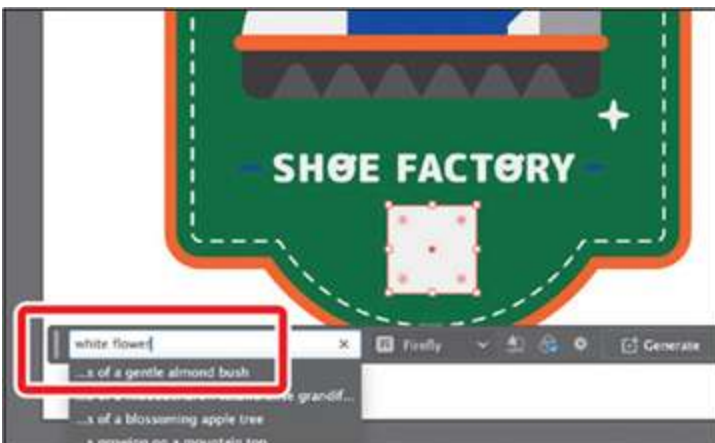
2. Select the Rectangle tool () from toolbar.
3. Draw a rectangle toward the bottom of the design.
4. Click the Generate Vectors button in the Contextual Task Bar beneath the artwork.



5. Type a prompt to make a simple flower icon. I typed **white flower**.

Most of the time you want to be more descriptive with your prompts to get the desired artwork. But this prompt worked well for me.

The Contextual Task Bar offers a few options you can click, but you'll open a settings dialog box where you will see them all.



6. Click the View All Settings option (⚙️) in the Contextual Task Bar.

In the Generate Vectors dialog box that opens, you have a lot of options you can set to refine the artwork generated.



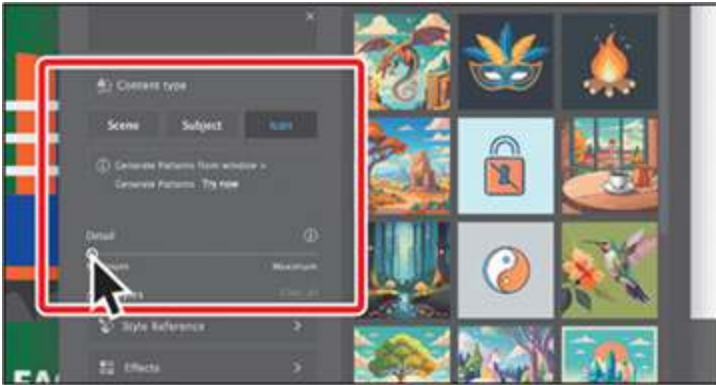
The thumbnails on the right side of the dialog box are example prompts you can click to start from. Hover over a thumbnail to see the prompt used.



There are currently three types of artwork you can generate using Text To Vector. You can see them in the Content Type section of the dialog box:

- **Scene**—Creates an entire vector scene with many elements.
- **Subject**—Creates artwork without a background. Choose this if you want to add something to an existing scene or design.
- **Icon**—Creates vector artwork that is low in detail without a background.

7. Select Icon, and make sure the Detail slider is farther to the left so the flower has less detail.



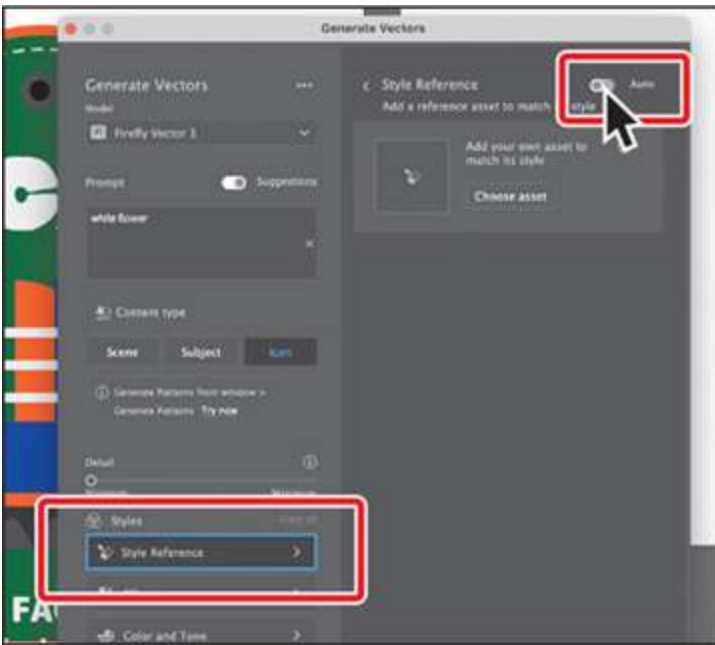
There are a number of Style options in the dialog box that you can use to control the appearance of the generated artwork. Here is a high-level overview of what each is:

- **Style Reference**—Sample artwork in your document to match the style of it.
- **Effects**—This is a fun way to control the “look” of your artwork.
- **Color and Tone**—Specify the number of colors and/or what colors to use.

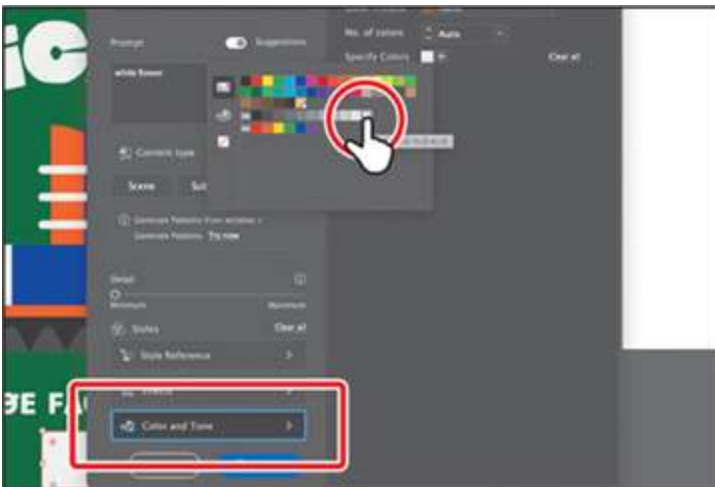
8. Click the Style Reference button.

9. In the upper-right of the dialog box, turn off Auto.

That way, it might follow the suggested prompt word “white.” Otherwise, it will make the generated art green or some other color widely used in the artwork on the artboard, by default.



10. Click Color and Tone. Click the plus on the upper-right to specify the light gray you've been using.



11. Click Generate at the bottom of the dialog box.

The first time you generate, a dialog box may appear that you can dismiss after reading. Then, after a short time, the rectangle will be replaced with generated artwork. The generated artwork is vector—which means it is completely editable!

The flower artwork that you see will *definitely* be something different than what you see in the book!

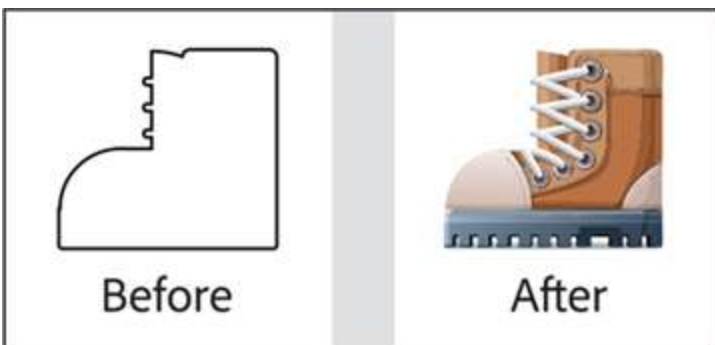
- 12.** In the Properties panel, click one of the other variation thumbnails to replace the selected flower in the badge.



Don't like what you see? Click the Generate button again to generate more artwork based on the same text prompt. You can also try changing your prompt text and/or the options and clicking Generate again! There are other options to explore related to the Text To Vector Graphic feature. As time goes on, this feature should only get better!

Generative Shape Fill

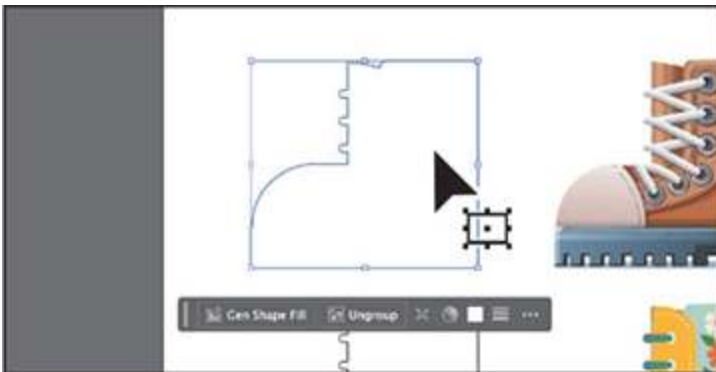
Another incredible way to use generative AI in Illustrator is Generative Shape Fill (Gen Shape Fill for short). With Gen Shape Fill, you can quickly fill a simple vector outline with rich detail and color that matches the look of your artwork.



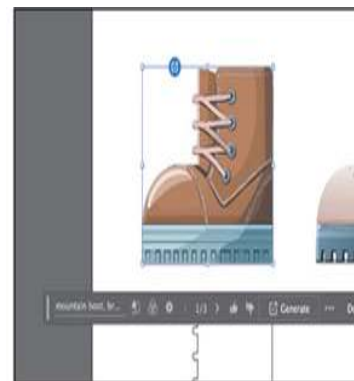
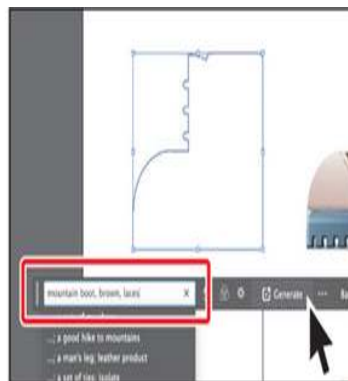
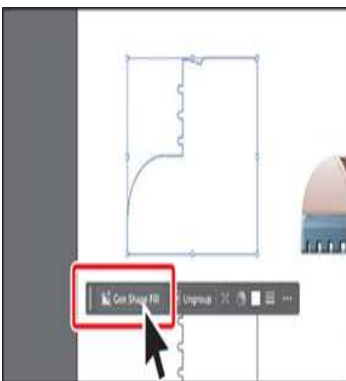
You'll explore Gen Shape Fill on a shoe outline that was made from the shoe you created in the lesson.

1. Choose File > Open. Open Generative_artwork.ai in the Lessons > Lesson03 folder you copied to your computer.
2. Navigate to the leftmost artboard with the shoes on it, and fit it in the window (View > Fit Artboard In Window).

With Gen Shape Fill, you can take a shape outline and generate artwork that fills the shape with detail and color in your own style. Give it a try!



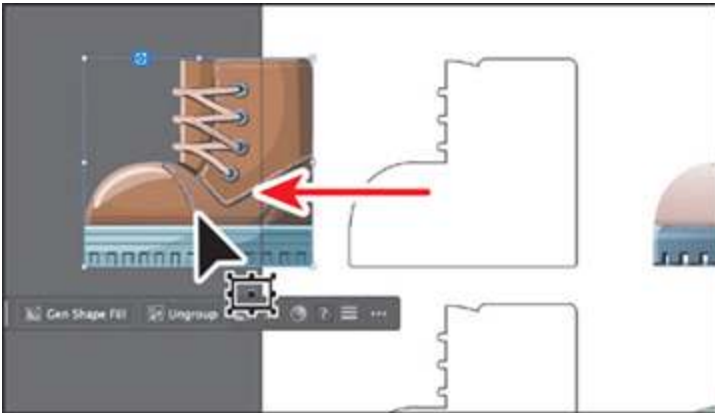
3. With the Selection tool, click one of the black shoe outlines.
4. Click Gen Shape Fill in the Contextual Task Bar.
5. Type a prompt in the prompt field. I tried, “mountain boot, brown, laces.”
6. Click Generate.



► **Tip**

With Gen Shape Fill, you don't need to type a prompt! Just click Generate, and Illustrator fills in the shape.

Here's an interesting thing: The generated shoe did not *replace* the black outline. If you drag your shoe artwork, you will see the outline underneath!



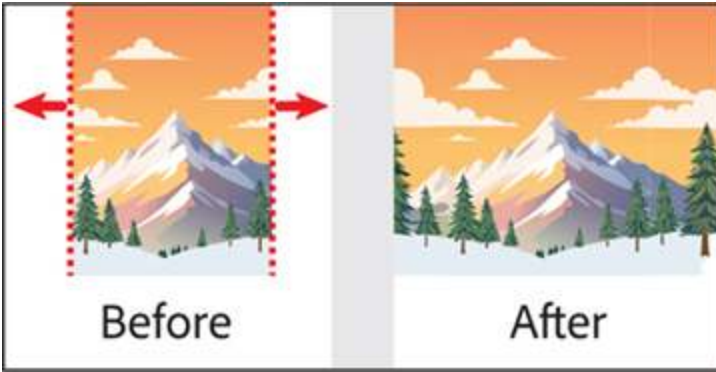
7. Try again. Select another black shoe outline, and this time, try *without* a prompt. Click Gen Shape Fill in the Contextual Task Bar, then simply click Generate.

► **Tip**

With Gen Shape Fill, you can also click the View All Settings option (⚙️) in the Contextual Task Bar, set some different options, and generate.

Generative Expand

Generative Expand generates vector graphics that extend artwork beyond its original bounds. Use it to expand artwork for ideation, adjust artboard layouts, or fill print bleed areas.



1. Navigate to the middle artboard with the mountain scene. Click in the mountain scene to select the group of artwork.

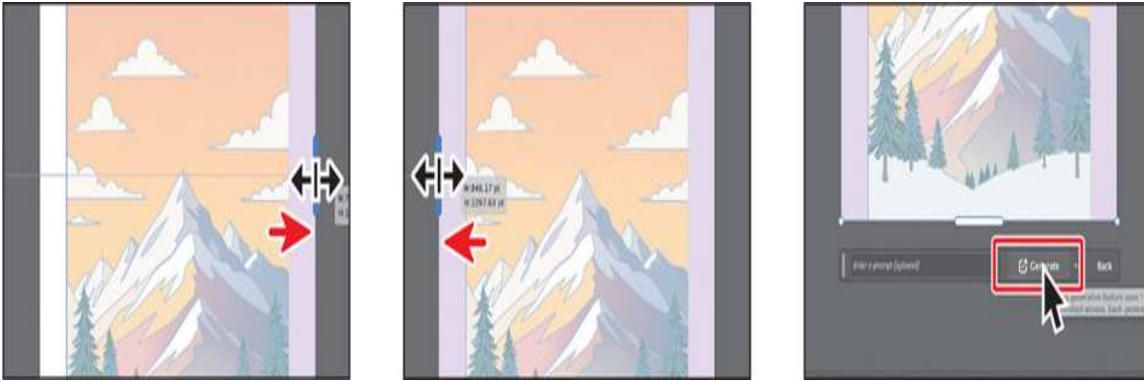
For the figure, I zoomed out a little, so the Contextual Task Bar is below the artwork, not above it.



2. In the Contextual Task Bar, click the Generative Expand button.

A rectangular frame with handles and widgets appears on the canvas.

3. Drag the right and left handles as far you want to add more artwork.
For this example, you can drag to the edges of the artboard, right and left.
4. Click Generate in the Contextual Task Bar.



Again, you don't need to add a prompt unless you want to try something else. Like Text To Vector, Generative Expand provides variations for you to choose from in the Properties panel.

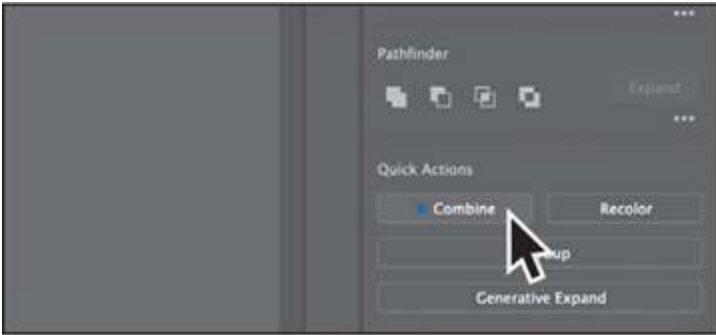


5. Click Combine in the Properties panel.

● Note

Once you combine, the artwork is no longer a Generative Object.

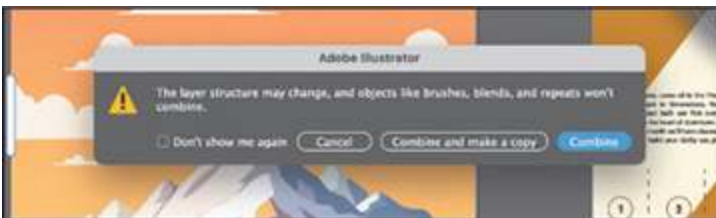
Combining will merge parts of objects across the expanded art and the original art. You get a logical grouping of objects that helps you edit them easily in the future.



6. In the dialog box that appears, click **Combine**.

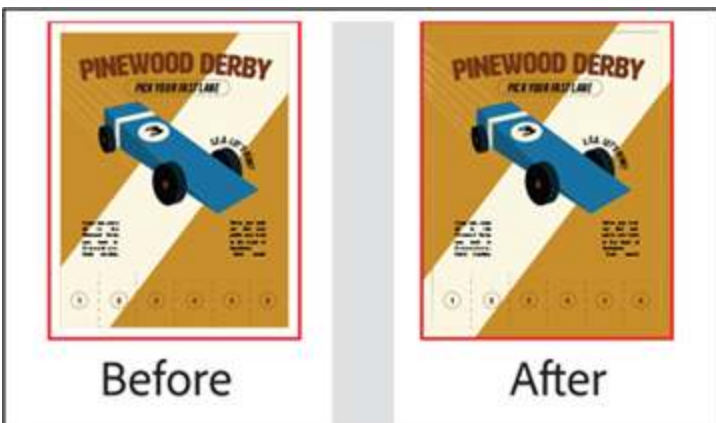
► Tip

You can also make a copy of all the selected artwork and combine the expanded art and the original art by clicking **Combine And Make A Copy**.



Generative Expand for bleeds

To learn about using Generative Expand to create artwork for a bleed area, check out the video *Generative Expand for bleeds*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.



7. Choose File > Save.
8. Choose File > Close for all open files.

Review questions

- 1 When creating a new document, what is a document category?
- 2 What are the basic tools for creating shapes?
- 3 What is a Live Shape?
- 4 Describe what Draw Inside mode does.
- 5 How can you convert a raster image into editable vector shapes?
- 6 Briefly describe what Text To Vector Graphic is.

Review answers

- 1 You can set up a document for different kinds of output, such as print, web, video, and more, by choosing a category. For example, if you are designing a web page mockup, you can select the Web category and select a document preset (size). The document will be set with the units in pixels, the color mode as RGB, and the raster effects to Screen (72 ppi)—all optimal settings for a web design document.
- 2 There are five shape tools in the Essentials workspace: Rectangle, Ellipse, Polygon, Star, and Line Segment (the Rounded Rectangle and Flare tools are not in the toolbar in the Getting Started workspace).
- 3 After you draw a rectangle, ellipse, star, or polygon (or a rounded rectangle, which wasn't covered) using a shape tool, you can continue to modify its properties, such as width, height, rounded corners, corner types, and radii (individually

4 Editing and Combining Shapes and Paths

Lesson overview

In this lesson, you'll learn how to do the following:

- Cut with the Scissors tool.
- Join paths.
- Work with the Knife tool.
- Work with the Eraser tool.
- Create a compound path.
- Outline strokes.
- Work with the Shape Builder tool.
- Use Pathfinder effects to create shapes.
- Work with the Reshape tool.
- Edit strokes with the Width tool.
- Use Intertwine.



This lesson will take about 45 minutes to complete. To get the lesson files used in this lesson refer to the instructions in [“Accessing the lesson files and Web Edition”](#) in the [“Getting Started”](#) section at the beginning of this book.



After you begin creating simple paths and shapes, you will likely want to use them to create more complex artwork. In this lesson, you'll explore how to edit and combine shapes and paths.

Starting the lesson

In [Lesson 3](#), “[Making Artwork with Shapes](#)”, you learned about making and editing basic shapes. In this lesson, you'll take basic shapes and paths and learn how to edit and combine them to create artwork for a diner (restaurant) poster.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. With Illustrator open, choose File > Open. Open L4_end.ai in the Lessons > Lesson04 folder you copied to your computer.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

This file contains the finished artwork.

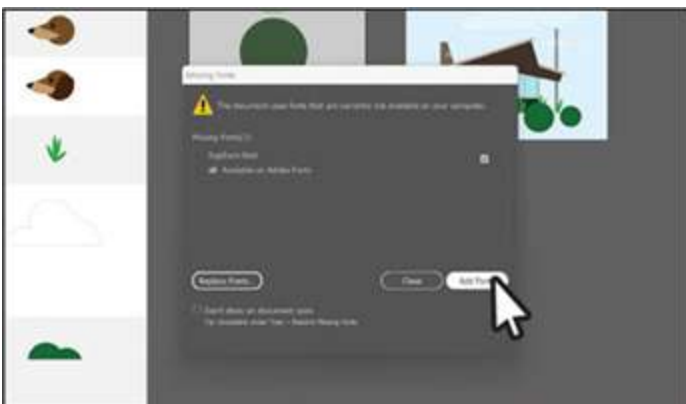


4. Choose View > Fit All In Window; leave the file open for reference, or choose File > Close.
5. Choose File > Open. Open L4_start.ai in the Lessons > Lesson04 folder you copied to your computer.
6. The Missing Fonts dialog box may appear. Click Add Fonts to add all the missing fonts. After they are added and you see the message stating that there are no more missing fonts, click Close.

● **Note**




You need an internet connection to activate fonts. The process may take a few minutes.

If you see another dialog box asking about font auto-activation, click Skip.




7. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer to save it on your computer.
8. In the Save As dialog box, change the name to **DinerPoster.ai** (macOS) or **DinerPoster** (Windows), and choose the Lesson04 folder. Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and then click Save.
9. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and click OK.
10. Choose Window > Workspace and make sure Getting Started is selected; then choose Window > Workspace > Reset Getting Started to reset the workspace.

Editing paths and shapes

In Illustrator, you can edit and combine paths and shapes in a lot of ways to create your artwork. Sometimes, that may mean starting with more straightforward paths and shapes and using different methods to produce more complex artwork. The methods and tools you will use in this lesson include working with the Scissors tool () , the Knife tool () , and the Eraser tool () ; outlining strokes; joining paths; and more.

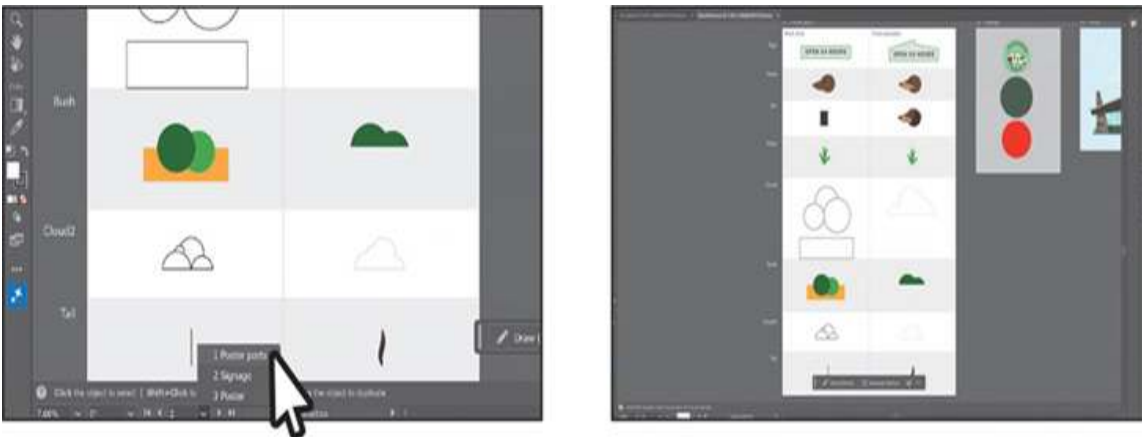
Cutting with the Scissors tool

Several tools allow you to cut and divide shapes. You'll start with the Scissors tool () , which splits a path at an anchor point or on a line segment to create an open path.



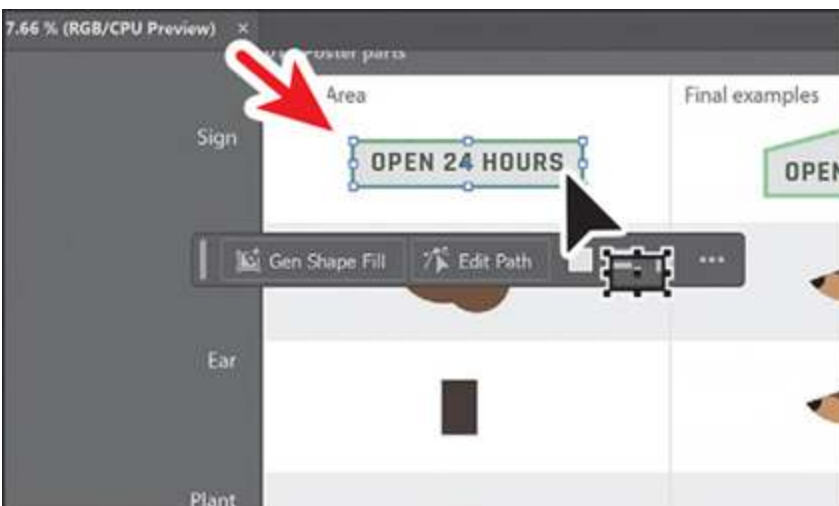
To start, you'll cut a shape for the restaurant sign with the Scissors tool and reshape it to look more like a building shape.

1. Click the View menu above the document, and make sure that the Smart Guides option is selected. A checkmark appears when it's selected.
2. Choose 1 Poster Parts from the Artboard Navigation menu in the lower-left corner of the Document window.

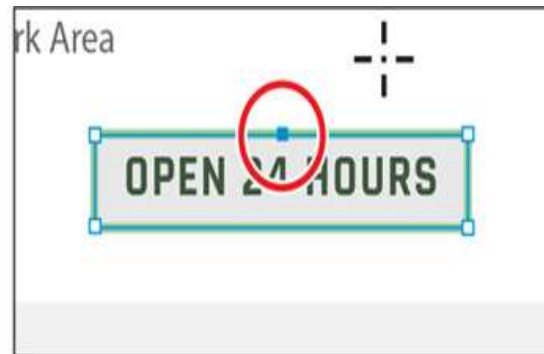


You can see examples of what you will make in the column labeled Final Examples. You will work on the artwork in the Work Area column.

3. Select the Selection tool (⬚) in the toolbar, and click the gray shape with the green stroke behind the “OPEN 24 HOURS” text on the upper-left side of the artboard.



4. Press Command and + (macOS) or Ctrl and + (Windows) several times to zoom in to the selected artwork.
5. With the shape selected, in the toolbar press and hold on the Eraser tool (◆), and select the Scissors tool (✂).
6. Move the pointer over the top edge of the shape, in the middle. You may see the word “midpoint.” Click to cut the path at that point, and then move the pointer away.

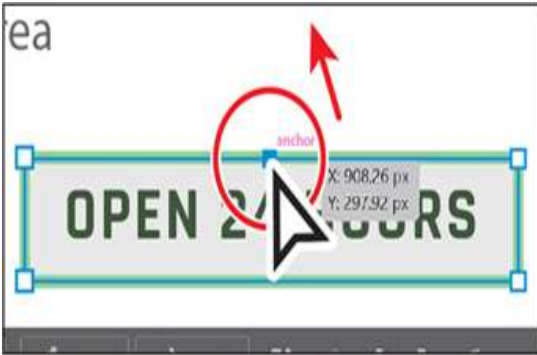


● **Note**

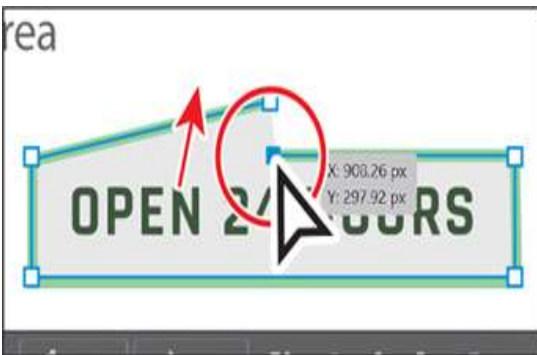
To learn more about open paths and closed paths, see the section “[Creating with basic shapes](#)” in [Lesson 3](#).

Cuts made with the Scissors tool must be somewhere on a line or a curve rather than on the end of an open path, as with a line. With the Scissors tool, when you click the stroke of a closed shape, like the shape in this example, the path is cut where you click so that it becomes an open path.

7. Select the Direct Selection tool (⬮) in the toolbar.
8. Move the pointer over the selected (blue) anchor point, and drag it up and a little to the left.



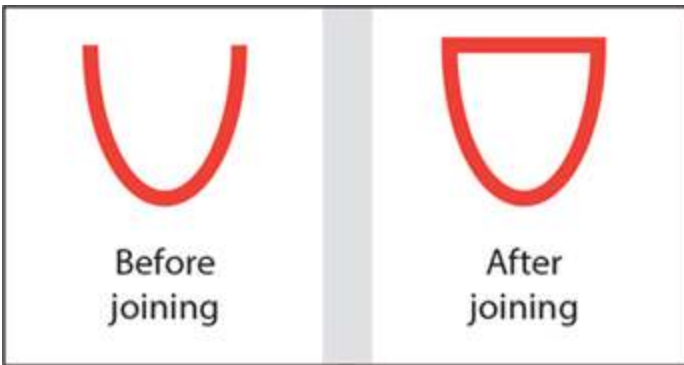
9. From where you originally cut the shape, drag the other anchor point up and a little to the right.



Notice that the stroke (the green border) doesn't go all the way around the shape now. Cutting a shape with the Scissors tool makes it an open path. It doesn't have to be a closed path if you want only to fill the shape with a color. However, a path must be closed if you want a stroke to appear around the entire fill area.

Joining paths

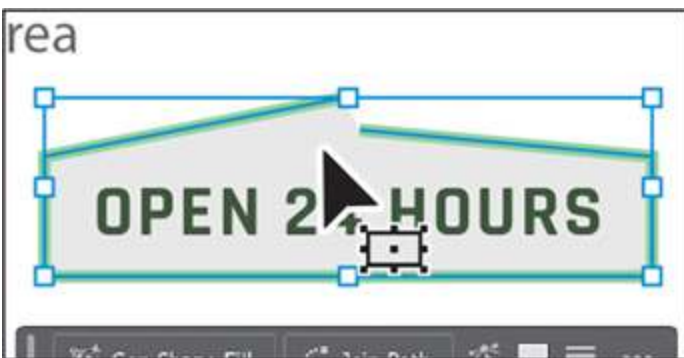
Suppose you have a "U" shape and want to close the shape, joining the ends of the "U" with a straight path. You can use the Join command to create a line segment between the end points, closing the path.



When more than one open path is selected, you can join their ends to create a closed path. You can also join specific end points of two separate paths. Next, you'll join the ends of the sign shape you just edited to create a closed shape again.

1. Select the Selection tool (⬮) in the toolbar.
2. Click away from the path to deselect it, and then click in the gray fill to reselect it.

This step is important! Only one anchor point was left selected from the previous section. If you were to choose the Join command with only one anchor point selected, an error message would appear.




By selecting the whole path, when you apply the Join command, Illustrator simply finds the two ends of the path and connects them with a straight line.

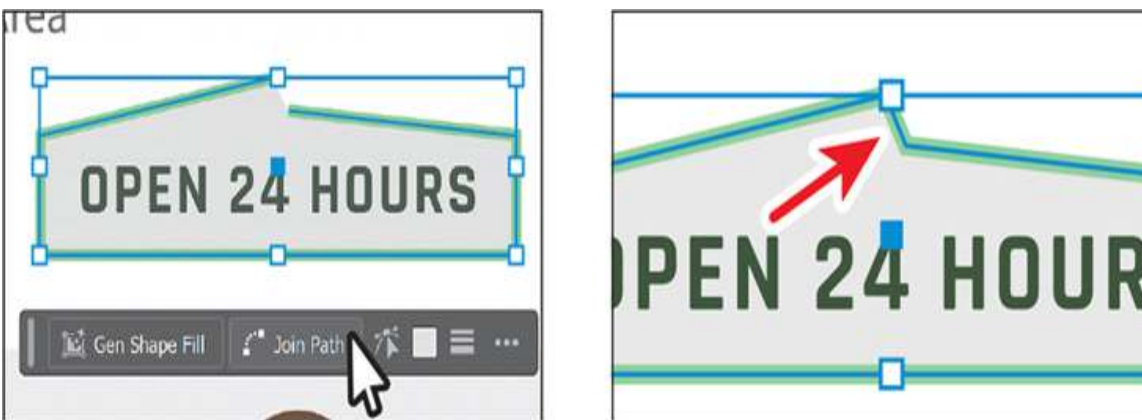
3. Click the Join Path button in the Contextual Task Bar below the artwork (or the Join button in the Quick Actions section of the Properties panel).

► **Tip**

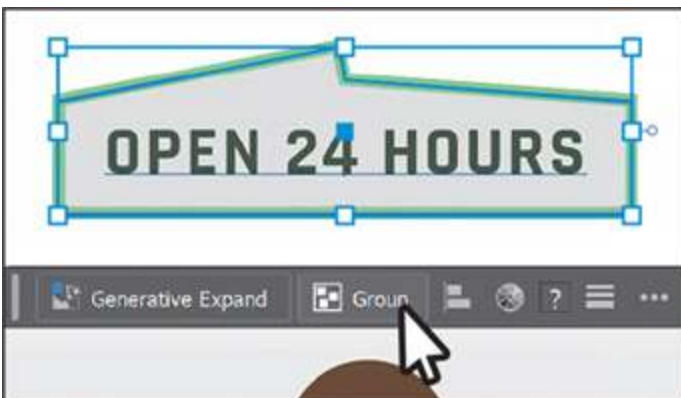
If you want to join specific anchor points from separate paths, select the anchor points and choose Object > Path > Join or press Command+J (macOS) or Ctrl+J (Windows).

► **Tip**

In [Lesson 6](#), “[Using the Basic Drawing Tools](#),” you’ll learn about the Join tool () , which allows you to join two paths at a corner, keeping the original curve intact.

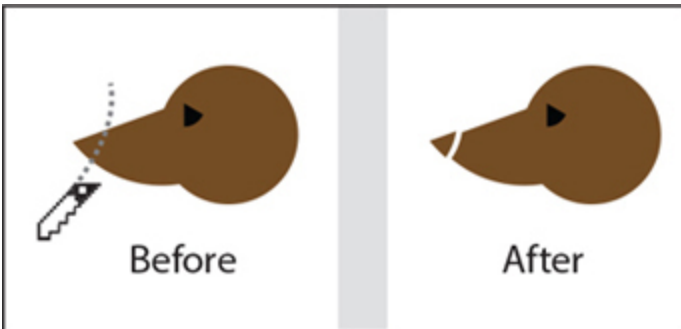


4. Shift-click the “OPEN 24 HOURS” text to select it as well.
5. Click the Group button in the Contextual Task Bar to group them together so they move as one.
6. Choose Select > Deselect, and then choose File > Save.



Cutting with the Knife tool

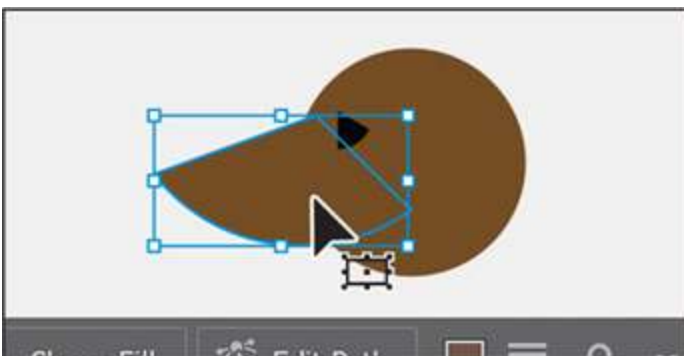
You can also use the Knife tool (✂) to cut vector artwork. With the Knife tool, you drag across a shape and instead of creating open paths like the Scissor tool, you end up with closed paths. The Knife tool is a great way to make multiple shapes from a single shape—so you can apply different colors, for instance.



In this section and the next, you'll cut a shape into multiple shapes to make the head of a dog.

1. Press the spacebar to access the Hand tool (✎), and drag up in the document window to see the brown shapes just below the “OPEN 24 HOURS” sign.
2. With the Selection tool (⬮) selected, click the brown shape you see to the right.

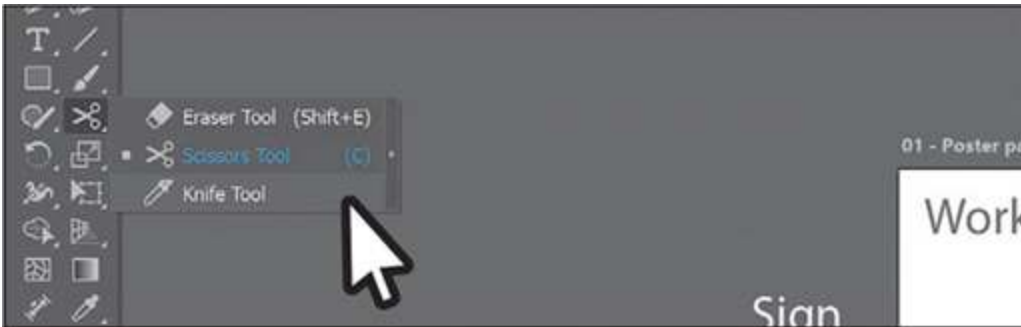
Now you need to access the Knife tool, but it's not in the default toolbar. You'll switch over to a more advanced toolbar for the moment so you can access the tools you need.



3. Choose Window > Toolbars > Advanced.

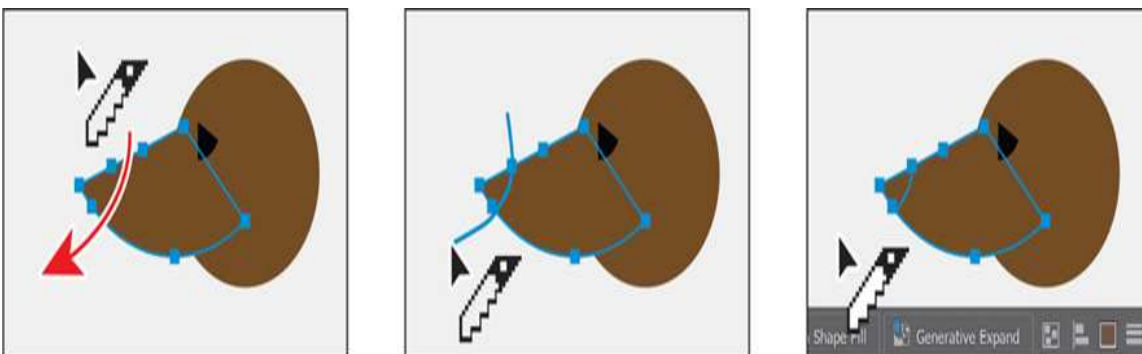
You should now see a lot more tools in the toolbar on the left.

4. Press and hold on the Scissors tool (✂) in the toolbar, and select the Knife tool (🔪) from the menu of tools.



First, you'll use the Knife tool to make a freeform cut across the brown shape, making the nose of the dog.

5. With the Knife tool selected in the toolbar, move the Knife pointer (🔪) above the selected shape. Drag to cut a nose out of the shape. See the figure for where!



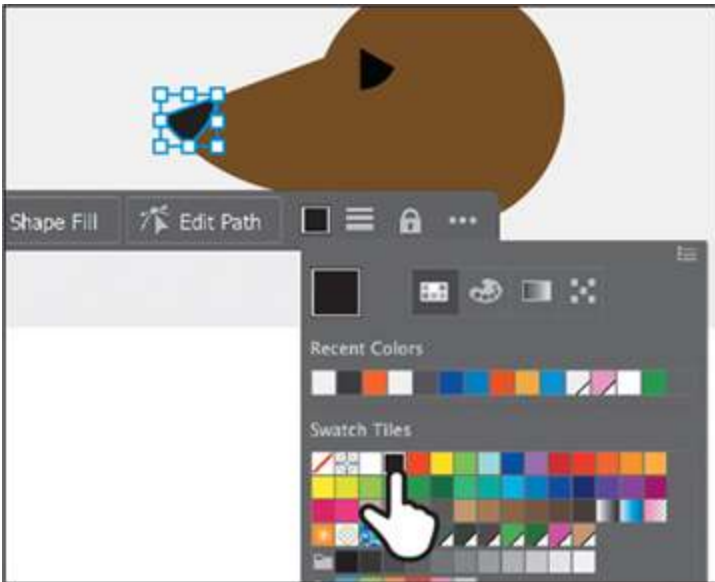
If artwork is selected, it is the only thing that can be cut by the Knife tool. If nothing is selected, the Knife tool will cut *any* vector objects it touches.

► Tip

Don't like your cut? Try again! Choose Edit > Undo Knife Tool and try cutting again.

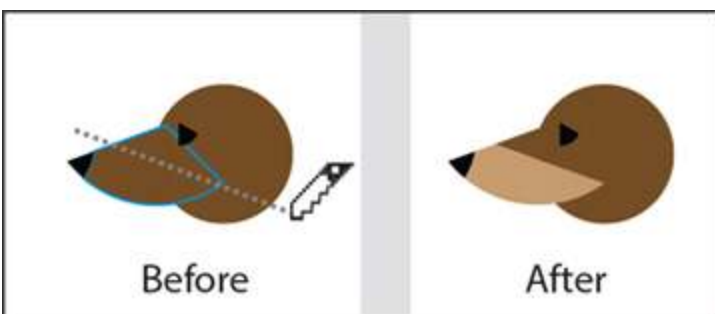
6. Choose Select > Deselect.

7. Select the Selection tool (▢), and click the new nose shape (see the following figure).
8. Click the Fill color box in the Contextual Task Bar or Properties panel, make sure the Swatches option (🎨) is selected in the panel that appears, and select black.
9. Choose Select > Deselect.





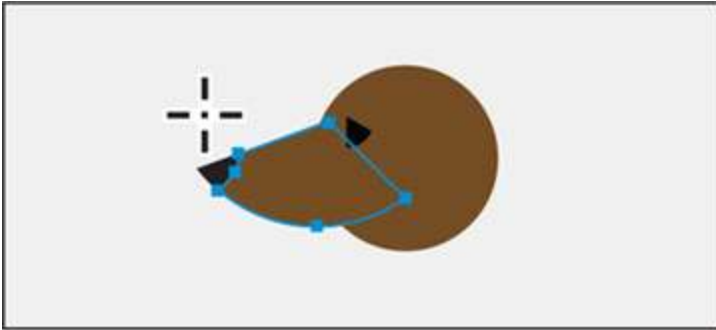
Cutting in a straight line with the Knife tool

By default, as you just saw, dragging across a shape with the Knife tool makes a freeform cut that is not straight (and can be hard to control). Next, you'll see how to cut artwork in a straight line with the Knife tool to give the dog a different color muzzle.



1. With the Selection tool (▢), click what is left of the same brown shape. See the following figure.

2. Select the Knife tool () in the toolbar.
3. Move the pointer just above the top of the shape.
4. Press the Caps Lock key to turn the Knife tool pointer into crosshairs ()



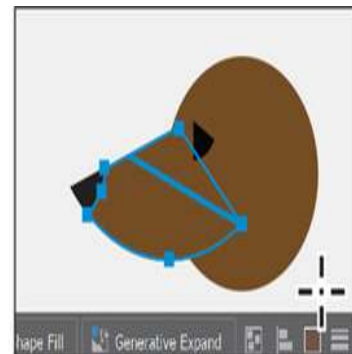
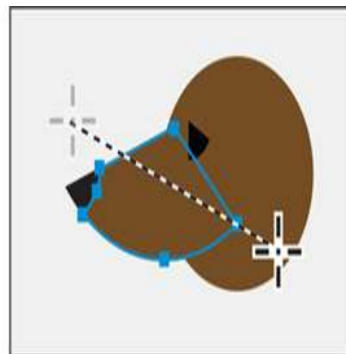
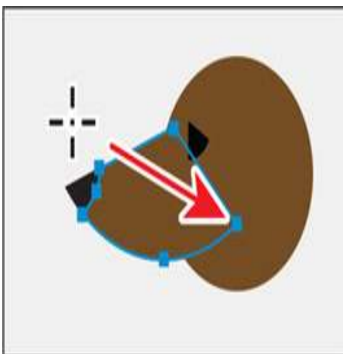
The crosshairs pointer is more precise and can make it easier to see exactly where you begin cutting.

5. Press and hold Option (macOS) or Alt (Windows), and begin dragging across the shape to cut it into two. *Don't release anything yet!* Keep dragging over the anchor point on the right. See the figure.

● **Note**

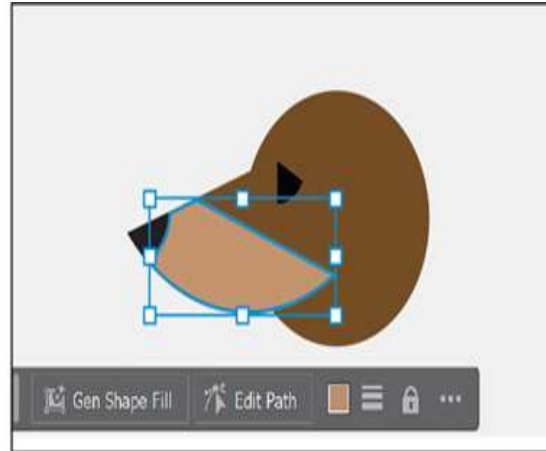
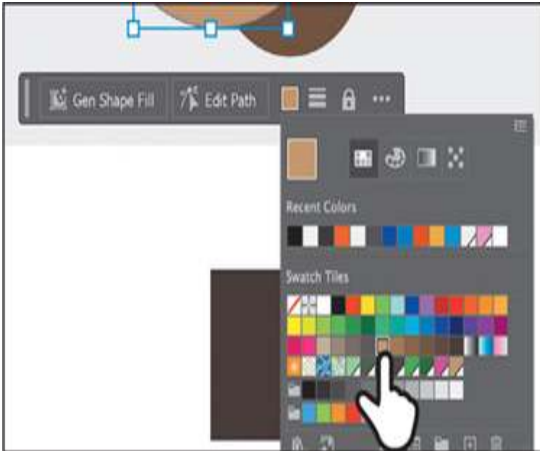
Pressing the Option/Alt key keeps the cut straight. Adding the Shift key (Option/Alt-Shift) would constrain the cutting to a multiple of 45°.

6. Release the drag and then the key to make the cut.



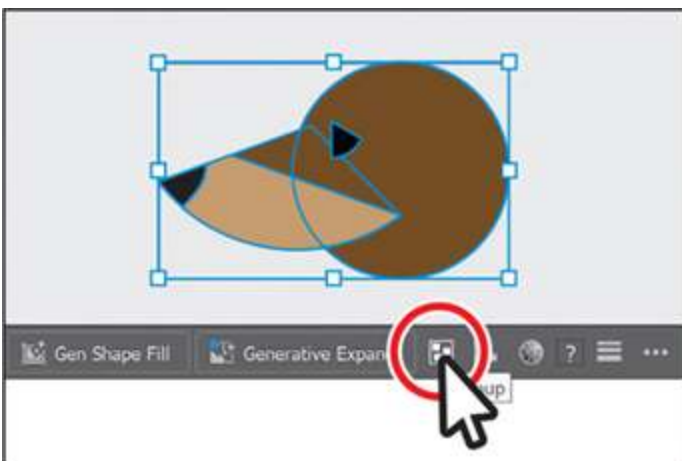
7. Choose Select > Deselect.

8. Select the Selection tool (▢), and click the bottom-left part of the original shape (see the following figure).
9. Click the Fill color box in the Contextual Task Bar, make sure the Swatches option (🎨) is selected in the panel that appears, and click to apply a lighter brown.




Up to this point, you've been using several ways to change the fill color of artwork—the Properties panel and the Contextual Task Bar. You can choose which way you prefer as you progress.

10. Drag across all of the dog head shapes to select them.
11. Click the Group button (📁) in the Contextual Task Bar.
12. Press the Caps Lock key to turn off the pointer crosshairs.

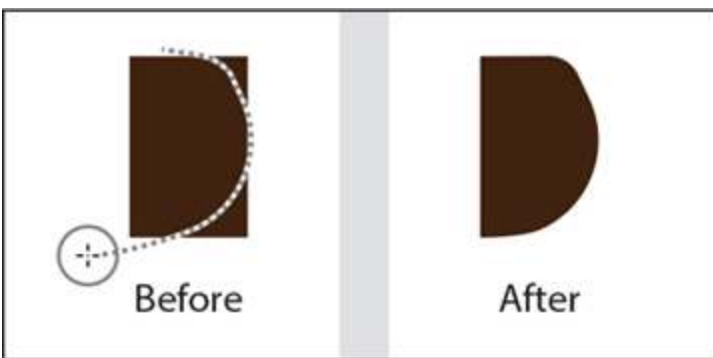


Using the Eraser tool





The Eraser tool () lets you erase areas of your vector artwork. With nothing selected, you can erase any object that the tool touches. If any artwork is selected, only that artwork can be erased.

Note

Currently, you cannot erase raster images, text, symbols, graphs, or gradient mesh objects.

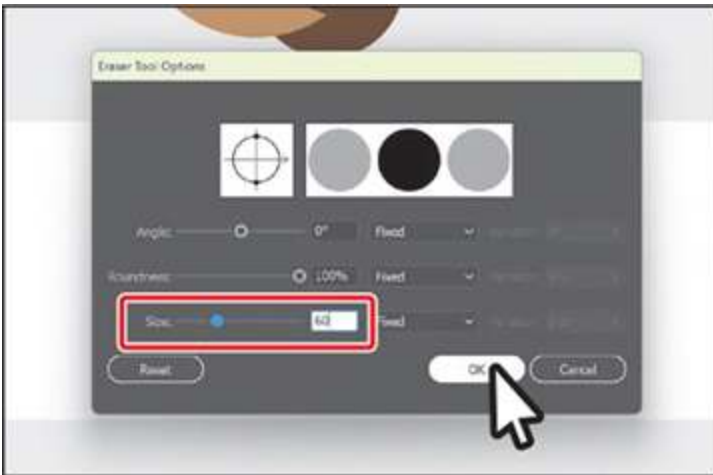


Next, you'll use the Eraser tool to erase part of a rectangle so it looks more like the ear of a dog.

1. Choose Select > Deselect.
2. Press the spacebar to select the Hand tool (). Drag up in the Document window so you can see the brown rectangle below the dog's head.
3. Press and hold on the Knife tool () , and select the Eraser tool () in the toolbar.
4. Double-click the Eraser tool () in the toolbar to edit the tool properties.

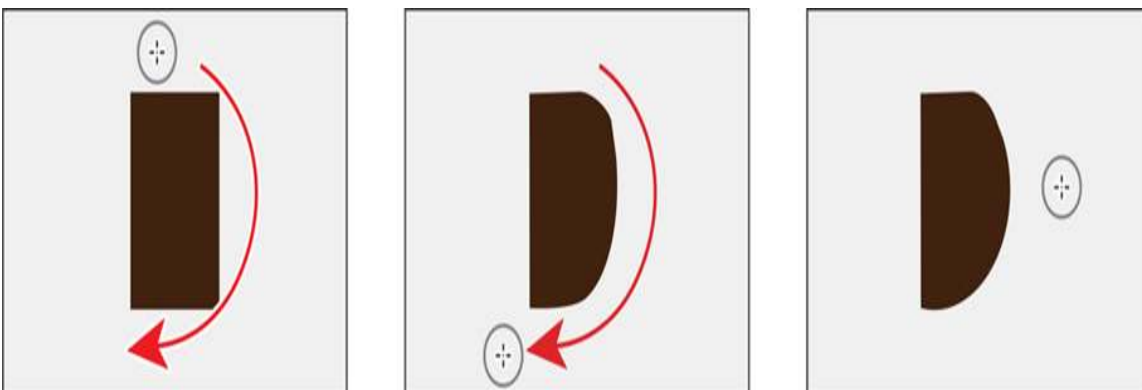
► **Tip**

With the Eraser tool selected and nothing selected in the document, you could also click the Tool Options button at the top of the Properties panel to see the Eraser Tool Options dialog box.




5. In the Eraser Tool Options dialog box, change Size to **60 pt** to make the eraser larger. Click OK.
6. Move the pointer above the brown rectangle. Drag down in an arc to remove part of the right side.

When you release the drag, part of the shape is erased, and the shape is still a closed path.



If you find that you haven't quite erased enough, drag across the right side again until it looks the way you want. At any point, if you've erased too much, you can choose Edit > Undo Eraser and try again.

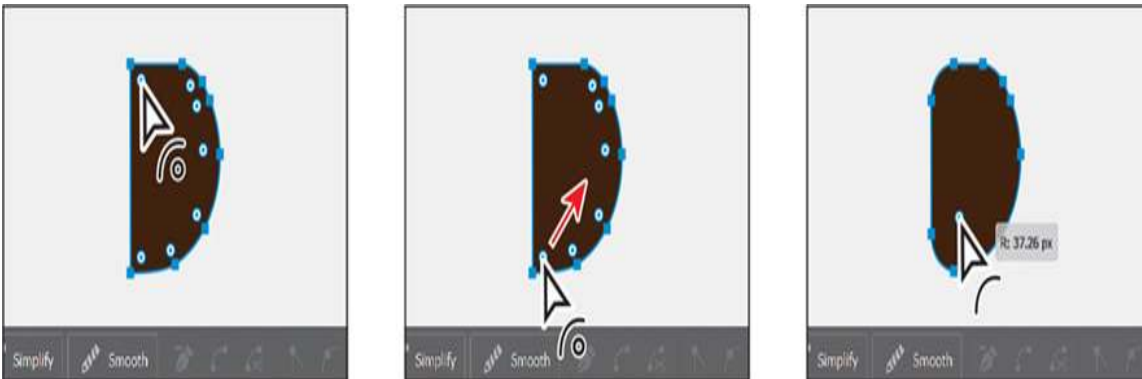
Now you'll round the corners on the left side of the same shape.

7. Select the Direct Selection tool () and click the brown shape to select it.
8. Click the Corner Radius widget in the upper-left corner and Shift-click the lower-left corner widget to select both.


● **Note**

Depending on how much you erased, you might have more than one widget in a corner.

9. Drag one of the selected widgets to round the corners a bit.

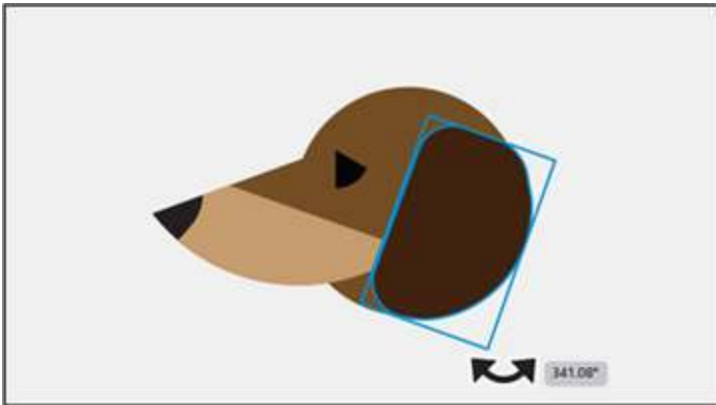


Next, you will add the ear to the dog's head and group them together.

10. Select the Selection tool, and drag the ear onto the head of the dog directly above it. You may need to zoom out to see both.
11. Move the pointer just off a corner of the bounding box around the ear, until you see the rotate arrows (). Drag to rotate it a bit.

● Note

I made the ear shape in the figure a little bigger so it would look better.



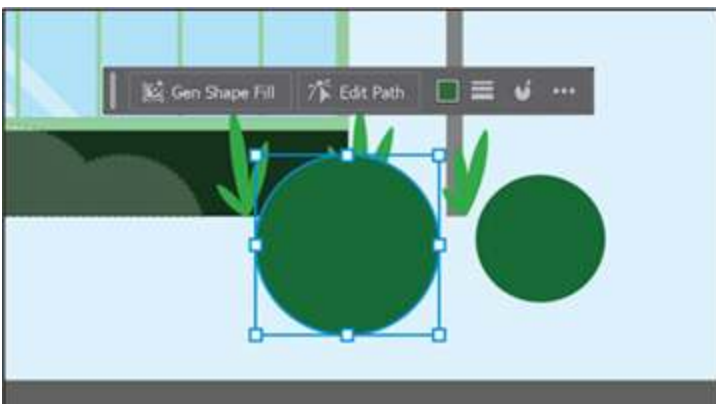
12. Drag across the dog's head and click the Group button (⌘+G) in the Contextual Task Bar.

Toward the end of the lesson, you will drag the head onto a sign and add it there.

Erasing in a straight line

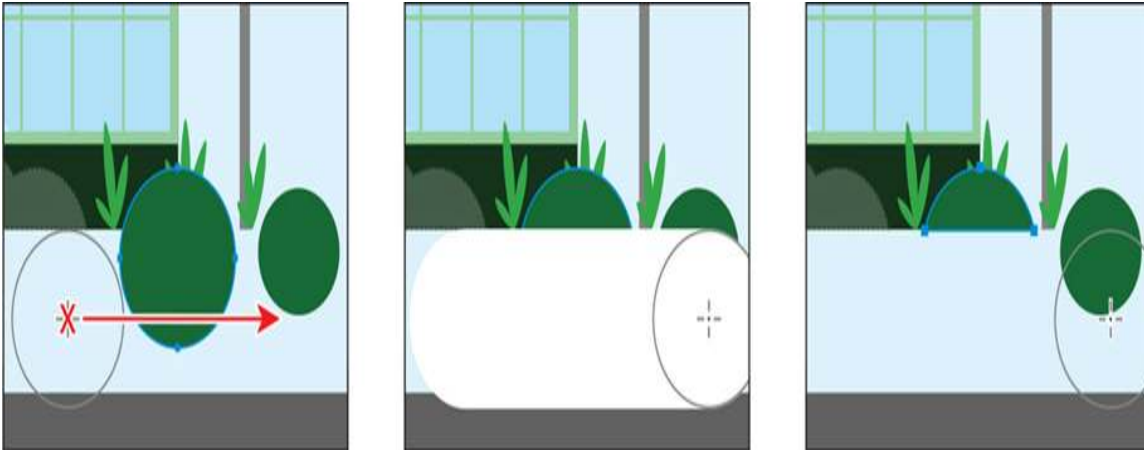
Next, you'll erase a circle in a straight line to make a bush.

1. Choose 3 Poster from the Artboard Navigation menu in the lower-left corner of the Document window.



2. With the Selection tool (⌘+V), click the larger green circle.
3. Choose View > Zoom In a few times to see more detail.

4. Double-click the Eraser tool (🔍) to edit the tool properties. In the Eraser Tool Options dialog box, change Size to **300 pt** to make the eraser much bigger. Click OK.
5. With the Eraser tool (🔍) selected, move the pointer to where you see the red “X” in the first part of the following figure. Press the Shift key, and drag straight across to the right. Release the drag and then the Shift key.

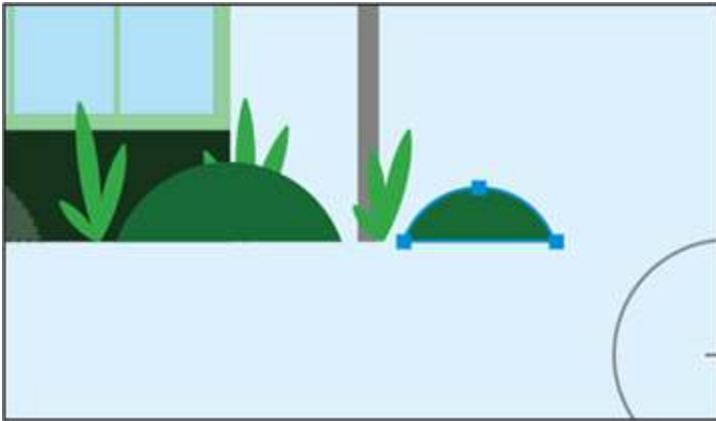


If nothing is erased, try again. If it didn't erase in a straight line, choose Edit > Undo Eraser and try again. Also, it may look like you erased other artwork, but if nothing else was selected, you didn't.

6. Select the smaller green circle to the right and practice by erasing the bottom half to make another bush.

► **Tip**

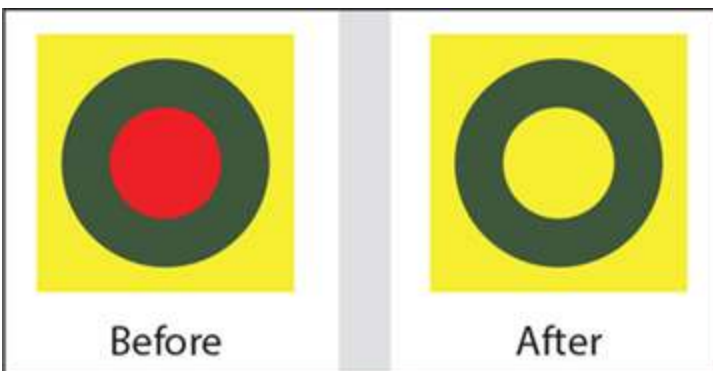
While using almost any tool, pressing Command/Ctrl turns the tool into a temporary Selection tool.



7. Choose File > Save.

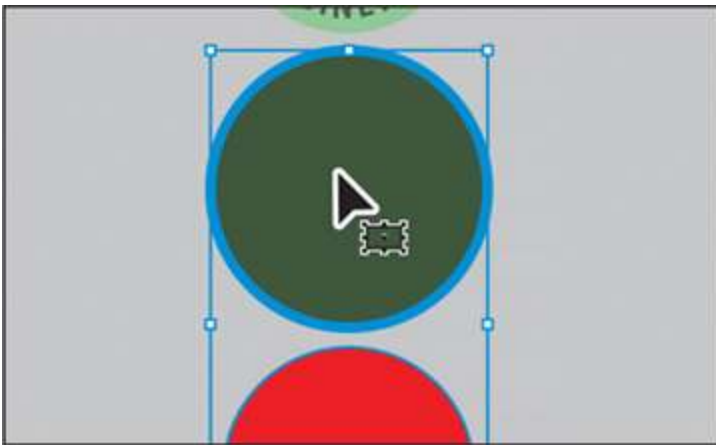
Creating a compound path

When you select two or more overlapping vector objects—such as circles—and make them a compound path, the top object “cuts out” its shape from the one beneath it. In other words, holes appear wherever the paths overlap.

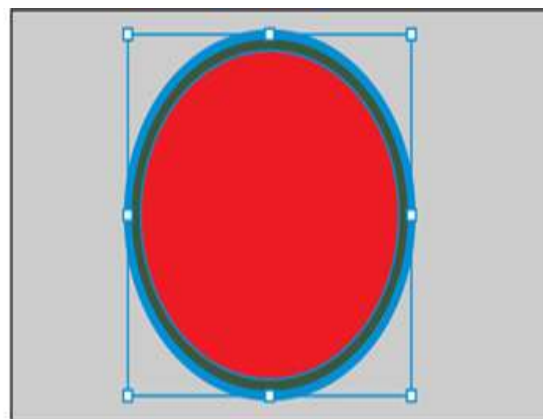
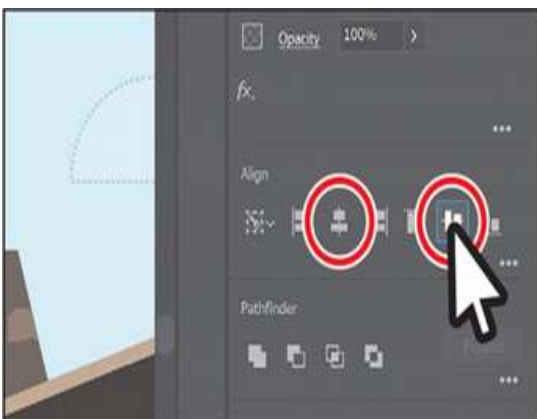


Think of a compound path like a doughnut: two circles combined so the smaller one punches a hole through the larger. A compound path behaves much like a group—you can still edit each object individually or release the compound path if you want to return them to separate shapes. Next, you’ll create a compound path to complete the rest of the diner sign.

1. Choose 2 Signage from the Artboard Navigation menu in the lower-left corner of the Document window.
2. With the Selection tool (▸), select the red circle at the bottom of the artboard.
3. Shift-click the dark green circle above it to select both. Release the Shift key.
4. Click the larger dark green circle to make it the key object so the red circle will align with it.



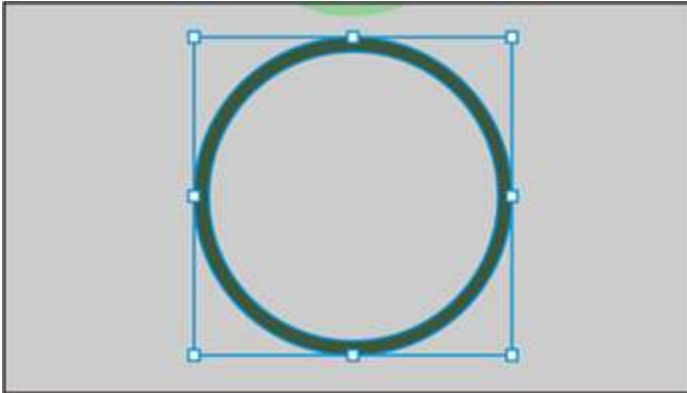
5. In the Properties panel, click the Horizontal Align Center button (⌵) and the Vertical Align Center (⌵) button to center the red circle on the green circle.



6. With both circles selected, choose Object > Compound Path > Make, and leave the artwork selected.

► **Tip**

You can still edit the original shapes in a compound path like this one. To edit them, double-click the compound path with the Selection tool to enter Isolation mode and select the individual shapes.






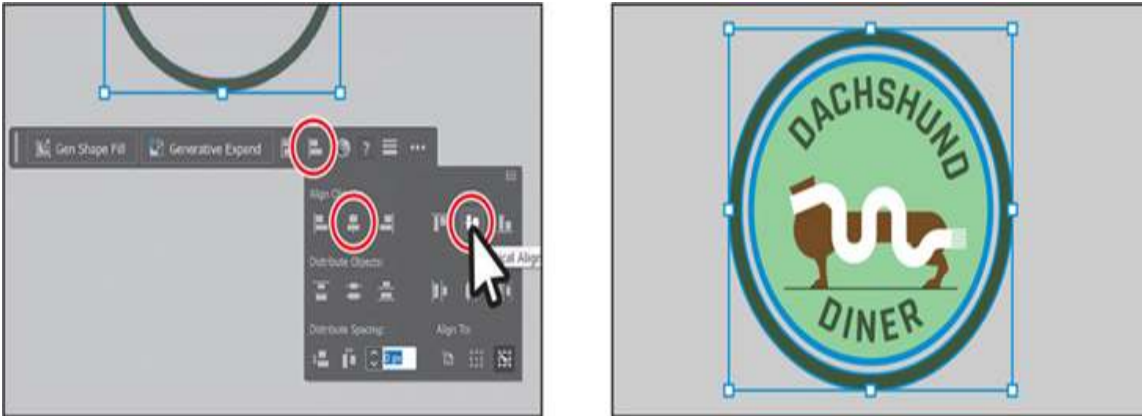
The red circle has seemingly disappeared, and you can see through the green circle to the gray background. The red circle “punched” a hole in the green shape.

With the shape still selected, you should see “[Compound Path](#)” at the top of the Properties panel to the right.

7. Shift-click the light green circle that is the background of the “DACHSHUND DINER” text above it to select it as well. Release the Shift key.

Now you’ll align the compound path you just made to the light green circle.

8. Click the same light green circle to make it the key object.
9. In the Contextual Task Bar, click the Align option () and then click the Horizontal Align Center button () and the Vertical Align Center () button to center the compound path on the light green circle.

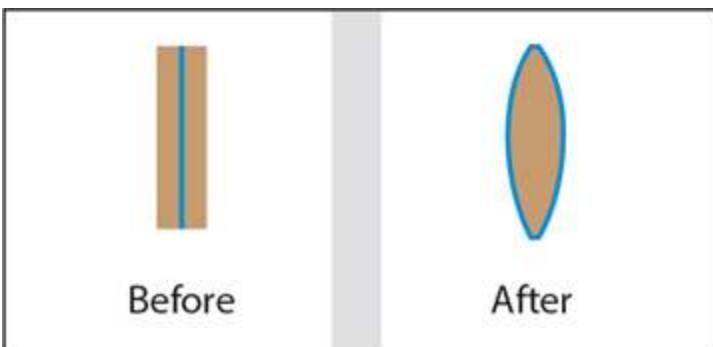


Using the Contextual Task Bar, you can perform some of the more routine operations right by the artwork, without having to go to the Properties panel.

10. Choose Select > Deselect, and then choose File > Save.

Outlining strokes

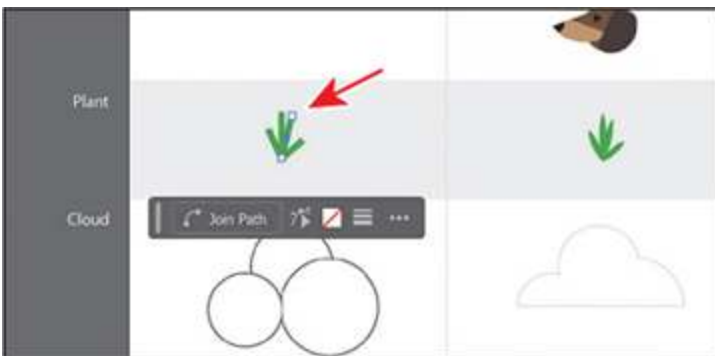
A path, like a line, can have only so many things done to it. For example, you can only shorten a path by erasing it. To erase a line to look like what you see in the figure, you need to turn it into a shape by outlining the stroke.



Next, you'll outline the stroke of a line so you can make it look like a plant leaf.

1. Choose 1 Poster Parts from the Artboard Navigation menu in the lower-left corner of the Document window.
2. With the Selection tool (▀), click a green plant path in the Work Area column.

To erase part of the path and make it look like a plant leaf, the path will need to be a filled shape, not a path.

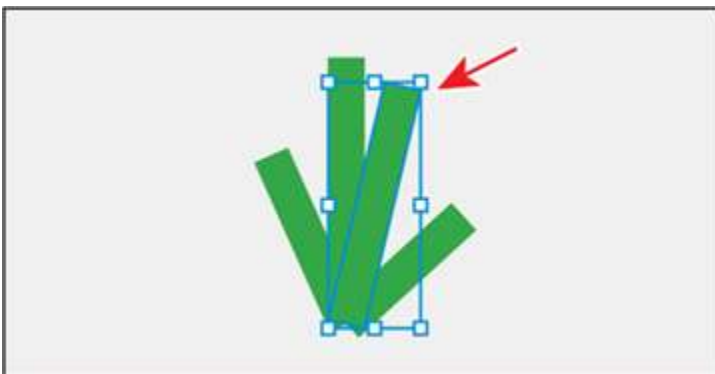


3. Choose View > Zoom In a few times to see the path more easily.

If you look in the Properties panel, you can see that the path has a stroke but no fill.

4. Choose Object > Path > Outline Stroke.

The path is now a shape with a green fill. Next, you'll erase parts of the shape so it looks more like a plant.



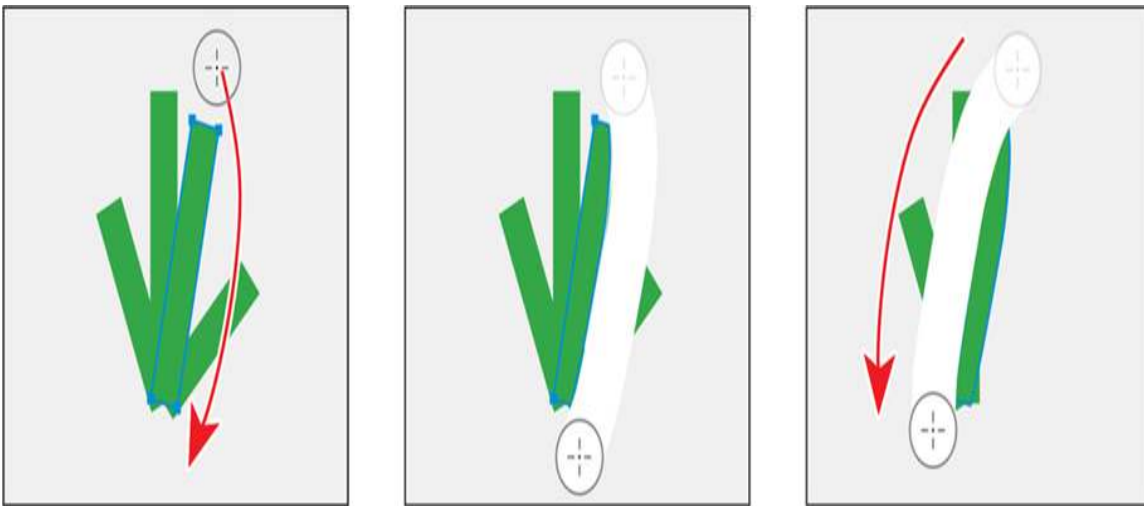
5. Select the Eraser tool (🔪) in the toolbar.

● Note

It might be challenging to make the erasure smooth! Zooming in can help. You can also select the final shape and choose Object > Path > Simplify. You learned about the Simplify command in [Lesson 3](#).

Before erasing with the rather large brush size you have set, you may want to double-click the Eraser tool and set the size to be smaller. I set mine to 60.

6. With the shape selected, drag from the top down along the right side.
7. Do the same for the left side to make a leaf shape.



Practice: Erase more plants!

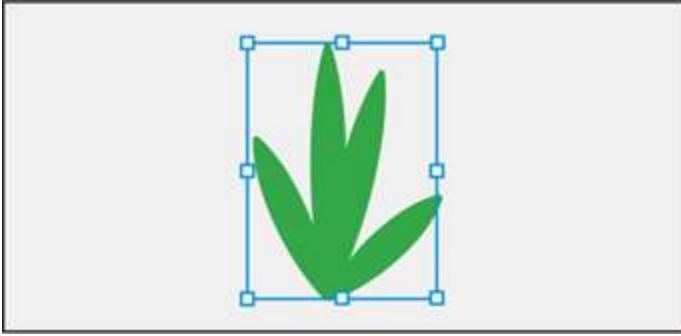
For practice, erase the edges of more of the green plants.

1. Select another green path in the plant, outline the stroke (Object > Path > Outline Stroke), and erase it.

► Tip

I always strive to work smarter, not harder. If this were a real-world project, I would outline, erase to create one leaf, and then copy it a few times, scaling and rotating each copy!

Try outlining and erasing the next two paths in the plant.




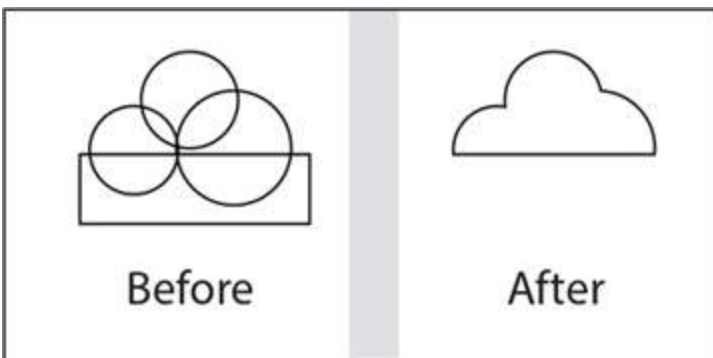
2. When you are finished, with the Selection tool selected, drag across the green plant shapes and group them by clicking the Group button in the Contextual Task Bar.

Combining shapes

Creating more complex shapes from simple shapes can be easier than making them with drawing tools like the Curvature tool. In Illustrator, you can combine artwork in various ways. The resulting paths or shapes differ depending on the method you use to combine the paths. This section explores a few more widely used methods for combining shapes.

Working with the Shape Builder tool

The first method you'll learn for combining shapes involves working with the Shape Builder tool ()

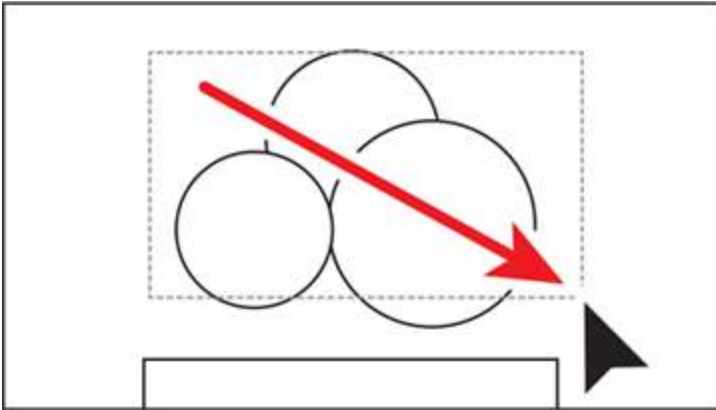


This tool allows you to visually and intuitively merge, delete, fill, and edit overlapping shapes and paths directly in the artwork. You will likely use it a lot once you see how easy it is! In this section, you'll create a cloud from a series of circles using the Shape Builder tool.

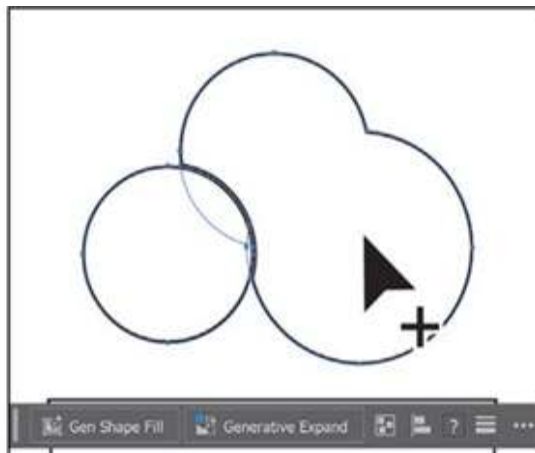
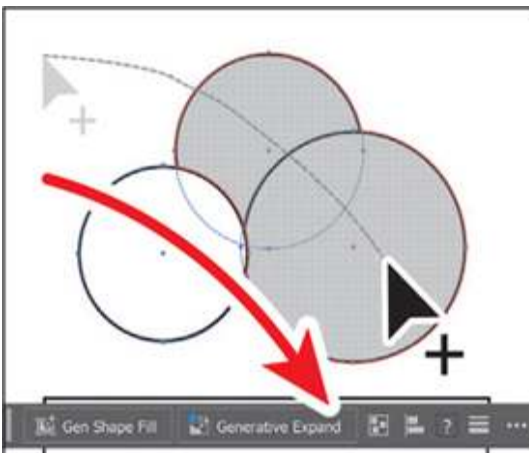
1. Choose View > Zoom Out a few times.
2. Press the spacebar to select the Hand tool (🖐️). Drag up in the Document window so you can see the cloud artwork below the plant artwork.
3. Select the Selection tool (🔍), and drag across the three white circles.

To edit shapes with the Shape Builder tool (🔗), you need to select them.

Using the Shape Builder tool, you will now combine, delete, and paint these simple shapes to create a cloud.



4. Select the Shape Builder tool (🔗) in the toolbar.
5. Move the pointer off the left side of the shapes and drag to the right through some of the shapes. Release the drag to combine those shapes.



When you select the Shape Builder tool, the overlapping shapes are temporarily divided into separate objects. As you drag from one part to another, a red outline appears, showing you the shape that will result when the shapes are merged.

You may notice that not everything combined. To add parts of the shapes to the final combined shape, you needed to drag through *all* of them. You'll fix that next.

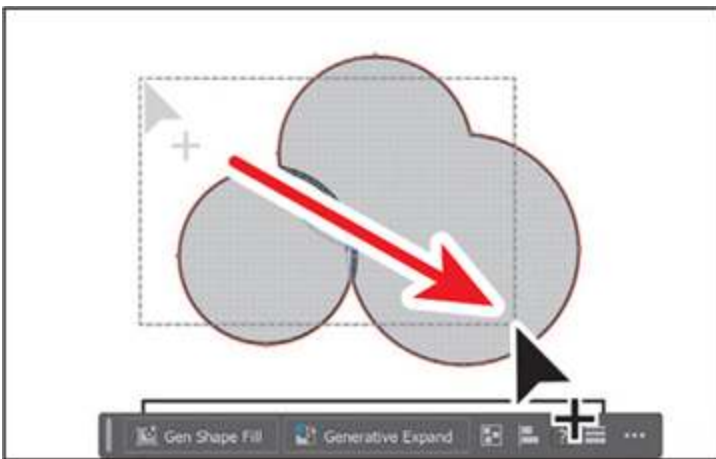
6. Press the Shift key, and drag a marquee across *all* of the cloud shapes to combine everything.

► **Tip**

Pressing Shift+Option (macOS) or Shift+Alt (Windows) and dragging a marquee across selected shapes with the Shape Builder tool (🔗) allows you to delete a series of shapes within the marquee.

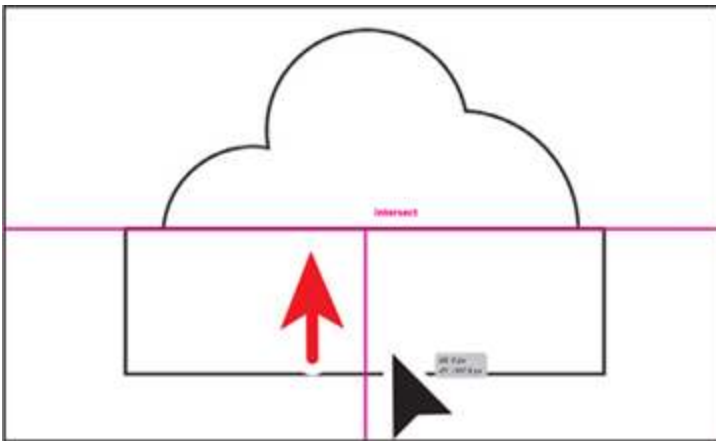
Dragging a marquee with the Shift key can be an easier way to combine a bunch of shapes, because you don't have to drag through each shape; they just need to be within the marquee.



Now you will use a rectangle to make a flat bottom on the clouds.

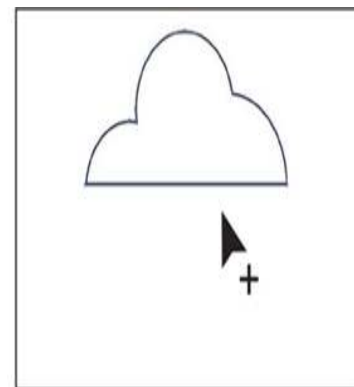
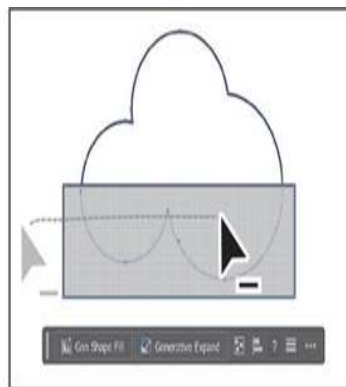
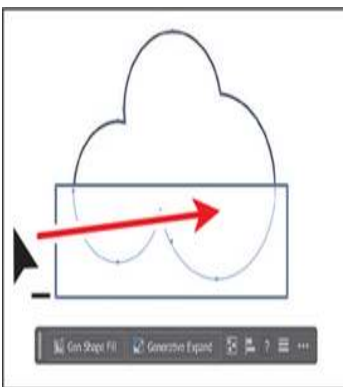



7. Select the Selection tool, and drag the white rectangle that's beneath the cloud up onto the cloud, covering the bottom half of the cloud.

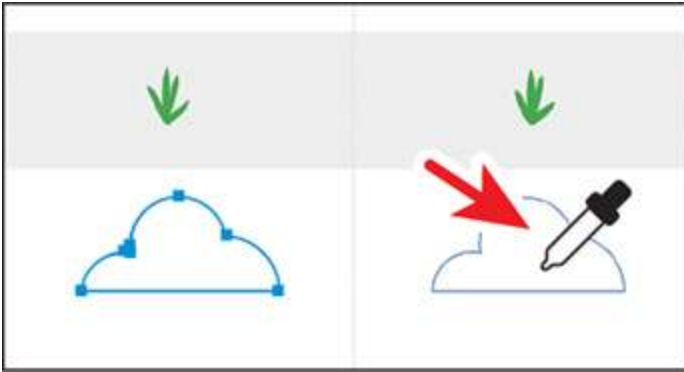
Make sure none of the cloud is peeking out from under the bottom of the rectangle.



8. Shift-click the cloud shape to select it as well.
9. Select the Shape Builder tool () again.
10. Press the Option (macOS) or Alt (Windows) key. Notice that, with the modifier key held down, the pointer shows a minus sign (). Drag from off the left side of the rectangle through the bottom of the cloud. Release the drag and then the key.



11. Choose View > Fit Artboard In Window.
12. Select the Eyedropper tool () in the toolbar. With the cloud still selected, click the cloud to the right in the Final Example column to sample the color and apply it to your cloud.



13. Choose Select > Deselect.

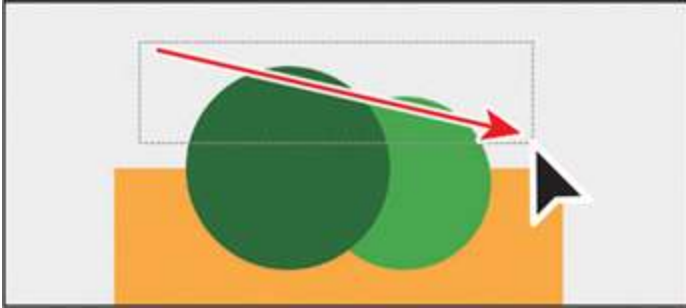
Combining objects using Pathfinder effects


Pathfinder effects, found in the Properties panel or the Pathfinder panel (Window > Pathfinder), are another way to combine shapes in a variety of ways.



By default, when a Pathfinder effect such as Unite is applied, the original objects selected are *permanently* transformed. Now you'll make a bush from a few shapes.

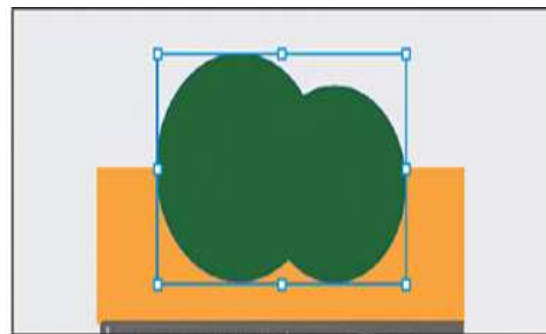
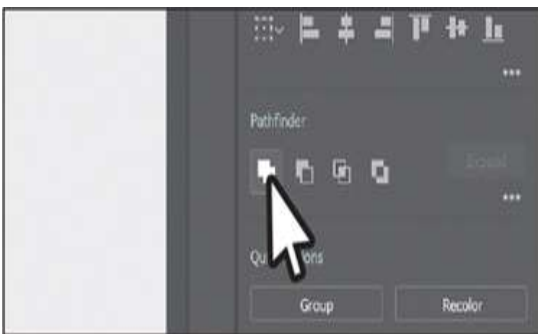
- 1.** Zoom in to the Bush shapes (the green circles and orange rectangle).
- 2.** With the Selection tool (▀), drag across the two green circles to select them.





3. With the shapes selected, in the Pathfinder section of the Properties panel on the right, click the Unite button () to *permanently* combine the two shapes into one.

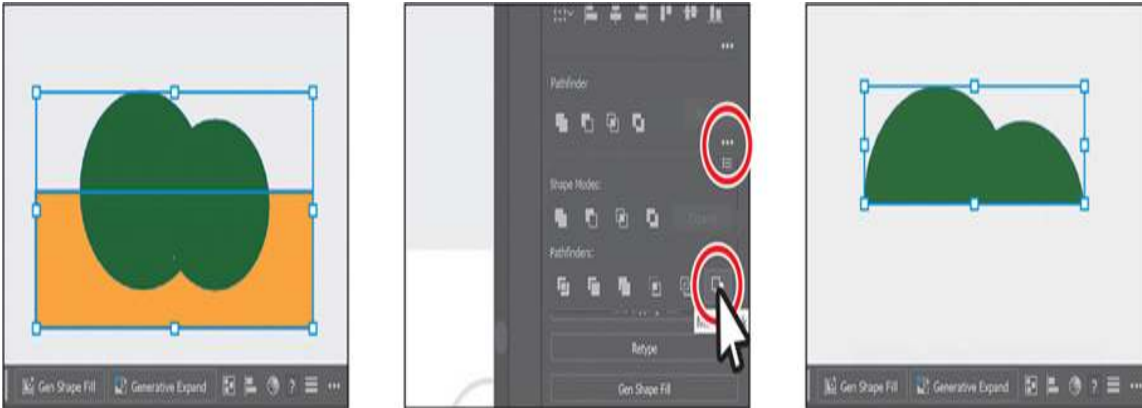
● **Note**

The Unite button in the Properties panel produces a similar result as the Shape Builder tool by combining multiple shapes into one.



Notice that the color of the final, combined shape is the darker green. That's because the color of the final shape is taken from the topmost shape that is combined.

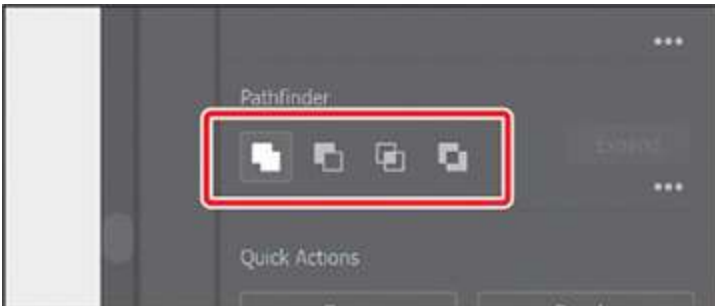
4. Shift-click the orange rectangle that is behind the new green shape.
5. In the Properties panel, click More Options () in the Pathfinder section to show more options.
6. Click the Minus Back () button to knock the orange rectangle, which is in the back, from the green shape, which is in front.



Know that using any of the options you saw in the Pathfinder section of the Properties panel, by default, makes a permanent change to the shapes.

Understanding shape modes

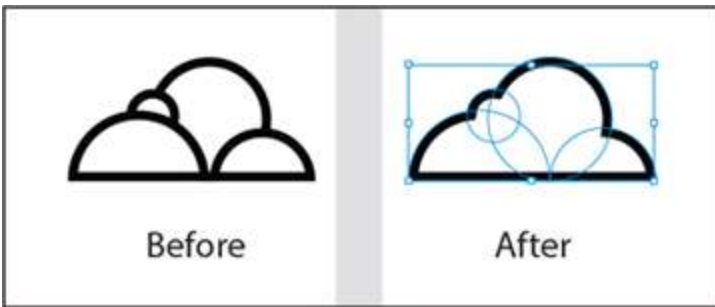
If you Option-click (macOS) or Alt-click (Windows) any default pathfinder in the Properties panel, a compound shape (path) is created. These four pathfinders are called Shape Modes.



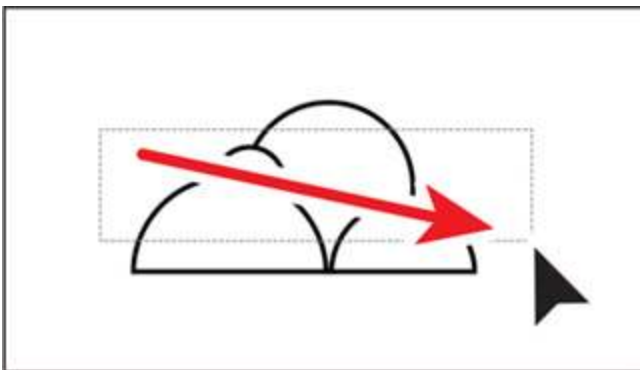
Default pathfinders

That means the original objects are preserved and remain editable. This is useful if you want to modify the shapes later.

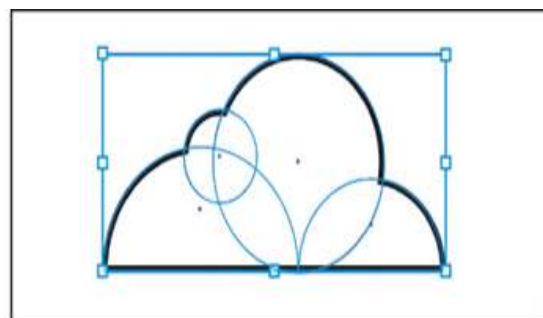
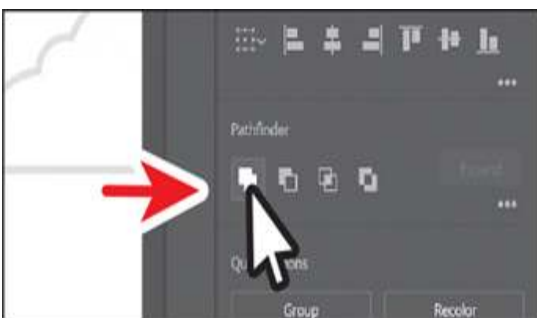
Now, you'll create another cloud from shapes that can be edited later.



1. Press the spacebar to select the Hand tool (☞). Drag up in the Document window so you can see the Cloud 2 artwork below the bush artwork.
2. Drag across all of the cloud shapes to select them.



3. Press the Option (macOS) or Alt (Windows) key, and click the Unite button (☐) in the Properties panel.



This creates a compound shape that traces the outline of what's left after the shapes are combined. You'll still be able to edit the original shapes separately.

4. Choose Select > Deselect to see the final shape.

► **Tip**

To edit the original shapes in a compound shape like this one, you can also select them individually with the Direct Selection tool (▸).

5. With the Selection tool, double-click within the cloud to enter Isolation mode.

As when a regular group is in Isolation mode, the parts of the compound shape are temporarily ungrouped!



6. Click in the larger ellipse to select it.
7. Make the shape smaller by Shift-dragging the bounding point on the top.

● **Note**

Be careful! If the ellipse moves up, for instance, it may cause the outline to do some odd things.

Notice that the outline around the cloud changes.



8. Press the Escape key to exit Isolation mode.

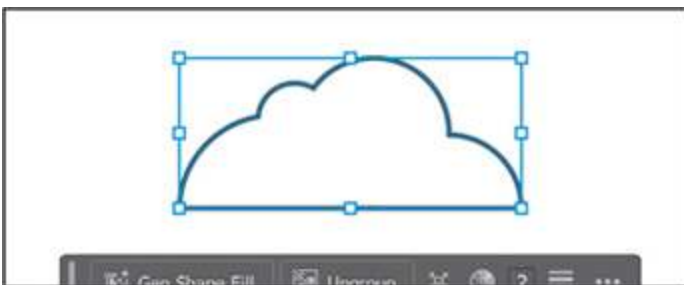
You will now expand the artwork appearance. Expanding the appearance of a compound shape maintains the shape, but you can no longer select or edit the original shapes. You will typically expand an object when you want to modify the appearance attributes and other properties of the entire shape.

9. Click away from the cloud to deselect it, and then click to select it again.


That way, the entire object is selected, and not just the one shape.

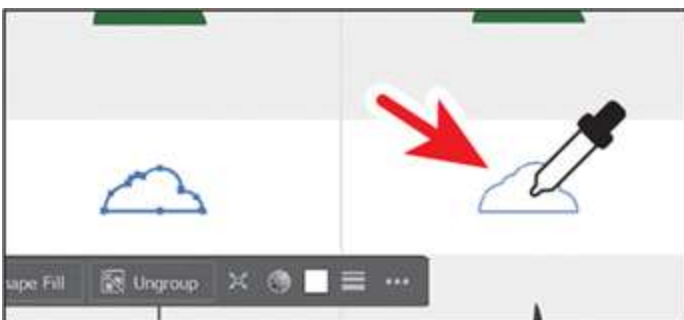
10. Choose Object > Expand Appearance.

The Pathfinder effect is now *permanent*, and the shapes are a single shape.



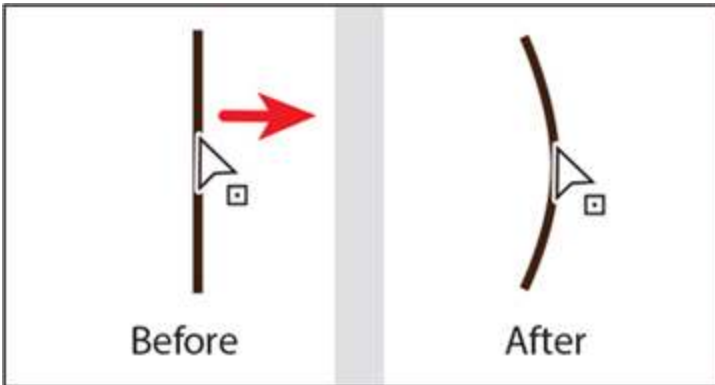
11. Choose View > Fit Artboard In Window.

12. Select the Eyedropper tool () in the toolbar. With the cloud selected, click the cloud to the right in the Final Example column to sample the color and apply it to your cloud.

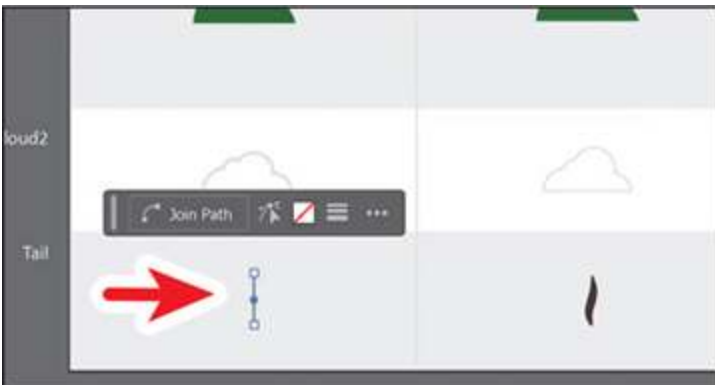


Reshaping a path

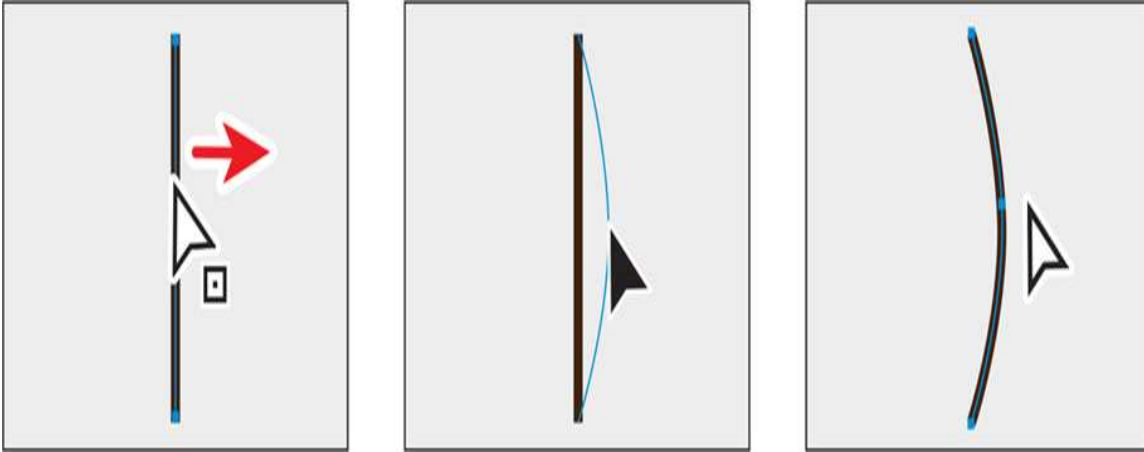
Using the Reshape tool, you can stretch parts of a path without distorting its overall shape. In this section, you'll change the shape of a line, giving it a bit of curve, so you can add a tail to the dog.



1. Make sure the Smart Guides are on (View > Smart Guides).
2. With the Selection tool (▀), select the vertical line below the selected cloud, at the bottom of the artboard in the “Tail” Work Area section.
3. To make it easier to see, press Command and + (macOS) or Ctrl and + (Windows) several times to zoom in.

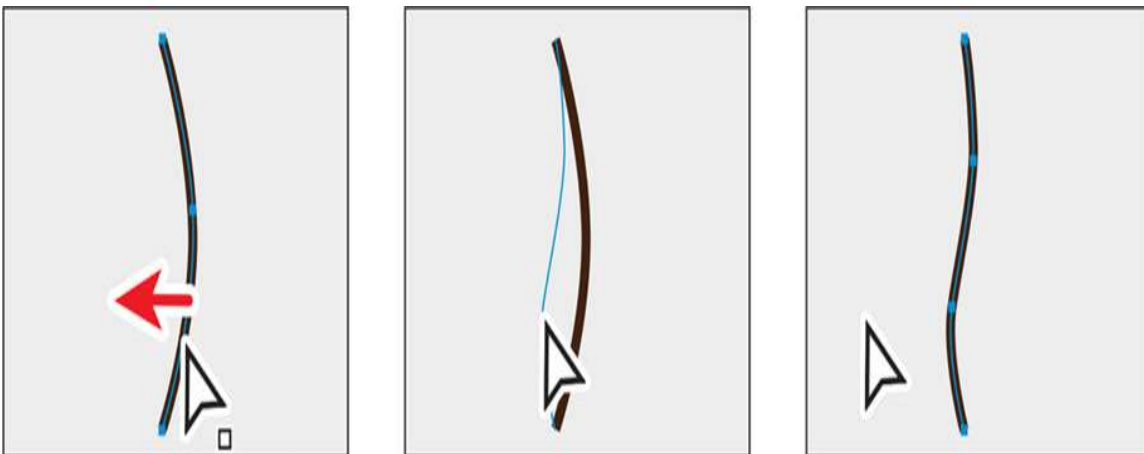


4. In the toolbar, press and hold on the Scale tool (⌘) and select the Reshape tool (↶↷).
5. Move the pointer over the middle of the path. When the pointer changes (↶↷), drag to the right to add an anchor point and reshape the path.




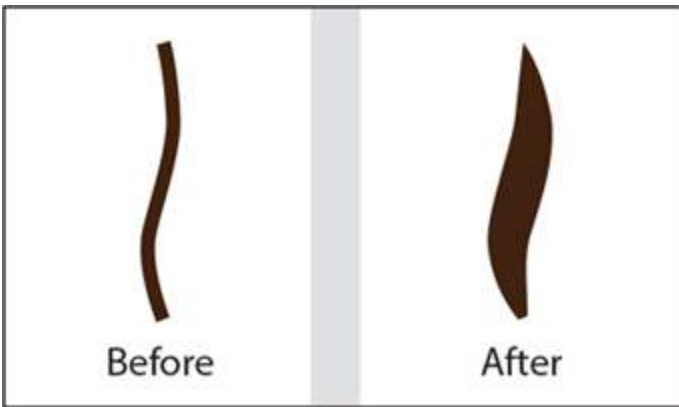
The Reshape tool can be used to drag an existing anchor point or path segment. If you drag from an existing path segment, an anchor point is created.

6. Move the pointer over the bottom third of the path, and drag it to the left a little. Leave the path selected.





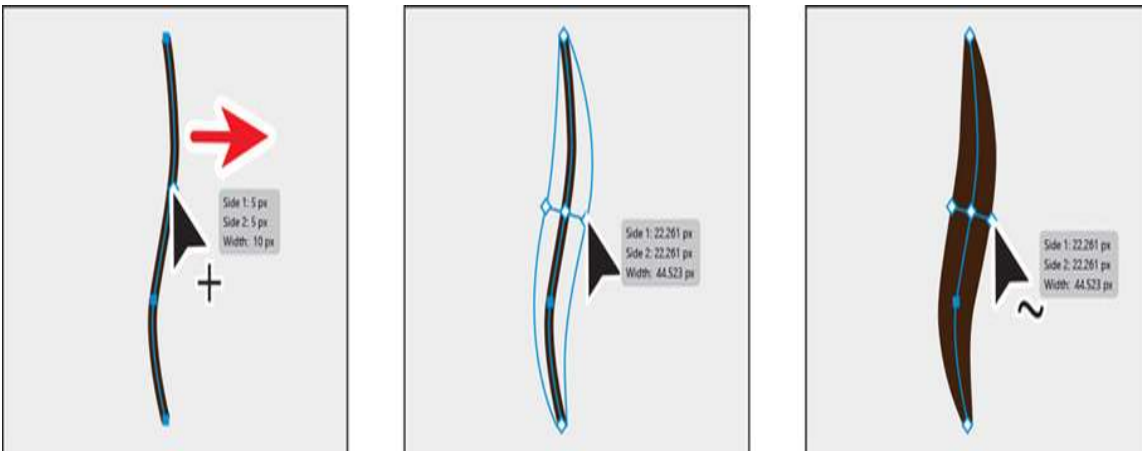
Using the Width tool

Not only can you adjust the weight of a stroke, as you did in [Lesson 3](#), but you can also alter regular stroke widths either by using the Width tool () or by applying width profiles to the stroke.



This allows you to create a variable width along the stroke of a path. Next, you will use the Width tool to adjust the path you just reshaped to finalize the tail.

1. Select the Width tool () in the toolbar.
2. Move the pointer over the middle of the path you just reshaped, and notice that the pointer has a plus symbol next to it () when it's positioned over the path. Drag away from the line, to the right. Notice that, as you drag, you are stretching the stroke to the left and right equally. Release the drag when the measurement label shows a Width of approximately 44 pixels.



You just created a variable stroke on a path, not a shape with a fill. The point on the path is called a *width point*. The lines extending from the width point are the *handles*.

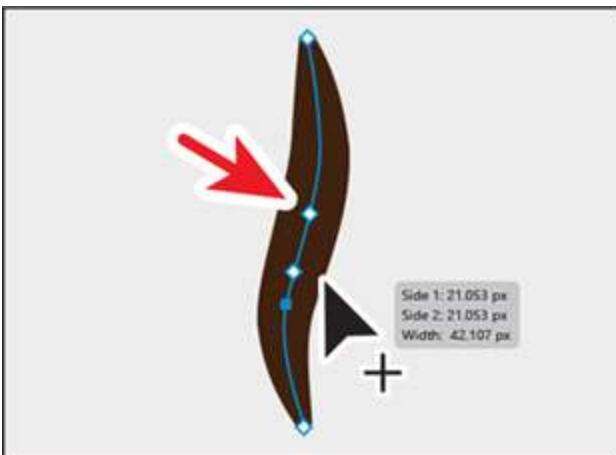
3. Click in an empty area of the artboard to deselect the point.

► **Tip**

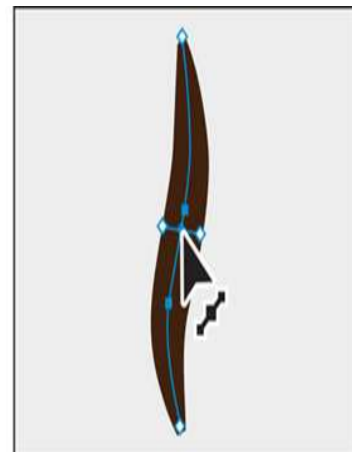
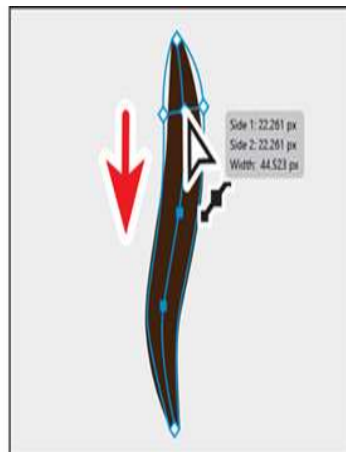
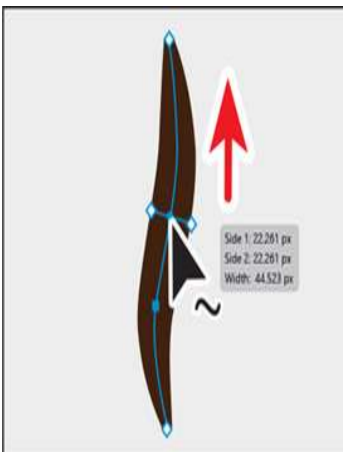
If you select a width point by clicking it, you can press Delete to remove it. When there is only one width point on a stroke, removing that point removes the width adjustment completely.

4. Move the pointer anywhere over the path. You should see the width point you just created (an arrow is pointing to it). It will show as a white diamond.

You may see more anchor points on your path than are shown in the figure—that's okay.



5. Move the pointer over the width point you just created, and when you see lines extending from it and the pointer changes (↶), drag it up and down to see the effect on the path. See the last part of the following figure for where it should approximately land.



In addition to dragging to reposition a width point, you can double-click and enter values in a dialog box. That's what you'll do next.

6. Move the pointer over the top anchor point of the path.

Notice that the pointer has a wavy line next to it (⌵) and the word “anchor” appears (see the first part of the following figure).

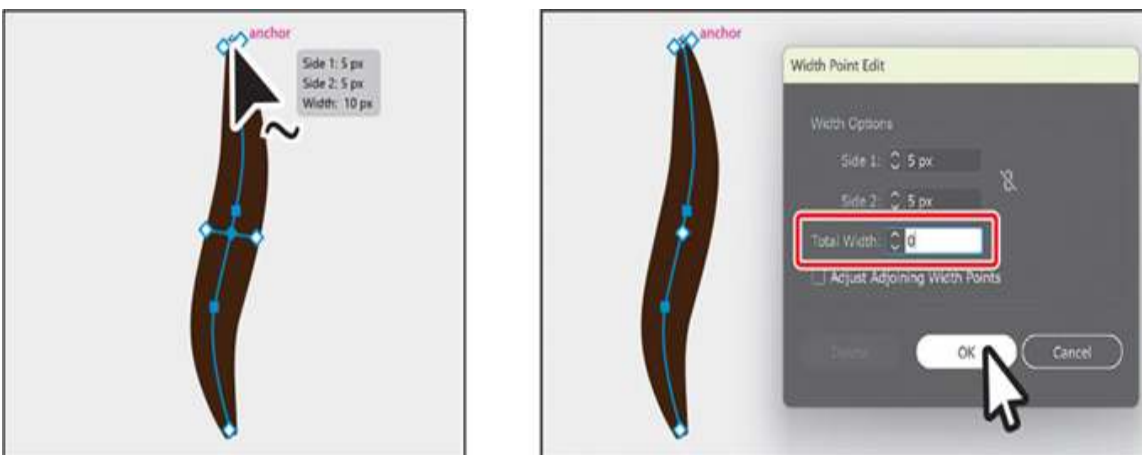
7. Double-click the point to create a new width point and to open the Width Point Edit dialog box.
8. In the Width Point Edit dialog box, change Total Width to 0, and click OK.

► **Tip**

You can select a width point and Option-drag (macOS) or Alt-drag (Windows) one of the width point handles to change one side of the stroke width.

► **Tip**

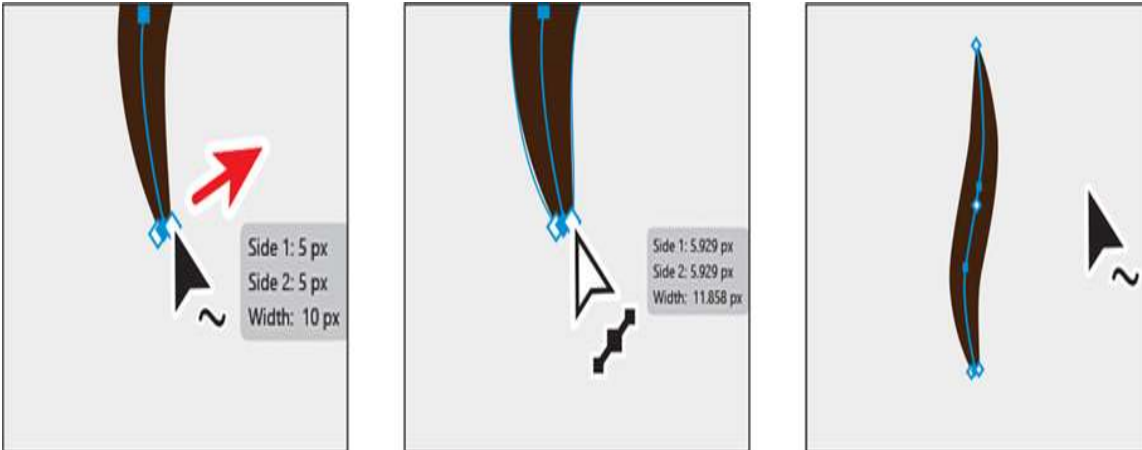
After defining the stroke width, you can save the variable width as a *profile* that you can reuse later from the Stroke panel or the Control panel.



The Width Point Edit dialog box allows you to adjust the length of the width point handles, together or separately, with more precision.

For the next step, you may want to zoom in further.

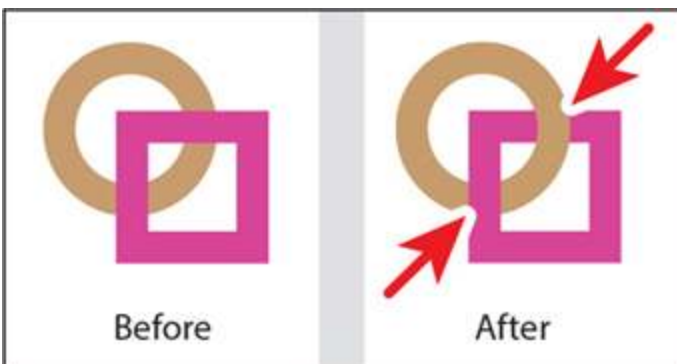
9. Move the pointer over the handle on either side of the bottom anchor point of the path. Drag so that the width is roughly 12 pixels.



You could also have double-clicked the anchor point at the bottom to set the total width to 12 pixels in the Width Point Edit dialog box, like you did in the previous step.

Using Intertwine

A time-saving feature in Illustrator is Intertwine. With Intertwine, you can take a path like you see in the figure and make part of it appear on top of another object or behind that same object. This can give the appearance of the path “intertwining” around the other object.



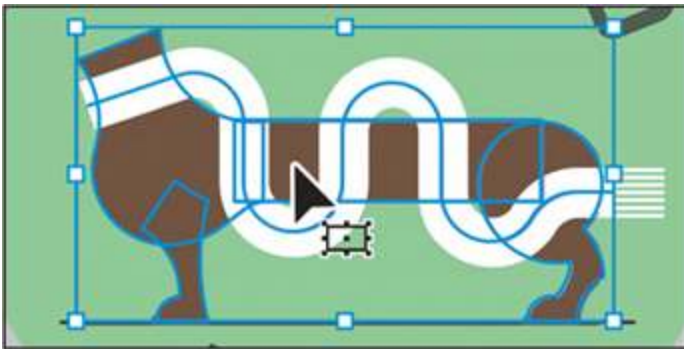
In this section, you will intertwine a scarf on the dog so it looks like it goes behind and in front of the body of the dog.

1. Choose 2 Signage from the Artboard Navigation menu in the lower-left corner of the Document window.
2. With the Selection tool, click the white serpentine shape (the scarf) on the dog's body.
3. Choose View > Zoom In several times to see it better.

The white scarf would look good if it appeared to wrap around the dog—going behind and in front of the body of the dog. You can do that manually using the Scissors tool to cut the white scarf path and send paths behind, but using Intertwine is much easier.

4. Shift-click the body of the dog to select it and the scarf.

Currently, you need to have more than one object selected for this to work.



5. Choose Object > Intertwine > Make.

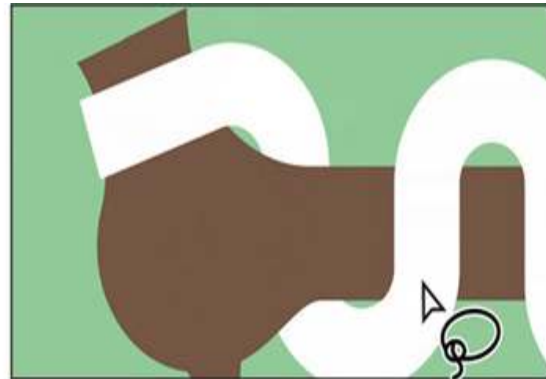
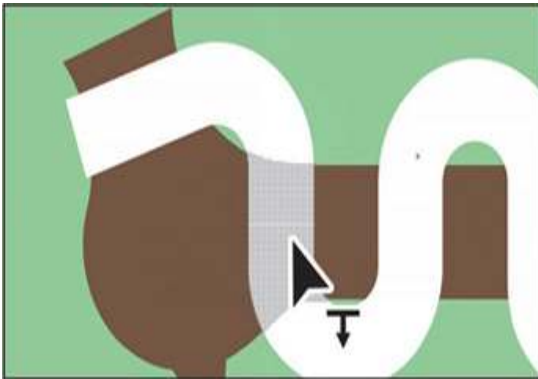
The scarf and dog are now a grouped Intertwine object. If you look at the top of the Properties panel, you'll see "[Intertwine](#)."

Now that the objects are an Intertwine object, you can tell Illustrator what parts of the white scarf, in this case, should go behind the dog body. To tell Illustrator which parts, you can click or drag a selection around them.

6. Move the pointer over the white scarf where it passes over the dog. See the first part of the following figure. When that part of the scarf highlights, click. The scarf in that small area will be behind the dog!

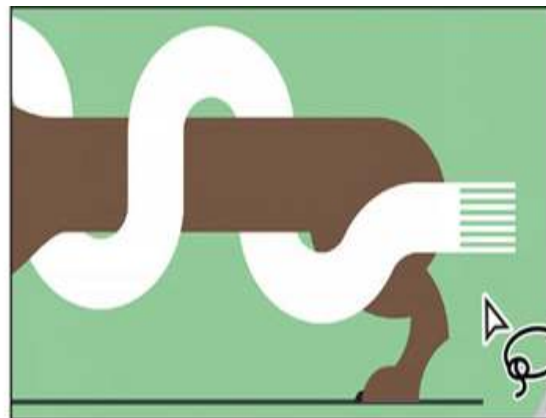
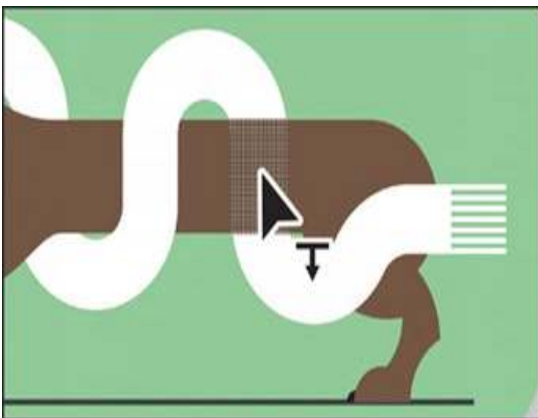
► **Tip**

You can also drag around the white scarf where it overlaps the dog body to send it behind or bring it to front. This could be useful if, for example, you wanted to send multiple areas of the scarf behind at once.



If you were to click in the same area, it would bring the white scarf back on top of the body of the dog.

7. Click another part of the white scarf where it overlaps the dog to send that part behind.



8. When finished, choose Select > Deselect.
9. With the Selection tool, click the white scarf to select the Intertwine object again.

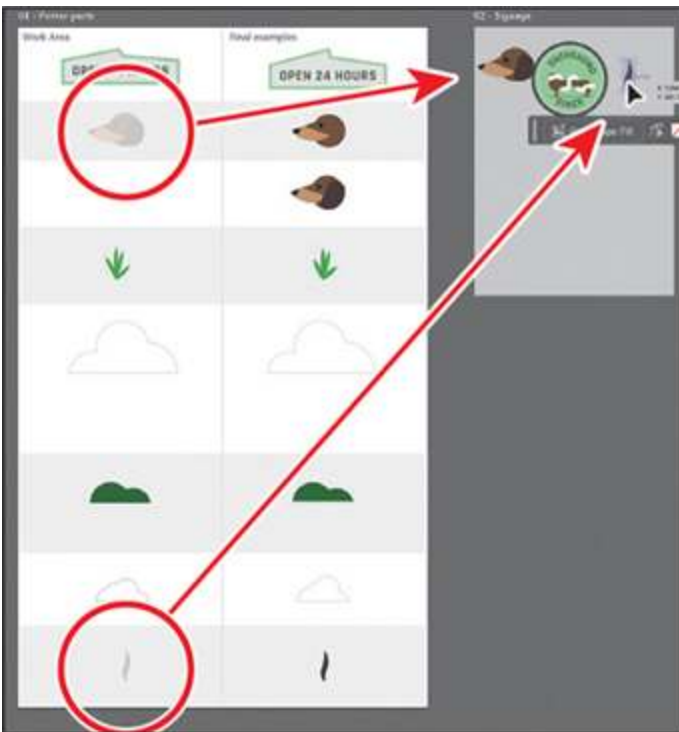
If you wanted to continue telling Illustrator which parts of the scarf to bring in front, or reverse parts you already did, you could click the

Edit button in the Quick Actions section of the Properties panel and make more selections.

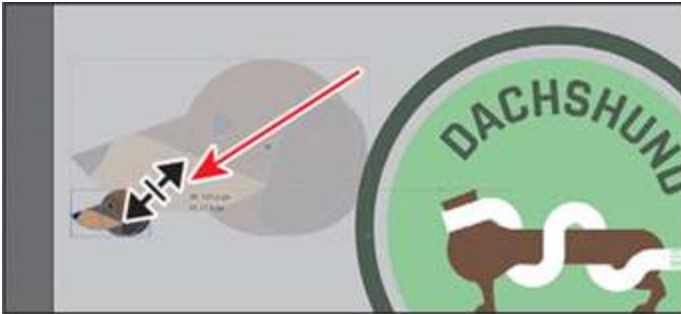
Assembling the sign

To complete the sign, you'll drag and position the dog's head and the tail onto the sign, resize them, and reposition them. You'll need to zoom in and out a fair amount to move and resize things.

1. Choose View > Fit All In Window.
2. With the Selection tool (▸), drag the dog's head onto the body of the dog in the middle artboard.
3. Drag the tail of the dog from the bottom of the leftmost artboard onto the sign as well.
4. Choose View > Zoom In a few times to zoom in to the dog.

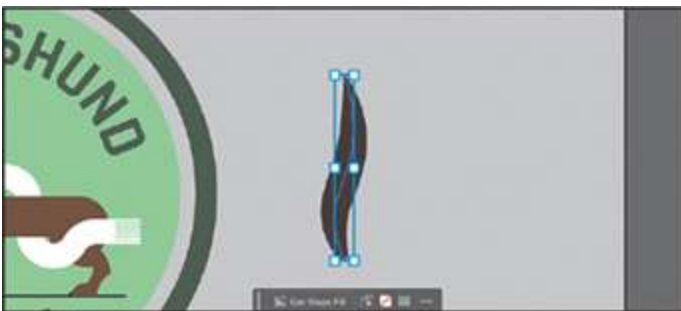


5. Resize the head by Shift-dragging a corner to make it smaller, and then drag it into place on the body of the dog.

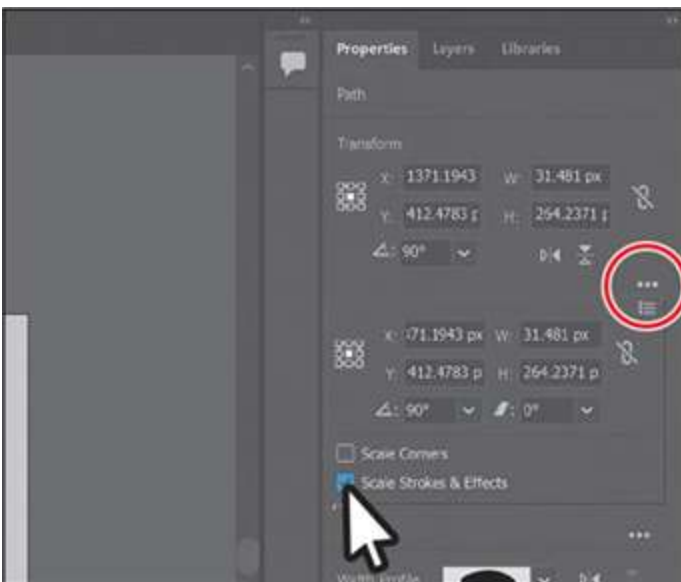


6. Select the tail.

Because the tail is a path with a stroke, to resize it and scale the stroke weight as well, you need to turn on Scale Strokes & Effects.



7. Click More Options (⋮) in the Transform section of the Properties panel. Select Scale Strokes & Effects. Press the Esc key to hide the panel.



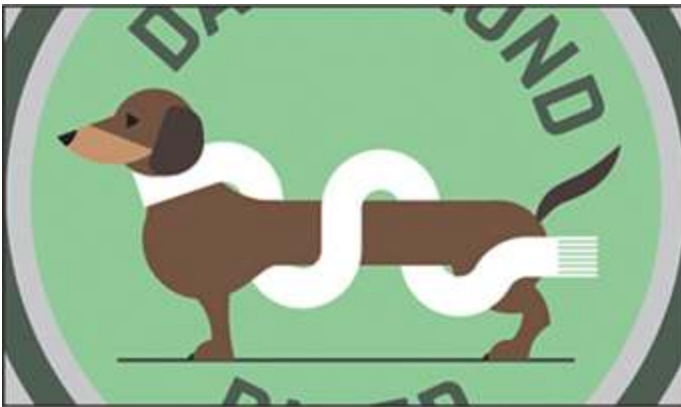
8. Shift-drag the tail to make it smaller.

9. To rotate the tail, move the pointer just off a corner and rotate to make it look like you see in the following figure.

● **Note**

If either the head or the tail is behind the body, click the Arrange button in the Properties panel and choose Bring To Front.

10. Drag the tail into position like you see in the figure.
11. Drag across all of the pieces in the DACHSHUND DINER sign and click the Group button in the Contextual Task Bar.

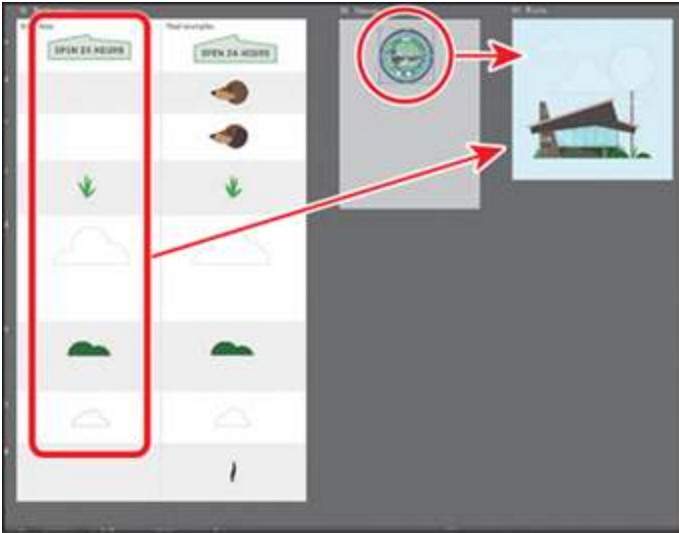


Assembling the poster

To finish up, you will now drag all the artwork onto the poster in the far-right artboard.

1. Choose View > Fit All In Window.
2. Drag all of the pieces—the sign from the middle artboard, the OPEN 24 HOURS sign, the clouds, the bush, and the plant—into the poster on the far right.

I put dashed line shapes in the poster where they might go.







3. Resize the OPEN 24 HOURS sign to make it smaller and fit nicely. Make sure you drag with the Shift key to maintain the proportions!
4. Switch the toolbar back to the Getting Started toolbar by choosing Window > Toolbars > Getting Started.
5. Choose File > Save and then File > Close.

Review questions

- 1 Name two ways you can combine several shapes into one.
- 2 What is the difference between the Scissors tool (✂) and the Knife tool (🔪)?
- 3 How can you erase with the Eraser tool (🧽) in a straight line?

- 4 What is the main difference between shape modes and Pathfinder effects in the Properties panel or Pathfinder panel?
- 5 Why would you outline strokes?



Review answers

- 1 Using the Shape Builder tool () , you can visually and intuitively merge, delete, fill, and edit overlapping shapes and paths directly in the artwork. You can also use the Pathfinder effects, which can be found in the Properties panel, the Effects menu (not mentioned in this lesson), or the Pathfinder panel, to create new shapes out of overlapping objects.
- 2 The Scissors tool () is meant to split a path, graphics frame, or empty text frame at an anchor point or along a segment. The Knife tool () cuts objects along a path you draw with the tool, dividing objects. When you cut a shape with the Scissors tool, it becomes an open path. When you cut a shape with the Knife tool, the resulting shapes become closed paths.
- 3 To erase in a straight line with the Eraser tool () , press and hold the Shift key before you begin dragging with the Eraser tool.
- 4 In the Properties panel, when a shape mode (such as Unite) is applied, the original objects selected are permanently transformed, but you can hold down the Option (macOS) or Alt (Windows) key to preserve the original underlying objects. When a Pathfinder effect (such as Merge) is applied, the original objects selected are permanently transformed.
- 5 A straight path (line) can show a stroke color but not a fill color by default. If you create a line in Illustrator and want to apply both a stroke and a fill, you can outline the stroke, which converts the line into a closed shape (or compound path).

5 Transforming Artwork

Lesson overview

In this lesson, you'll learn how to do the following:

- Add, edit, and rename artboards in an existing document.
- Change the order of artboards. 
- Work with rulers and guides.
- Edit the ruler origin. 
- Position objects with precision.
- Move, scale, rotate, and shear objects using a variety of methods.
- Explore the mirror repeat.
- Work with the Puppet Warp tool.
- Begin exploring the Dimension tool.



This lesson will take about 60 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.

LUNCH IS READY PODCAST

LISTEN NOW



LUNCH IS READY PODCAST

LISTEN NOW



LUNCH IS READY PODCAST

LISTEN NOW



As you create artwork, you can modify it by quickly and precisely controlling objects' size, shape, and orientation. In this lesson, you'll explore creating and editing artboards, the various Transform commands, and specialized tools while creating several pieces of artwork.

Starting the lesson

In this lesson, you'll transform artwork and use it to complete a few social ads for a podcast. Before you begin, you'll restore the default preferences for Adobe Illustrator and then open a file containing the finished artwork to see what you'll create.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. With Illustrator open, choose File > Open, and open the L5_end.ai file in the Lessons > Lesson05 folder.

● Note

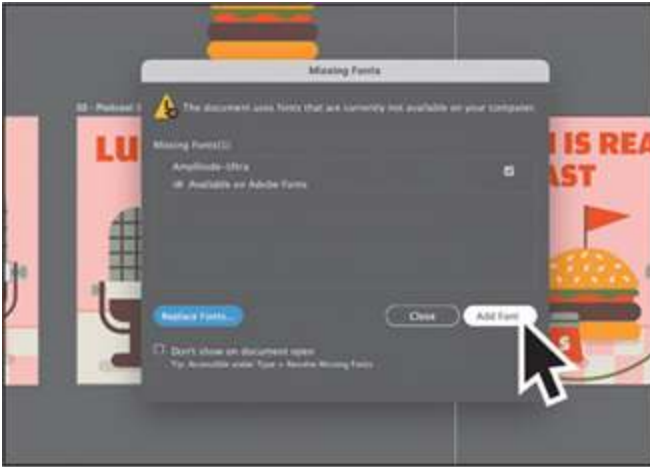
If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

This file contains the artboards that make up a few different versions of an ad.



4. In the Missing Fonts dialog box, ensure that each missing font is selected, and click Add Font(s). After some time, the font(s) should be added, and you should see a success message in the Missing Fonts dialog box. Click Close.

If a dialog box appears discussing font auto-activation, you can click Skip.



5. Choose View > Fit All In Window, and leave the artwork onscreen as you work.
6. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson05 folder, and select the L5_start.ai file on your computer. Click Open.



7. Choose File > Save As. If the Save to Adobe Cloud Storage dialog box opens, click On Your Computer.

8. In the Save As dialog box, name the file **Podcast_ads.ai**, and navigate to the Lesson05 folder. Leave Adobe Illustrator (.ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and click Save.

● **Note**

If you don't see Reset Getting Started in the Workspace menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

9. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and then click OK.
10. Choose Window > Workspace > Reset Getting Started.

How can you use artboards?

By now, you have an idea of what artboards are. They represent the regions containing printable or exportable artwork, similar to pages in Adobe InDesign or Microsoft Word. You can use artboards however you like, but here are a few of the more widely used ways:



- Multi-page documents—each “page” is an artboard.
- Multiple *projects* in the same document, each artboard being the same or different sizes—doesn't matter.
- A scratch pad for creative ideas. *You can also just use the gray canvas area for that!*

- Independent elements for websites, apps, brand elements, on a single artboard, exported separately via Asset Export or other method.

Creating and editing artboards

In this section, you'll explore creating and editing artboards so that you can put three different social ads on separate artboards to export however you need.

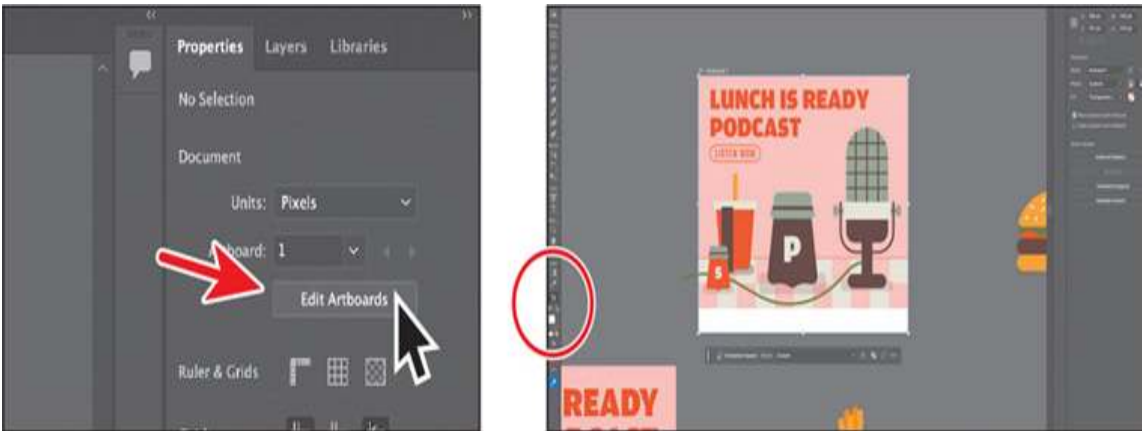
Creating a new artboard

First, you'll create an artboard for a second ad by copying the original artboard.

1. Choose View > Fit Artboard In Window.

The only artboard in the document is fit into the Document window.

2. To zoom out, press Command and – (macOS) or Ctrl and – (Windows) a few times so you can see some of the gray canvas area around the artboard.
3. With nothing selected, click the Edit Artboards button in the Properties panel.





Clicking the Edit Artboards button enters *Artboard Editing mode* and highlights the artboard with a dashed line. In the Getting Started workspace, if you look toward the bottom of the toolbar, you should

now see the Artboard tool and it's selected. When you exit Artboard Editing mode, the Artboard tool will be hidden again.

4. Move the pointer over the artboard. When four circles with pluses appear around the artboard, click the circle to the right of the artboard to create a new, empty artboard that's the same size as the first artboard and to its right.

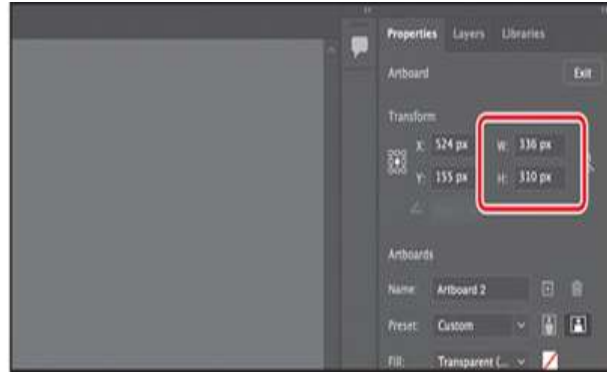
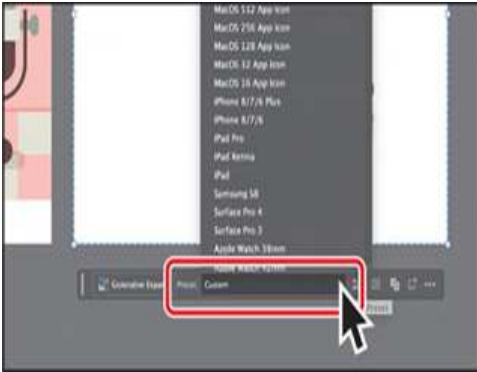
► **Tip**

There are lots of ways to make new artboards. Look in the Contextual Task Bar or the Properties panel to see a New Artboard button () . Want to duplicate an artboard, as well as the artwork on it? Click the Duplicate Artboard button () in the Contextual Task Bar.

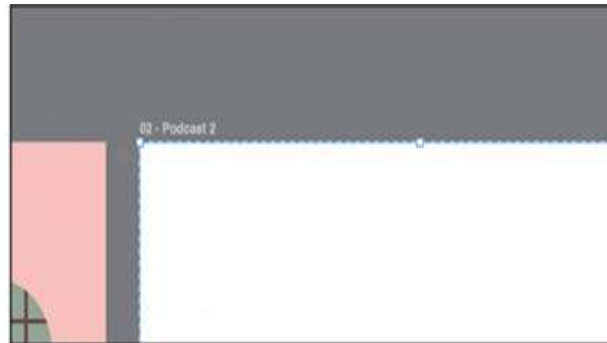
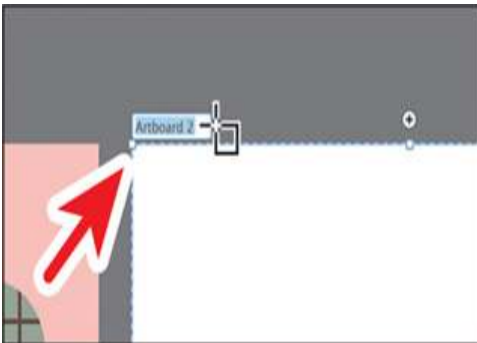


The hamburger is now on that new artboard—just because it happened to be sitting where the new artboard was created. While in Artboard Editing mode, in the Contextual Task Bar and Properties panel you'll see lots of options for editing the selected artboard.

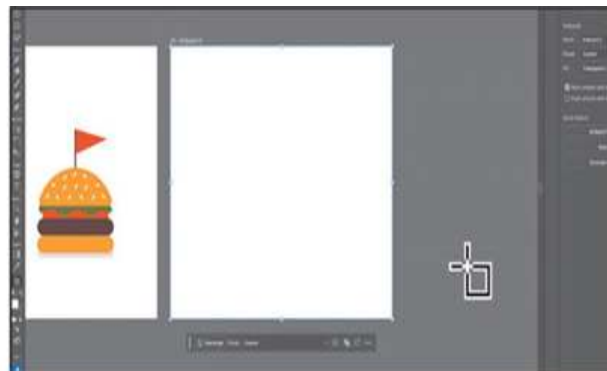
For instance, when an artboard is selected, the Preset menu in the Contextual Task Bar or Properties panel lets you change the artboard to a set size, like Letter. You can even enter a specific width and/or height in the Properties panel to resize the artboard.



5. Double-click the name of the artboard, 02 - Artboard 2, above the artboard. Change it to **Podcast 2**. Press Return (macOS) or Enter (Windows) to make the change.




6. For practice, make one more artboard to the right of the artboard you just made, for a total of three. Use the method from the previous step.

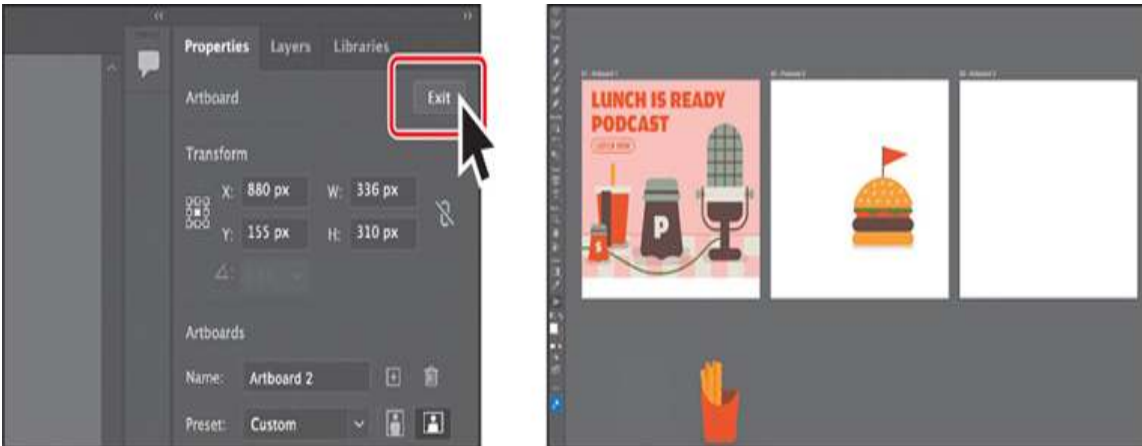


You can also draw artboards anywhere and of any size.

7. Choose View > Fit All In Window to see all three of your artboards.
8. Click the Exit button at the top of the Properties panel to exit Artboard Editing mode.

► Tip

To exit Artboard Editing mode, you can also select another tool in the toolbar besides the Artboard tool () or press the Escape key.



Exiting Artboard Editing mode deselects all artboards and selects the tool that was active before you entered the mode. In this case, for me, the Selection tool is selected.

Copying artboards between documents

You can copy or cut artboards from one document and paste them into another, and the artwork on those artboards comes with them. Copying artboards makes it easy to reuse content across documents. For this project, you'll copy the start of another podcast design into the project you're working on to keep it all in one file.

1. Choose File > Open. Open the Cover.ai file in the Lessons > Lesson05 folder.
2. Choose View > Fit Artboard In Window to see the entire artboard.
3. To zoom out, press Command and – (macOS) or Ctrl and – (Windows) a few times so you can see the flower to the right of the artboard.
4. With nothing selected (Select > Deselect), click the Edit Artboards button in the Properties panel.

The only artboard in the document is selected. You should see the dashed line around it. If it isn't selected, click within the artboard to

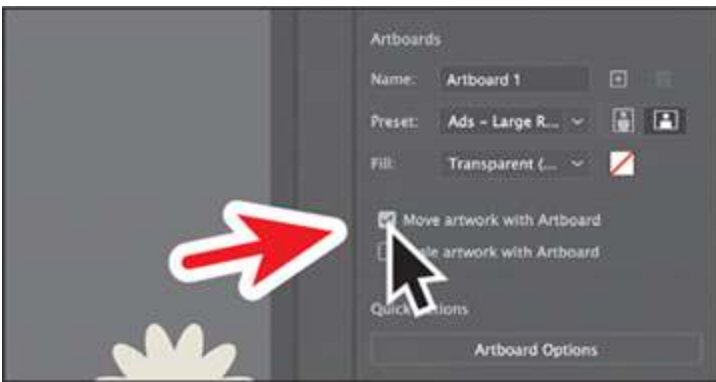
select it.



If the artboard is already selected—be careful! You may make a copy on top.

5. In the Properties panel, ensure that the Move Artwork With Artboard option is selected.

Otherwise, you will only copy the artboard—not the artwork on it!



6. Choose Edit > Copy to copy the artboard and the artwork on it.


Artwork not on the artboard—like the flower off the right side of the artboard—isn't copied. Depending on how the artboard fits on your screen, you may not see it.

7. Choose File > Close to close the file without saving.
8. Back in the Podcast_ads.ai document, choose Edit > Paste to paste the artboard *and* the artwork.

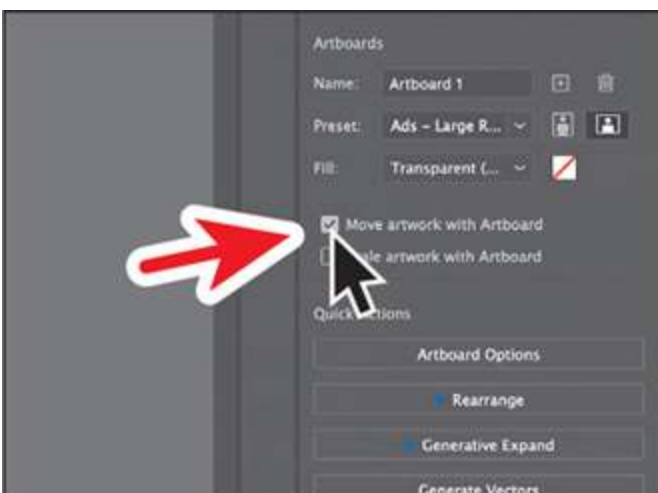
9. Click the Exit button at the top of the Properties panel to exit Artboard Editing mode.



Moving and resizing artboards

After creating artboards, you can edit or delete them by using the Artboard tool () , menu commands, Properties panel, or Artboards panel. Next, you'll move and change the size of two artboards using the Artboard tool.

1. Choose View > Fit All In Window.
2. Choose Select > Deselect.
3. Press Command and – (macOS) or Ctrl and – (Windows) *twice* to zoom out.
4. With nothing selected, click the Edit Artboards button in the Properties panel.
5. In the Properties panel, again ensure that Move Artwork With Artboard is selected so artwork will move with an artboard.



6. Drag the artboard with the burger on it to the left of the original artboard *and a little higher*. Don't worry about its exact position yet, but make sure it doesn't cover any artwork.

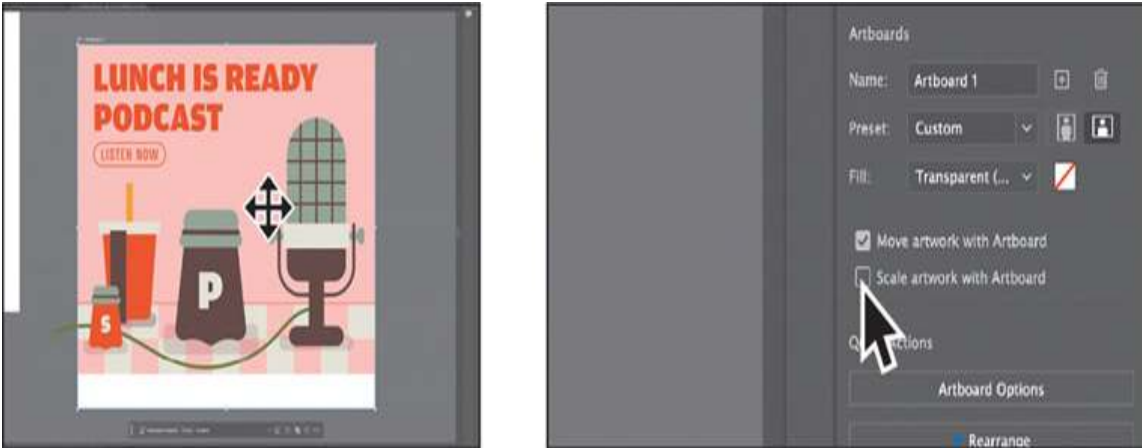
► **Tip**

I'm asking you to drag the artboard a little higher so that when you align the artboards later, they will move.



7. Click in the original artboard to select that artboard. See the next figure.
8. Choose View > Fit Artboard In Window to fit that artboard in the Document window.

Commands such as View > Fit Artboard In Window typically apply to the selected, or *active*, artboard.
9. Press Command and – (macOS) or Ctrl and – (Windows) to zoom out a little.
10. In the Properties panel, ensure that Scale Artwork With Artboard is *not* selected.



► Tip

For a fast way to size artboards to the content on them, select the artwork on the artboard. Then, enter Artboard Editing mode. Choose Fit To Selected Art from the Preset menu in the Contextual Task Bar or Properties panel.

With that option selected, the artwork will resize as you resize the artboard. This option is helpful for scaling just an artboard, not the artwork on it, if you needed multiple sizes of the podcast ad, for instance.

11. Drag the bottom-middle point of the artboard up to resize it. When the point snaps to the bottom of the checkered tablecloth, release the drag.



You can resize artboards to fit content or the other way around—whatever you need. Next, you'll delete an empty artboard that you no longer need.

12. Choose View > Fit All In Window to see all of your artboards.
13. Click in the empty artboard, and press Delete (macOS) or Backspace (Windows) to remove it.

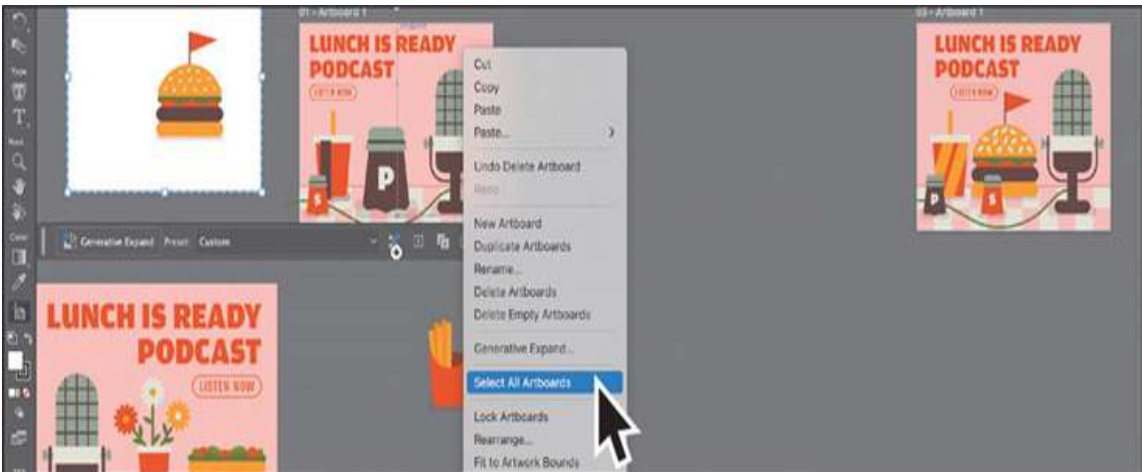


When you delete an artboard, any artwork that was on that artboard remains. In any document, you can delete all but one artboard.


Aligning and arranging artboards

To keep artboards tidy in your document, you can move, order, and align them to suit your working style. Next, you'll select all of the artboards and align them.

1. Click to select any artboard, then right-click that selected artboard and choose Select All Artboards to select them all.




The contextual menu contains a lot of great options like making new artboards, deleting empty artboards, and more. In Artboard Editing mode, you can also press the Shift key and select multiple artboards by dragging across them.

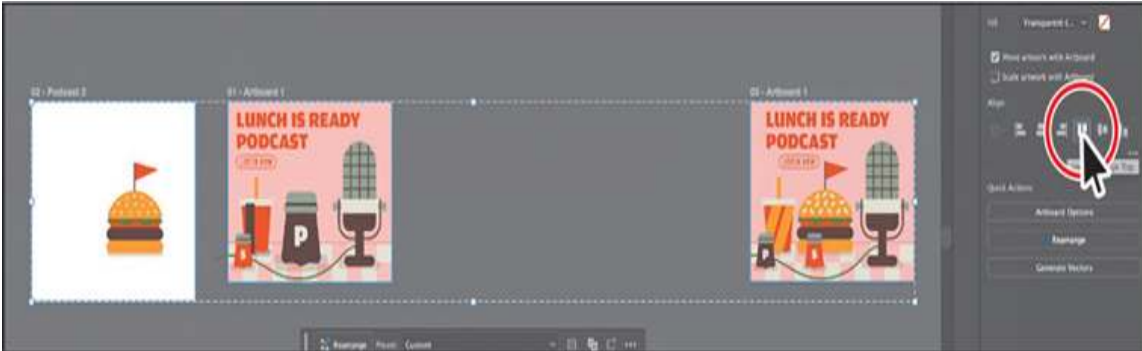
2. Click the Vertical Align Top button () in the Properties panel on the right to align the artboards to each other.



The background shape on the original artboard didn't move with the artboard. An arrow is pointing to it in the figure above. That rectangle is locked, and locked objects don't move when artboards move.

3. Choose Edit > Undo Align to get the artboards back where they were.
4. To unlock the background object (and any other locked objects), choose Object > Unlock All.

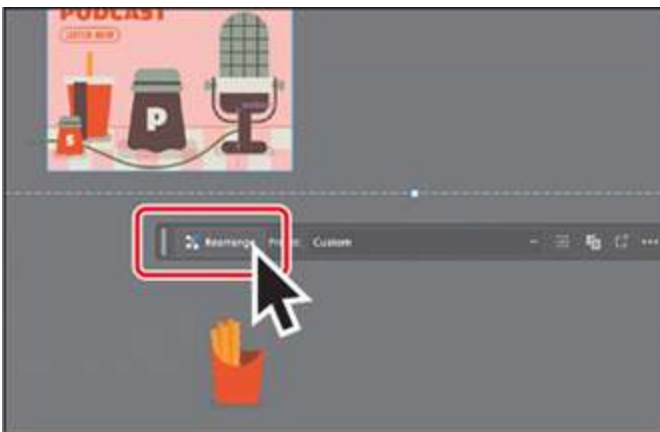
5. Now click the Vertical Align Top button () in the Properties panel again to align the artboards to each other and also move the background shape.




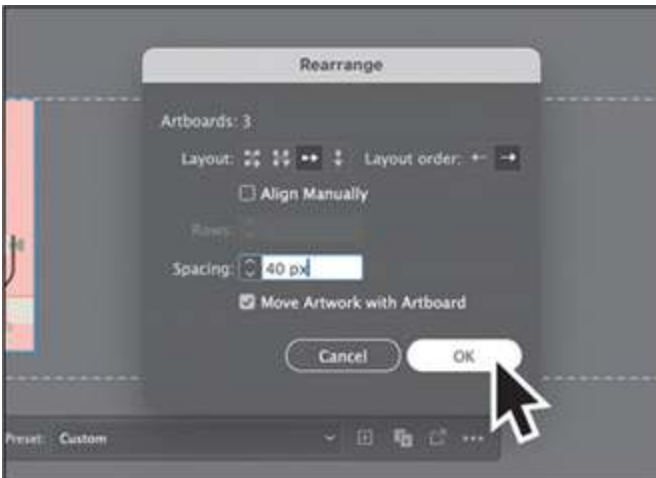
In Artboard Editing mode, you can also arrange your artboards however you like using the Rearrange Artboards command, which is what you'll do next.

6. Click the Rearrange button in the Contextual Task Bar to open the Rearrange dialog box.

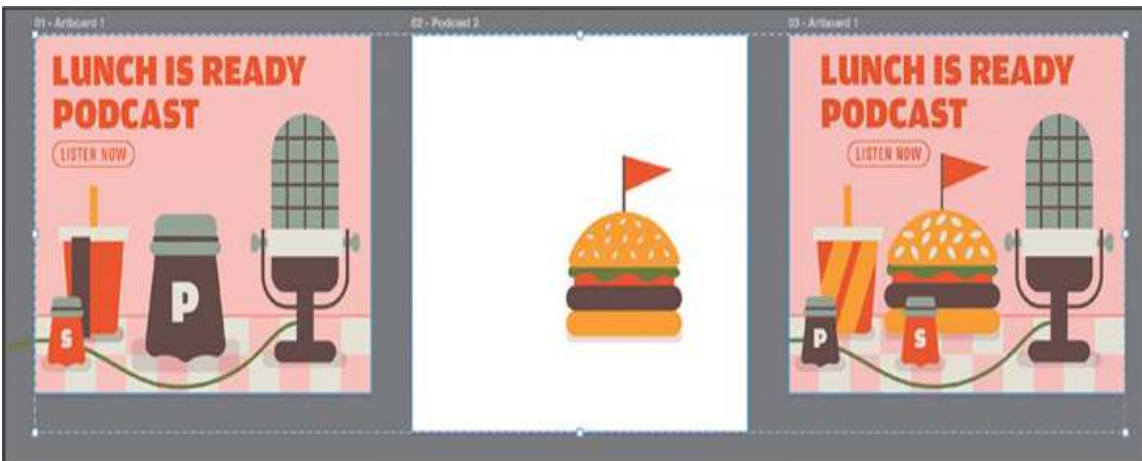
In the Rearrange dialog box, you can arrange your artboards in columns or rows and set the spacing between each artboard to a set amount.



7. Click Arrange By Row () so the three artboards can remain next to each other horizontally. Set Spacing to **40 px** to set an exact spacing between them. Click OK.



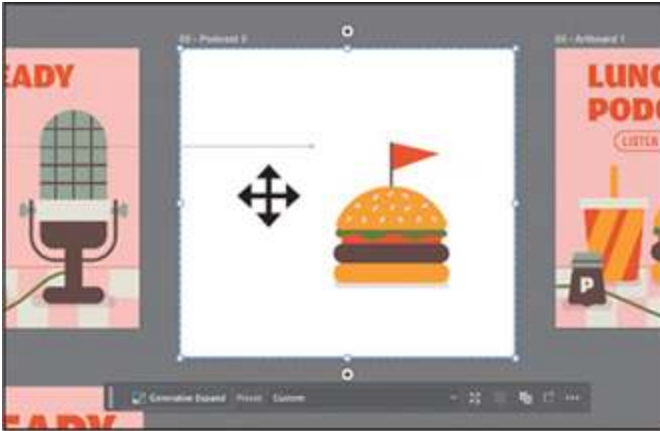
The artboard that was in the middle is now first in the row of artboards, and the other artboards are to the right of it. That's because the Arrange By Row option ordered the artboards based on the order that the artboards were created.




Setting background color for artboards

If you want to present content on a background color or maybe try out logos on contrasting backgrounds (reverse), you can change the background color of artboards. The color is not meant to print or export, just show onscreen.

1. Click in the white artboard with the hamburger on it to select it.



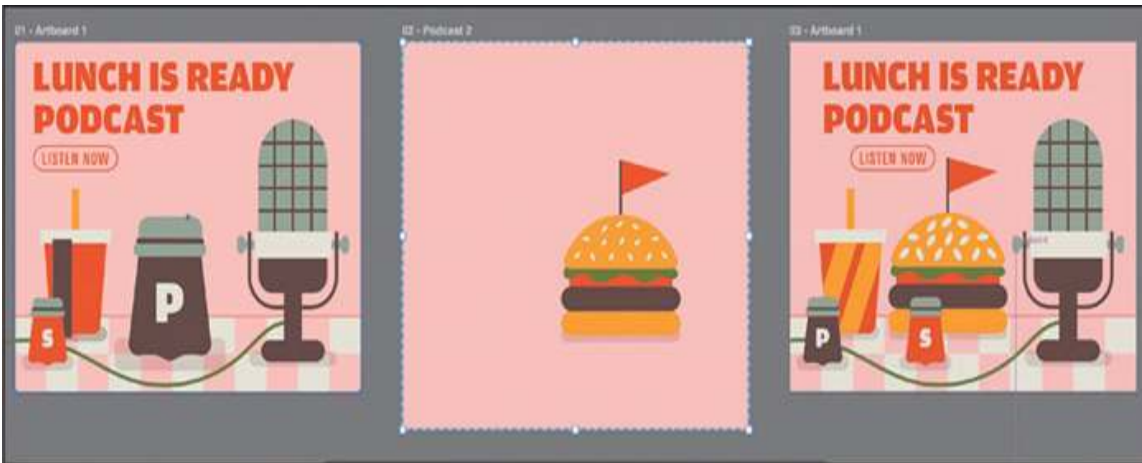
2. In the Properties panel, click the Artboard Color Swatch icon () to apply a custom color to the artboard background. It's circled in the following figure.
3. In the Color Picker, change the RGB values to R=255, G=197, B=189. Click OK.

► **Tip**

You could also use the Eyedropper tool in the Color Picker dialog box to sample the color from another artboard.



You can see that the artboard now is filled with the color.



Setting options for artboards

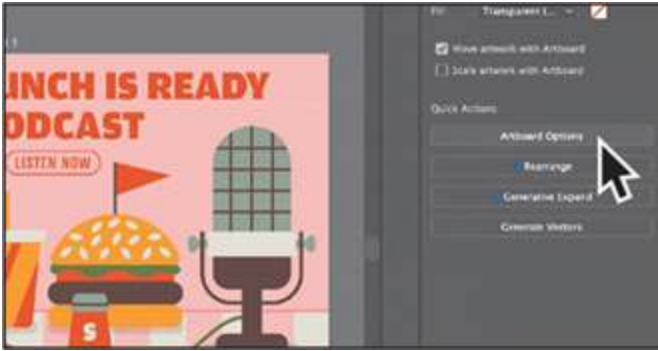
By default, artboards are assigned a number and a name, as you've seen. When you navigate the artboards in a document, it can be helpful to name them.

Next, you'll learn how to *rename* artboards so that the names help identify artboards more quickly, and you'll see other options you can set for each artboard.

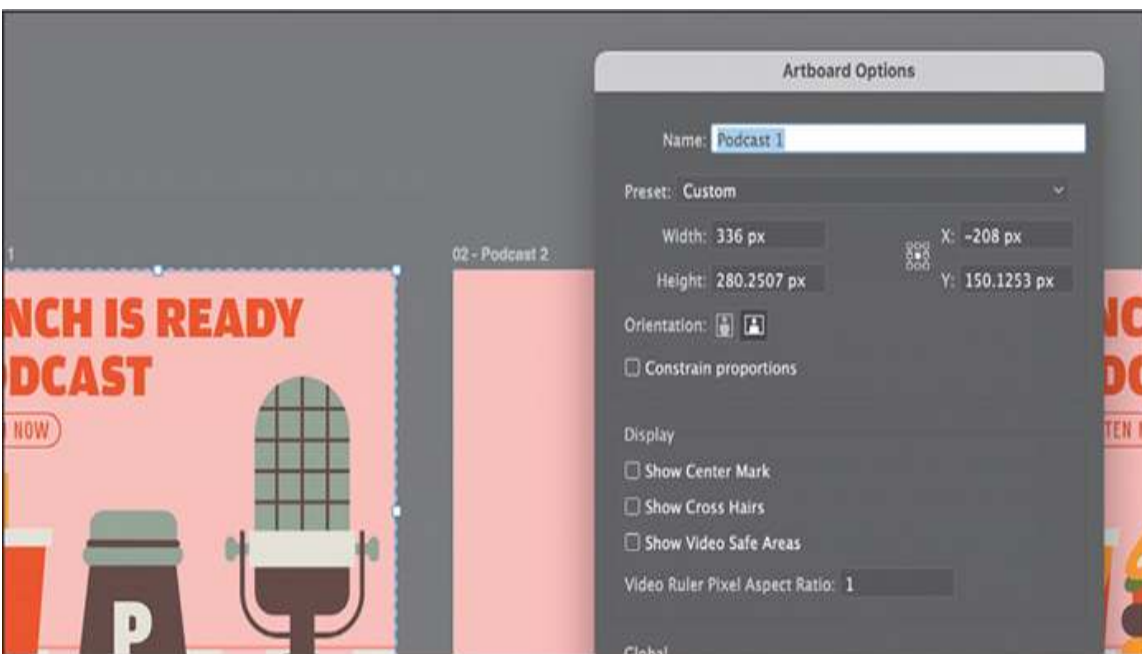
1. While still in Artboard Editing mode, click to select the original artboard pictured in the figure (the one with the large brown pepper shaker on it).



2. Click the Artboard Options button in the Properties panel.



3. In the Artboard Options dialog box, change the name to **Podcast 1** and click OK.



The Artboard Options dialog box has lots of extra options for artboards, as well as a few you've already seen, like artboard name, width, and height.

4. Select the Selection tool (🔍) to exit Artboard Editing mode.

This is just another way to exit.

5. Double-click the name of the last unnamed artboard, and name it **Podcast 3**.



You don't need to be in Artboard Editing mode to see or change the name of an artboard!

6. Choose File > Save.

Changing the order of artboards

To learn how to reorder artboards and navigate between them, check out the video *Changing the order of artboards*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Working with rulers and guides

With the artboards set up, now you'll learn a little about aligning and measuring content using rulers and guides. *Rulers* help you accurately place and measure objects and distances. They appear along the top and left sides of the Document window and can be shown and hidden. *Guides* are nonprinting lines that help you align objects. To create guides, you can drag them from the rulers into the document.

Creating guides

Next, you'll create a guide so you can accurately align content to an artboard.

1. Click the Show Rulers button (📏) in the Properties panel to show the rulers.

► **Tip**

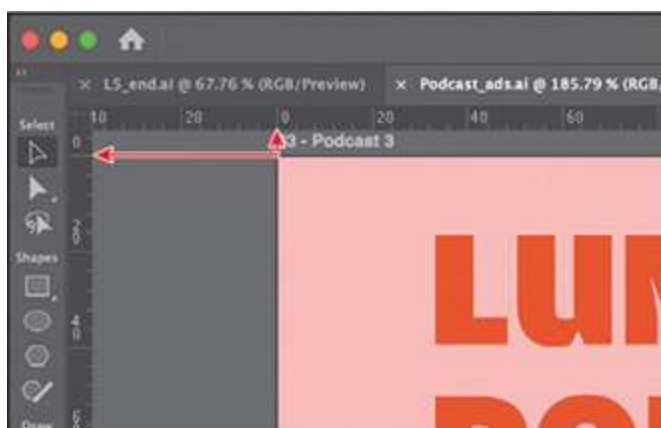
You can also choose View > Rulers > Show Rulers.

2. With the Selection tool, click the hamburger in the rightmost artboard.



See the black outline around that artboard? You should also see “3” showing in the Artboard Navigation menu (below the Document window), which indicates that the Podcast 3 artboard is now the active artboard.

3. Choose View > Fit Artboard In Window.

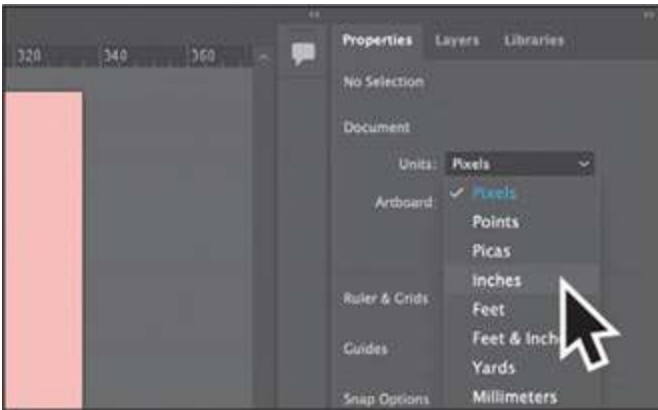


Look at the rulers along the top of the Document window and to the left. The point on each ruler (horizontal and vertical) where the 0

(zero) shows is the *ruler origin*. The ruler origin (0,0) starts in the upper-left corner of the artboard.

4. Choose Select > Deselect so you can see the document properties in the Properties panel on the right.
5. Click the Units menu in the Properties panel, and choose Inches to change the units for the entire document.

You can now see that the rulers show inches instead of pixels. For this example, we need the text to be at least 0.25 inches (1/4 inch) from the edge of the ad.



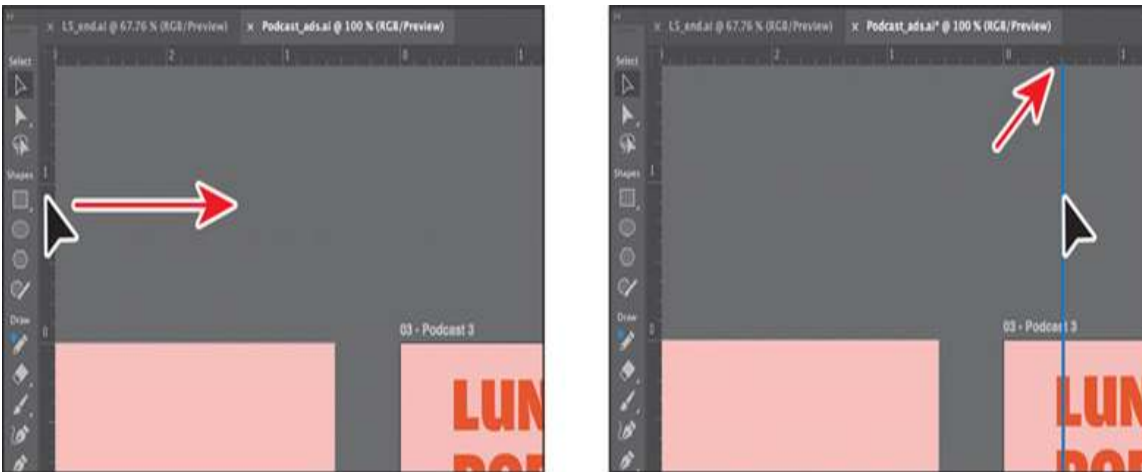
6. Choose View > Zoom Out and few times.
7. In the ruler on the left, drag from above the artboards to the right to make a vertical guide. See the figure. Keep dragging until the guide touches the “LUNCH IS READY PODCAST” text, and then release.

► **Tip**

Dragging from a ruler while pressing the Shift key “snaps” a guide to the measurements on the ruler.

► **Tip**

You can double-click the horizontal or vertical ruler to add a new guide.

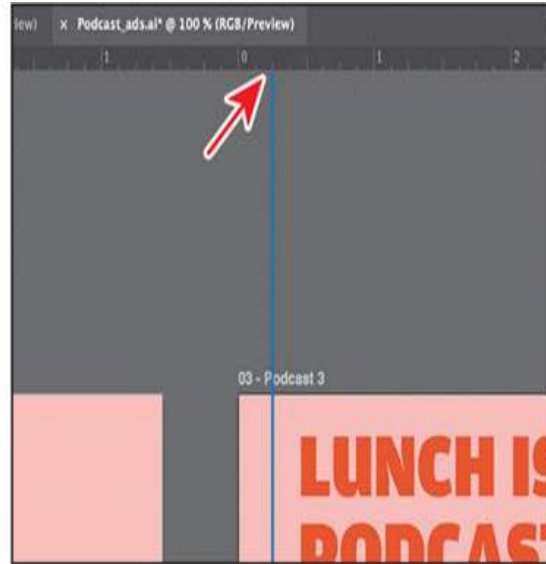
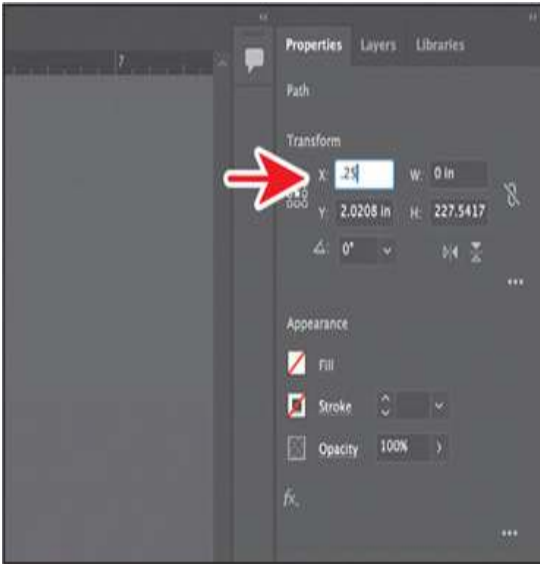


8. If you don't see the guide, choose View > Guides > Show Guides.

After creating a guide, it's selected; in this case, it's blue. When selected, the color of a guide matches the color of the layer it's on. If it's deselected or the pointer is on it, it's aqua in color.

Actually, we need the guide at 1/4 inch. Rather than dragging the guide, which you could, you can type in 1/4 inch in the Properties panel to position it exactly.

9. With the guide still selected, change the X value in the Properties panel to **0.25** (inch), and press Return or Enter.



10. Choose **Select > Deselect** to deselect the guide.

11. Choose **View > Fit Artboard In Window**.

In the coming section “[Working with the bounding box](#),” you’ll drag content to align with the guide.

Editing the ruler origin

You can move the ruler origin to start the horizontal and vertical measurements at another location. To learn how to work with the ruler origin, check out the video *Editing the ruler origin*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

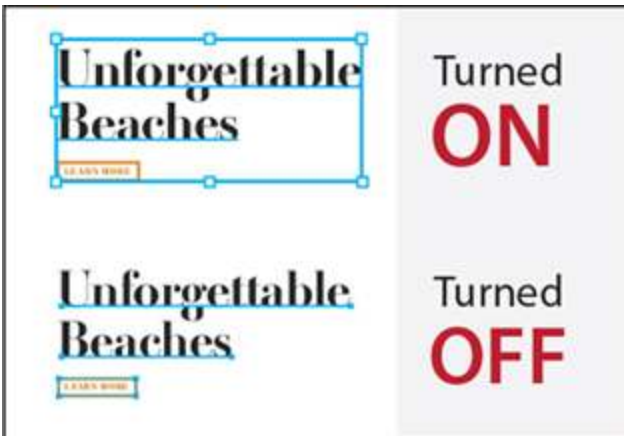
Transforming content

In [Lesson 4](#), you learned how to take simple paths and shapes and create more complex artwork by editing and combining that content. In this lesson, you’ll learn how to scale, rotate, and transform content in other ways, using various tools and methods.

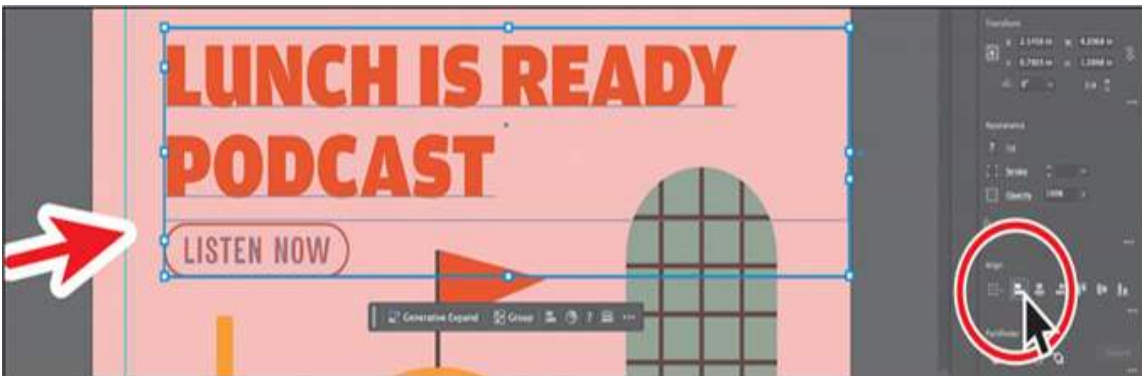
Working with the bounding box

As you’ve seen, selected content shows a bounding box you can use to resize or rotate. You can turn it off to prevent accidental transforms and

make dragging or snapping easier.



1. With the Selection tool (🖱️), click to select the “LUNCH IS READY PODCAST” text. Shift-click the LISTEN NOW button.
2. Click Horizontal Align Left (📏) in the Properties panel to align the LISTEN NOW button to the “LUNCH IS READY PODCAST” text.



3. Move the pointer over the lower-left corner of the selected content.

If you were to drag right now, you would resize the content.



4. Choose View > Hide Bounding Box to hide the bounding box that surrounds all of the selected artwork.
5. Move the pointer over the leftmost point on the LISTEN NOW button, and drag the group to the left, to the guide you created. When the pointer arrow changes (↔), the artwork is snapped to the guide, and you can release the drag.

● **Note**

If the group is not aligning to the guide (in other words, it's not snapping), and the pointer isn't changing, you need to zoom in closer.



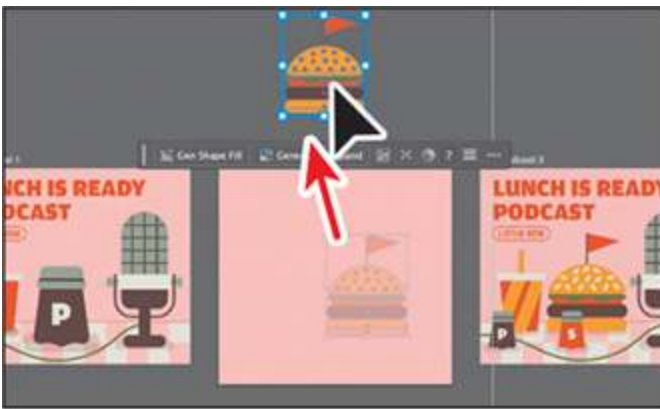
6. Choose View > Show Bounding Box to turn it back on for all artwork.
7. Choose Select > Deselect.

Positioning artwork using the Properties panel

At times, you may want to position things more precisely. You could use the alignment options, as you saw in [Lesson 2](#). You can also use Smart

Guides (View > Smart Guides) and the Transform options in the Properties panel to move objects to exact x and y coordinates or align them to the artboard's edges. Next, you'll add content to an artboard and position it precisely.

1. Choose View > Fit All In Window to see all three artboards.
2. Zoom out using any method so you can see all of the artwork below the artboards.
3. On the middle artboard, drag the hamburger above the artboard.



4. Drag across the LUNCH IS READY artwork with the flowers, beneath the artboards, to select it.
5. Click the Group button in the Contextual Task Bar to group it together.



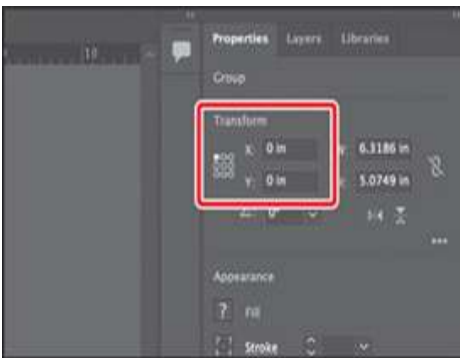
The points in the reference point locator represent the points of the bounding box around the selected content. In this case, the upper-left reference point refers to the upper-left point of the bounding box.

6. In the Transform section of the Properties panel, click the upper-left point of the reference point locator ().

► **Tip**

You could have also aligned the content to the artboard using the alignment options. You'll find there are at least a few ways to accomplish most tasks in Illustrator.

7. Change the X value to **0**, and the Y value to **0**, and press Return or Enter.



The selected artwork is moved into the upper-left corner of the *active* artboard.

8. Shift-drag the lower-right corner to make the selected artwork smaller. Make sure the peach rectangle in the background just fits on the artboard. Some artwork will hang off and that's okay.



Because the artboard has the same color as the background shape in the group, you could delete the background shape from the group if you want!

9. Choose Select > Deselect.
10. Click the Edit Artboards button in the Properties panel. Drag the bottom-middle point of the artboard up to resize it to fit the art.

► **Tip**

You might want to zoom in to make it easier to snap to the artwork.

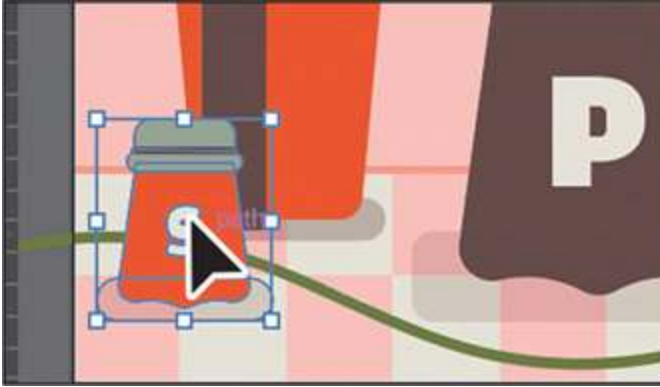


11. Select the Selection tool (▀) to exit Artboard Editing mode, and then choose File > Save.

Scaling objects precisely

So far in this book, you've scaled most content with the selection tools. In this part of the lesson, you'll scale artwork using the Properties panel and use an option called Scale Strokes & Effects.

1. Choose View > Fit All In Window.
2. With the Selection tool (▀), select the small salt shaker on the far left artboard (it has an "s" on it).

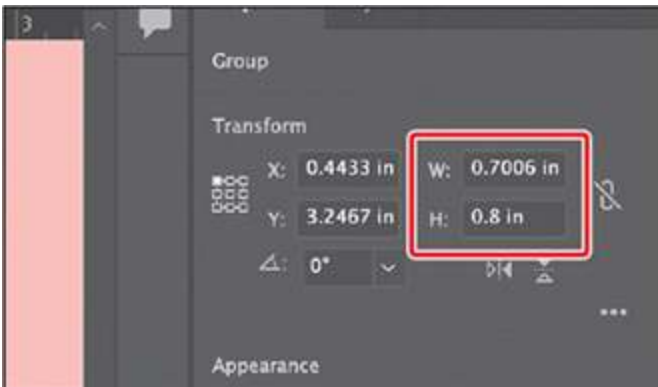


3. Press Command and + (macOS) or Ctrl and + (Windows) a few times to zoom in.
4. Choose View > Hide Edges.

The inside edges of the individual objects are now hidden in the group. This will make it easier to see the stroke weight change when you scale the artwork.

5. Look at the Height value in the Properties panel.


The height I see is 0.8 inches. The larger pepper shaker needs to be the same size—so you will use this height.



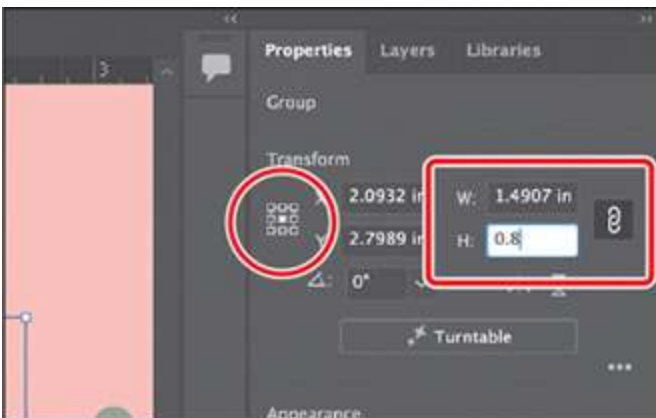
6. Select the larger brown pepper shaker (with the “P” on it).
7. In the Properties panel, click the center reference point of the reference point locator (📏), if it's not selected, to resize from the center.

► **Tip**

When typing values to transform content, you can type different units, such as percent (%) or pixels (px), and they will be converted to the default unit, which is inches (in) in this case.

8. Ensure that Maintain Width And Height Proportions is selected (), type **0.8** in the Height (H) field, and then press Return or Enter to make the same height as the salt shaker.

Notice that the artwork is smaller, but the brown horizontal path is still the same width. That's because that is a path with a stroke applied.



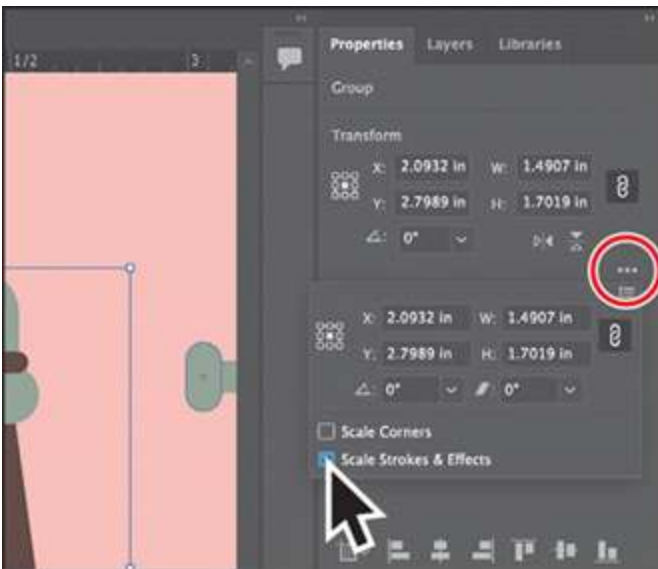
By default, strokes are *not* scaled along with objects. For instance, if you make a circle with a 1-pt stroke bigger, the stroke remains 1 pt.



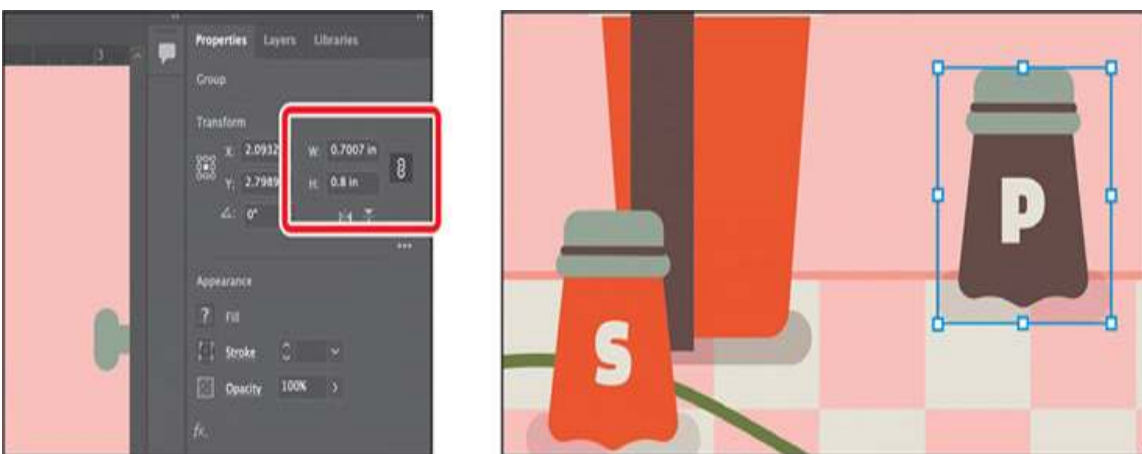
9. Choose Edit > Undo Scale.

10. In the Properties panel, click More Options (**...**) in the Transform section. Select Scale Strokes & Effects.

By selecting Scale Strokes & Effects before you scale—and then scaling the object—that 1-pt stroke would scale (change) relative to the amount of scaling applied to the object.



11. Type **0.8** in the Height (H) field and press Enter or Return to decrease the size of the artwork.



Now any strokes applied to any paths are scaled proportionally.

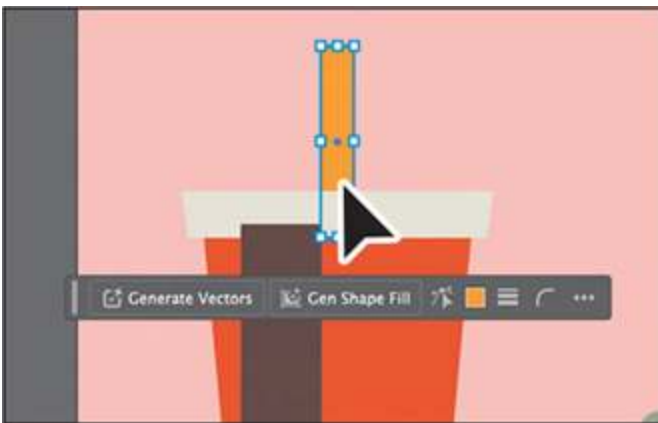
12. Choose View > Show Edges to show the inside edges again.
13. Move the pepper shaker down a little onto the checkered tablecloth.

Rotating objects with the Rotate tool

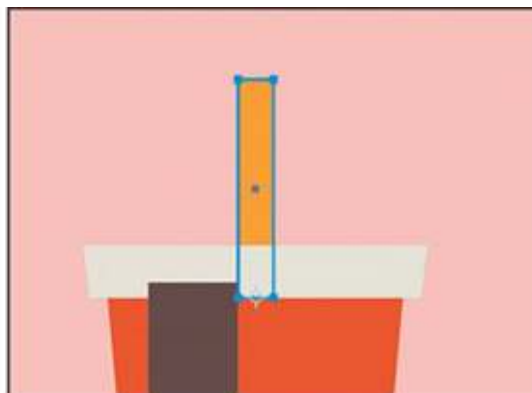
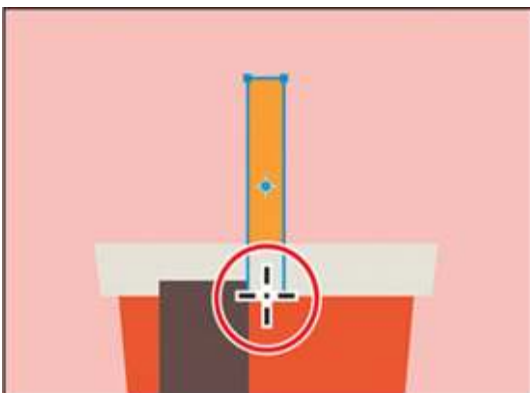
There are a lot of ways to rotate artwork, and the methods range from precise to more freeform rotation. In previous lessons, you learned that you could rotate selected content with the Selection tool. In this part of the lesson, you'll rotate artwork using the Rotate tool.

1. With the Selection tool (▀), click to select the straw on the cup.

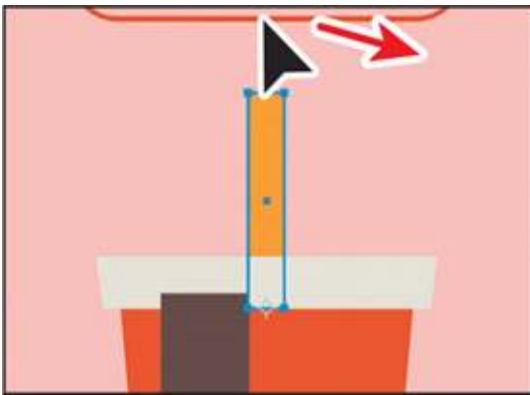
The straw would look better if it were turned a bit. Instead of dragging it with the Selection tool, try using the Rotate tool to spin it around its base—it's quicker and easier.



2. Select the Rotate tool (⤵) in the toolbar.
3. Click the bottom of the straw shape to set the point that the straw will rotate around. It looks like an aqua crosshairs and is called the *reference point*.



4. Move the pointer anywhere above the straw, and drag clockwise to rotate it.



Scaling using Transform Each

You've been scaling artwork to resize it throughout this book. Sometimes, you need to resize multiple objects at once. The Transform Each command lets you scale or rotate objects in place—without moving them—using the same settings. Next, you'll scale all the sesame seeds on the hamburger bun at once.

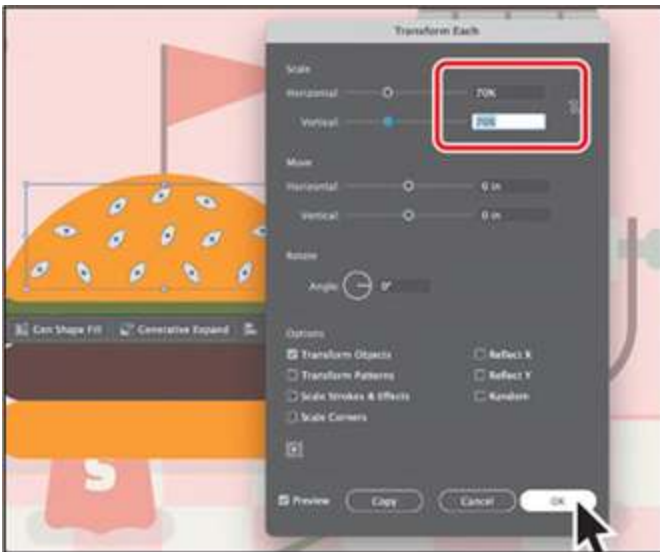
1. Choose View > Fit All In Window.
2. With the Selection tool (▀), double-click the hamburger on the far right artboard to enter Isolation mode.



3. Select one of the cream-colored sesame seeds on the bun and zoom in.
4. Choose Select > Same > Fill Color to select the other seeds.



5. Choose Object > Transform > Transform Each.
6. In the Transform Each dialog box, change the Horizontal Scale and Vertical Scale values to **70%**. Click OK.



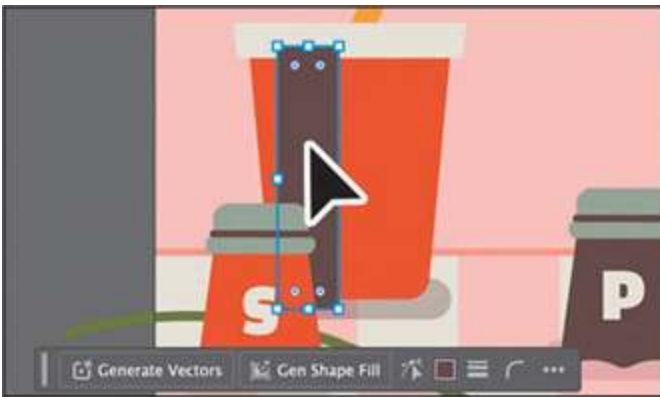
Each of the seeds is smaller and still in the same place.

Shearing objects

Shearing an object slants, or skews, the sides of the object along the axis you specify, keeping opposite sides parallel and making the object asymmetrical. Next, you'll apply shear to a rectangle to add some texture to a cup.

1. Press Esc to exit Isolation mode.
2. Navigate to the artboard farthest to the left, with the salt and pepper shakers on it, and click to select the brown rectangle on the cup.
3. Copy and delete it by choosing Edit > Cut.

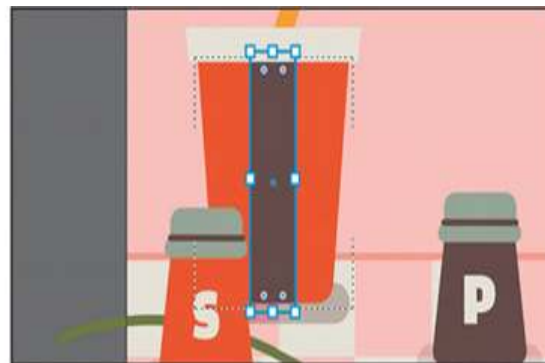
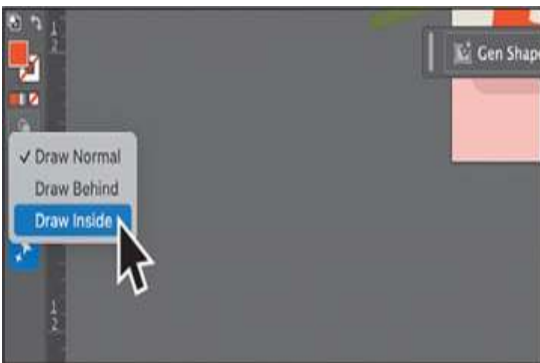
Now you'll put the shape into the cup using Draw Inside, then skew that same shape.



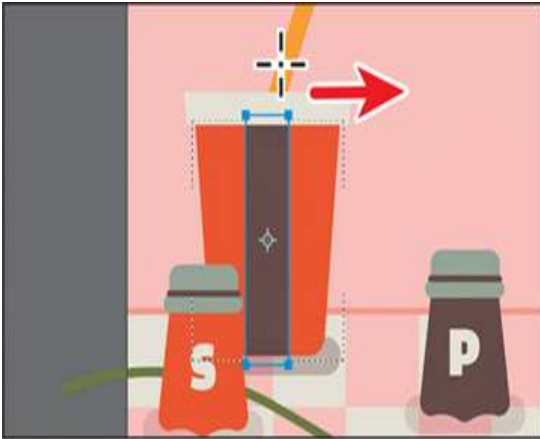
4. Select the orange cup shape.
5. Choose Draw Inside from the Drawing Modes menu (🔍) toward the bottom of the toolbar.
6. Choose Edit > Paste to paste the brown shape inside of the orange cup shape.

● **Note**

This method was also used in [Lesson 3](#) to create a shoe.



7. With the shape selected, select the Shear tool (✂️), which is nested within the Rotate tool (🔄) in the toolbar.
8. Move the pointer above the shape, press the Shift key to constrain the artwork to its original height, and drag to the right. When you like the result, release the drag and then the Shift key.



9. Leave the brown shape selected.

10. Choose File > Save.

Transforming using menu commands

The transform tools you find in the toolbar—Selection, Rotate, Scale, Shear, and Reflect—are also represented as menu items when you choose Object > Transform. In a lot of cases, you can use any of those menu commands in place of a tool.

Now, you'll make a copy of the brown shape in the cup using the Move command.

1. To make a copy of the rectangle, choose Object > Transform > Move.
2. In the Move dialog box, change Horizontal Position to **-0.3 in** to move the rectangle that distance to the left, and make sure the Vertical Position is **0** to keep it in the same vertical position. Click Copy.

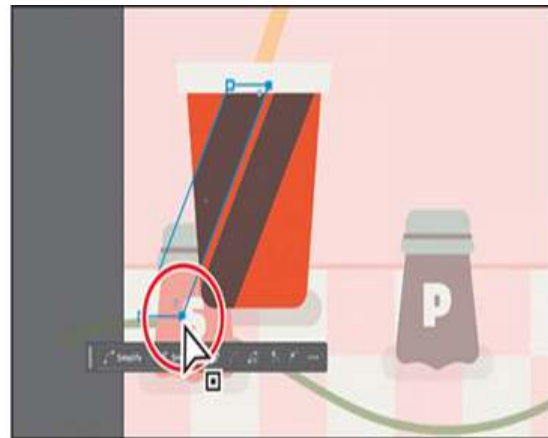
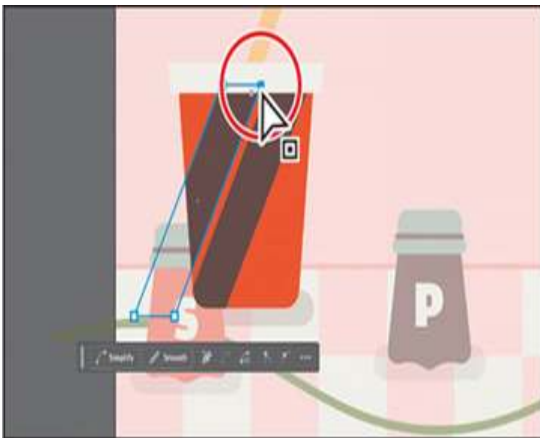


Next, you'll make the rectangle narrower. It's a bit more challenging than just dragging the bounding box, because the shape is skewed. You'll drag anchor points instead to maintain the skew angle while transforming the shape.

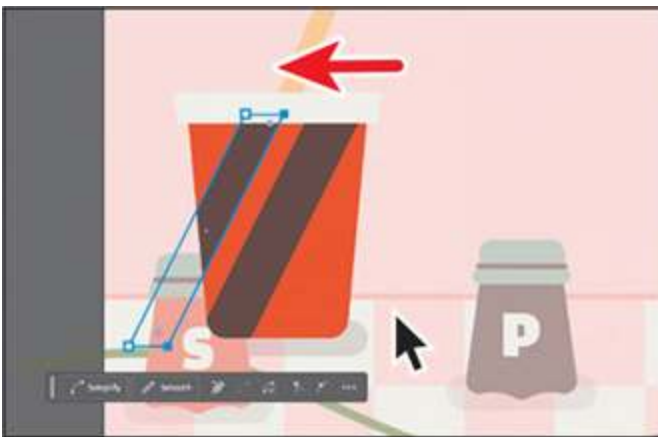
3. Select the Selection tool (▸), and double-click the duplicate rectangle.

This enters Isolation mode and makes it much easier to select.

4. Select the duplicate rectangle, if it isn't already.
5. Select the Direct Selection tool (◄). Click the top-right anchor and Shift-click the bottom-right anchor to select both.



6. Press the Left Arrow key on your keyboard several times to move the selected anchor points to the left, making the shape narrower.

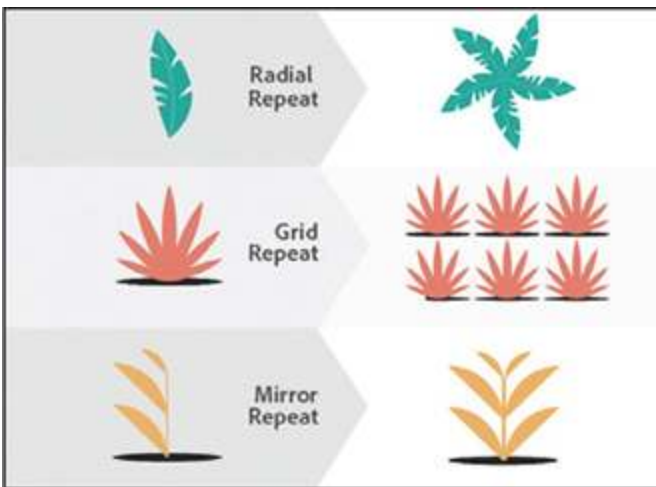


7. Press the Esc key to exit Isolation mode.

8. Choose View > Fit All In Window, and then choose File > Save.

Using repeats

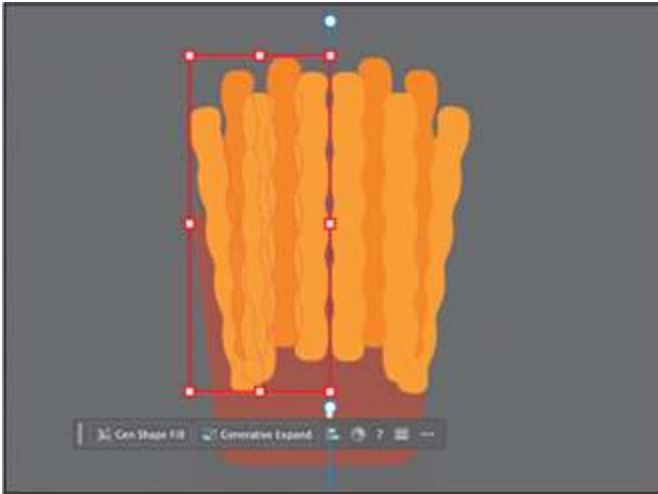
You can easily repeat objects by applying one of the available repeat types: Radial, Grid, or Mirror. When you apply one of the repeats to selected artwork, Illustrator auto-generates artwork using your chosen method. If you update one of the repeat instances, all instances are modified to reflect the change.



Applying a mirror repeat

For this section, you'll focus on applying a mirror repeat to artwork. Mirror repeats help create symmetrical artwork. You create half of the artwork, and Illustrator automatically makes the other half for you. In this case, you'll finish a bunch of French fries that will become part of one of the social ads.

1. Select the Zoom tool (Q), and zoom in to the French fries below the artboards.
2. Select the Selection tool (V), and drag across the French fries (*not* the box).
3. Choose Object > Repeat > Mirror.

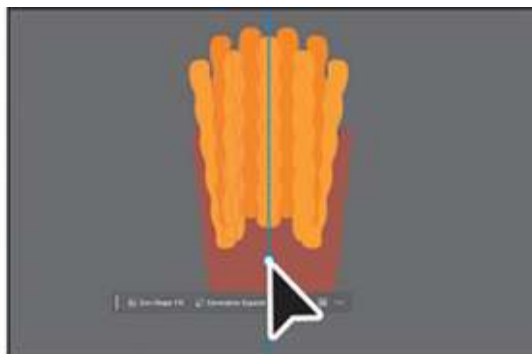
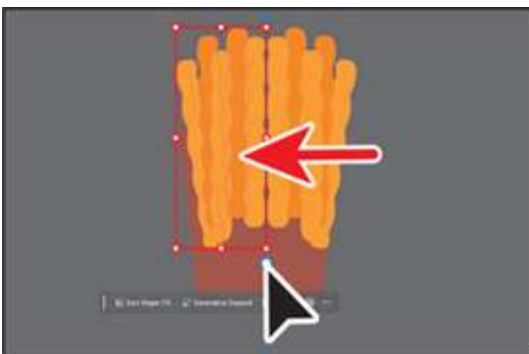


Illustrator enters Isolation mode and the rest of the artwork cannot be selected, as is typical for Isolation mode. The *symmetry axis* (vertical dashed line) shows the center of the symmetrical artwork, and you use it to change the distance between the halves and rotate the auto-generated half.

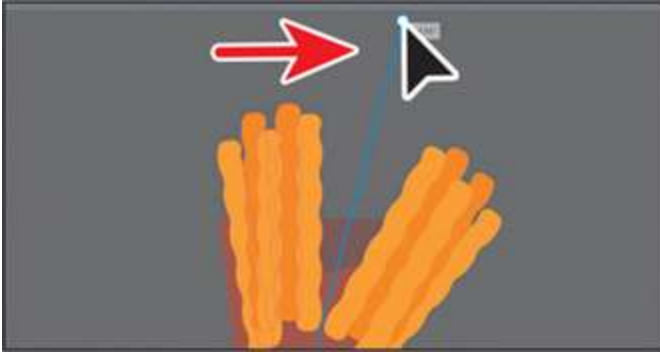
4. Find the circle control handle on the symmetry axis below the fries. The Contextual Task Bar may be in the way. Drag the control handle left and right to change the distance between the halves. Make sure the fries overlap by dragging left.

● **Note**

In the figure, the Contextual Task Bar was moved to show the control handle.



5. Drag either circle control handle at the very top or bottom of the symmetry axis to rotate the mirrored content.



6. To reset the angle of the mirror repeat, choose 90 degrees from the Angle Of Mirror Axis menu in the Properties panel.



Not only can you use Mirror to copy and flip artwork you've already created, but you can also add or remove artwork while editing the mirror repeat.

7. To stop editing the mirror repeat, exit Isolation mode by pressing the Esc key.

Editing a mirror repeat

When you create a repeat, the artwork, French fries in this case, becomes a repeat object—sort of like a special group. Now, you'll learn how to edit the mirror repeat.

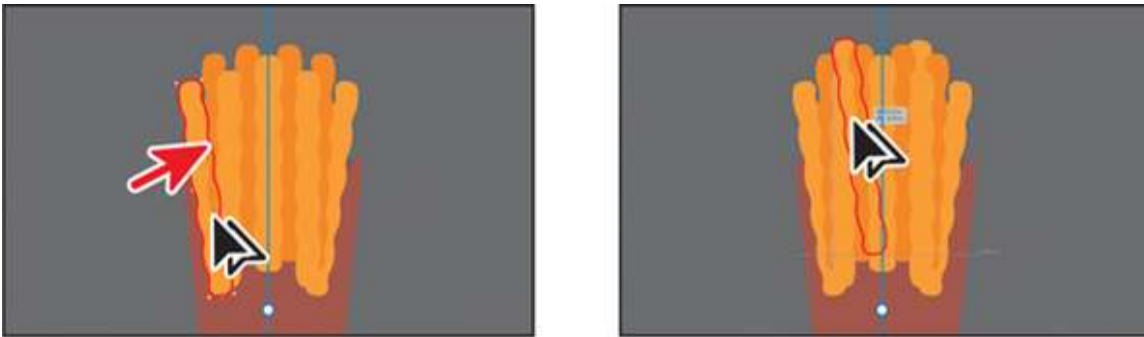
1. Click the French fries to select them, if they aren't still selected.

At the top of the Properties panel, you'll see "[Mirror Repeat](#)," which tells you that it's a mirror repeat object group.

2. Double-click the French fries to enter Isolation mode.

You can now see the symmetry axis and can edit the original artwork on the left.

3. Deselect all of the fries, then Option-drag (macOS) or Alt-drag (Windows) one of the fries to make a copy. Release the drag and then the key.



Notice that the generated artwork on the right mirrors what you are doing in real time. Any changes you make to the artwork are visible in the mirrored half.

► **Tip**

To edit the auto-generated half of the mirrored artwork, you need to expand the mirror repeat object. Choose Object > Expand. Know that if you expand a mirror repeat object, you cannot edit the mirror repeat using the symmetry axis, and the artwork is simply a group of individual objects.

4. Press the Escape key or double-click in an empty area to exit Isolation mode.
5. Choose View > Fit All In Window.
6. Drag across the French fries, red box, and shadow to select all objects. Choose Object > Group. Drag the group onto the leftmost artboard.



Working with the Puppet Warp tool

In Illustrator, you can easily twist and distort artwork into different positions using the Puppet Warp tool. In this section, you'll warp flowers.

Note



If the French fries are in front of artwork on the artboard, choose Send Backward from the Arrange menu in the Properties panel as many times as you need.

Adding pins

First, you need to show the Puppet Warp tool in the toolbar, then you'll use it to warp a flower so it looks more natural.

1. In the center artboard, the one with the flowers on it, double-click the flowers, then select the flower with the yellow petals (on the right).



2. Press Command and + (macOS) or Ctrl and + (Windows) a few times to zoom in.
3. Choose Window > Toolbars > Advanced.
4. Press and hold the Free Transform tool () and select the Puppet Warp tool ()

Illustrator automatically adds pins to key areas of your artwork. The arrows below show where they are. *Pins* hold parts of your design in place so you can move, rotate, or reshape it. You can add, delete, or reposition pins to fine-tune your artwork.

5. In the Properties panel on the right, you should see Puppet Warp options. Deselect Show Mesh.

Note

The pins Illustrator adds to the artwork by default may not look like what you see in the figure. If that is the case, pay attention to the steps along the way.



That will make it easier to see the pins and provide a clearer view of any transformations you make. Illustrator added pins where you don't need them, so remove a few to start.

6. If there is a pin in a green leaf, click to select it. You can tell that a pin is selected because it has a white dot in the center. Press Delete or Backspace to remove it.

● **Note**

If your pin is in a different place, that's okay.

7. Delete any other pins you see on the green stem or leaves.

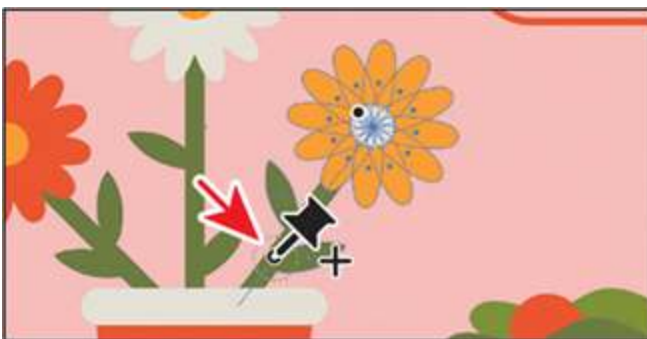
▶ **Tip**

You can press the Shift key and click multiple pins to select them all, or click the Select All Pins button in the Properties panel to select all of the pins.



You can't reposition pins on the artwork, so if they're not in the right place, you need to remove pins and add them where they are needed.

8. Click in the middle of the green stem to add a pin.



9. Ensure that there is a pin in the yellow part of the flower—I had one by default.

The pin in the stem is meant to pin, or hold, that part of the artwork in place so that part won't move as much. The pin in the flower is the one you will drag to bend the flower.

10. Drag the pin in the flower to reshape it.

The flower is simply rotating around the pin in the green stem. So that the flower bends around the pin instead, you need to add a new pin to the bottom of the flower.



11. Drag the pin in the flower back to the original position (or choose Edit > Undo Puppet Warp).

12. Click the bottom of the green stem to add a new pin.



13. Drag the pin in the flower again, and you'll see that this time the green stem now bends around the pin in the middle.

14. Choose File > Save.

Rotating pins

Another helpful thing you can do to pins is rotate them to rotate that part of the artwork. Next, you'll rotate a second flower without affecting the rest as much.

1. With the Selection tool (⬮), if still in Isolation mode, select the flower with the orange/red petals. If not in Isolation mode, double-click the flower with the orange/red petals to enter Isolation mode, then select that flower.

You'll start the same way as you did with the previous flower. You'll select the Puppet Warp tool, remove and add any points you might need, then transform.

2. Select the Puppet Warp tool (⚡).

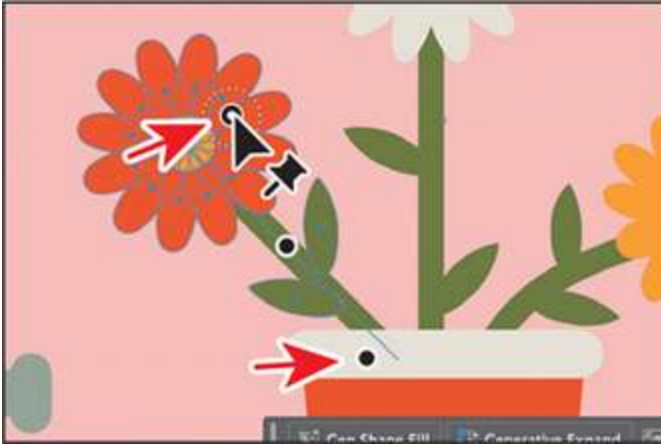
Pins are added to the flower artwork.

3. To start, add a pin in the center of the green stem if there isn't one there already.



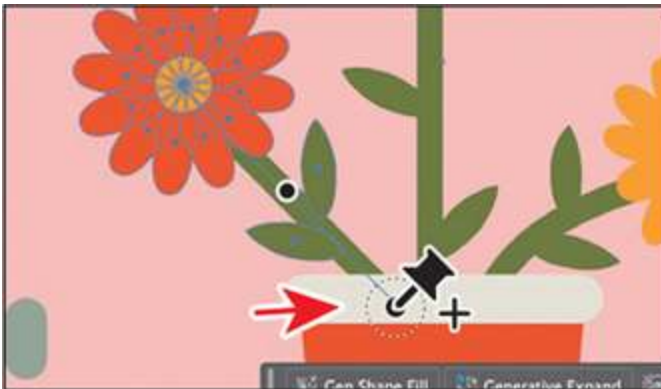
4. Select and delete the rest of the pins that Illustrator added by default.

There needs to be at least one pin on artwork, which is why you put one in a spot you'll need first, and then delete the rest.



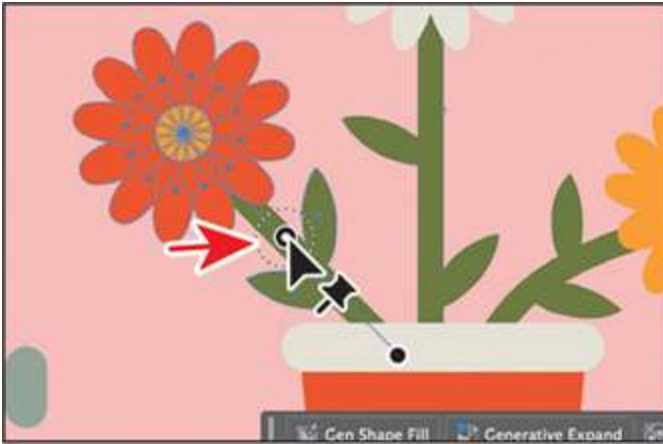
5. Add another pin at the bottom of the green stem.

This new pin will be used to hold the bottom of the flower in place. You will rotate the pin in the middle of the green stem to bend the flower.



6. Select the pin you added to the middle of the green stem.

You will see a dashed circle around the pin. You can drag that to rotate the artwork.



7. Move the pointer over the dashed circle, and drag to rotate the pin, which bends the flower around the pin until you think it looks good.



The leaves for my flower moved. To fix this, you can drag the leaves with the Selection tool.

8. Select the Selection tool. Double-click the same flower to go further into Isolation mode.
9. Drag the leaves where you want.
10. Press the Escape key or double-click in an empty area to exit Isolation mode.



11. Choose Window > Toolbars > Getting Started to reset the toolbar.
12. Choose Select > Deselect, and then choose View > Fit All In Window.



Measuring with the Dimension tool


To learn how to work with the Dimension tool, check out the video *Measuring with the Dimension tool*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

13. Choose File > Save.
14. Choose File > Close to close any open files.

Review questions

- 1 Name three ways to change the size of an existing active artboard.
- 2 What is the ruler origin?
- 3 What is a bounding box used for?
- 4 Briefly describe what the Scale Strokes & Effects option in the Properties panel or Transform panel does.
- 5 Briefly describe what the Puppet Warp tool does.

Review answers



- 1 To change the size of an existing artboard, you can do any of the following:
 - With nothing selected and the Selection tool selected, click the Edit Artboards button in the Properties panel to enter Artboard Editing mode. With the Artboard tool selected, position the pointer over an edge or corner of the artboard, and drag to resize.
 - In Artboard Editing mode, click an artboard in the Document window, and change the dimensions in the Properties panel.
 - In Artboard Editing mode, with an artboard selected, choose a preset size from the Contextual Task Bar.
 - BONUS: Double-click the Artboard tool () and edit the dimensions of the active artboard in the Artboard Options dialog box.
- 2 The ruler origin is the point where 0 (zero) appears on each ruler. By default, the ruler origin is set to be 0 (zero) in the upper-left corner of the active artboard.

- 3 A bounding box is a rectangular border around an image, shape, or text that you can drag to move, transform, rotate, or scale.
- 4 The Scale Strokes & Effects option, which can be accessed from the Properties panel or the Transform panel, scales any strokes and effects as the object is scaled. This option can be turned on and off as needed.
- 5 In Illustrator, you can use the Puppet Warp tool to easily twist and distort artwork into different positions while adding pins to hold parts of it stationary.

6 Using the Basic Drawing Tools

Lesson overview

In this lesson, you'll learn how to do the following:

- Draw curves and straight lines with the Curvature tool.
- Edit paths with the Curvature tool.
- Join paths with the Join tool.
- Draw and edit with the Pencil tool.
- Do more with the Pencil tool. 
- Create dashed lines.
- Add arrowheads to paths.
- Pick the best drawing tool for the job .



This lesson will take about 40 minutes to complete. To get the lesson files used in this lesson refer to the instructions in [“Accessing the lesson files and Web Edition”](#) in the [“Getting Started”](#) section at the beginning of this book.



In previous lessons, you created and edited shapes. Next you'll learn how to create straight lines, curves, or more complex shapes using the Curvature and Pencil tools. You'll also explore creating dashed lines, arrowheads, and more.

Starting the lesson

In this lesson, you'll create and edit freeform paths with the Curvature tool and Pencil tool and explore other creative drawing methods to create a series of social assets for a cafe.

1. Start Adobe Illustrator.

Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.





3. Choose File > Open. Open L6_end.ai in the Lessons > Lesson06 folder you copied on your computer.

This file contains the finished project that you'll create in this lesson.

4. The Missing Fonts dialog box may appear. Click Add Fonts to activate all the missing fonts. After they are added and you see the message stating that there are no more missing fonts, click Close.

● Note

If the text in the document looks odd after activating the fonts, simply close without saving and reopen the file.

If you see another dialog box asking about font auto-activation, click Skip.

5. Choose View > Fit All In Window; leave the file open for reference, or you can close it by choosing File > Close.
6. Choose File > Open. Open the L6_start.ai file in the Lessons > Lesson06 folder on your computer.
7. Choose File > Save As.
8. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer.




9. In the Save As dialog box, navigate to the Lesson06 folder, and open it. Rename the file **Cat_cafe.ai**. Choose Adobe Illustrator (ai) from the Format menu (macOS), or choose Adobe Illustrator (*.AI) from the Save As Type menu (Windows). Click Save.

● Note

If you don't see Reset Getting Started in the menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

10. In the Illustrator Options dialog box, leave the default settings, and then click OK.
11. Choose Window > Workspace > Reset Getting Started.

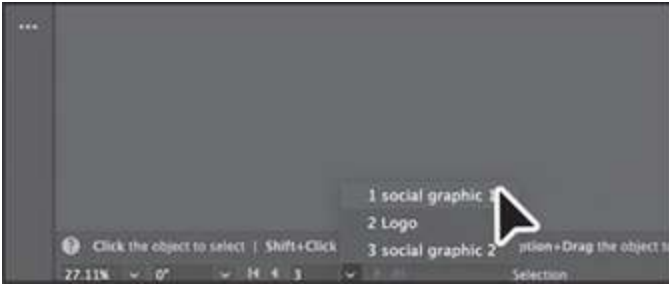
Creating with the Curvature tool

With the Curvature tool () , you can create freeform paths with straight lines and smooth, refined curves. It's one of the easier drawing tools to start with and master. The Curvature tool creates paths made of *anchor points* (also just called *anchors* or *points*) that are editable with any drawing or selection tools.

Drawing paths with the Curvature tool

In this first part, you'll draw a curved path to make half of a heart shape.

1. Choose 1 Social Graphic 1 from the Artboard Navigation menu below the Document window to fit the first artboard in the window.



2. With the Selection tool (▀), select the “SLEEPY CATS” text. Shift-click the DRINK COFFEE... banner to select it as well.
3. To hide them, choose Object > Hide > Selection.


That way, you can draw without accidentally doing anything to that content.



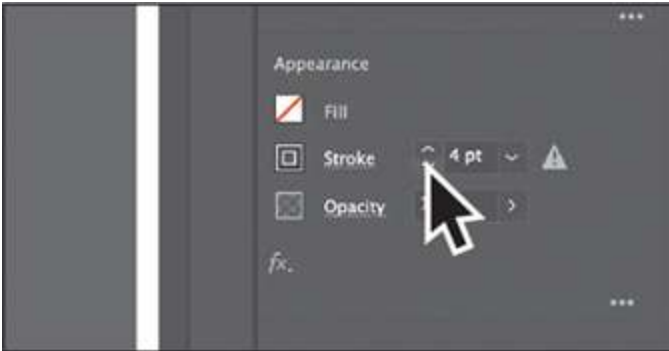
4. Select the Curvature tool (🖋️) in the toolbar and move the pointer into the document.

An asterisk (*) next to the pointer means you’re going to draw a new path.



5. To set the stroke and fill before you draw, in the Properties panel, change Fill to None () , the stroke color to a dark gray, and the stroke weight to 4 pt.

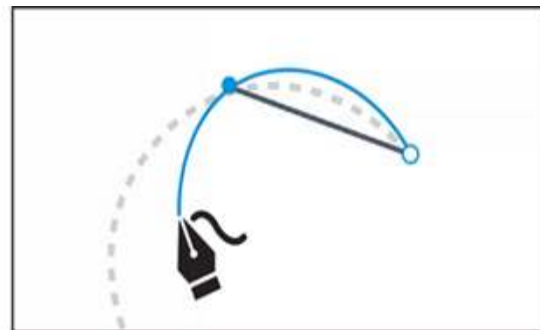
With the Curvature tool, you click to make points. Where the path's direction and/or the amount of curve needs to change, you set more points.



6. Starting at the top end of the gray dashed path, click to start a path.



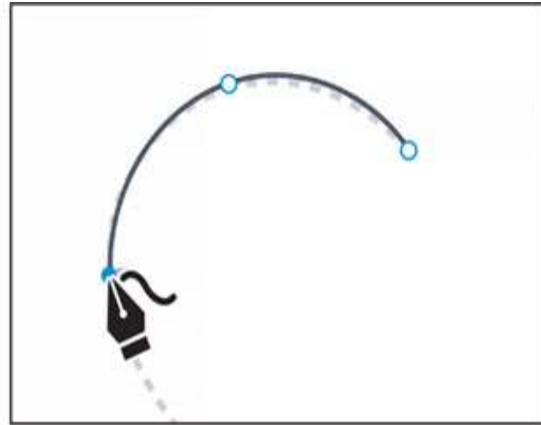
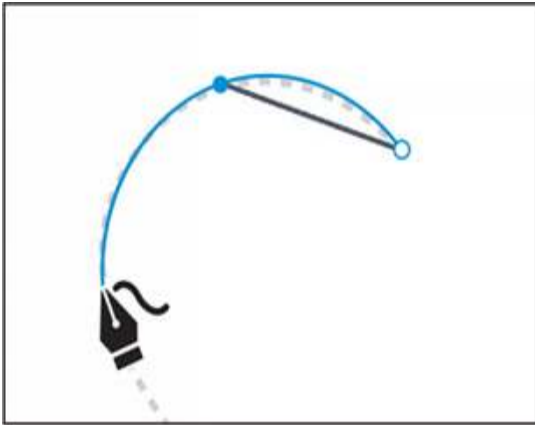
7. Move the pointer to the left, along the guide path, click to create a new point, and then move the pointer away.



Notice the blue rubber band preview of the curve before and after the new point. The Curvature tool works by creating anchor points

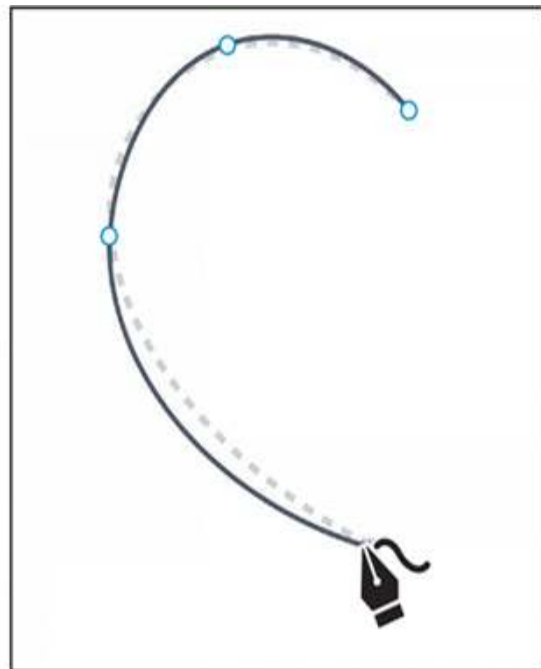
where you click. The path will “flex” around the points dynamically.

8. Move the pointer further along the guide path. Click to create a point. Then, move the pointer around to see how the path reacts.



Don't worry if your path isn't following the guide path yet. You will learn how to adjust it in the next section.

9. Finally, to complete the half heart, move the pointer over the end of the guide path; click to create the last anchor point.



Next, you'll edit the path, because it doesn't look quite right.

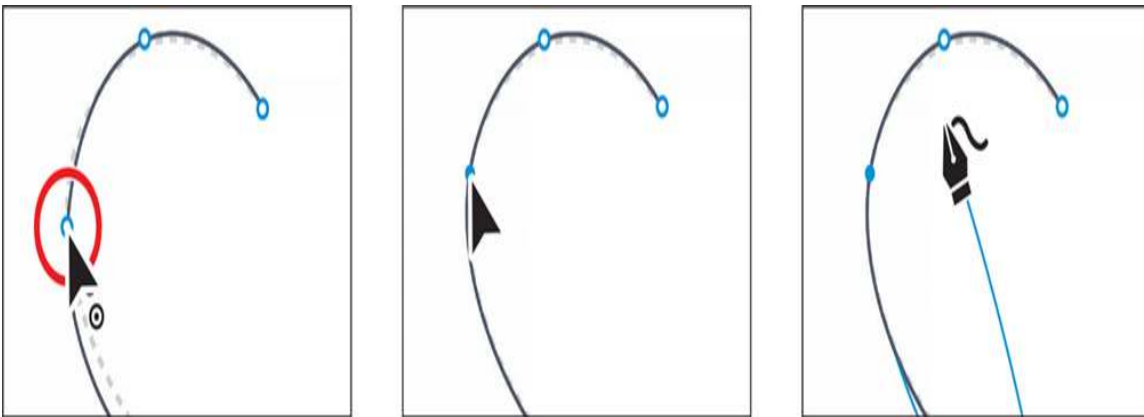
10. To stop drawing, press the Escape key, but leave the new path and tool selected.

Move the pointer around, and you'll see that there is no more rubber band preview.

Editing the path with the Curvature tool

You can also edit *any* path—regardless of the drawing tool used to create it—with the Curvature tool by moving or deleting anchor points or adding new ones. Next, you'll edit the path you just created.

1. With the Curvature tool selected, move the pointer over the anchor point circled in the first part of the following figure. When the point changes appearance (➤), click to select the point.
2. Drag the point you selected to reshape the curve a little.
3. Move the pointer away from the point. Because the path is still selected, no matter where you move the pointer, you will see the rubber band preview connected to the end of the path.

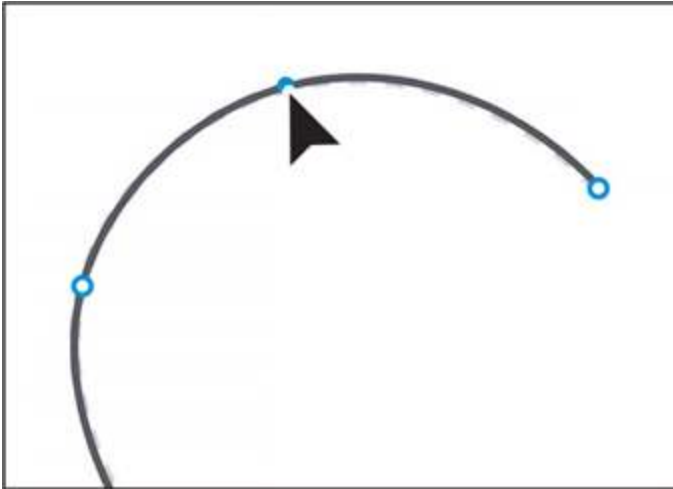



4. Try dragging other points in the path to align those points better with the guide path.

► **Tip**

If you are zoomed out far enough, sometimes dragging a point will not be smooth—it'll snap to things. I zoomed in to the points a little and had an easier time dragging with finer control.

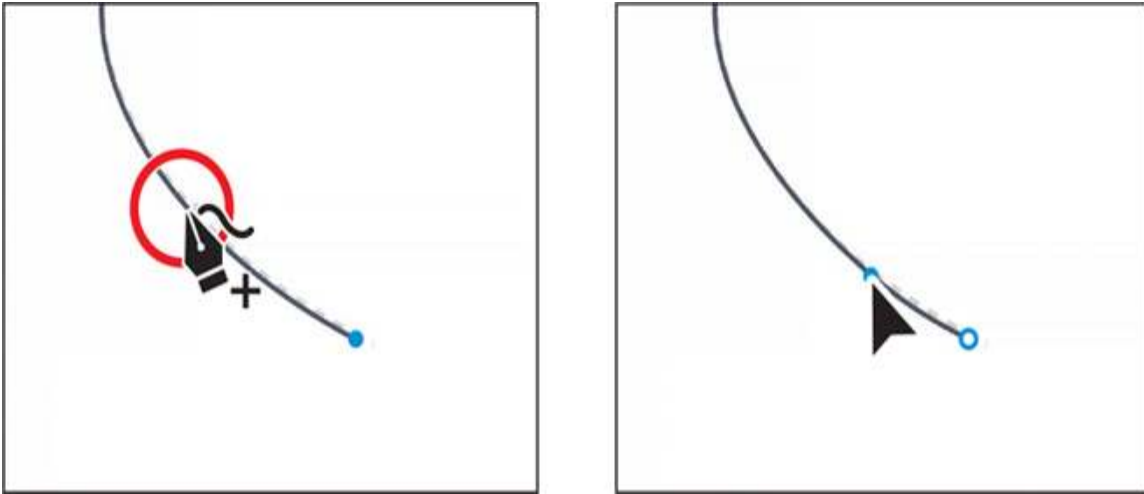
You'll find that you can simply drag an anchor point without having to select it first.



5. Move the pointer over the path like you see in the following figure. When a plus sign (+) appears next to the pointer () , click to add a new point.
6. Drag the new point to reshape the path.

► **Tip**

Want to remove a point? Click to select it; then press Delete or Backspace.





After some practice, you'll get a feel for how the curves work and where you need to drag to get the path shape you want.

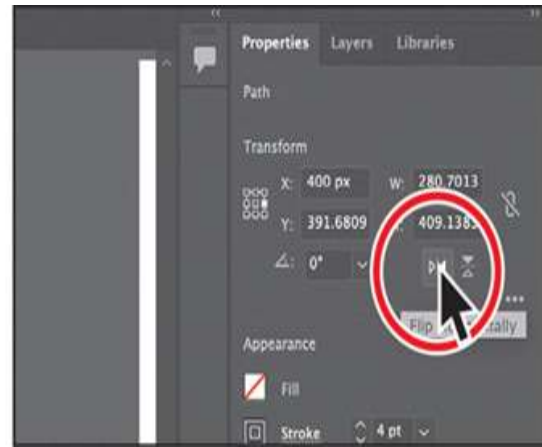
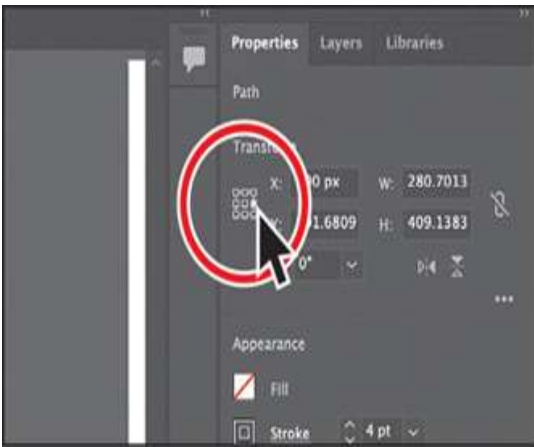
Joining the paths with the Join tool

Instead of trying to draw the other half of the heart, you can save time if you simply copy the path and mirror it, and then join the original and the copy. There are several methods you can use—including the Join tool.

1. Select the Selection tool, and make sure that the heart path is selected.
2. Copy the heart path by choosing Edit > Copy; then choose Edit > Paste In Place to put a copy right on top of the original.

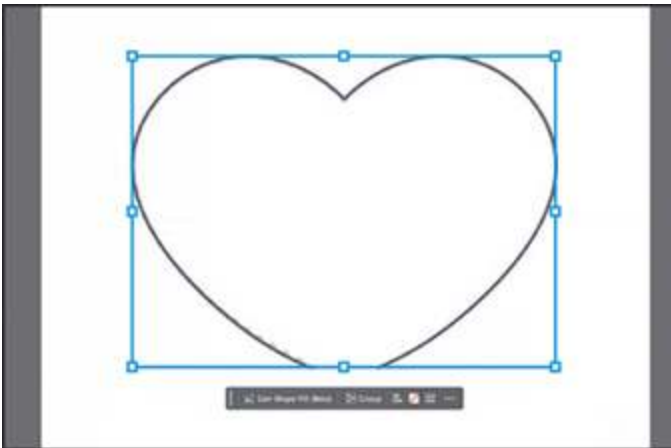
Next, you'll flip the new path—but you won't flip it around the center; you'll flip it around the right side of the path to make the heart shape.

3. In the Transform section of the Properties panel, select the middle-right reference point ().
4. Click the Flip Horizontally button ().

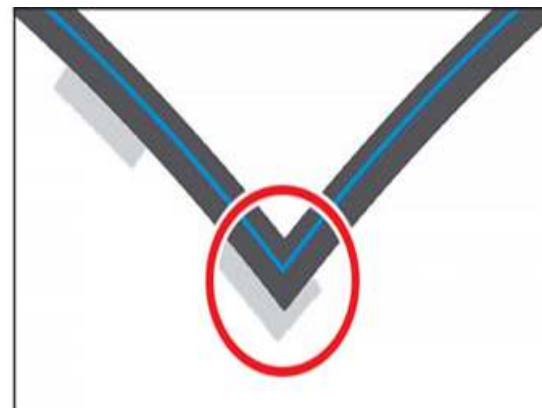


With two halves of the heart in place, now you'll join them together. First, you'll join the paths at the anchor points at the top—since they are touching.

5. Shift-click the other half to select both paths.



6. Choose Object > Path > Join (or press Command+J/Ctrl+J).



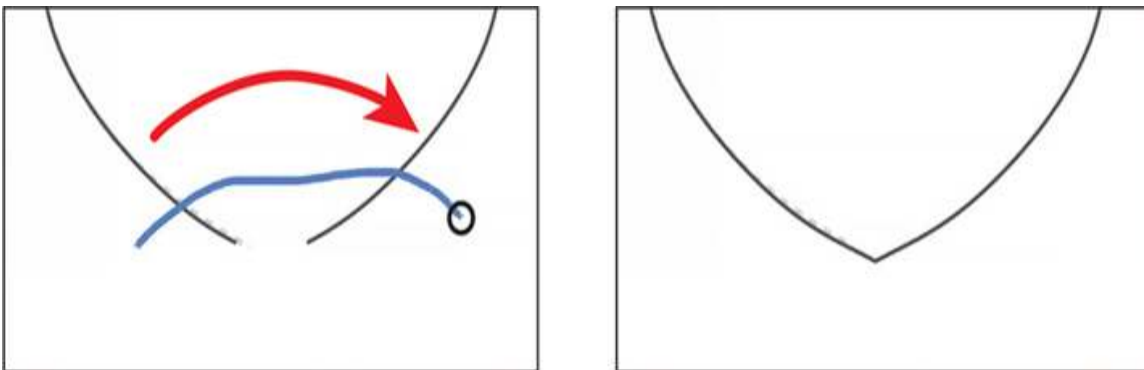
The *top* ends of the paths are now connected. At the bottom of the heart, the points aren't touching. If you attempt to join them using the method you just used, it will make a straight line between them. This time, you'll use the Join tool.

7. Choose Window > Toolbars > Advanced.
8. Press and hold the Shaper tool (🖋️) and select the Join tool (✂️) from the menu.
9. With the Join tool now selected, drag across the bottom two ends of the path (see the following figure).

● **Note**

If the joined point at the bottom of the heart looks like a loop, undo the join by choosing Edit > Undo. Then, select both points with the Direct Selection tool. In the Contextual Task Bar, click the Convert Selected Anchor Points To Corner button (📐).

When dragging (also called *scrubbing*) across paths, they will be either “extended and joined” or “trimmed and joined.” In this example, the ends of the path were extended and joined. Also, the resulting joined artwork is deselected to allow you to continue working on other paths.



10. Choose Window > Toolbars > Getting Started.

Finishing the social graphic

Now you'll show the finished artwork you hid previously and change the color of the heart by sampling color.

1. To show the content you hid earlier, choose Object > Show All.
2. Select the Selection tool and select the heart.



3. Click the Arrange button in the Properties panel. Choose Send To Back to put the heart behind everything.
4. Choose View > Fit All In Window.

To change the stroke and fill of the heart shape so it looks like the cat and coffee mug (yellow), you will sample the color.

5. Select the Eyedropper tool (🔍) in the toolbar.




6. With the heart shape still selected, sample the yellow cat artwork or yellow coffee mug to apply the same color.

7. Choose Select > Deselect.

Creating corners with the Curvature tool

Paths can have two kinds of anchor points: corner points and smooth points. By default, the Curvature tool creates smooth anchor points—points that cause the path to curve. At a *corner point*, a path abruptly changes direction.

Next, you'll use the Curvature tool to finish cat artwork for a badge by creating straight paths with corner points.

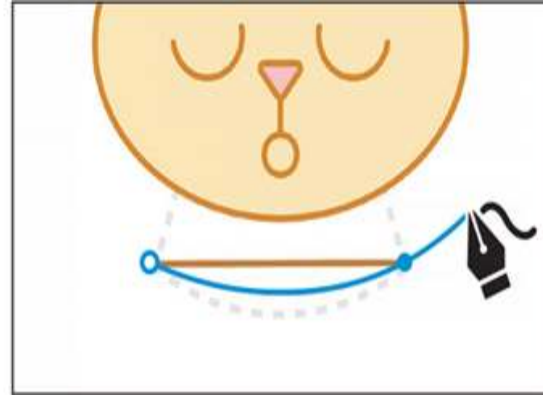
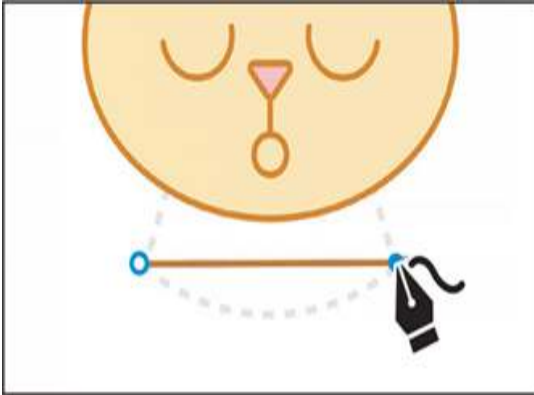
1. Select the Selection tool, and click in the artboard with the cat on it. Fit the artboard in the window by choosing View > Fit Artboard In Window.
2. With the Curvature tool () selected, move the pointer over the left corner of the dashed path and click to set the first point.

Note

The cat head is locked.

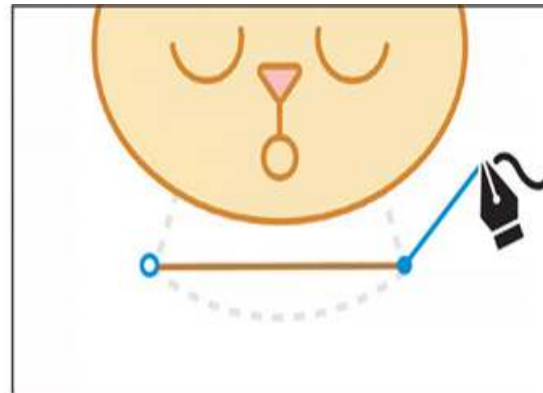
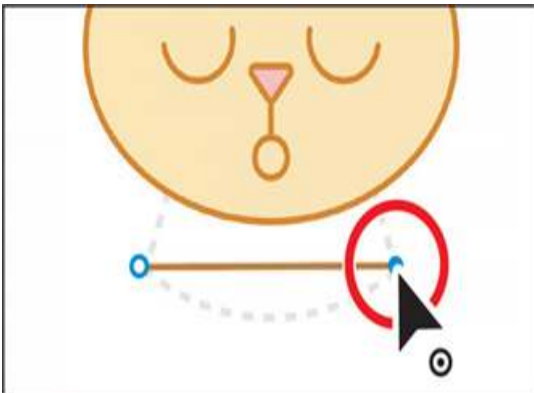


3. Move the pointer to the right side of the dashed path, and click.
4. Move the pointer away, and you'll see that the preview is curved like you'd expect.



To make the path have a corner and not be curved, you'll convert the anchor point you just created to a corner point.

5. Move the pointer over the last anchor you made. When the pointer changes (➤), double-click to convert it to a corner point. Move the pointer away.



You can tell which points are smooth and which are corners by their appearance. Each point you create with the Curvature tool can have three appearances, indicating their current state: a selected point (●), a corner point that is not selected (⦿), and a smooth point that is not selected (○).

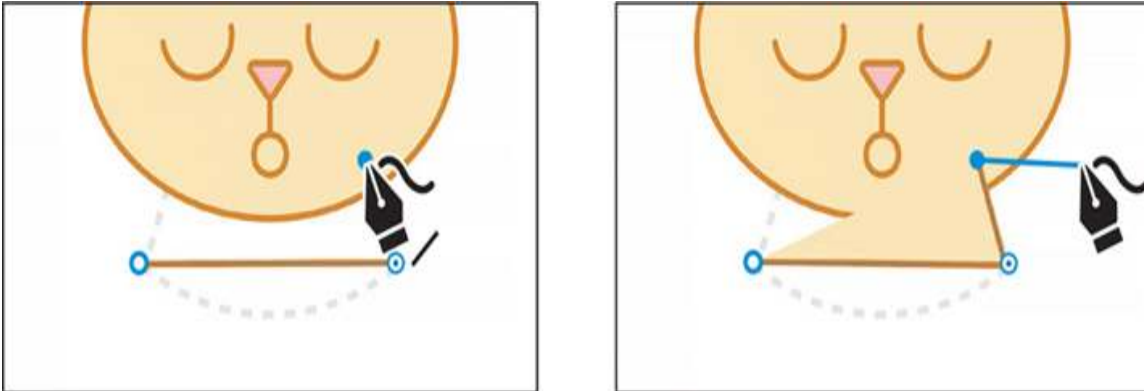
To save time, you can draw a corner point without having to go back to it and double-click to convert it. You do that by pressing a key as you draw.

6. To keep drawing, move the pointer just up into the cat's head. To create a corner point, press and hold Option (macOS) or Alt

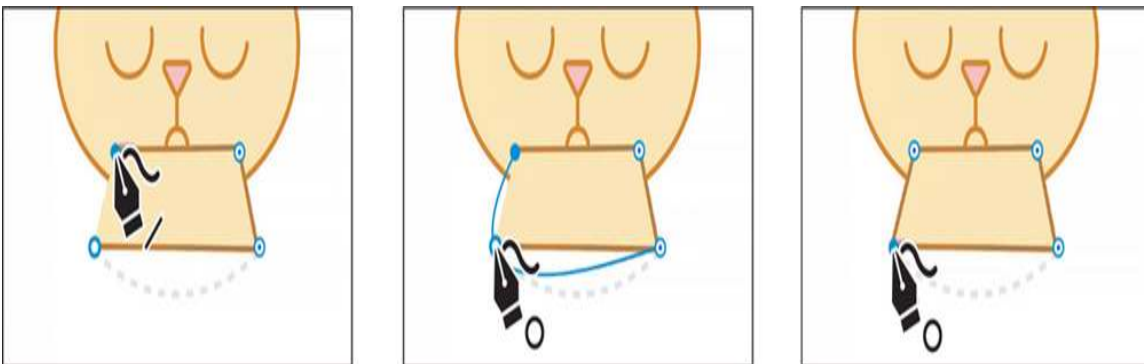
(Windows), and the pointer will change (☞). Click to make a corner point, release the key, then move the pointer away.

► **Tip**

You can let go of the key after clicking. For the next step, to make another corner point, just press the key again and click.

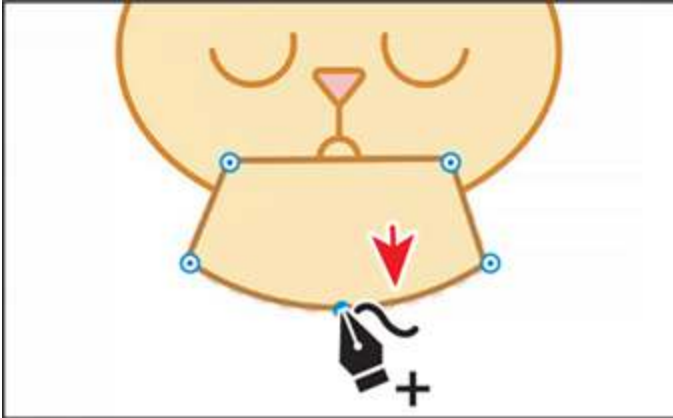


7. While pressing Option (macOS) or Alt (Windows), move the pointer to the left and click to make a corner point. Release the key.
8. To close the path, move the pointer over the first point. Notice how the path is curved? That first point was a default curved point. Press Option (macOS) or Alt (Windows), and click to make a corner point.



9. To make the bottom of the path curved, click to add a point and drag it down.

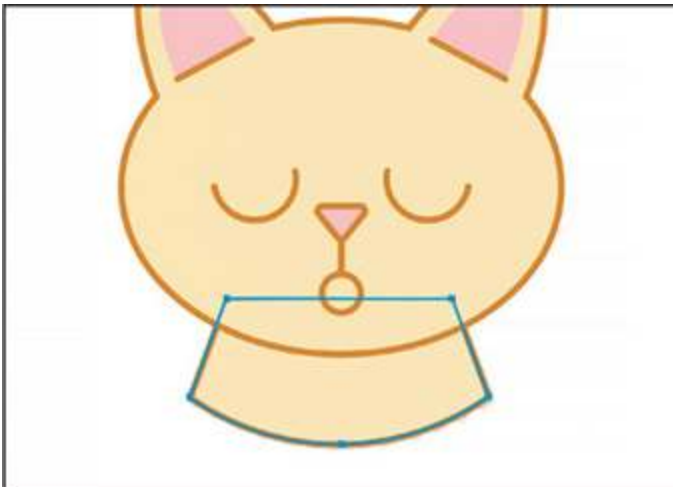
You can actually do this in one motion. Simply drag on the path to add a point and move it.



► **Tip**

One cat ear was drawn with the Curvature tool, then it was copied and flipped to make the other.

10. Click the Arrange button in the Properties panel. Choose Send To Back to put the new shape behind the cat artwork.




11. Choose Select > Deselect, and then choose File > Save.

Practice: Create more with the Curvature tool

To get a little more practice, try creating a handle for a coffee mug using a simple technique involving the Curvature tool and outlining strokes.

1. Move to the artboard on the far right, with the coffee mug on it.

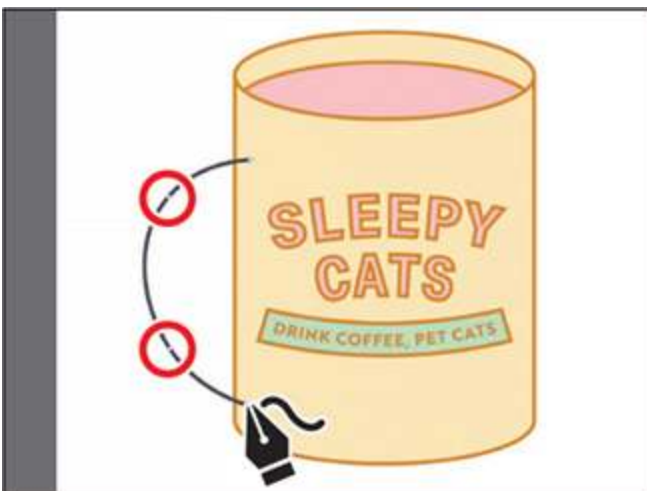
2. With the Curvature tool () selected, in the Properties panel, set the fill color to None, the stroke color to black, and the stroke weight to 5 pt.



3. Just inside the left edge of the coffee mug, click to make your first point. See the figure for where.

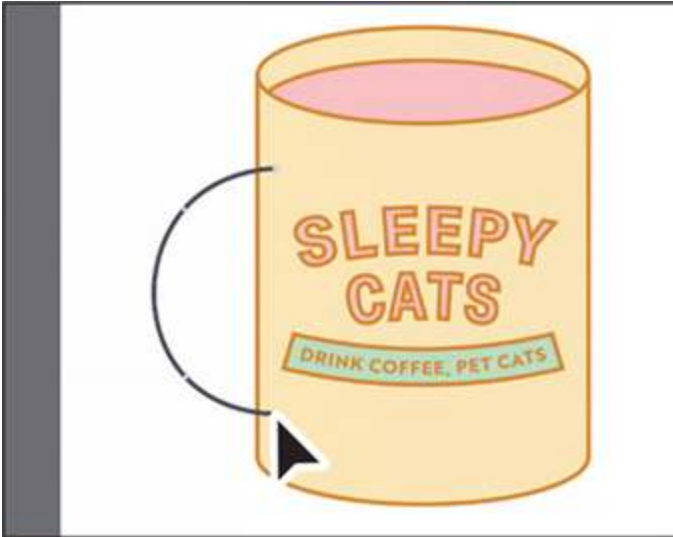
You need to make a handle that is a little less half circle and more like a very rounded rectangle that is not perfect. See the following figure for how it could look.

4. Add three more points to make a handle.




5. Go back to each point, and move them to fine-tune the shape.
6. Press the V key to select the Selection tool and to stop drawing.

This is a great shortcut for selecting the Selection tool, but it's especially useful when drawing so you don't accidentally continue drawing when you didn't mean to.



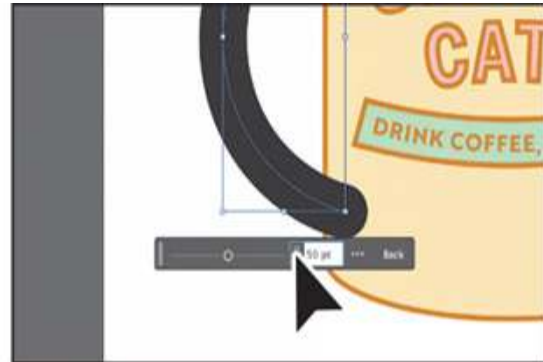
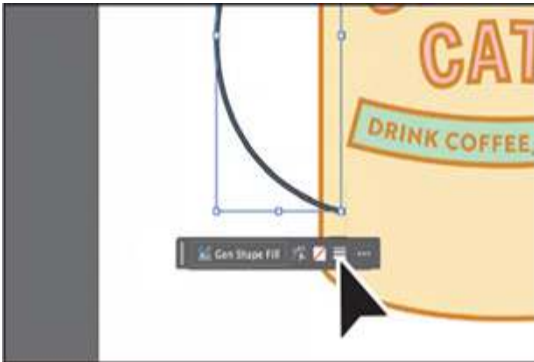
Finishing the mug handle

Now for some magic. So that you can add a stroke and fill to the path you just created, you will increase the stroke weight a lot and then outline the path. Then, you'll sample color from the mug and apply it to the new shape you made.

1. Change the Stroke Weight () in the Contextual Task Bar to **50 pt**.

Note

Are the ends of your path square? Don't worry, they will be hidden shortly. If you want them rounded like in the figure, click Stroke in the Properties panel and select Round Cap (◐) from the Cap options in the panel.



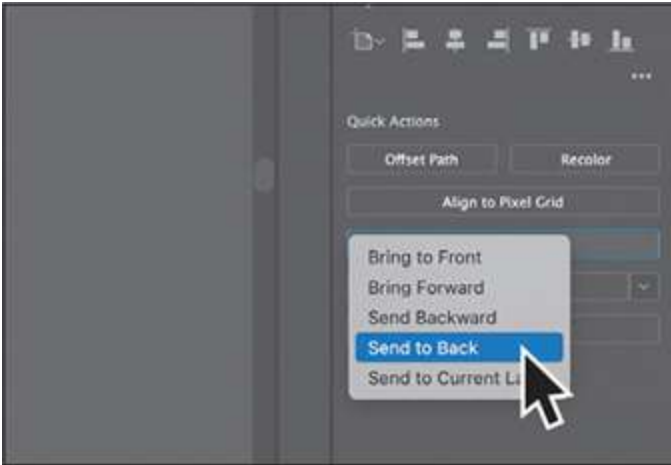
2. Choose Object > Path > Outline Stroke.

The path is now a closed shape with a black fill. Now you can apply a stroke color and fill color to it.

3. With the handle selected, select the Eyedropper tool (🔍) in the main toolbar. Click the yellow coffee mug to apply the same color to the handle.



4. With the handle selected, in the Properties panel click the Arrange button and choose Send To Back so the handle is behind the mug.



The mug now has a handle!

5. Choose Select > Deselect, and then choose File > Save.



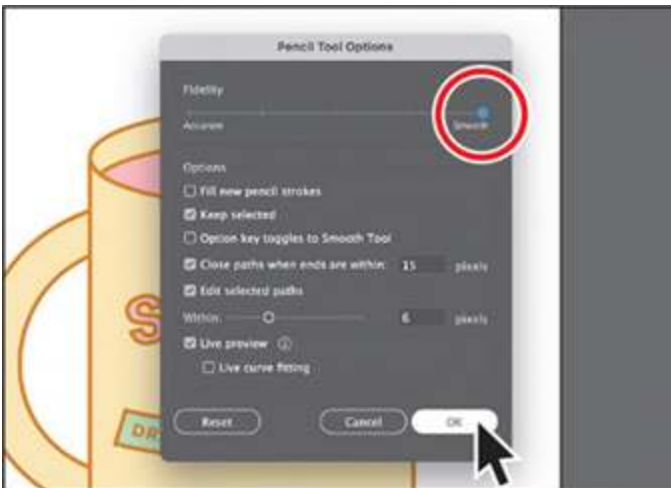
Creating with the Pencil tool

Another drawing tool in Illustrator is the Pencil tool. The Pencil tool (🖋) lets you draw freeform open and closed paths that contain curves and straight lines and is similar to drawing with a pencil on paper. As you draw with the Pencil tool, anchor points are created on the path, where necessary, according to the Pencil tool options you set. You can easily adjust the path when it's complete.

Drawing paths with the Pencil tool

Next, you'll use the Pencil tool to draw and edit simple paths to make steam rising from the mug you just added a handle to.

1. Make sure you can see the whole artboard above the mug. You're going to draw steam coming out of the top of it. If you can't see the artboard, press the spacebar to get to the Hand tool (🖐️) and drag until you do.
2. Select the Pencil tool (🖋️) in the toolbar.
3. Double-click the Pencil tool. In the Pencil Tool Options dialog box, set the following:
 - Fidelity slider: Drag all the way to the right. This will smooth the path and reduce the number of points on a path drawn with the Pencil tool.
 - Keep Selected: Make sure it's selected.
 - Live Preview: Selected so you can preview the path as you draw it.



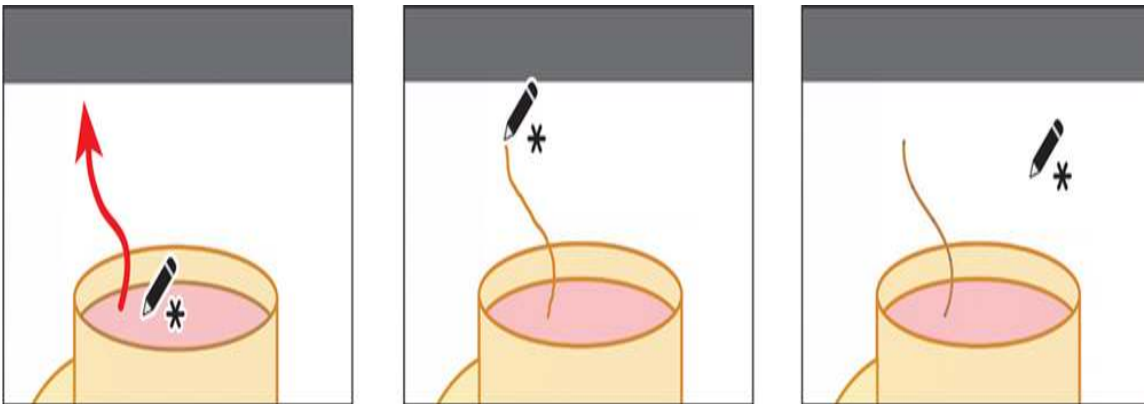
4. Click OK.

● **Note**

If the pointer looks like ✕ instead of the Pencil icon (✎), the Caps Lock key is active. Caps Lock turns the Pencil tool icon into an X for increased precision.

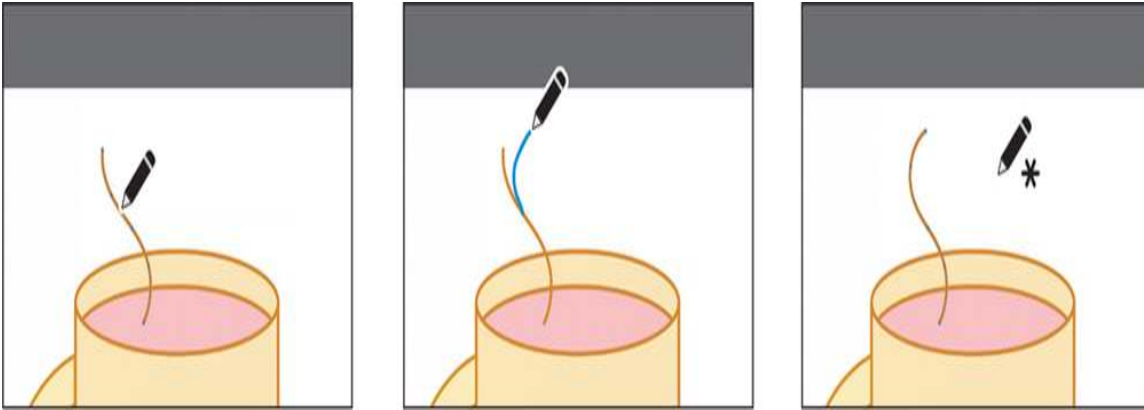
If you move the pointer into the Document window, the asterisk (*) that appears next to the Pencil tool pointer indicates that you're about to create a new path.

5. In the Properties panel, make sure that the fill color is None (☐), the stroke color is the color named caramel (in the bottom color group), and the stroke weight is 5 pt.
6. Starting in the pink shape at the top of the mug, drag to make a serpentine path going up.

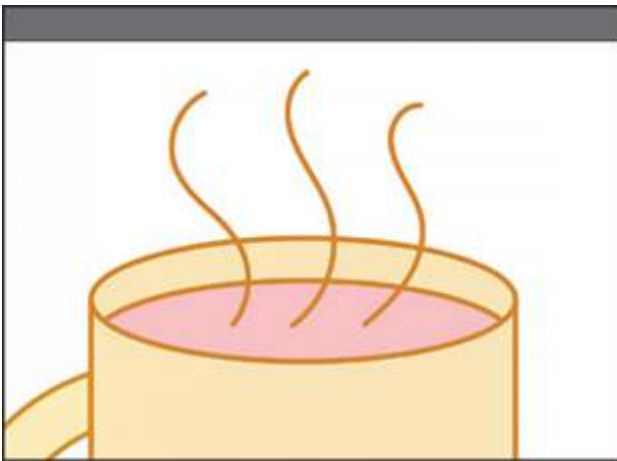


Notice that as you draw, the path may not look perfectly smooth—but you do see the color of the path as you draw. When you release the drag, Illustrator smooths the path based on the Fidelity value that you set in the Pencil Tool Options dialog box. Next, you'll redraw a part of the path with the Pencil tool.

7. Move the pointer on or near the path to redraw a part of it. When the asterisk next to the pointer disappears, drag to reshape the path.



8. Draw a few more steam lines. I created two more.



Drawing straight lines with the Pencil tool

In addition to drawing curved paths, you can use the Pencil tool to create straight lines that can be constrained to 45-degree angles.

- Pressing the Option (macOS) or Alt (Windows) key when you're drawing with the Pencil tool lets you create a straight path in any direction.
- Pressing the Shift key when drawing with the Pencil tool lets you create a straight path at 45-degree angles.

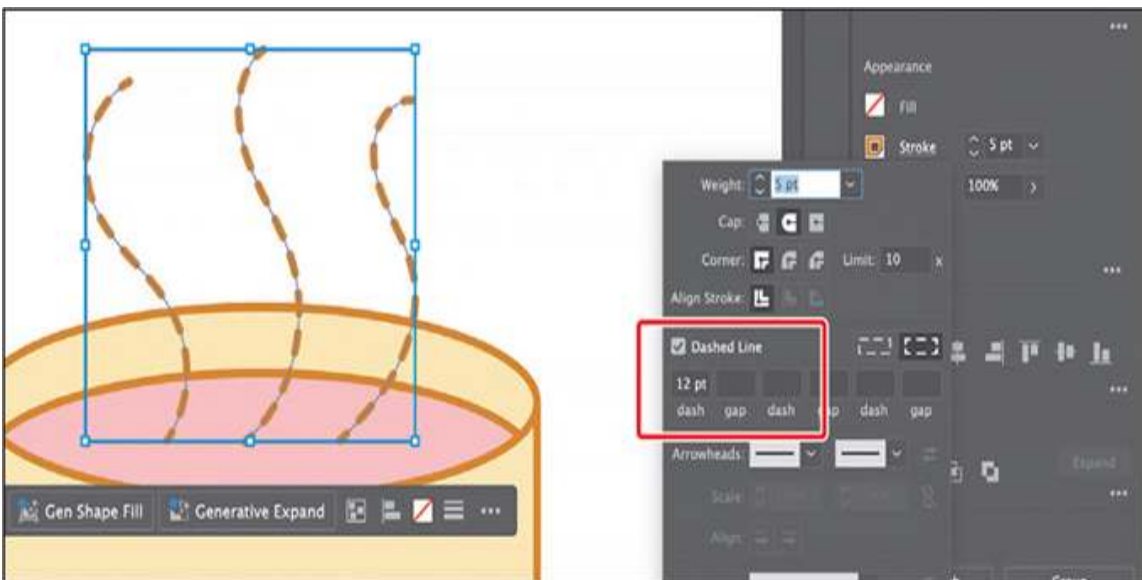
Do more with the Pencil tool 

To see different ways to work with the Pencil tool, including drawing straight lines, check out the video *Exploring the Pencil tool further*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Creating dashed lines


To add some design flair to your artwork, you can add dashes to the stroke of a closed path (like a square) or an open path (like a line). You add dashes to paths in the Stroke panel, where you can specify a sequence of dash lengths and the gaps between them. Try adding some dashed lines to the steam paths you just made.

1. Select the Selection tool (▢), and drag across the paths you made with the Pencil tool.
2. In the Properties panel, click the word “Stroke” to show the Stroke panel. Select the Dashed Line option.

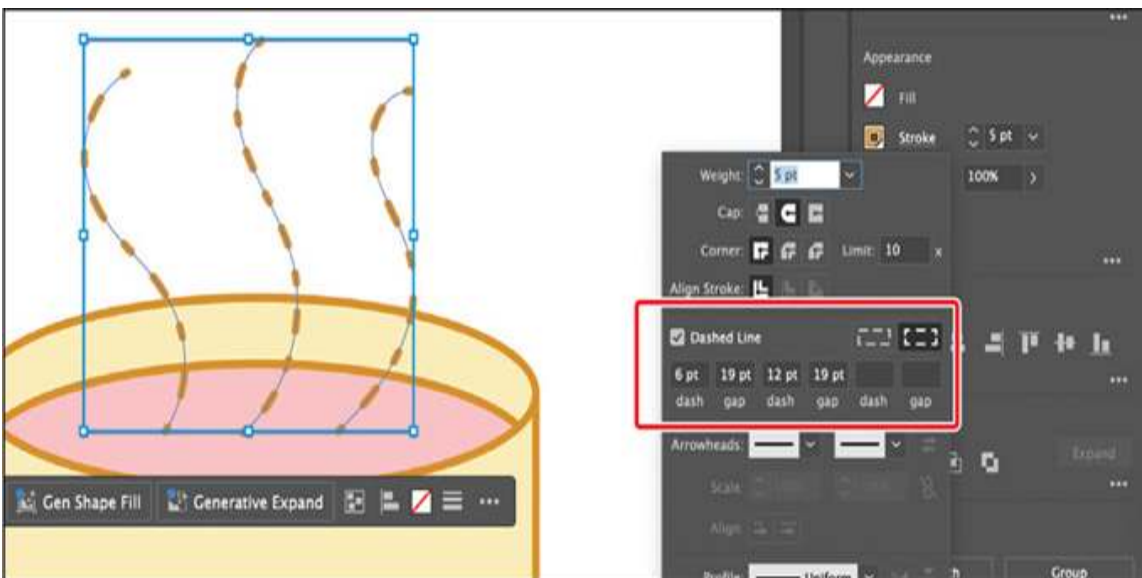


A default dashed line of a 12-pt dash followed by a 12-pt gap and then repeated is applied to the paths.

3. To adjust the dash, set the following options:

- Align Dashes to Corners And Path Ends, Adjusting Lengths To Fit (): Selected. (This setting adjusts the lengths of the dashes to fit the path more evenly.)
- First Dash value: **6 pt**
- First Gap value: **19 pt**
- Second Dash value: **12 pt**
- Second Gap value: **19 pt**

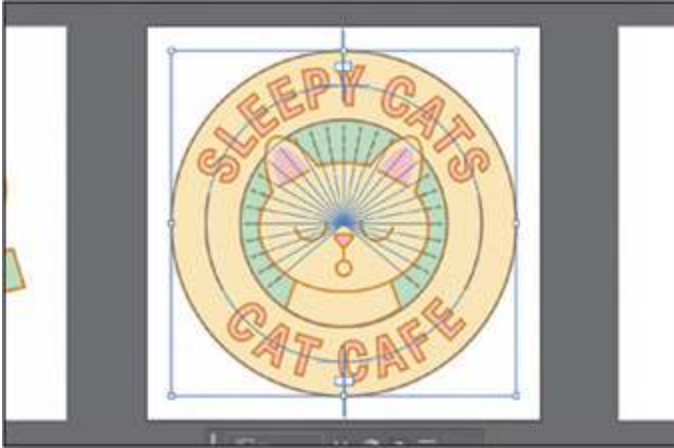
After entering the last value, click in the next dash field.



Adding arrowheads to paths

You can add arrowheads to both ends of a path using the Stroke panel. There are many different arrowhead styles to choose from in Illustrator, as well as arrowhead editing options. Next, you'll apply arrowheads to a few paths to finish a logo.

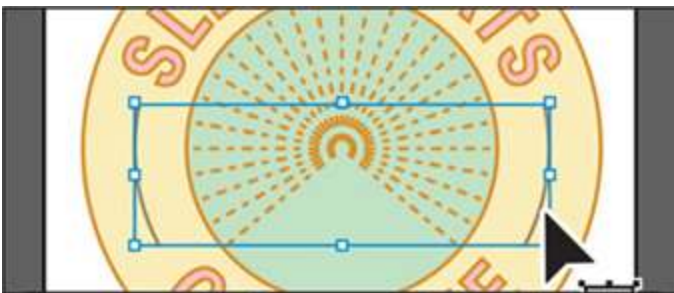
1. Choose View > Fit All In Window.
2. Drag the circular group of artwork from below the cat onto the center of that artboard.



3. To get it behind the cat artwork, choose Object > Arrange > Send To Back.

You may need to reposition the circular group to fit the cat in the center better.

4. Double-click the group you dragged onto the artboard to enter Isolation mode so you can select part of the group.

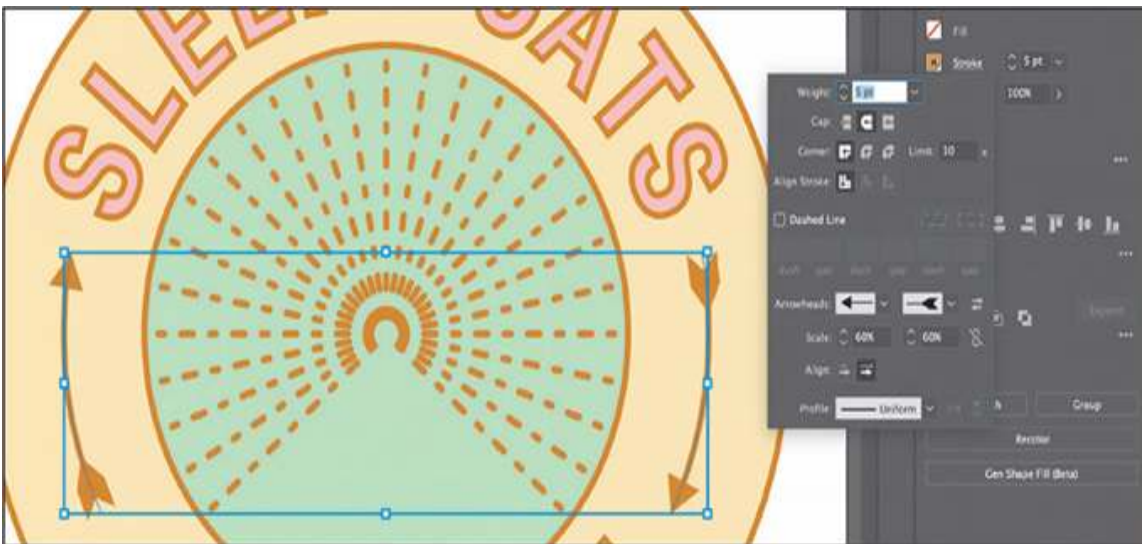


5. Click the curved path on the left to select it. Press the Shift key, and click the curved path to the right to select it as well.
6. Zoom in to the paths.
7. With the paths selected, click the word “Stroke” in the Properties panel to open the Stroke panel. In the Stroke panel, change only the following options:

● Note

When you draw a path, the beginning is where you start drawing, and the “end” is where you finish. If you need to swap the arrowheads, you can click the Swap Start And End Arrowheads button (↔) in the Stroke panel.

- Arrowheads menu (on the right): Choose Arrow 20. This menu changes the appearance of the *ends* of paths.
- Scale (directly beneath where you chose Arrow 20): **60%**
- Arrowheads menu (on the left): Choose Arrow 7. This menu changes the appearance of the *starts* of paths.
- Scale (directly beneath where you chose Arrow 7): **60%**



Experiment with some of the arrowhead settings. Maybe try changing the Scale values or choosing different arrowheads.

Practice: Adding more arrowheads

Let's take a few minutes to add a path and add arrowheads to it.

1. Press the Esc key or double-click somewhere to exit Isolation mode.

2. Go back to the artboard with the heart on it, to the left.
3. Select the Line Segment tool (↗), it's grouped with the Rectangle tool, and drag to draw a line over the heart.



4. Try adding arrowheads to the path.

I used the same arrowheads and sizing as the last ones we did. Just pay attention to which end of the line you add them to!

5. Choose Object > Arrange > Send To Back so it's behind the heart.



6. Choose View > Fit All In Window to see everything.




7. Choose Select > Deselect, and choose File > Save.

Pick the best drawing tool for the job

To find out more about use cases for specific drawing tools, check out the video *Which drawing tool to use, when*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Review questions

- 1 By default, what type of path is created by the Curvature tool, curved or straight?
- 2 How do you create a corner point when working with the Curvature tool?
- 3 How can you change the way the Pencil tool () works?
- 4 Explain how you can redraw parts of a path with the Pencil tool.
- 5 How do you draw a straight path with the Pencil tool?
- 6 How is the Join tool different from the Join command (Object > Path > Join)?

7 Drawing with the Pen Tool

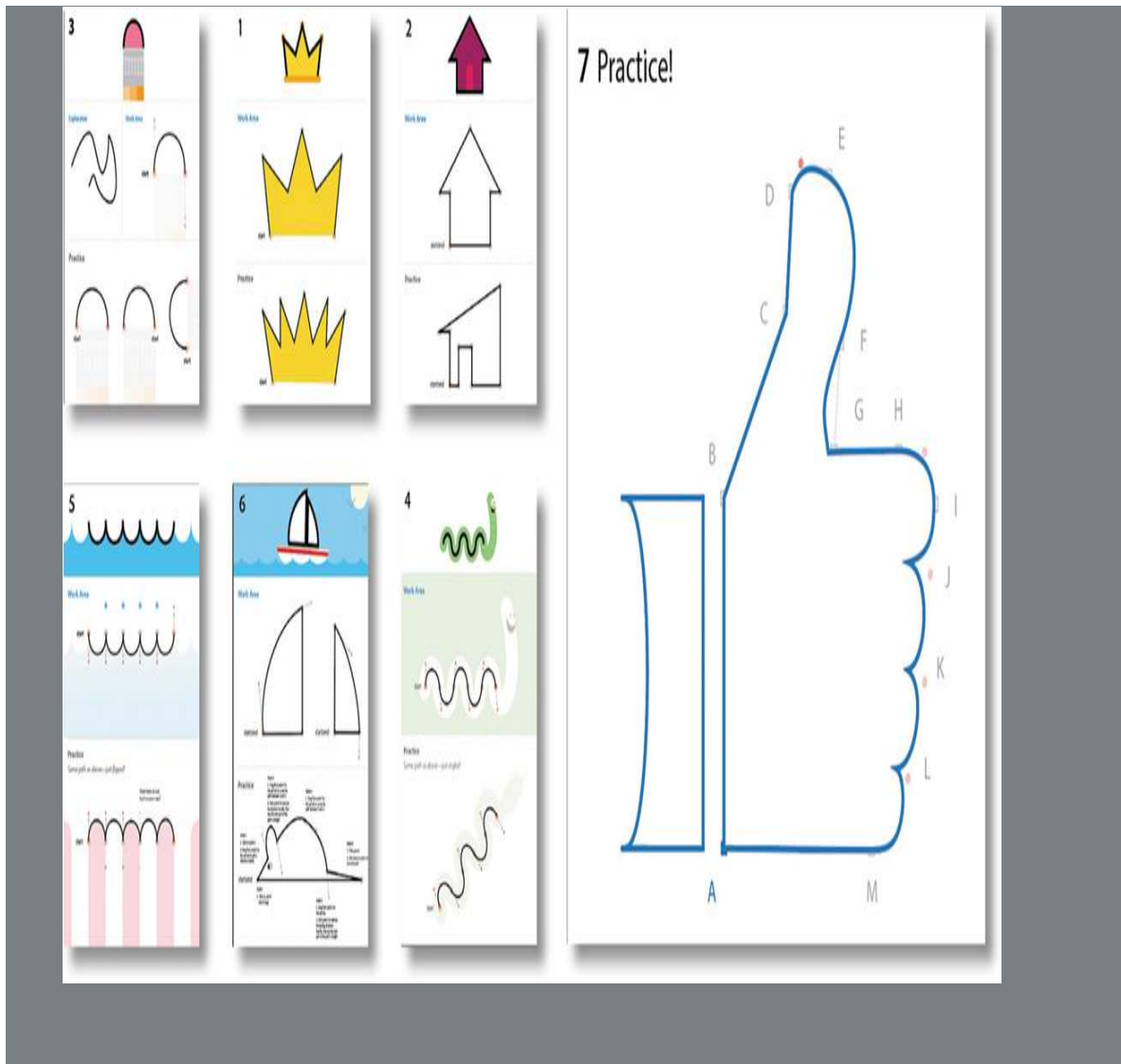
Lesson overview

In this lesson, you'll learn how to do the following:

- Draw straight and curved lines with the Pen tool.
- Edit curved and straight lines.
- Add and delete anchor points.
- Convert between smooth points and corner points.



This lesson will take about 60 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.



In the previous lesson, you started working with the basic drawing tools in Illustrator. In this lesson, you'll learn how to create and refine artwork using the Pen tool.

Starting the lesson

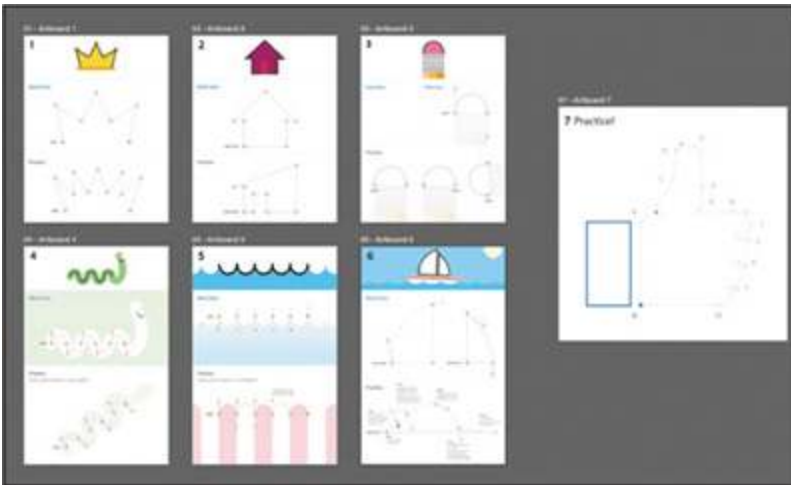
In this lesson, you'll focus on creating and editing with the Pen tool. You'll start by working through some exercises to learn the fundamentals of the tool, and then you'll put the Pen tool into practice!

1. Start Adobe Illustrator.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. With Illustrator open, choose File > Open, and open the L7_start.ai file in the Lessons > Lesson07 folder on your computer.




4. Choose File > Save As.
5. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer; otherwise, continue.
6. In the Save As dialog box, navigate to the Lesson07 folder, and open it. Rename the file **Pen_drawing.ai**. Choose Adobe Illustrator (ai) from the Format menu (macOS), or choose Adobe Illustrator (*.AI) from the Save As Type menu (Windows). Click Save.

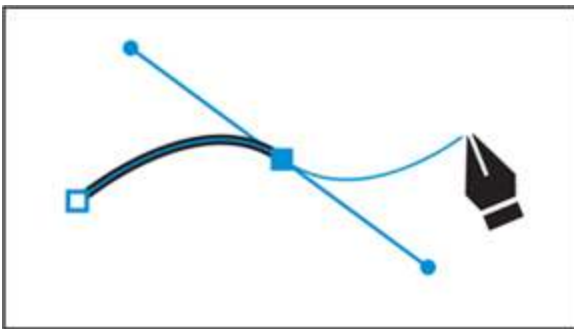
● Note

If you don't see Reset Getting Started in the menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

7. In the Illustrator Options dialog box, leave the default settings, and then click OK.
8. Choose Window > Workspace > Reset Getting Started.
9. Choose View > Fit All In Window.

Why use the Pen tool?

In the previous chapter, you created curved and straight paths with the Curvature and Pencil tools. With the Pen tool () you can also create and edit curved and straight paths, but you have even more control over the shape of the paths you draw.



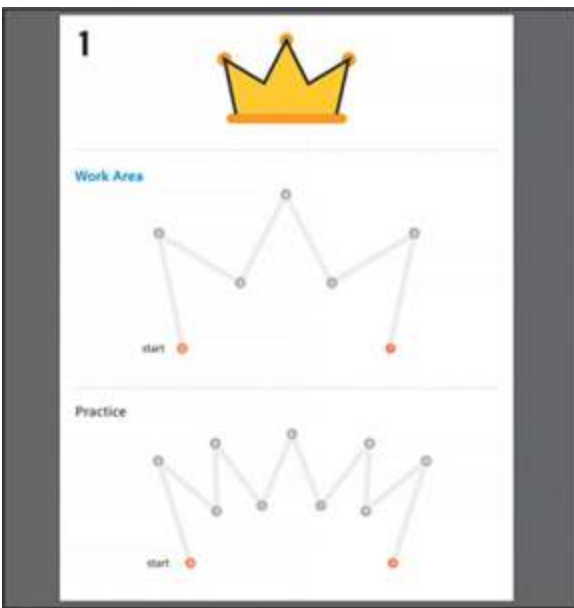
Because the Pen tool is in other Adobe apps, such as Photoshop and InDesign, understanding how to work with it will give you more creative freedom in Illustrator as well as in those other apps.

Learning and mastering the Pen tool takes lots of practice. So, go through the steps in this lesson and *practice, practice, practice*.

Starting with the Pen tool

In this section, you'll set up your document so you can get started with the Pen tool.

1. Choose 1 from the Artboard Navigation menu in the lower-left corner of the Document window, if it's not already chosen.



● Note

If the artboard does not fit in the document window, choose View > Fit Artboard In Window.




2. Select the Zoom tool (Q) in the toolbar, and click in the area labeled Work Area to zoom in.
3. Choose View > Smart Guides to turn *off* Smart Guides.

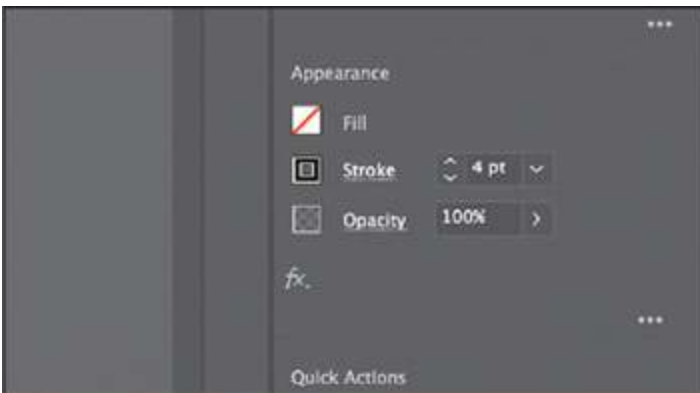
Smart Guides can be helpful when you draw, helping you align anchor points, among other things, but they make *learning* the Pen tool more challenging.

Creating straight lines to make a crown

You'll start drawing straight lines with the Pen tool to create the path for a royal crown, like the one you see at the top of the artboard.



1. Select the Pen tool () in the toolbar.
2. In the Properties panel, click the Fill color box. In the panel that opens, make sure the Swatches option () is selected, and select None ().
3. Click the Stroke color box, and make sure that the color black is selected.
4. Make sure the stroke weight is **4 pt** in the Properties panel.



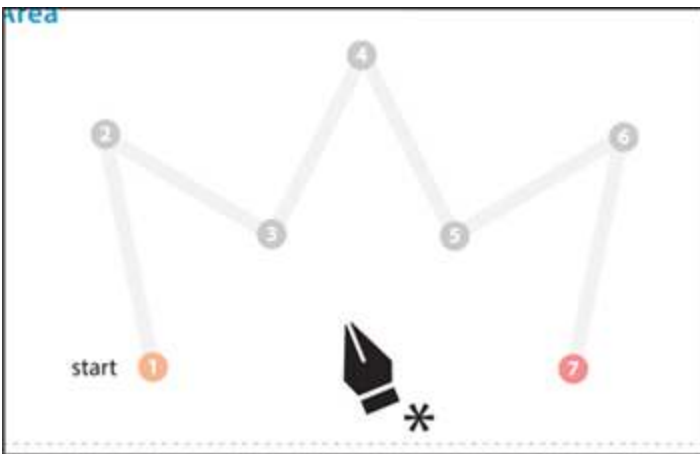
When you start drawing with the Pen tool, it's usually best to have no fill on the path you draw, because the fill can cover parts of the path you are trying to create. You can add a fill later if you want.

5. Move the pointer anywhere in the area labeled Work Area on the artboard.

Note

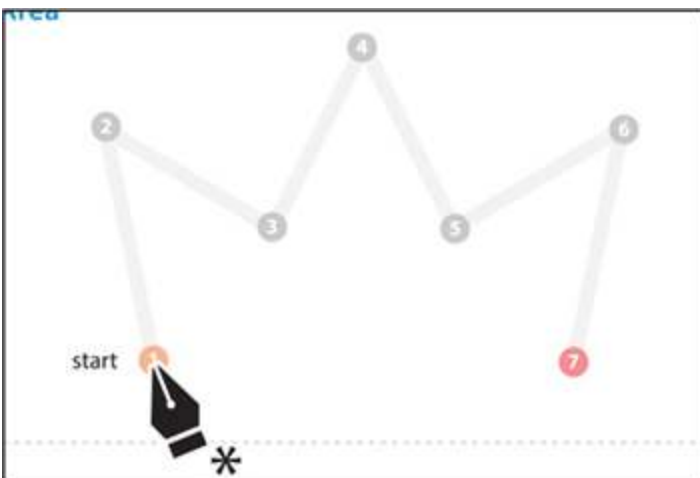
If you see ✕ instead of the Pen icon (*), the Caps Lock key is active. Caps Lock turns the Pen tool icon into ✕ for increased precision. After you begin drawing with the Caps Lock key active, the Pen tool icon looks like this: ✚.

Notice the asterisk (*) next to the Pen icon. That asterisk means you'll create a new path if you start drawing.



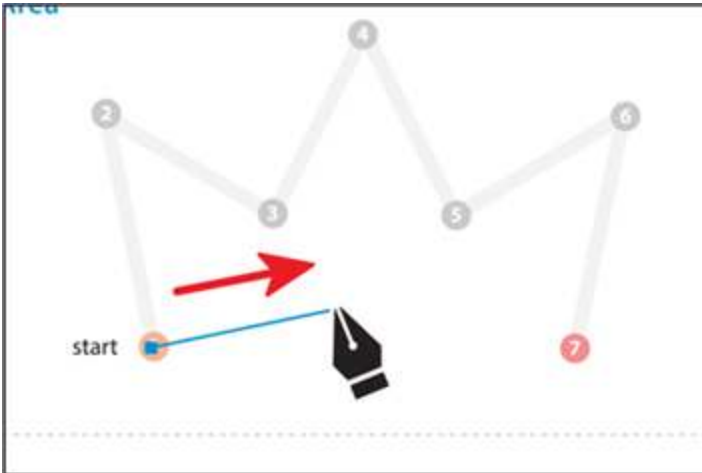
6. Move the pointer over the orange point 1. Click to set the first anchor point.

This is the start of your crown.



7. Move the pointer away from the point you just created.

See the blue line connecting the first point and the pointer, no matter where you move the pointer? That line is called the *Pen tool preview* (also known as the *rubber band*).



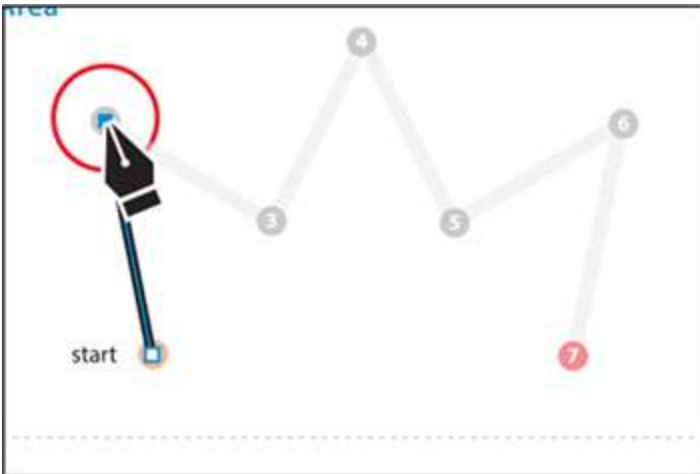
Later, as you create curved paths, it will make drawing them easier because it is a preview of what the path will look like. Also notice that the asterisk has disappeared from next to the pointer, indicating that you are now drawing a path.

8. Move the pointer over the gray dot labeled 2. Click to create another anchor point.

You just created a straight path. A path is made of two anchor points and a line segment connecting those anchor points. The type of anchor point you just created is called a *corner point*. Corner points make straight lines.

● **Note**

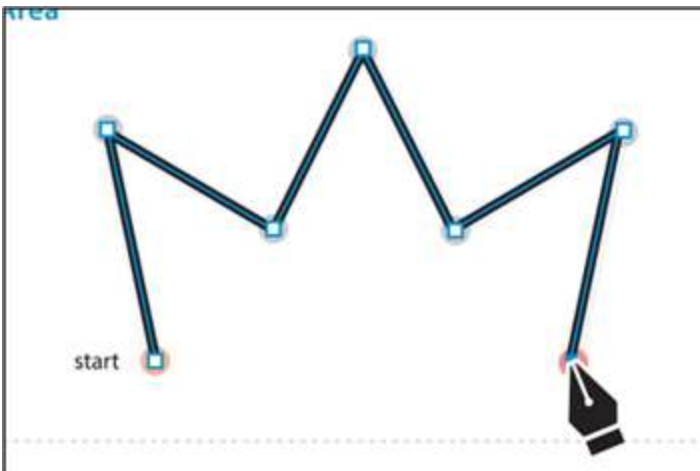
Unlike the Curvature tool, the Pen tool creates corner points and straight lines by default.



9. Continue clicking points 3 through 7 to create new anchor points, continuing the path.

► **Tip**

If you make a mistake as you draw, you can undo creating points by choosing Edit > Undo Pen and then drawing the last point(s) again.

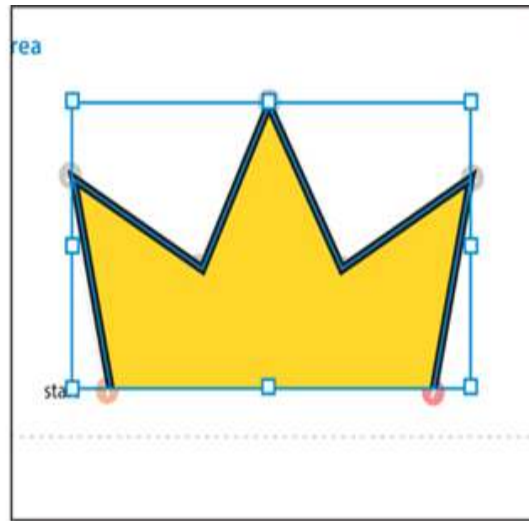
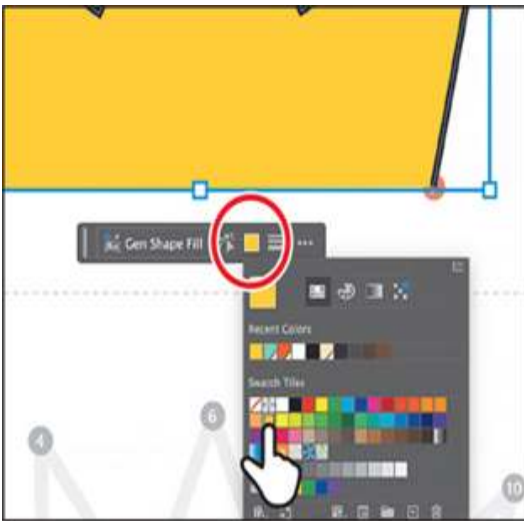


10. Select the Selection tool (▀) to stop drawing and leave the crown path selected.

Continuing to draw a path

At times, you might draw a path and later want to continue drawing from the end of that path. Next, you'll see how to select and edit paths with the Direct Selection tool, and how to continue drawing from the end of a path.

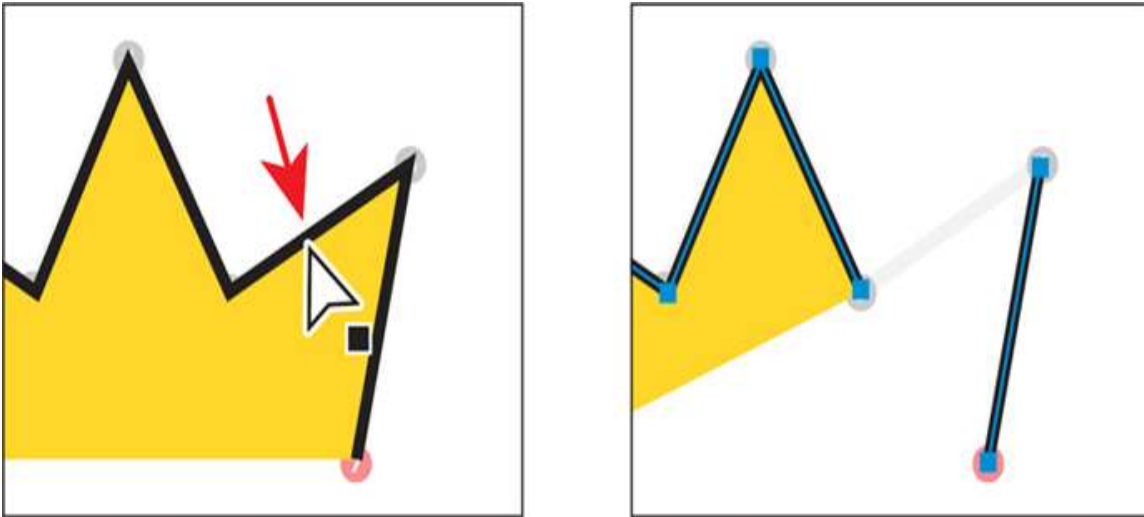
1. With the crown path selected, click the Fill box (◻) in the Contextual Task Bar.
2. Select Swatches (🎨) toward the top of the panel, if it isn't already selected, to show the default swatches (colors). Click to apply a yellow fill to the crown.




3. Click in an empty area of the artboard to deselect.
4. Select the Direct Selection tool (A), and move the pointer over the path between points 5 and 6. When the pointer changes (A), click to select the line segment.
5. Choose Edit > Cut.


● **Note**

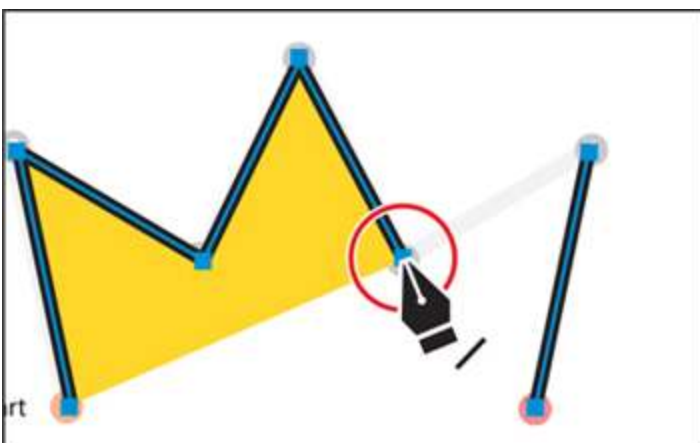
If the entire path disappears, choose Edit > Undo Cut, and try selecting the line segment again.



This removes the selected segment between anchor points 5 and 6. The crown is now two separate paths, and it no longer shows the yellow fill in the whole object. Next, you'll learn how to connect the paths again.

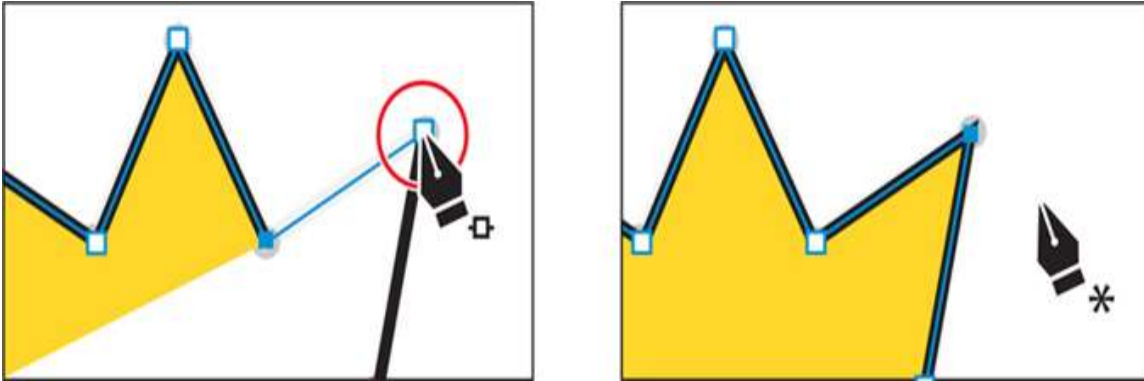
6. Select the Pen tool (), and move the pointer to anchor point 5.

Notice that the Pen tool shows a forward slash (). That tells you that if you click, you will continue drawing from that anchor point.



7. Click point 5. You can now continue drawing from that anchor point.

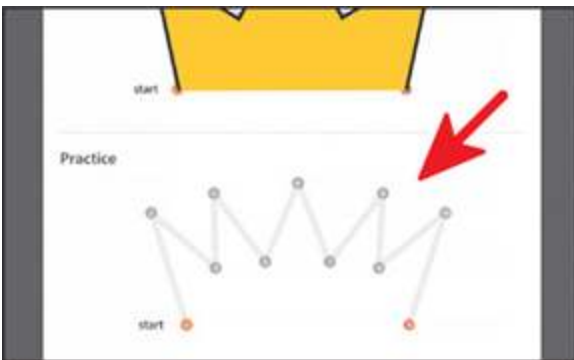
8. Move the pointer over point 6. The pointer now shows a merge symbol next to it (⌵), indicating that, if you click, you will connect the point to another path. Click the point to reconnect the paths.



9. Choose Select > Deselect.

Practice: Make another crown!

Below the crown you just made on the artboard is another crown for practice!



1. Select the Hand tool (✋), and drag up to see the practice area on the same artboard.
2. Select the Pen tool, and get creating!

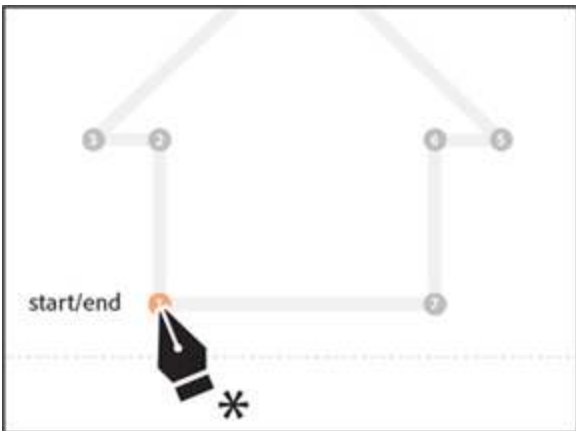
Drawing a house with the Pen tool

In previous lessons, you learned that using the Shift key and Smart Guides with the shape tools constrains the shape of objects. The Shift key and Smart Guides can also constrain paths drawn with the Pen tool, allowing you to create straight paths with 45-degree angles.



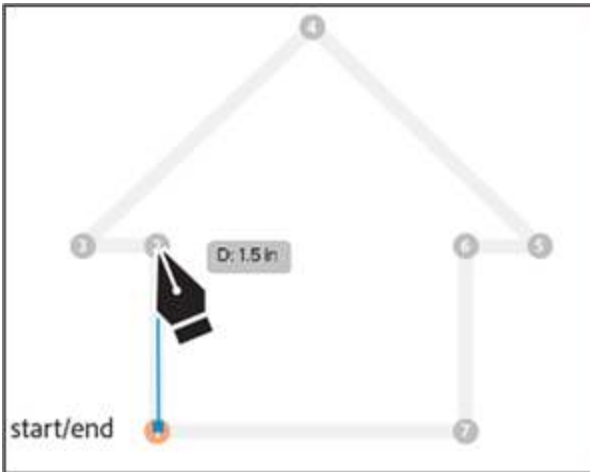
Next, you'll learn how to draw straight lines *and* constrain angles as you draw a house with the Pen tool.

1. Choose 2 from the Artboard Navigation menu.
2. Select the Zoom tool (🔍) in the toolbar, and click in the area labeled Work Area to zoom in.
3. Click the View menu, and choose Smart Guides to turn them *on*.
4. Select the Pen tool (🖋).



5. In the Properties panel, change the fill color to None (☐), ensure the stroke color is Black, and ensure the stroke weight is still 4 pt.
6. In the area labeled Work Area, click the orange point 1, where you see “start/end,” to set the first anchor point.
7. Move the pointer over point 2.

Notice the gray measurement label that appears next to the pointer. As you've learned in previous lessons, the measurement label is a part of the Smart Guides. In this case, the measurement label shows the distance from the last point. This can be helpful when your work with the Pen tool requires precision.

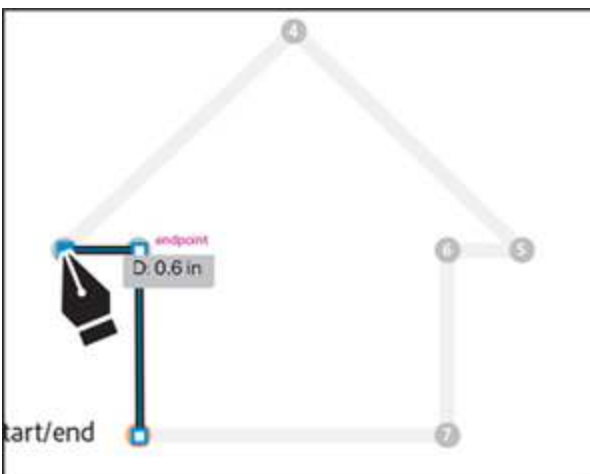


8. Click to set another anchor point.

9. Move the pointer over point 3 to the left.

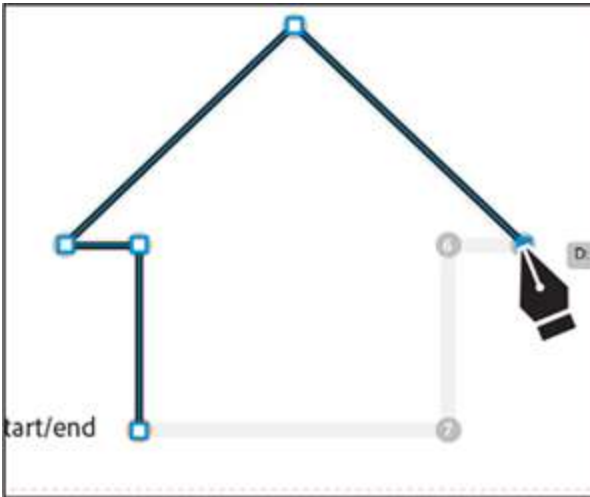
When the pointer is aligned with point 2 to the right, it will “snap” in alignment. You may want to move the pointer around to feel this.

10. Click to make the third anchor.



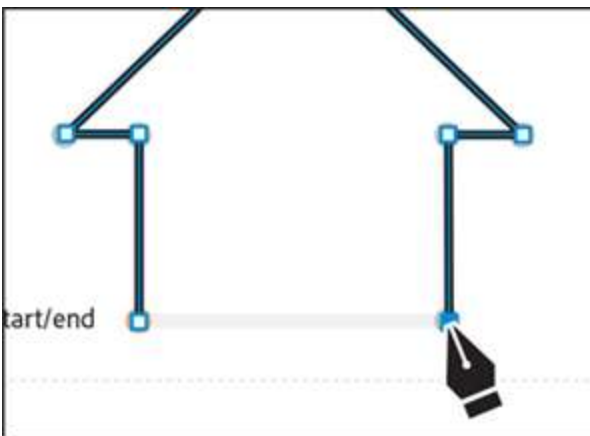
11. Click point 4, and then click to set point 5.

When making those points, you may have seen other magenta alignment guides telling you that the point will be lined up with other content. These guides and the snapping can sometimes make it challenging to draw freeform paths with the Pen tool.



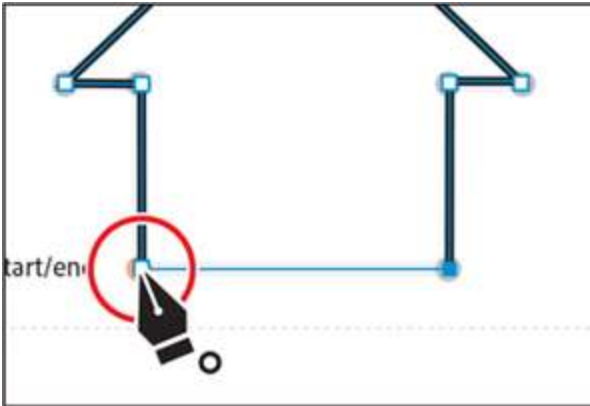
12. Choose View > Smart Guides to turn *off* the Smart Guides.

With Smart Guides turned off, you'll need to press the Shift key to align points.



13. Press the Shift key, click to set point 6, and then click to set point 7. Release the Shift key.

With Smart Guides off, there is no measurement label, and the point is only aligning with the previous point because you are pressing the Shift key.



14. Move the pointer over the first point you made. When the pointer shows a small circle next to it (○), click to close the path.

Practice: Make another house!

Below the house you just made on the artboard is another house for practice!

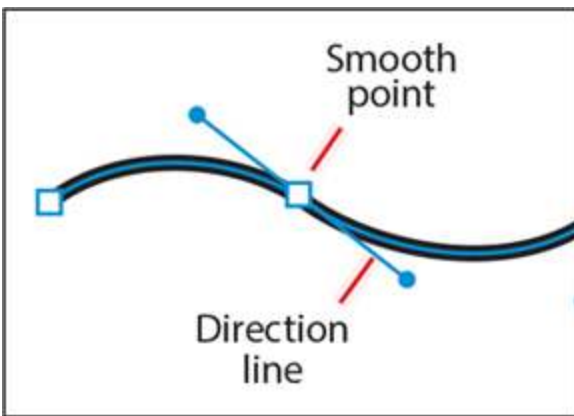


1. Select the Hand tool (✋), and drag up to see the practice area on the same artboard.
2. Select the Pen tool, and get creating!

Exploring curved paths

Now that you can create straight lines with the Pen tool, you'll learn how to create curves. To create a curve with the Pen tool, instead of clicking to make an anchor point, you drag. This creates *direction lines* (some people call them *handles*) that define the shape of the curve. This type of anchor

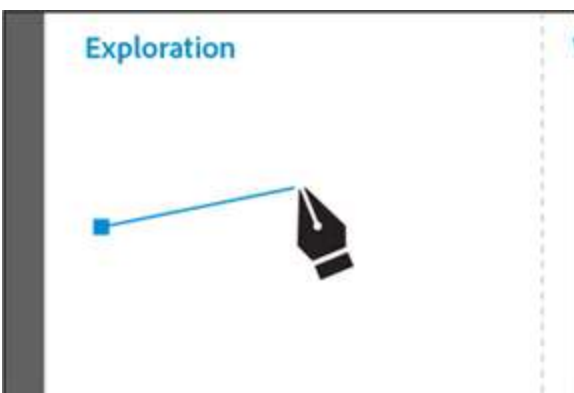
point is called a *smooth point*. Smooth points have two direction lines—one before the point and one after—that form a straight line.



Mastering drawing curves does take some time. The goal for this particular exercise is not to create anything specific but to play and explore!

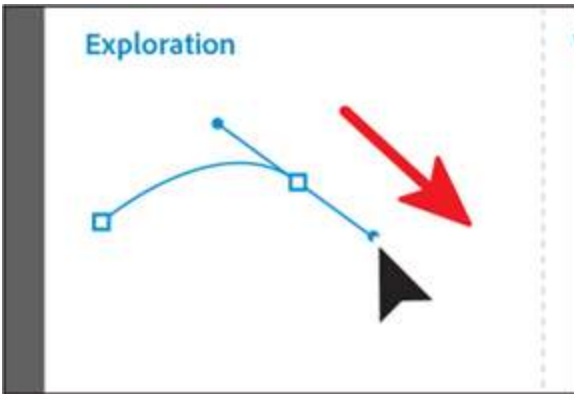
1. Choose 3 from the Artboard Navigation menu.
2. Select the Zoom tool (🔍) in the toolbar, and click once or twice in the area labeled Exploration to zoom in.
3. Select the Pen tool (🖋️) in the toolbar.
4. In the Properties panel, make sure that the fill color is None (☐), the stroke color is Black, and the stroke weight is still 4 pt.
5. With the Pen tool selected, click in an empty area of the artboard to create a starting anchor point. Move the pointer away.

Like before, you'll see the Pen tool preview showing what the path will look like if you click again.

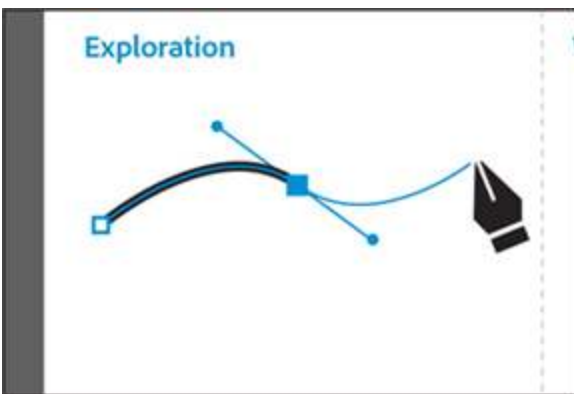


6. In an empty area, *drag* to create a curved path. Release the drag.

As you drag away from the point, two direction lines appear. A *direction line* has a round *direction point* at its end. The angle and length of direction lines determine the shape and size of the curve.

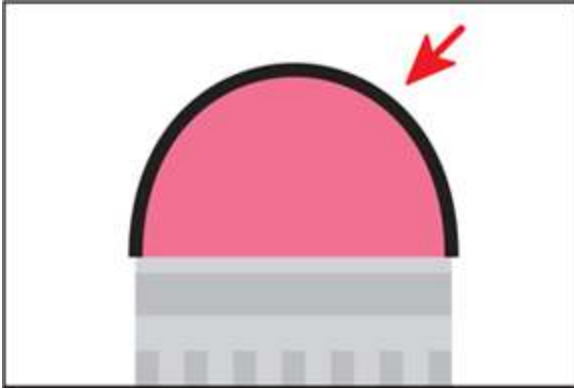


7. Move the pointer away from the last anchor point. Move it around a bit to see the path preview.
8. Continue dragging and releasing to create some more points.
9. Choose Select > Deselect.



Drawing a curve with the Pen tool

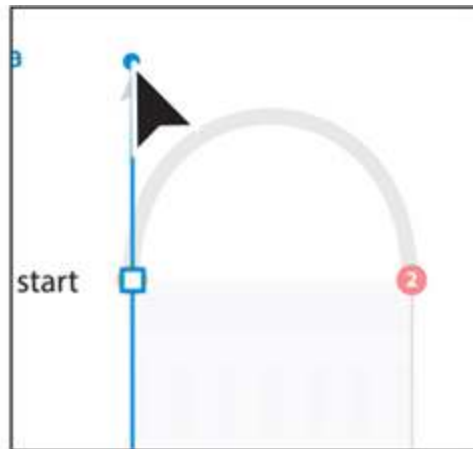
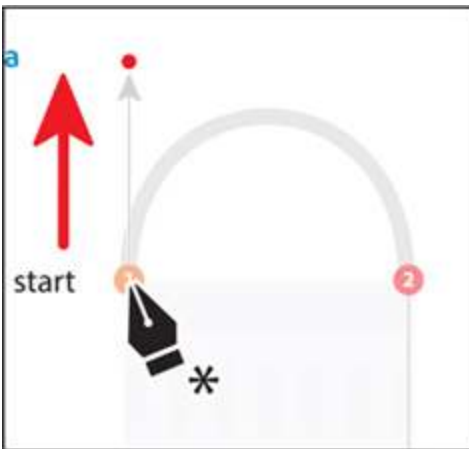
In this part of the lesson, you'll use what you just learned about drawing curves to trace a curved shape—a pencil eraser—with the Pen tool. This will require a little more precision.



1. Press the spacebar to temporarily select the Hand tool (🖐️), and drag to the left to get to the area labeled Work Area to the right.
2. With the Pen tool (🖋️) selected, move the pointer over point 1. Drag up to the red dot, and then release.

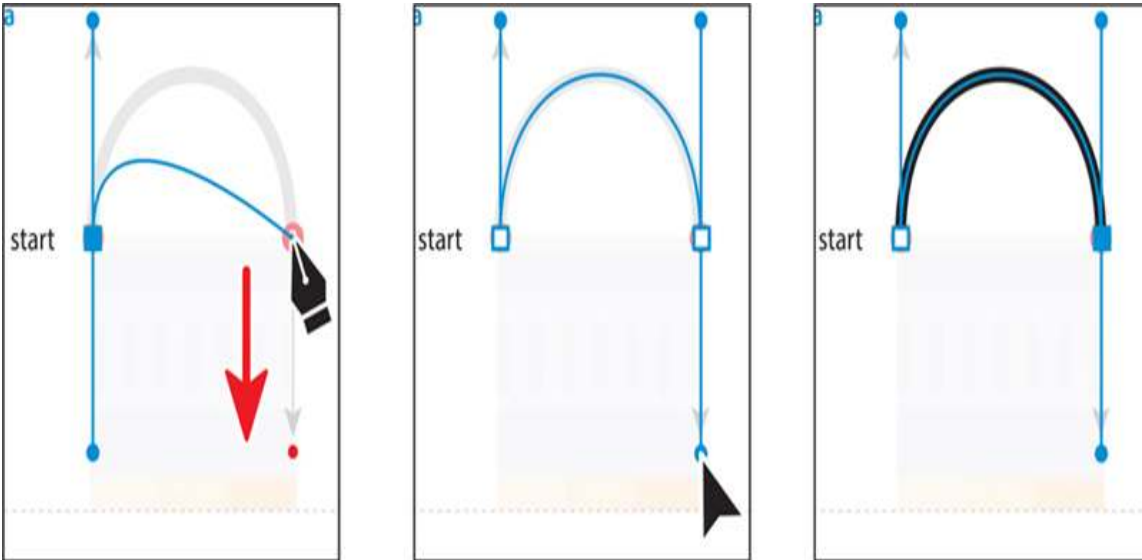
● **Note**

The artboard may scroll as you drag. If you lose visibility of the curve, choose View > Zoom Out until you see the curve and anchor point. Pressing the spacebar allows you to use the Hand tool to reposition the artboards in the canvas area.



Up to this point (pun intended), you've clicked to start paths. You can also start a path by creating a smooth (curved) point so your path can be extra curvy. By dragging first, you made an anchor point that has direction lines.

3. Drag from point 2 down to the red dot, *but don't let go yet*. Drag the pointer around to see how the path reacts. Pulling the direction line longer makes a steeper curve; when the direction line is shorter, the curve is flatter. With the pointer over the red dot, release the drag.

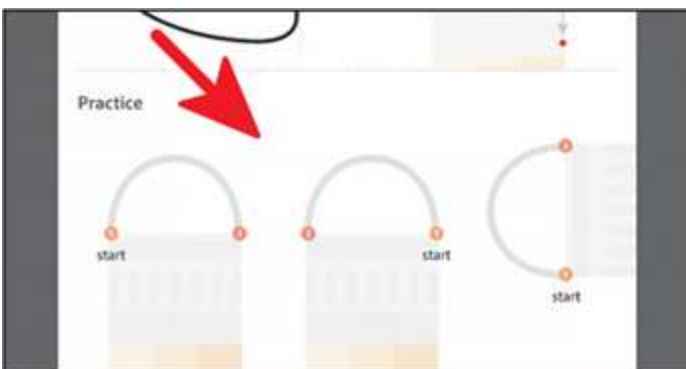


4. Select the Selection tool (▢), and click the artboard in an area with no objects, or choose Select > Deselect.

Deselecting the path allows you to create a new path. If you click somewhere on the artboard with the Pen tool while the path is still selected, the new path connects to the last point you drew.

Practice: Create more curves!

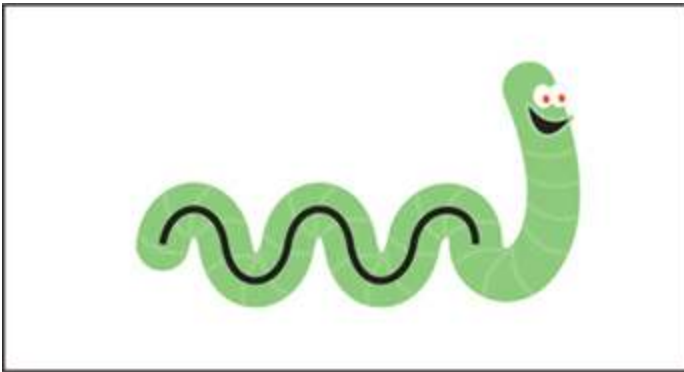
Below the pencil eraser you made are more erasers for practice!



1. Select the Hand tool (🖱), and drag up to see the practice area on the same artboard.
2. Select the Pen tool, and get creating!

Drawing a series of curves with the Pen tool

Now that you've experimented with drawing a curve, you'll draw a worm character that contains several continuous curves.

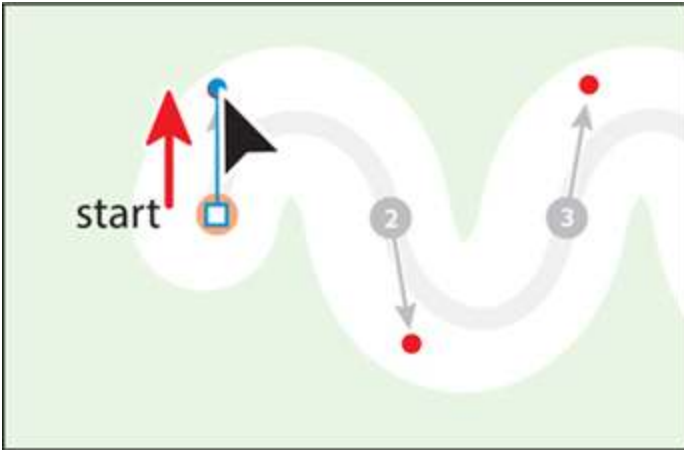


1. Choose 4 from the Artboard Navigation menu.
2. Select the Zoom tool (🔍), and click several times in the Work Area to zoom in.
3. Select the Pen tool (🖋).
4. In the Properties panel, make sure that the fill color is None (☐), the stroke color is Black, and the stroke weight is still 4 pt.
5. Press and drag up from point 1 (labeled start) in the direction of the path, stopping at the red dot.

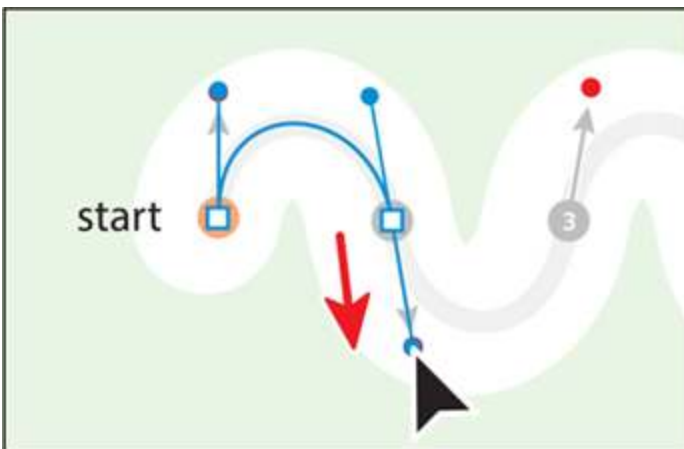
► Tip

As you are dragging out the direction lines for an anchor point, you can press and hold the spacebar to reposition the anchor point. When the anchor point is where you want it, release the spacebar and continue drawing.

This is exactly how you started the last path.

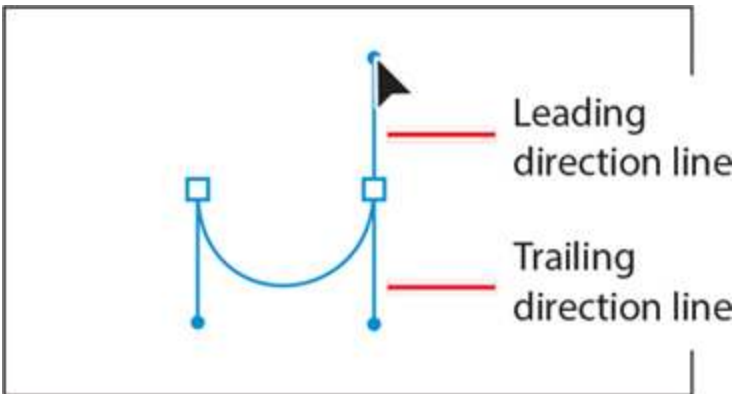


6. Move the pointer over point 2, and drag down to the red dot, adjusting the path between points 1 and 2 by dragging before you release the drag.

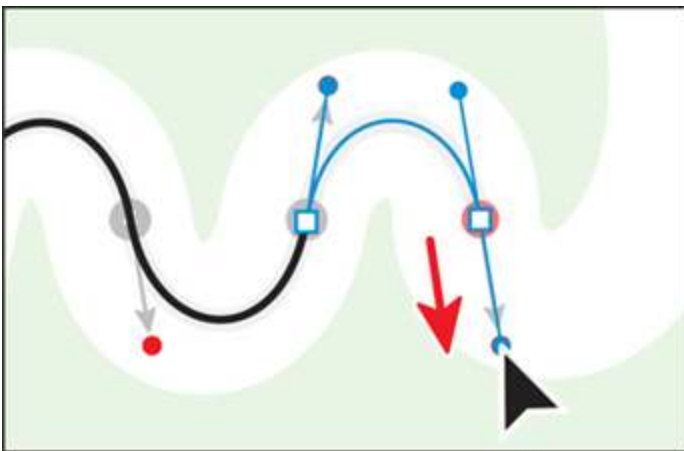


When you drag to create a curve with the Pen tool, you create a *leading* direction line and a *trailing* direction line on the anchor point. By default, they are equal and paired together. It's worth repeating: smooth points have direction lines that form a straight line.

When it comes to curves, you'll find that you spend a lot of time focusing on the path segment *behind* the anchor point you're making. The trailing direction line controls the shape of the segment behind the anchor point.



7. Continue along the path, alternating between dragging up and down.
Drag up at point 3.

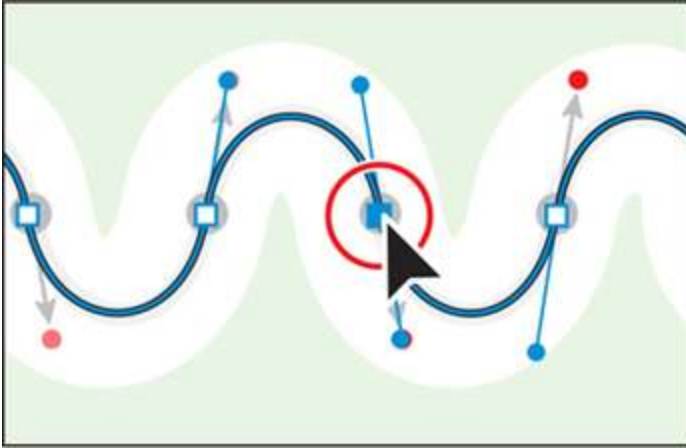


8. Drag down at point 4.
9. Drag up at point 5.

Put anchor points only where there are numbers.

10. Finish dragging down at point 6.

If you make a mistake as you draw, you can undo the last anchor(s) by choosing Edit > Undo Pen and then draw the last point again.



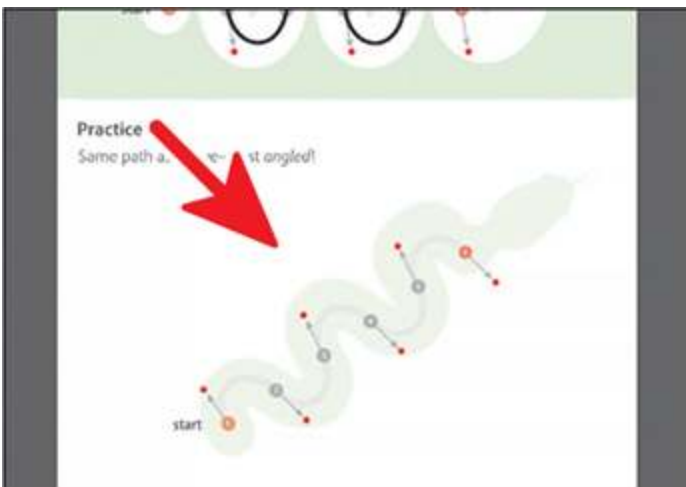
11. When the path is complete, select the Direct Selection tool (⬮), and click to select any anchor point in the path to see the direction lines. You can then readjust the curve of the path, if necessary.

With a curve selected, you can also change the stroke and fill. When you do this, the next line you draw will have the same attributes.

12. Choose Select > Deselect, and then choose File > Save.

Practice: Create a snake!

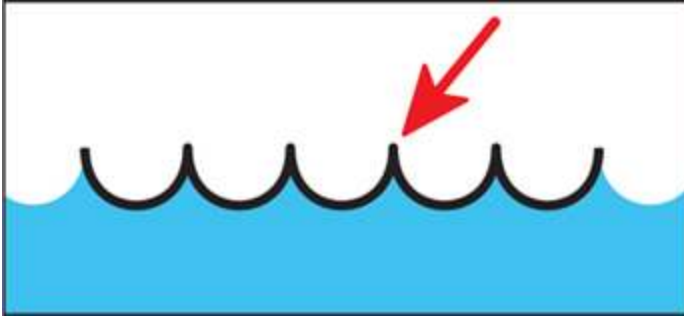
Below the worm body you made is a snake for practice!



1. Select the Hand tool (✋), and drag up to see the practice area on the same artboard.
2. Select the Pen tool, and get creating!

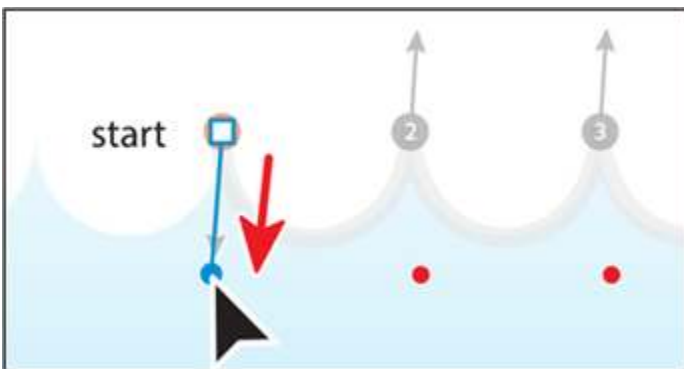
Changing path direction

What if you want to change path direction in the *middle* of a curve, like you see in a series of waves?

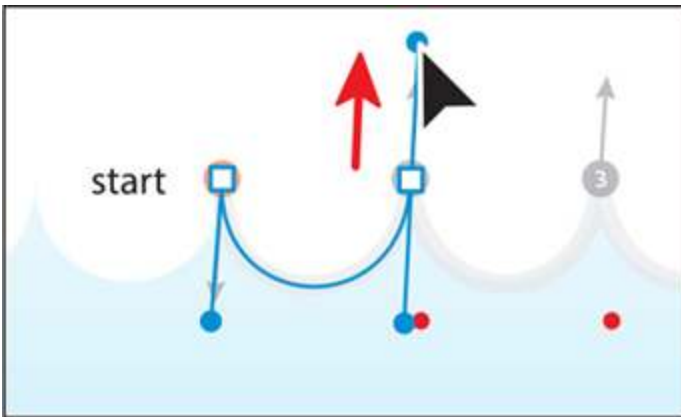


In this next part of the lesson, you'll make some waves by moving the direction lines for an anchor point in different directions, called *splitting* direction lines. Corner points allow the path to change direction and have either no direction lines or split direction lines.

1. Choose 5 from the Artboard Navigation menu.
2. Select the Zoom tool (Q), and click several times in the Work Area to zoom in.
3. Select the Pen tool (P).
4. In the Properties panel, make sure that the fill color is None (□), the stroke color is Black, and the stroke weight is still 4 pt.



5. Drag down from point 1 to the red dot.



6. From point 2, drag up. When the curved path between points 1 and 2 looks right, release the drag.

This is the first time I’m not asking you to drag to a colored dot in the template! Those won’t be there in the real world, so for the rest of this exercise, you won’t have as much guidance, except an arrow pointing in the right direction. Don’t worry; you can always choose Edit > Undo Pen and try again! Focus on making sure the path looks right instead.

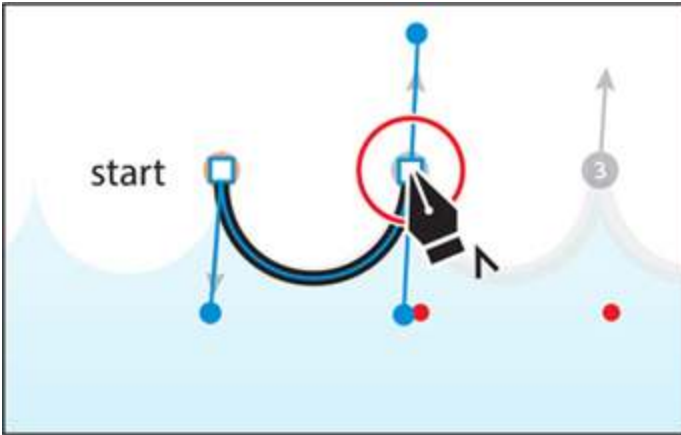
Now you need the path to switch directions and go down. You will *split* the direction lines, or move them in different directions from each other.

7. Move the pointer over the anchor point you just created at point 2.

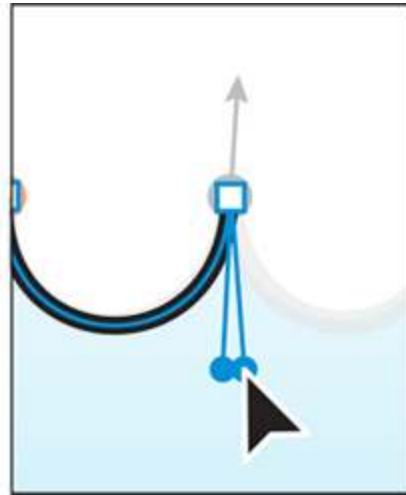
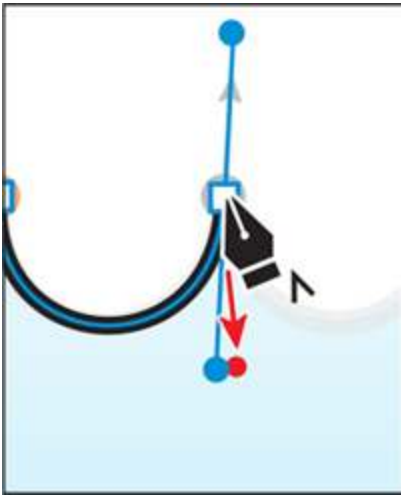
► **Tip**

You can watch these steps in a video! Check out the videos that are a part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

You should see the convert-point icon (^) next to the Pen tool pointer (☞) when it’s right over the anchor point. That icon means you can drag a new leading direction line out.



8. Press the Option (macOS) or Alt (Windows) key, and drag from the anchor point down to the red dot to redirect the leading direction line. Release the drag and then the key.

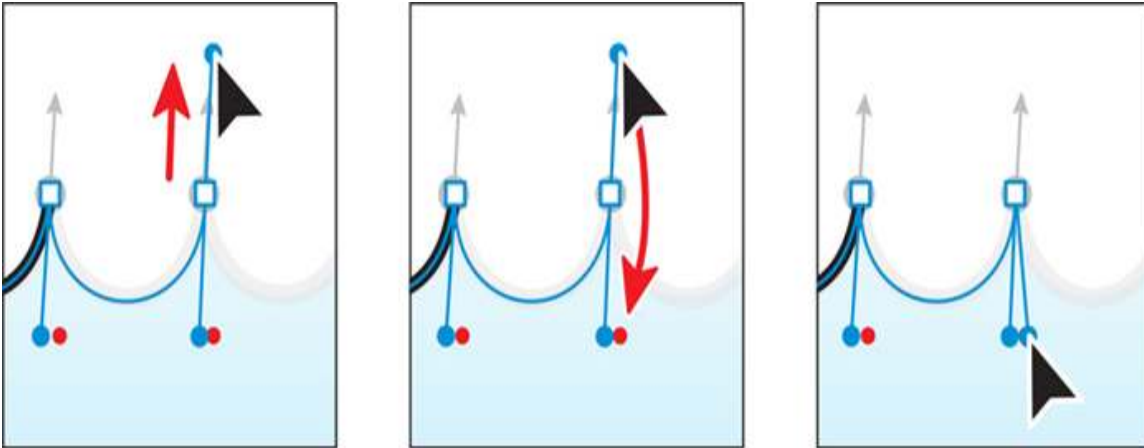


The Option (macOS) or Alt (Windows) key is what allows you to *split* the direction lines so that they are independent of each other for that anchor point.

9. Drag up from point 3. When the curved path between points 2 and 3 looks right, release the drag.
10. Press the Option (macOS) or Alt (Windows) key, and move the pointer over point 3. When a convert-point icon (^) appears next to the Pen tool pointer (⌵), drag a direction line down to the red dot below. Release the drag, and then release the modifier key.

For the next point, you will work faster by *not* releasing the drag to split the direction lines, so pay close attention and read the step before doing it!

11. Drag from anchor 4 up until the path looks correct. *Without releasing*, press the Option (macOS) or Alt (Windows) key, and drag down to the red dot for the next curve. Release the drag, and then release the modifier key.

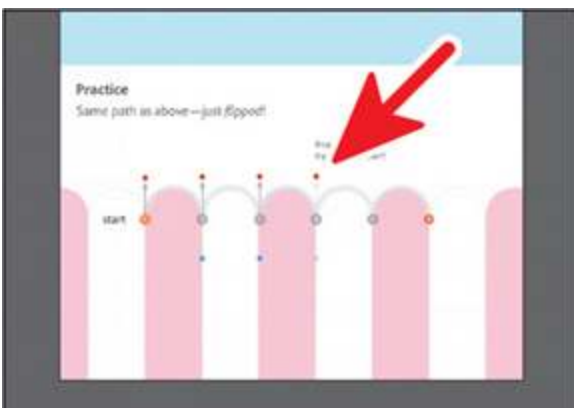


12. Continue this process using the Option (macOS) or Alt (Windows) key to create point 5, and then create point 6.

Practice: Create more curves!

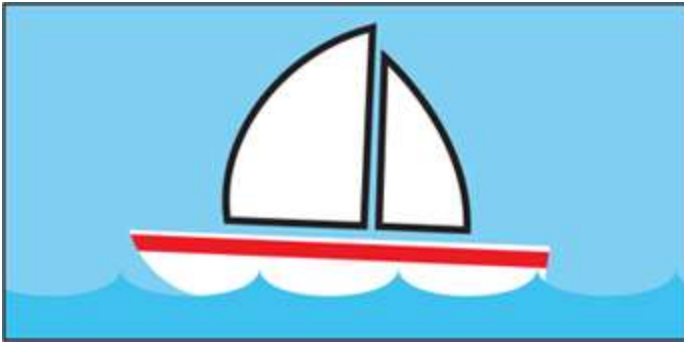
Below the waves you made is some practice!




1. Select the Hand tool (🖐️), and drag up to see the practice area on the same artboard.
2. Select the Pen tool, and get creating!

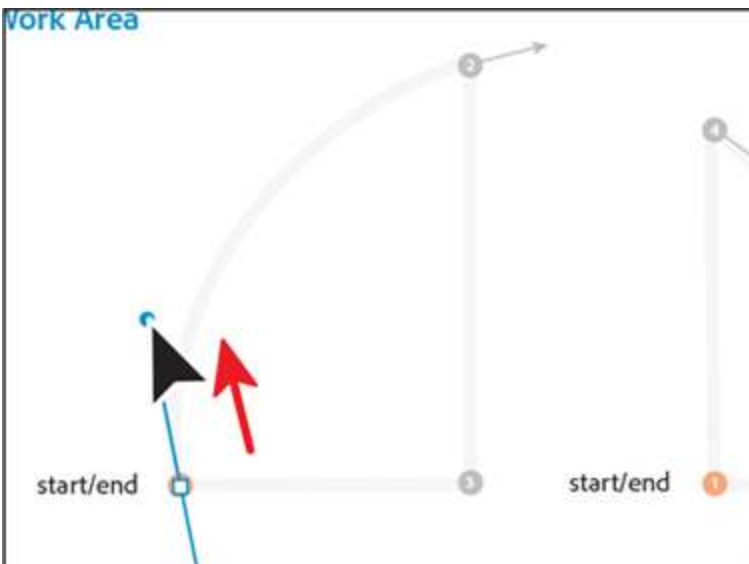


Combining curves and straight lines

When you're drawing your own artwork with the Pen tool, you'll need to transition easily between curves and straight lines. In this next section, you'll learn how to go from curves to straight lines and from straight lines to curves, making a sail.

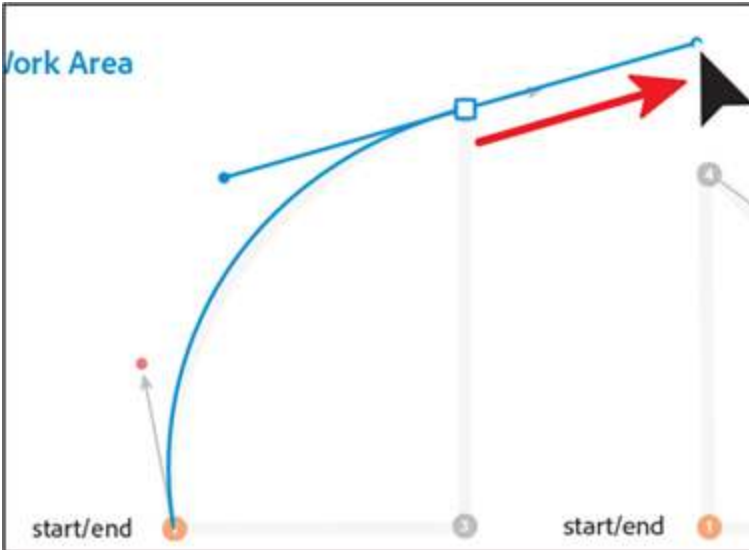


1. Choose 6 from the Artboard Navigation menu.
2. Select the Zoom tool () , and click several times in the Work Area part of the artboard to zoom in.
3. Select the Pen tool () .
4. In the Properties panel, make sure that the fill color is None () , the stroke color is Black, and the stroke weight is still 4 pt.
5. Move the pointer over point 1 (start/end), and drag up to the red dot. Release.



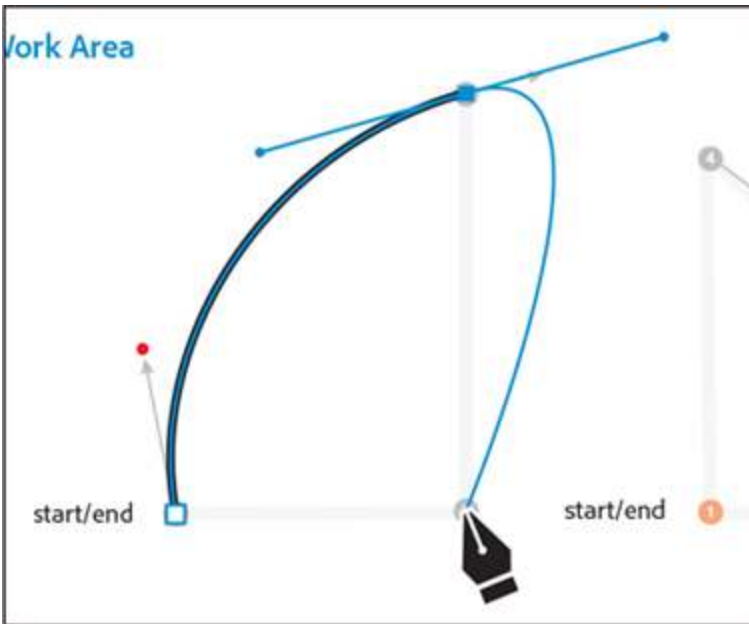
6. Drag from point 2, releasing when the path between 1 and 2 roughly matches the gray template path.

This method of creating a curve should be familiar to you by now.



If you were to continue drawing by clicking point 3, even pressing the Shift key (to make a straight line), the path would be curved (don't try this).

The last point you created has a curve and a leading direction line (the one you pulled out). You will now continue the path as a straight line by removing the leading direction line.

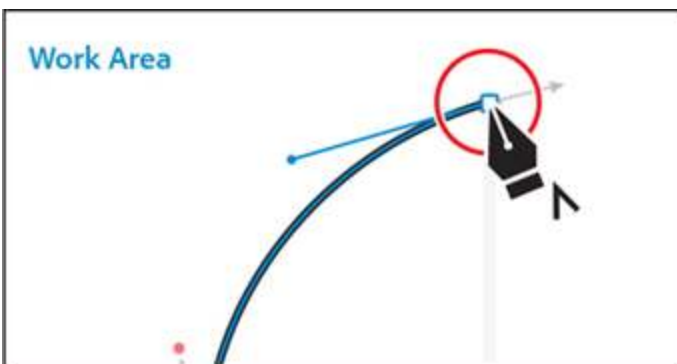


7. Move the pointer over point 2 at the top. When the convert-point icon appears (✎), click.

● **Note**

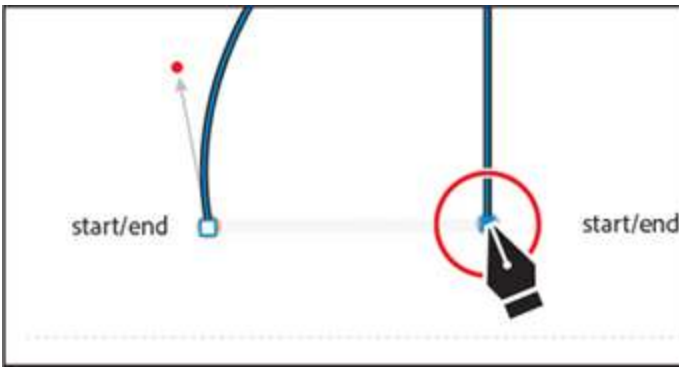
The figure shows what the path looks like after clicking.

This deletes the *leading* direction line from the anchor point (not the trailing direction line), as shown in the figure. The next part of the path can be straight.



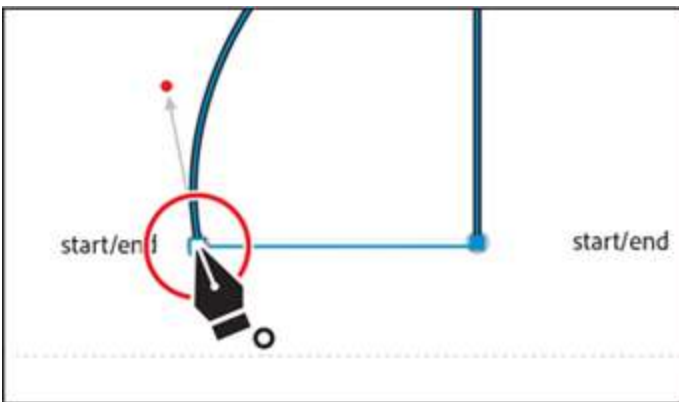
8. Move the pointer over point 3. Pressing the Shift key, click to create the next point.

Releasing the Shift key *after* clicking creates a straight line.



9. Move the pointer over point 1. When the pointer shows a small circle next to it (○), click to close the path.

10. Choose File > Save.



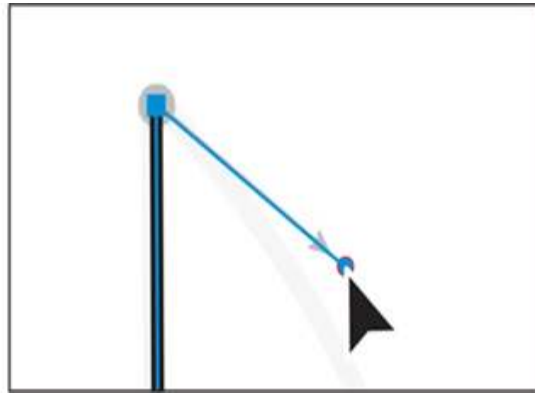
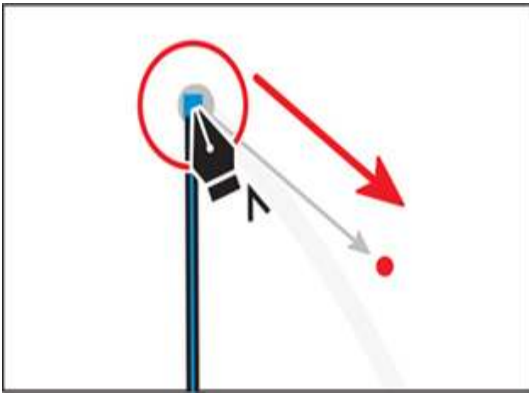
Practice: Make another sail!

Now you'll make another sail. For this sail, you'll remove a direction line from a point and add one to another.

1. Select the Hand tool (✋). If necessary, drag to the left to see the sail to the right.
2. Select the Pen tool, and click point 1 to add the first anchor.
3. To make a straight line, Shift-click point 2 above point 1.

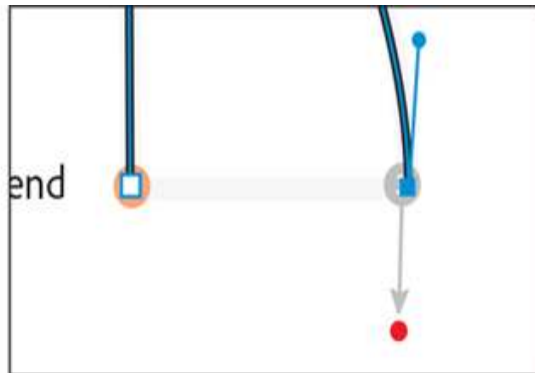
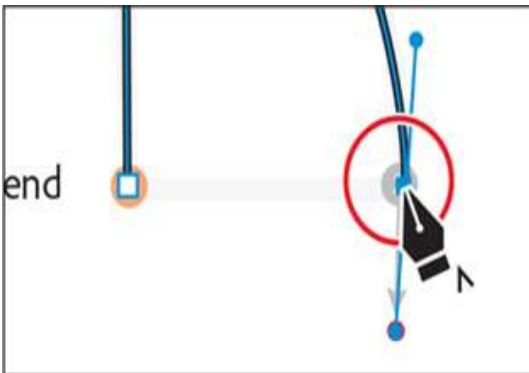
Now you need the next part of the path to curve. To do that, you will need a direction line coming out of the anchor you just made, so you will drag one out.

4. Move the pointer back over the anchor 2. When the convert-point icon appears (⌘), drag from that point to the red dot.



This creates a new, independent direction line that will control the curve of the next part of the path.

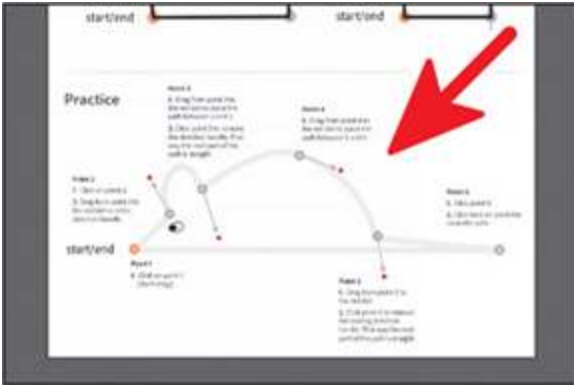
5. Drag from point 3 to the red dot.
6. Click the last anchor point you created (point 3) to remove the direction line, because the next part of the path is straight and goes in a different direction.



7. Click the first point to close the path.

Practice: Create a mouse!

Below the sails you just made is another path for practice!



1. Select the Hand tool (🖱️), and drag up to see the practice area on the same artboard.
2. Select the Pen tool, and get creating!

Remember, you can always go back and work on those Pen tool templates in the L7_start.ai file as many times as you need. Take it as slowly as you need to, and practice, practice, practice.

Putting your learning into practice

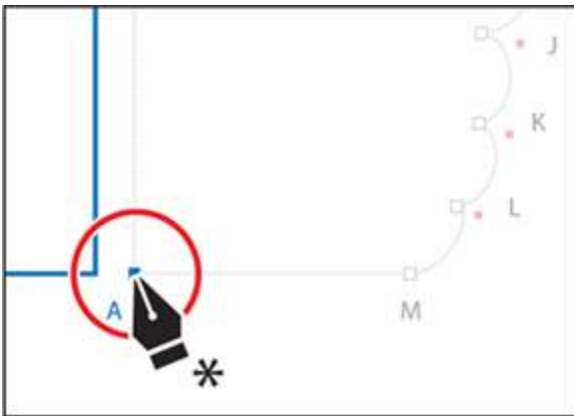
Next, you'll take what you've learned and create some artwork. You'll draw a hand giving the thumbs-up, which combines curves and corners, and then you'll edit the paths using a few new tools and techniques. *This section has more steps than a normal section*—so take your time as you practice with this shape, and use the template guides provided.

● Note

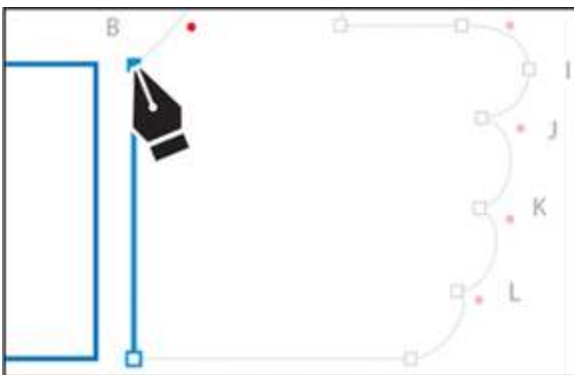
You don't have to start at the blue square (point A) to draw this shape. You can set anchor points for a path with the Pen tool in a clockwise or counterclockwise direction.

1. Choose 7 Artboard 7 from the Artboard Navigation menu.
2. Select the Pen tool (🖋️).
3. In the Properties panel, make sure that the fill color is None (☐), the stroke color is a *blue*, and the stroke weight is 6 pt.

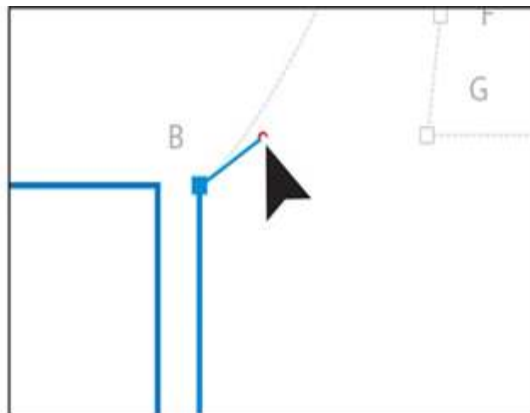
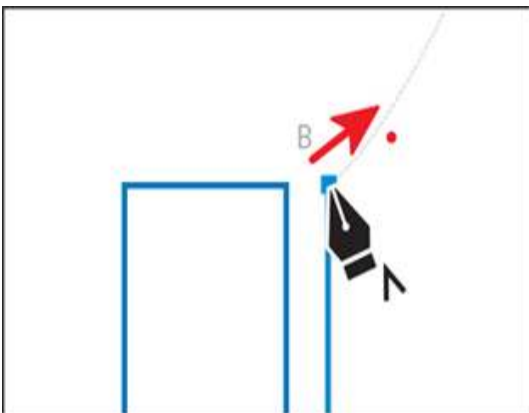
4. Click the blue square (A) on the hand template to set the starting anchor point.



5. Shift-click point B to make a straight line.



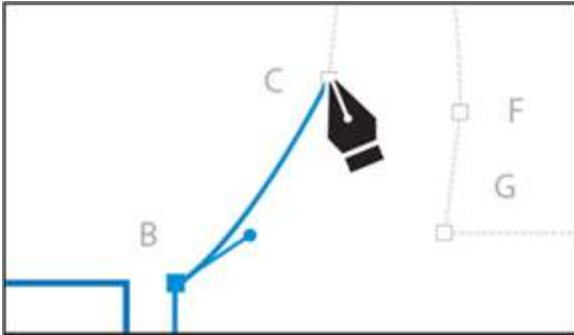
6. Move the pointer over point B again, and when the pointer changes (to a hand icon), drag away from the point to the red dot to create a new direction line.



You need the direction line because the next part of the path has a slight curve.

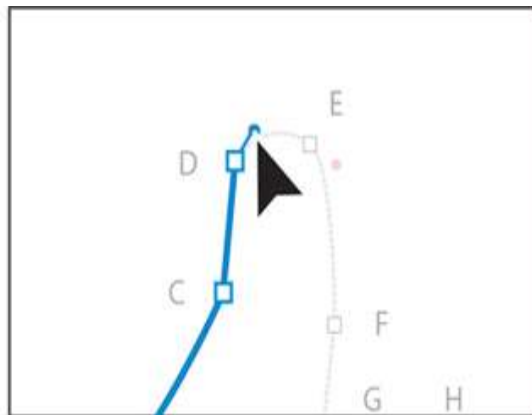
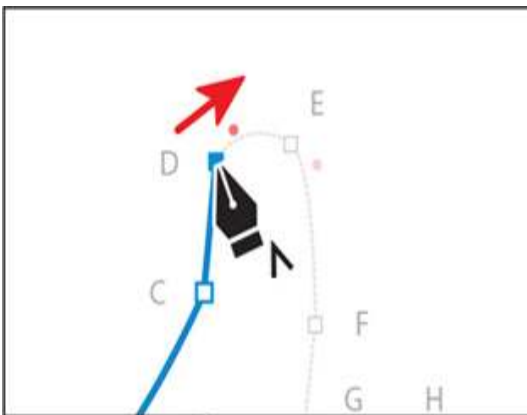
7. Click point C to make a line with a slight curve to it.

8. Click point D to make a straight line.



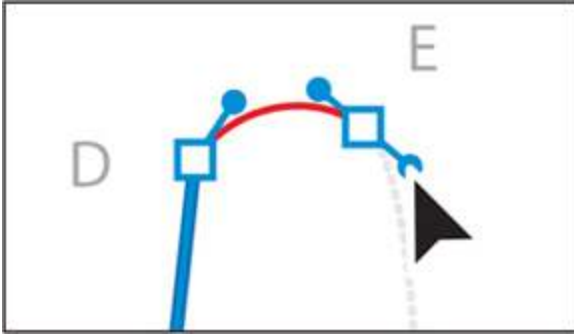
The next part of the path needs to be curved. *Can you guess what you need to do next?*

9. Move the pointer over point D again, and when the pointer changes (🖱️), drag away from the point to the red dot to create a short new direction line.



10. Drag from point E to make a curve.

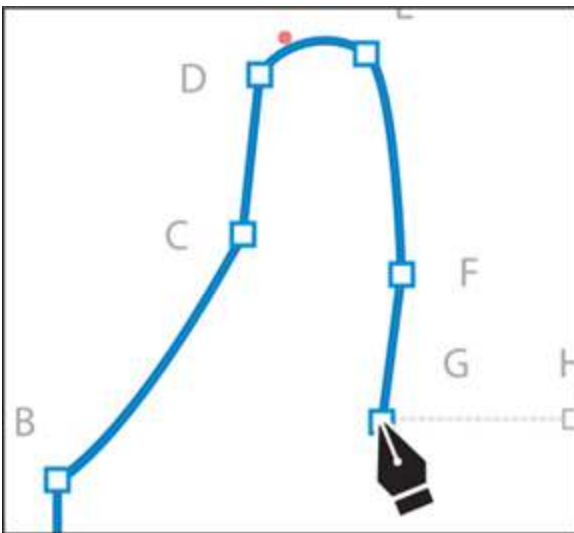
The part of the path to pay attention to is highlighted in red in the figure.



I made the red template dot faint so you pay more attention to how the path you are creating looks as you drag. When creating your own content without templates, you'll need to focus on what the path looks like.

11. Click points F and G to make the segments between those points straight lines.

You will curve this part of the path next using a different method. Sometimes it's easier to quickly get the anchor points out, and then go back and refine them to make your shape.



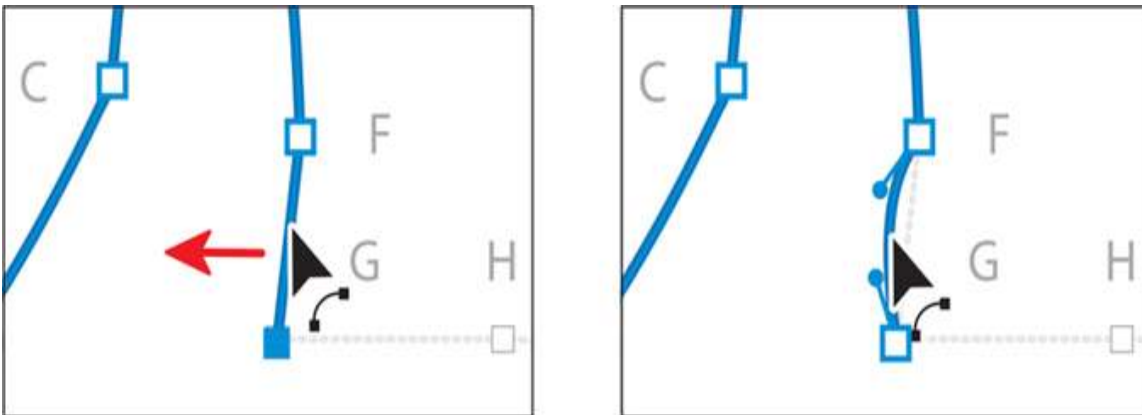
You can edit part of a path you previously drew while still drawing with the Pen tool. By pressing a modifier key with the Pen tool selected, you can drag a path segment you've drawn to modify it, which is what you'll do next.

- 12.** Move the pointer over the path between points F and G. Press the Option (macOS) or Alt (Windows) key. When the pointer has this (↶) next to it, drag the path to make it curved, as you see in the figure. Release the drag and then the key.

► **Tip**

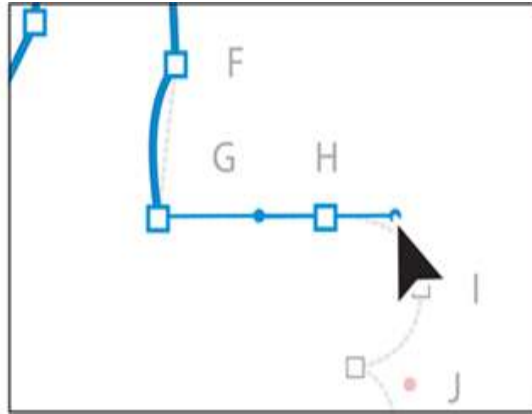
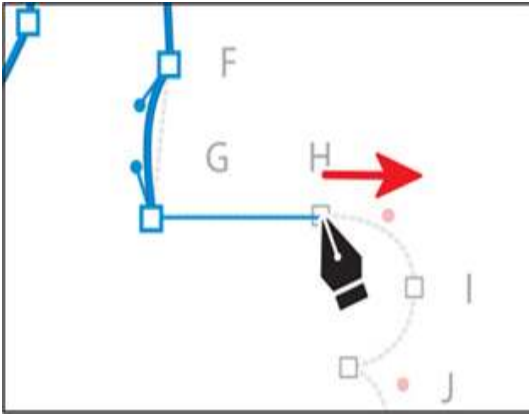
You can also press Option+Shift (macOS) or Alt+Shift (Windows) to constrain the handles on each anchor point to a perpendicular direction.

This adds direction lines to the anchor points at both ends of the line segment. After releasing the drag, notice that as you move the pointer around, you can see the Pen tool rubber-banding, which means you are still drawing the path.



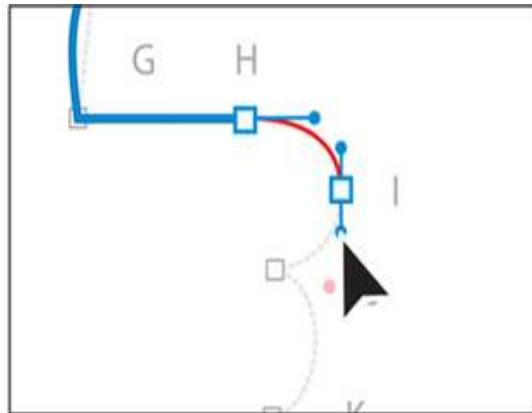
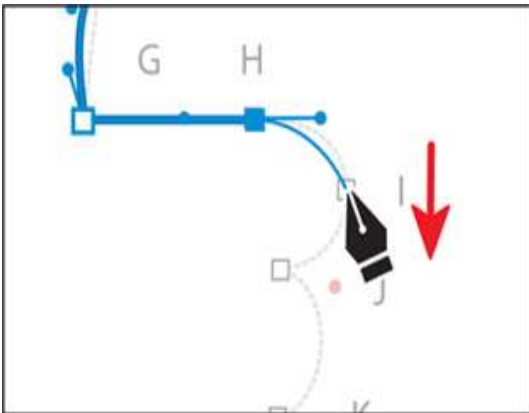
The path from point G to point H needs to be straight, followed by a curve, so you'll need to add a leading direction line to the point.

- 13.** With the Pen tool pointer over point H, Shift-drag to the light red dot.



This creates a new leading direction line and sets up the next path to be a curve. Also, pressing the Shift key keeps the line straight.

14. Move the Pen tool pointer over point I, and begin dragging down. Press the Shift key to constrain the path, following the template path.



The part of the path to pay attention to is highlighted in red in the figure.

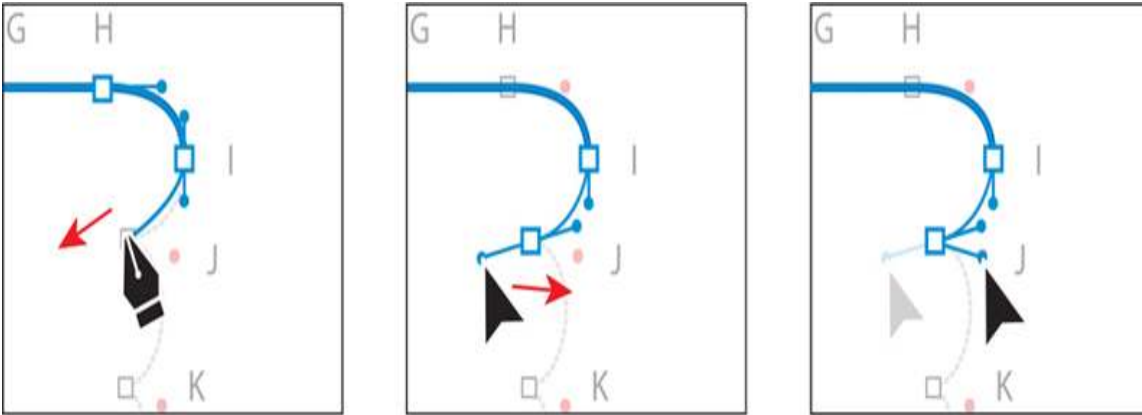
For the next three points, you will split the direction handles so you can make the knuckles.

For the next steps you may want to zoom in to the remaining points.

15. Move the Pen tool pointer over point J, and drag to make the path behind curved, following the template path. *Without releasing the drag*, press Option (macOS) or Alt (Windows) and drag to the light red dot to split the direction lines.

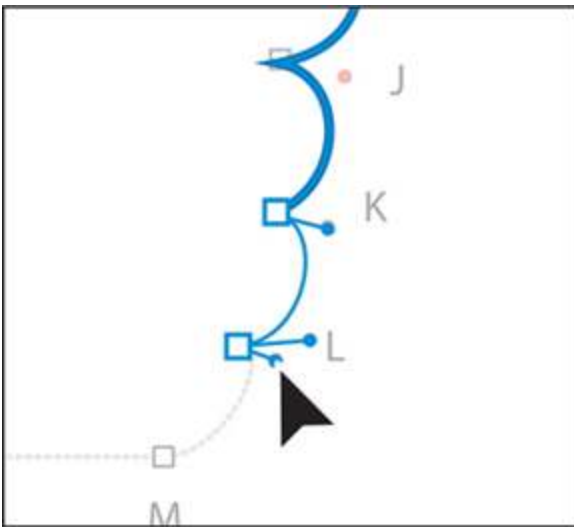
► **Tip**

I've said this a few times, but don't forget you can always undo a point you've drawn (Edit > Undo Pen) and then try again.

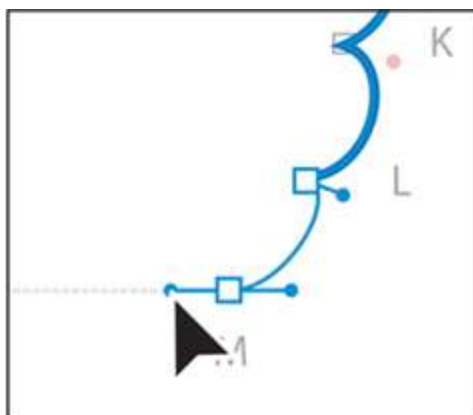
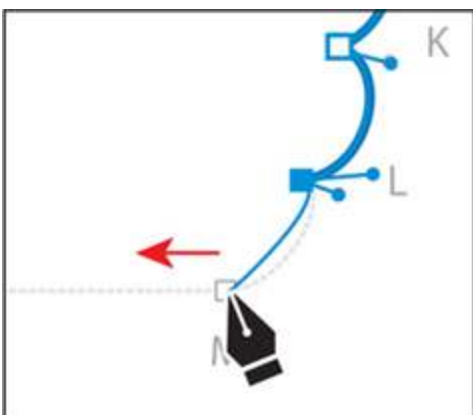


That is the faster method for splitting direction lines. If you don't feel comfortable doing it this way, you can also follow the method in the section "[Changing path direction.](#)"

16. Repeat the previous step for points K and L for a little practice!

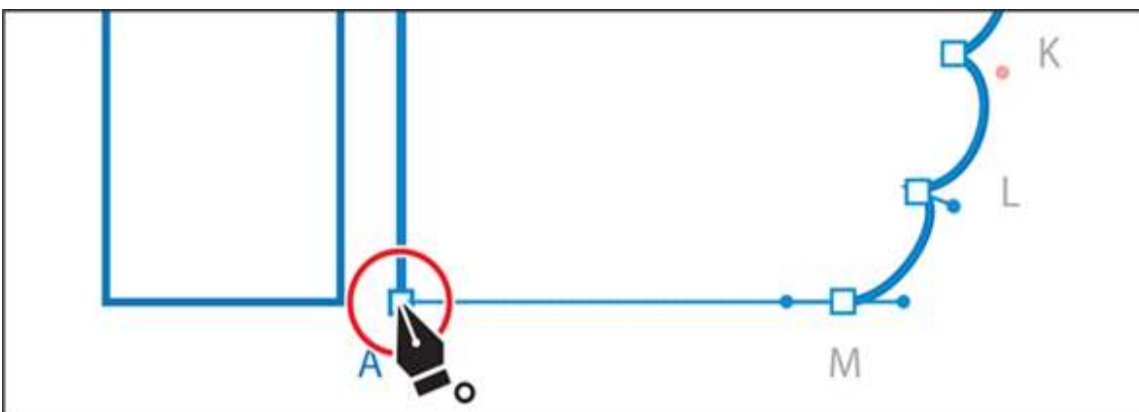


17. For point M, start dragging from the point to the left, and press the Shift key as you drag. Drag until the curve looks right. Release the drag and then the key.

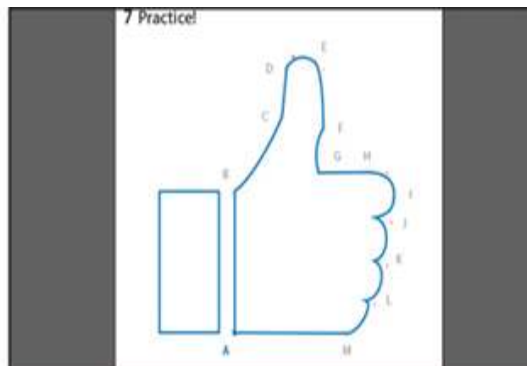
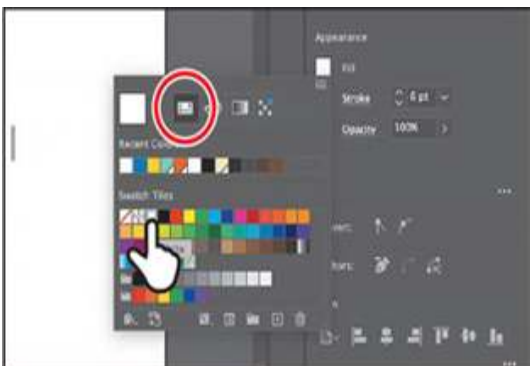


Next, you'll complete the drawing by closing the path.

- 18.** Move the Pen tool pointer over point A, and click to close the path.



- 19.** In the Properties panel, click the Fill color and select white (if it isn't already).




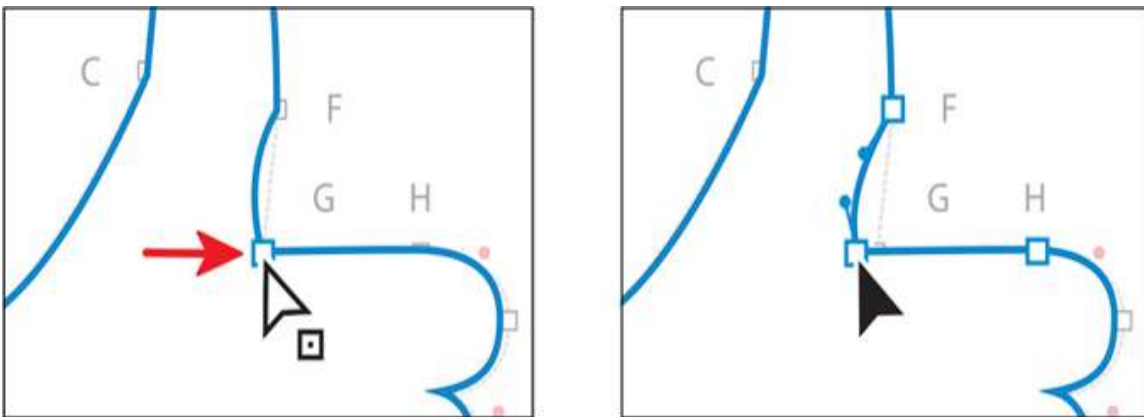
- 20.** Command-click (macOS) or Ctrl-click (Windows) away from the path to deselect it, and then choose File > Save.

This is a shortcut method for deselecting a path while keeping the Pen tool selected. You could also choose **Select > Deselect**, among other methods.


Editing paths and points further

Next, you'll edit a few of the paths and points for the art you just created. You'll start by reshaping the thumb a little.

1. Select the Direct Selection tool () and click anchor point G to select it.
2. Begin dragging the anchor point to the left. As you drag, press the Shift key. When it looks like the figure, release the drag and then the key.

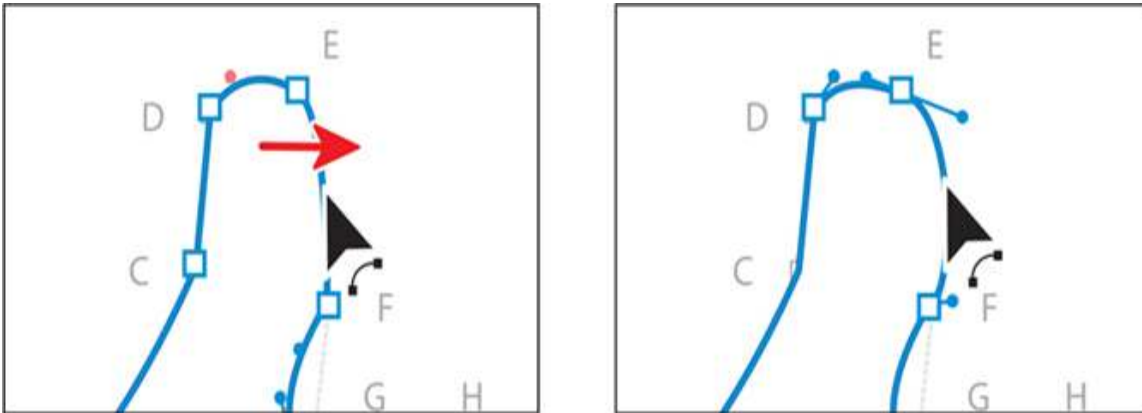


Pressing the Shift key when dragging will constrain the movement to multiples of 45°.

3. Move the pointer over the part of the path between points E and F. When the pointer has this () next to it, drag the path a little to the right to change the curve of the path.

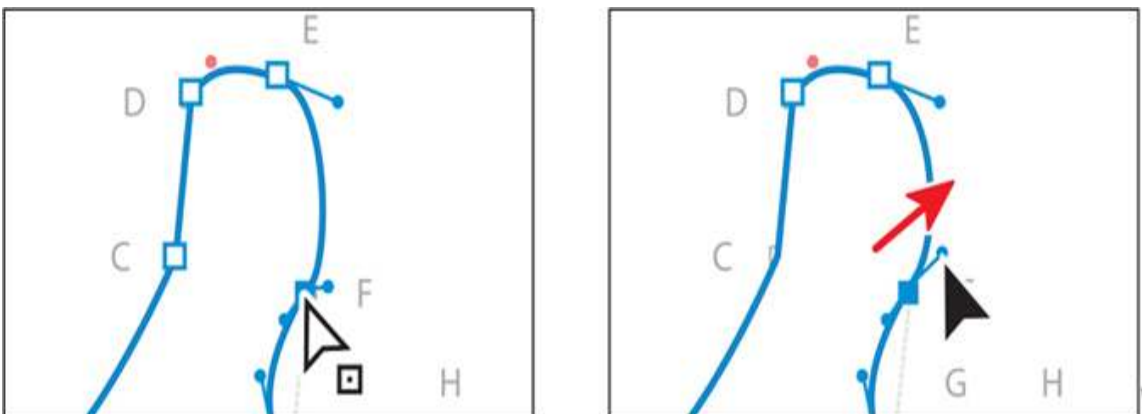
► **Tip**

You can drag the line segment (path) between the anchor points without selecting Option/Alt, as you did with the Pen tool earlier, because at least one of the anchor points has direction lines. This won't work on a straight path.



As you drag the path using this method, the anchor points and direction lines are adjusted. This is an easy way to make edits to a curved path without having to edit the direction lines for each anchor point. You might notice that point F now looks more like a corner—a more V-shaped path, rather than a smooth path going through it.

4. To make the thumb a bit rounder, click point F and drag one of the direction lines to make the path appear smoother.




I dragged the direction line just a little, so it's a subtle change.

5. Choose Select > Deselect, and then choose File > Save.

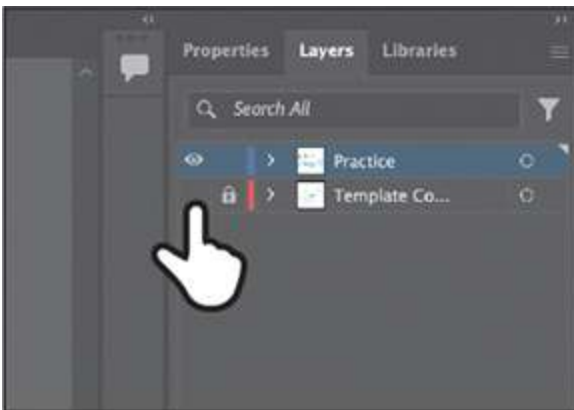
Deleting and adding anchor points


Most of the time, the goal of drawing paths with a tool like the Pen tool or Curvature tool is to avoid adding more anchor points than necessary. You can reduce a path's complexity or change its overall shape by deleting unnecessary points (and therefore gain more control over the shape), or you can extend a path by adding points to it. Next, you'll delete anchor points from and add anchor points to different parts of a path.

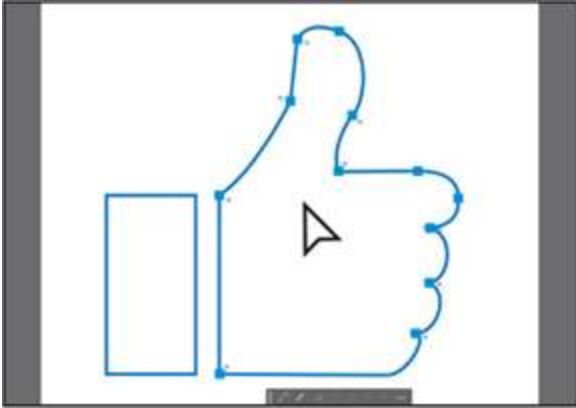
1. Open the Layers panel (Window > Layers).
2. In the Layers panel, click the Visibility icon () for the Template Content layer to hide the template.

▶ Tip

You'll learn all about layers in [Lesson 10](#), “[Organizing Your Project with Layers](#).”

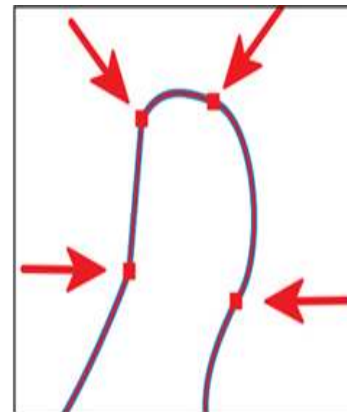
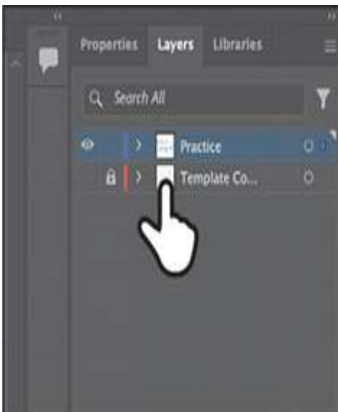


3. With the Direct Selection tool () selected, click in the white fill of the blue hand to select it.



You should see the selected anchor points on the path now, but it's challenging because the path is blue and the anchor points are also blue! To see the anchor points more easily, you will change the layer color.

4. In the Layers panel, double-click the thumbnail to the left of the Practice layer.
5. In the Layer Options dialog box, choose Light Red from the Color menu and click OK.

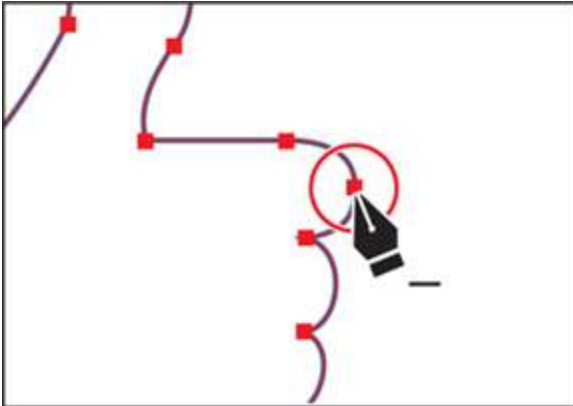


Now that you can (hopefully) more easily see the anchor points—they are now red—you'll delete a point in the hand to simplify the path.

6. Select the Pen tool (🖋) in the toolbar, and move the pointer over the anchor point on the top knuckle of the hand. When a minus sign (–) appears next to the Pen tool pointer (🖋), click to remove the anchor point.

► **Tip**

With an anchor point selected, you can also click Remove Selected Anchor Points (🗑️) in the Properties panel or Contextual Task Bar to delete the anchor point.

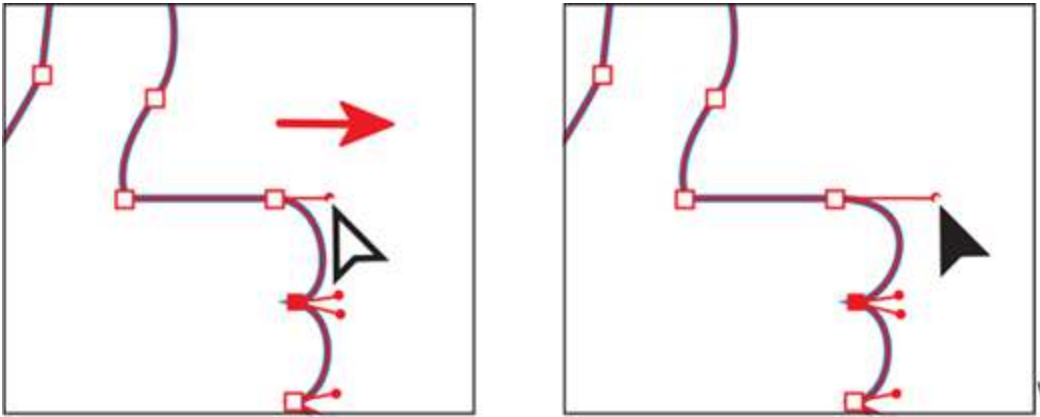


Next, you'll reshape the remaining path a little so the curve looks better.

7. With the Pen tool selected, press Command (macOS) or Ctrl (Windows) to temporarily select the Direct Selection tool so you can edit an anchor.
8. With the key still held down, begin dragging the direction line you see in the first part of the figure. Drag it to the right. As you drag, press the Shift key *as well*. Release the drag and then the keys.

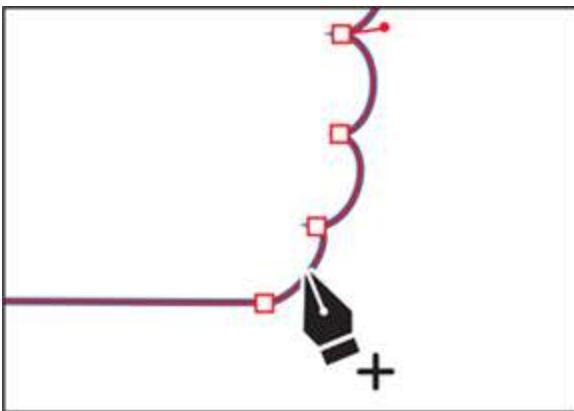
● Note

It can be tricky to drag the end of a direction line. If you wind up missing and deselecting the path, with the modifier key still held down, click the path and then click the anchor point to see the direction lines and try again.

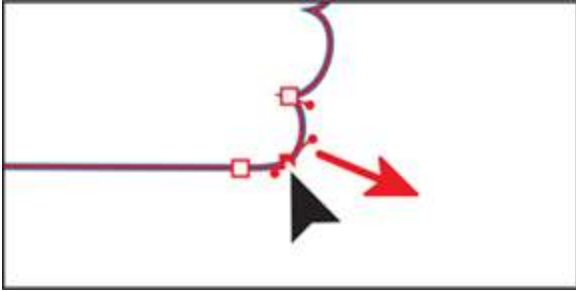


With that part of the path reshaped, now you'll add a new anchor point to the path so you can reshape it further.

9. Move the pointer over the bottom knuckle of the hand. See the figure for where. When a plus sign (+) appears to the right of the Pen tool pointer (🖋️+), click to add an anchor point.




10. Press Command (macOS) or Ctrl (Windows) to temporarily select the Direct Selection tool, and drag the new anchor down and to the right to reshape the path. Release the key.

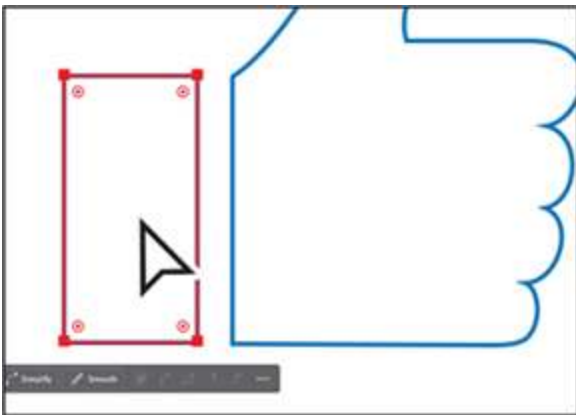



11. Choose Select > Deselect and then File > Save.

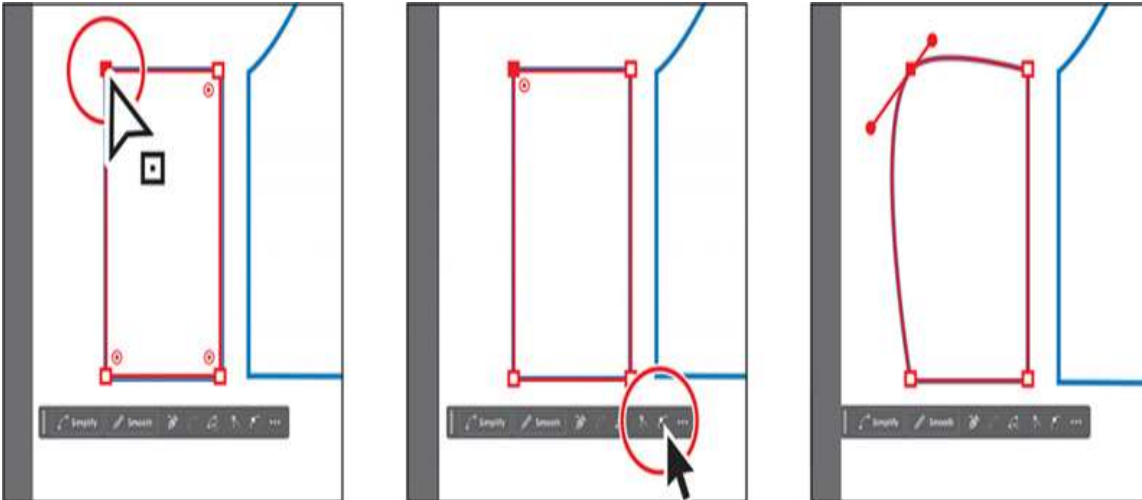
Converting between smooth points and corner points


To more precisely control the path you create, you can convert points from smooth points to corner points and the other way around, using several methods. Next, you'll round the corners of the rectangle to the left of the hand you drew.

1. Select the Direct Selection tool () and click in the rectangle to the left of the hand.

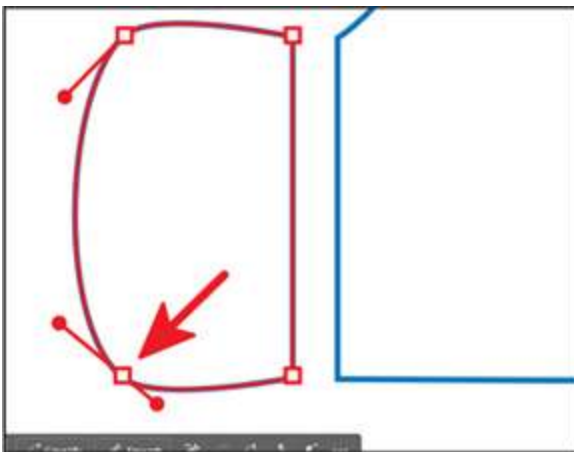



2. Select the upper-left anchor point.
3. In the Contextual Task Bar, click Convert Selected Anchor Points To Smooth () to curve the path at that anchor point.

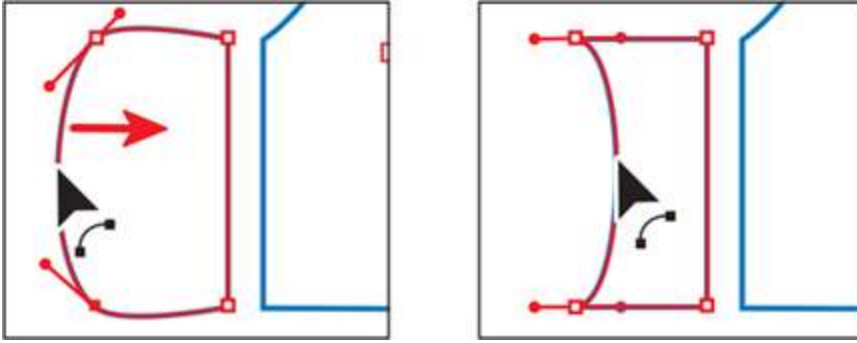


4. Select the lower-left anchor point, and click the Convert Selected Anchor Points To Smooth button () to round the anchor point. An arrow is pointing to it in the figure.

Now you'll fix up the two corners to look better.



5. With the Direct Selection tool selected, move the pointer over the path between the two anchor points you just rounded. When the pointer has this () next to it, begin dragging to the right to change the curve of the path. As you drag, press the Shift key to constrain the movement. Release the drag and then the key.

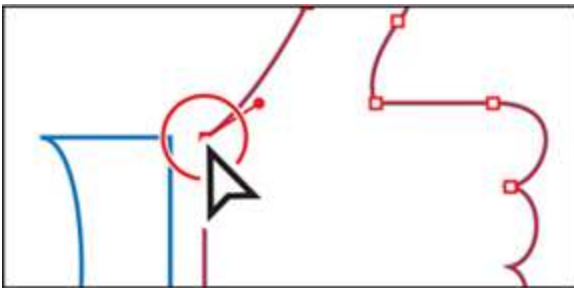


Converting anchor points with the Anchor Point tool

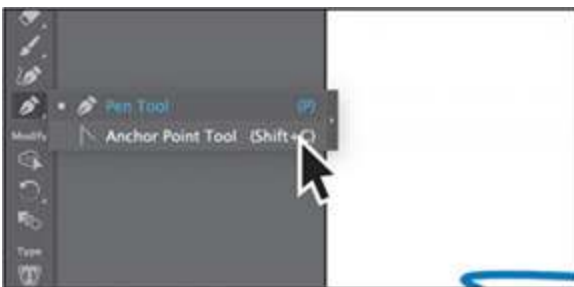
The Anchor Point tool is another way to convert anchor points between smooth and corner points (⌘). With this tool, you can convert anchor points as you did in the previous section, but you can adjust the paths with it at the same time. You'll use the tool to finish the art.


1. With the Direct Selection tool (⌘) selected, select the point in the hand, as shown.

You can see a single direction line on the point.




2. Press and hold on the Pen tool (⌘) in the toolbar to reveal other tools. Select the Anchor Point tool (⌘).




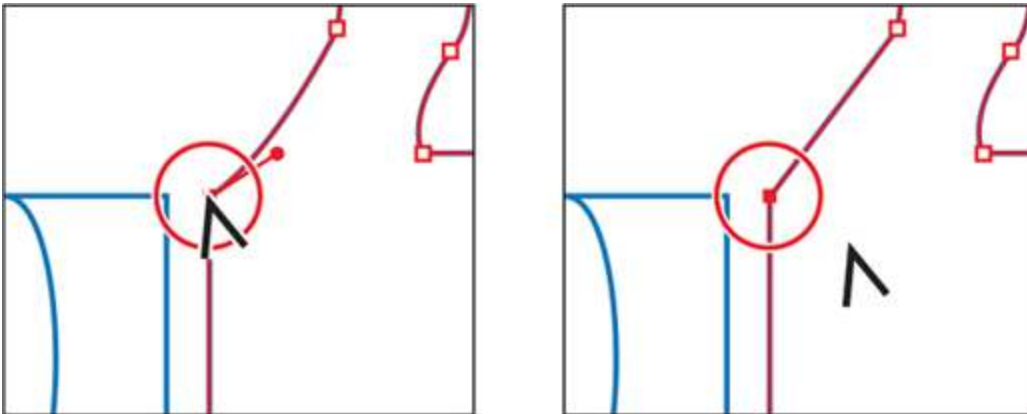
3. Move the pointer over the point you selected. The pointer should still look like this: . Click that point to remove the direction line.

● **Note**

Don't drag if the pointer has this () next to it. This means that the pointer is not over the anchor point, and if you drag, you will reshape the curve.

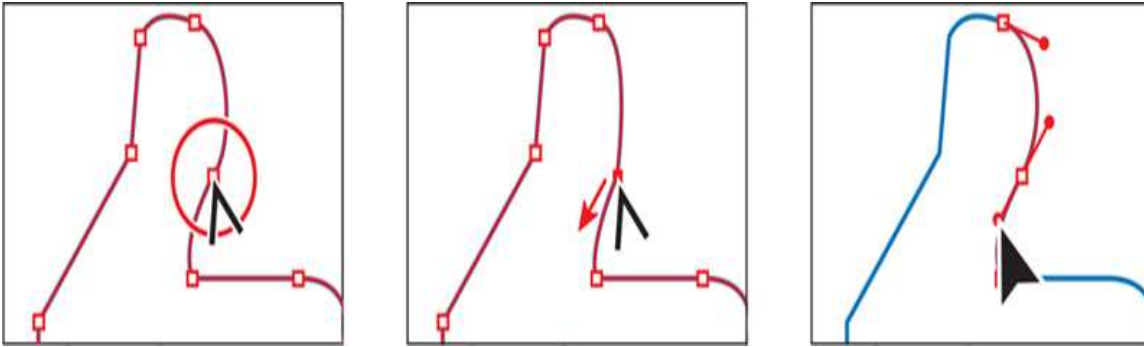
▶ **Tip**

If you move the Anchor Point tool pointer over the end of a direction line that is split, you can press the Option (macOS) or Alt (Windows) key and, when the pointer changes () , click to make the direction lines a single straight line again (not split).



Clicking a point that has one or both direction lines removes them, making the point a corner.

4. Click the point indicated in the following figure to remove the direction lines.
5. Drag from the same point to add direction lines again. Drag until you think the curve of the thumb looks good!



Great job! You've explored the Pen tool and a lot of the methods for making and editing your very own art. The only thing left to do is to keep practicing!

6. Choose View > Fit All In Window.
7. Choose File > Save and then File > Close.




Review questions

- 1 Describe how to draw straight vertical, horizontal, or diagonal lines using the Pen tool (🖋).
- 2 How do you draw a curved line using the Pen tool?
- 3 What are the two types of anchor points you can create with the Pen tool?
- 4 Name two ways to convert a smooth point on a curve to a corner point.
- 5 Which tool would you use to edit a segment on a curved line?

Review answers

- 1 To draw a straight line, click with the Pen tool (🖋) and then move the pointer and click again. The first click sets the starting anchor point, and the second click sets the ending


anchor point of the line. To constrain the straight line vertically, horizontally, or along a 45° diagonal, press the Shift key as you click to create the second anchor point with the Pen tool.

- 2 To draw a curved line with the Pen tool, drag with the Pen tool, release, and then move the pointer and drag again to set the length and direction of the curve.
- 3 With the Pen tool, you can create corner points or smooth points. Corner points allow the path to change direction and have either no direction lines or split direction lines. Smooth points have direction lines that form a straight line.
- 4 To convert a smooth point on a curve to a corner point, use the Direct Selection tool () to select the anchor point and then use the Anchor Point tool () to drag a direction line to change the direction. Another method is to select a point or points with the Direct Selection tool and then click the Convert Selected Anchor Points To Corner button () in the Properties panel or Contextual Task Bar.
- 5 To edit a segment on a curved line, select the Direct Selection tool and drag the segment to move it; or drag a direction line on an anchor point to adjust the length and shape of the segment. Here's a tip: Pressing the Option (macOS) or Alt (Windows) key and dragging a path segment with the Pen tool is another way to reshape a path.

8 Using Color to Enhance Artwork

Lesson overview

In this lesson, you'll learn how to do the following:

- Understand color modes and the main color controls.
- Create, edit, and apply colors using a variety of methods.
- Name and save colors.
- Copy and paste appearance attributes from one object to another.
- Explore color groups. 
- Be inspired creatively with the Color Guide panel.
- Explore the Recolor Artwork command.
- Get started with Generative Recolor.
- Work with Live Paint groups.



This lesson will take about 75 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.



Spice up your illustrations with color by taking advantage of color controls in Adobe Illustrator. In this information-packed lesson, you'll discover how to create and apply fills and strokes, use the Color Guide panel for inspiration, work with color groups, recolor artwork, and more.

Starting the lesson

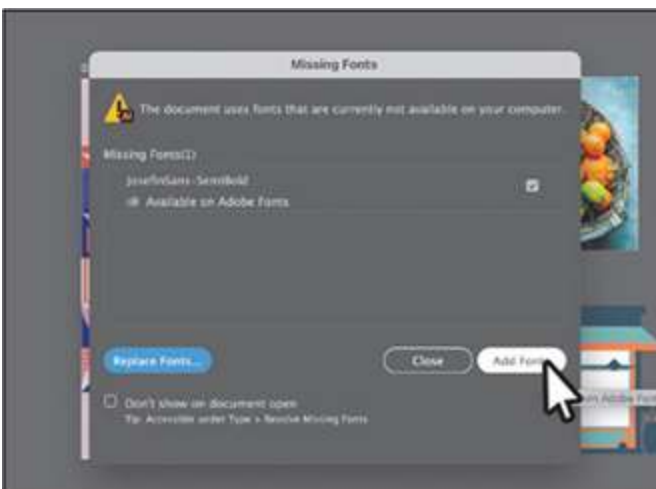
In this lesson, you'll learn about the fundamentals of color by using the Swatches panel and more to create and edit the colors in artwork for tea labels.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. With Illustrator open, choose File > Open, and open the L8_end.ai file in the Lessons > Lesson08 folder.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

4. If the Missing Fonts dialog box opens, ensure that the names of the missing fonts are selected, and click Add Fonts. After some time, the font(s) should be added, and you should see a success message in the Missing Fonts dialog box. Click Close.



5. If you see a dialog box about font auto-activation, click Skip.

6. Choose View > Fit All In Window.
7. Choose File > Open, and open the L8_start.ai file in the Lessons > Lesson08 folder.



This file has all the pieces already in it; you just need to add color.

8. Choose View > Fit All In Window.
9. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer.
10. In the Save As dialog box, navigate to the Lesson08 folder, and name the file **TeaPackaging.ai**. Leave Adobe Illustrator (.ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and click Save.

● Note

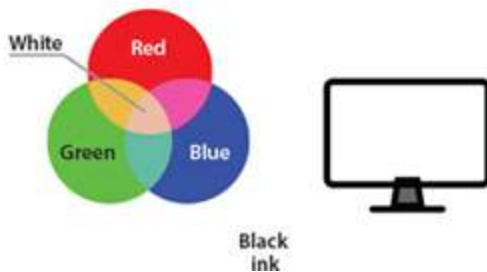
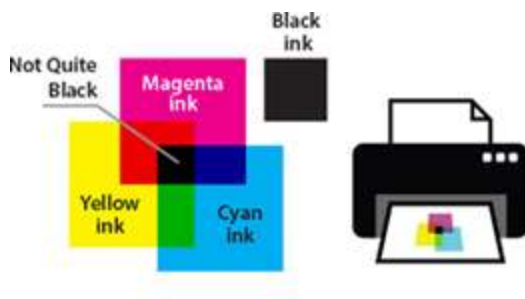
If you don't see Reset Getting Started in the menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

11. In the Illustrator Options dialog box, leave the options at their default settings and then click OK.
12. Choose Window > Workspace > Reset Getting Started.

Exploring color modes

There are many ways to experiment with and apply color to your artwork in Adobe Illustrator. As you work with color, it's important to consider the medium in which the artwork will be published, such as print or web. The colors you create need to be suitable for that medium. This usually requires that you use the correct color mode and color definitions for your colors.

Before starting a new document, you should decide which color mode the artwork should use, *CMYK* or *RGB*.



- **CMYK**—Cyan, magenta, yellow, and K (“key” or black) are the colors of ink used in four-color process printing. These four colors are combined and overlapped in a pattern of dots to create a multitude of other colors.

● **Note**

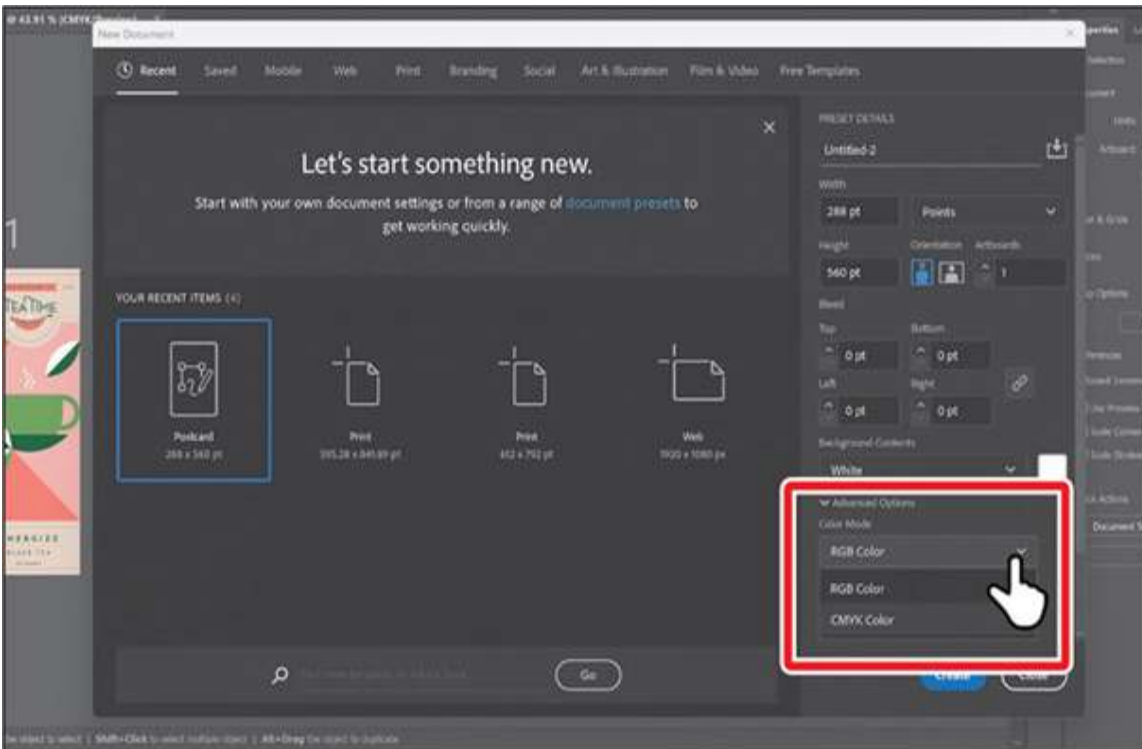
To get technical for a minute. If you mix Cyan, Magenta, and Yellow *printing inks* together, it doesn't quite make black due to the impurities in printing inks. That's why printers include a black ink (K) for shadow and depth along with CMY.

- **RGB**—Red, green, and blue light are added together in various ways to create an array of colors. Select this mode if you are using images for onscreen presentations, the internet, or mobile apps, or maybe for printing to desktop inkjet printers.

● **Note**

You may see a series of templates in the New Document dialog box that are different than those you see in the figure.

When you create a new document by choosing File > New, you can choose from document presets like Print or Web. Each has a specific color mode. For instance, the presets in the Print category use the CMYK color mode by default. You can easily change the color mode by choosing a different option from the Color Mode menu in the Advanced Options area of the New Document dialog box.



Colors in the document are displayed in and created from the color mode you choose. After you create a document, you can change its color mode by choosing **File > Document Color Mode** and then choosing either CMYK color or RGB color from the menu.

Working with color

In this lesson, you'll learn about the many ways of coloring objects in Illustrator using a combination of panels and tools, such as the Properties panel, Swatches panel, Color Guide panel, Color Picker, and paint options in the toolbar.

In previous lessons, you learned that objects can have a fill, a stroke, or both. At the bottom of the toolbar, notice the Fill and Stroke boxes. By default, the Fill box is white, and the Stroke box is black. If you click those boxes one at a time, you'll see that whichever is clicked is brought in front of the other (it's *selected*).

● Note

The toolbar you see may be a double column, depending on the resolution of your screen.

When a color is chosen, it is applied to the fill or stroke, whichever is selected. As you explore more of Illustrator, you'll see these Fill and Stroke boxes in lots of other places, like the Properties panel, Swatches panel, and more.



Applying an existing color

Every new document in Illustrator has some default saved colors you can use in your artwork in the form of swatches in the Swatches panel.

Throughout this lesson, you'll be working on a document with a color mode that was set to CMYK when the document was created. That means that colors you create will, by default, be composed of cyan, magenta, yellow, and black.

The first color method you'll explore is applying one of those existing colors to a shape.

1. With the TeaPackaging.ai document showing, choose 1 Tea - Start from the Artboard Navigation menu in the lower-left corner of the Document window (if it's not chosen already).

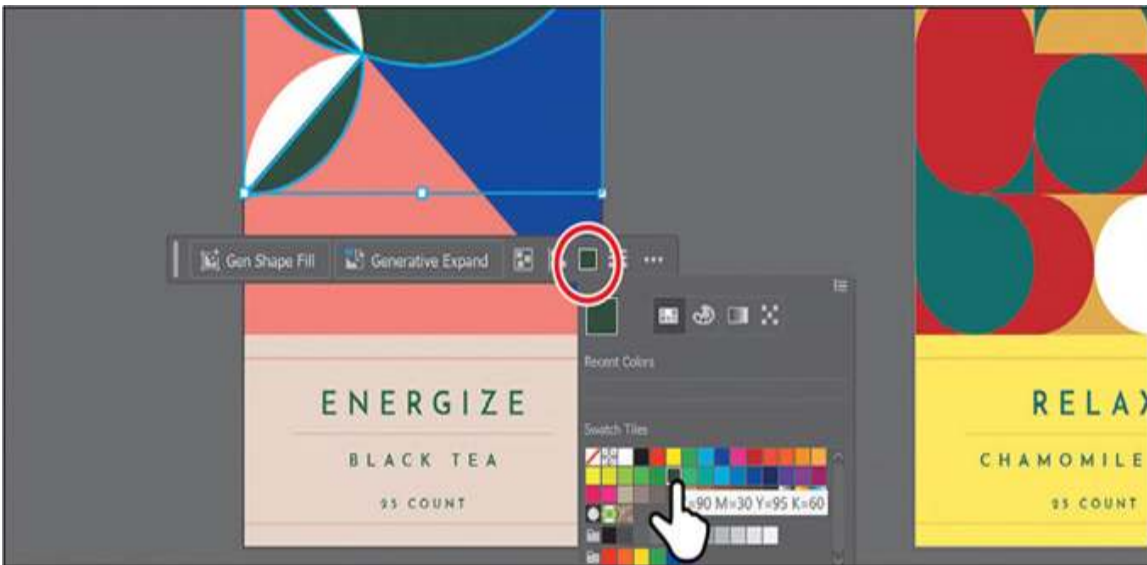
2. Choose View > Fit Artboard In Window, if the artboard doesn't fit in the window.



3. With the Selection tool (⬮), click one of the gray leaf shapes to select it. Shift-click the other two gray leaves and the gray saucer under the coffee cup to select them as well.
4. Click the Fill box (■) in the Contextual Task Bar.



5. In the panel, ensure that the Swatches button (■) is selected so you can see the default swatches (colors), as well as the custom colors saved specifically for this document.
6. Click to apply a darker green swatch to change the color of the fill.



Making a custom color

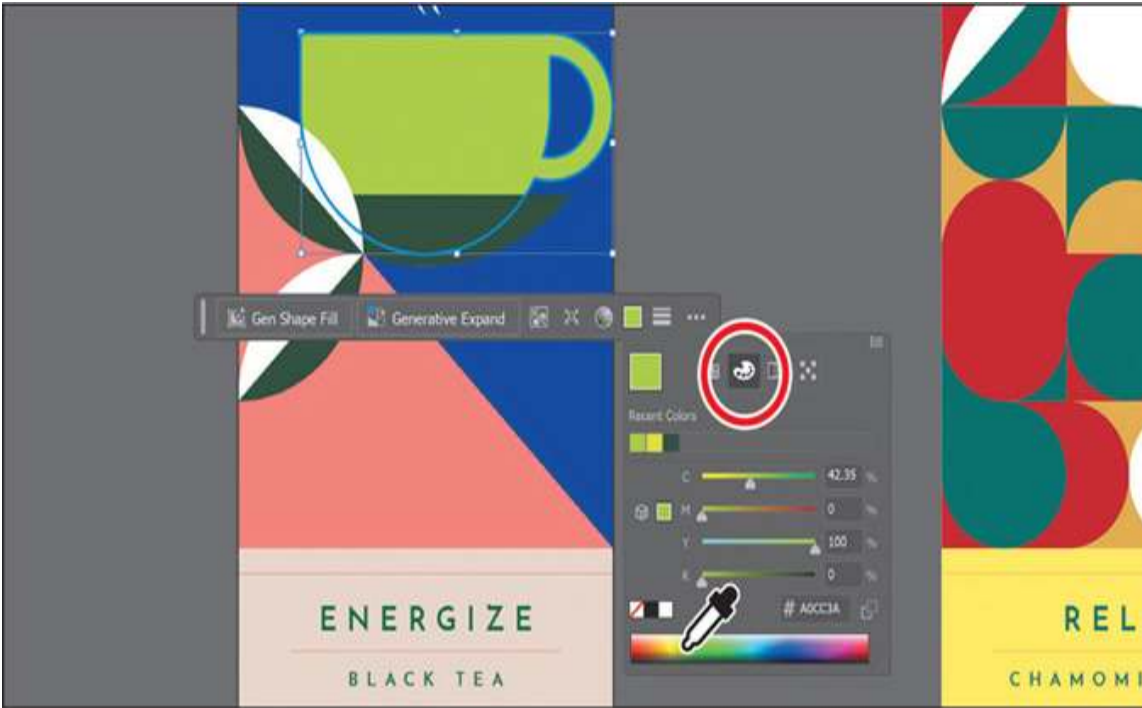
Using the Color panel (Window > Color) or Color Mixer, you can make custom colors and apply them to an object's fill and stroke. You can also edit and mix colors using different color models (CMYK, for example). In the Color panel and Color Mixer, you can make colors in various ways. Next, you'll create a custom color using the Color Mixer.

1. Select the black coffee cup, and then click the Fill box (■) in the Contextual Task Bar.
2. Click the Color Mixer button (🎨) at the top of that panel (circled in the following figure).
3. At the bottom of the panel, click the yellow-green part of the color spectrum to sample a yellow-green color, and apply it to the fill.

► Tip

To see a larger color spectrum, you can open the Color panel (Window > Color) and drag the bottom of the panel down.

Because the spectrum bar is so small, you most likely won't achieve the same color as you see in the book. That's okay, because you'll edit it to match next.

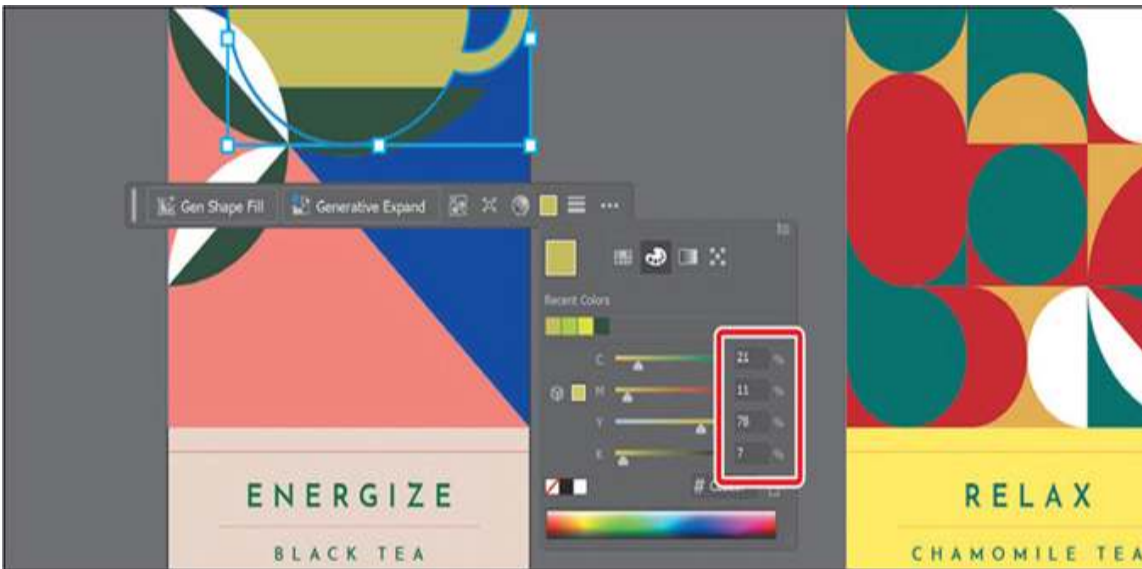


4. In the Color Mixer panel, which should still be showing, type the following values in the CMYK fields: C=21, M=11, Y=78, K=7.

► **Tip**

Don't see CMYK in the panel? Choose CMYK from the panel menu (☰).

5. Press Return (macOS) or Enter (Windows) after the last value entered to make a yellow-green color. Leave the shape selected.



Colors created in the Color Mixer panel are not saved anywhere except in the fill or stroke of the selected artwork. If you want to reuse the color you just created elsewhere in this document, you can save it as a swatch in the Swatches panel.

Saving a color as a swatch

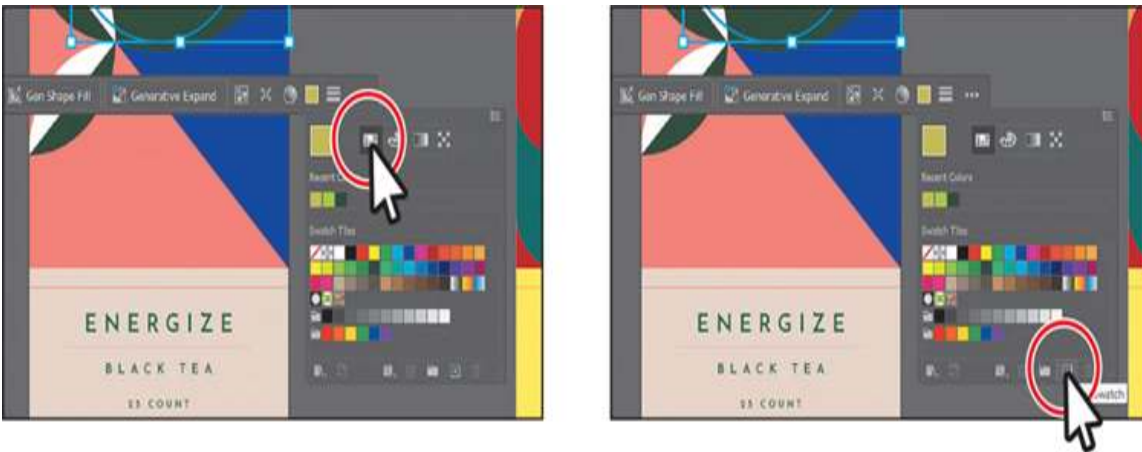
You can save different types of colors, gradients, and patterns in a document as swatches so that you can apply and edit them later. Swatches are listed in the Swatches panel in the order in which they were created, but you can reorder or organize the swatches into groups to suit your needs.

All documents start with a default number of swatches, as mentioned earlier. Any colors you save or edit in the Swatches panel are available only to the current document, by default, because each document has its own defined swatches.

Next, you'll save the color you just created as a swatch so you can reuse it later.

1. With the coffee cup still selected, click the Fill box (■) in the Contextual Task Bar to show the panel again.
2. Click the Swatches button (■) at the top of the panel to see the swatches.

3. Click the New Swatch button (🎨) at the bottom of the panel to create a swatch from the fill color of the selected artwork.



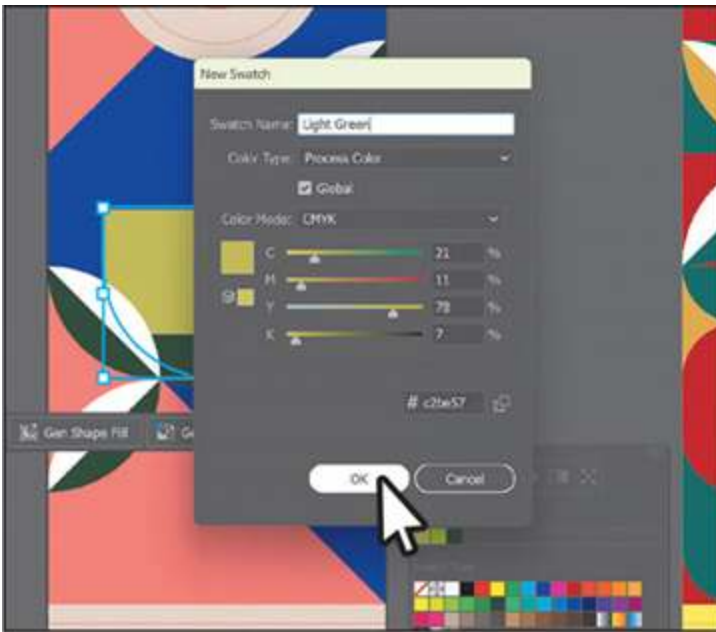
4. In the New Swatch dialog box that appears, change the swatch name to **Light Green**.

► **Tip**

Naming colors can be an art form. You can name them according to their values (C=45, ...), appearance (light orange), or description (like “text header”), among other attributes.

Notice the Global option is selected? New swatches you create are global by default.

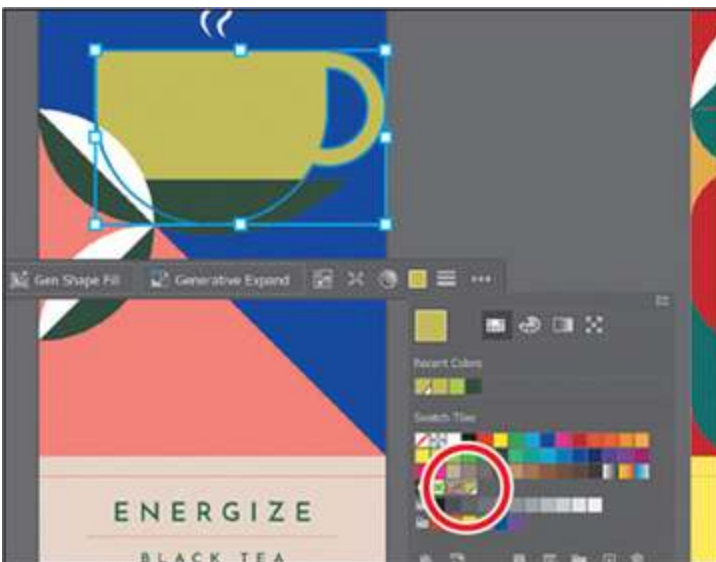
A *global swatch* is a swatch that is updated everywhere it’s applied anytime the color is changed, regardless of whether the artwork is selected. Also, the Color Mode menu lets you change the color mode of a specific color to RGB, CMYK, Grayscale, or another mode.



5. Click OK to save the swatch.


You'll see that the new Light Green swatch is highlighted in the Swatches panel and has a white border around it. That's because it's applied to the selected coffee cup.

Also, notice the little white triangle (▲) in the lower-right corner of the swatch, which indicates that it's a global swatch.




Creating a copy of a swatch

One of the easiest ways to create and save a color as a swatch is to make a copy of an existing swatch and edit the color of the copy. Follow these steps to create a swatch copy:



1. With a shape that has a swatch applied to it selected, click the Fill or Stroke color box in the Properties panel.
2. Make sure the swatches are showing. Click the New Swatch button () at the bottom of the panel. This creates a copy of the selected swatch and opens the New Swatch dialog box.

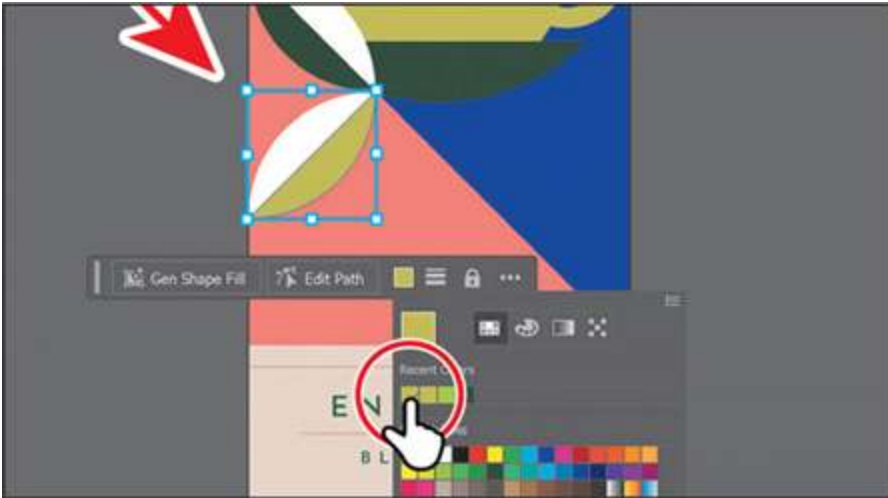
Tip

You can also choose Duplicate Swatch from the Swatches panel menu () to create a copy of a selected swatch.

Editing the global swatch

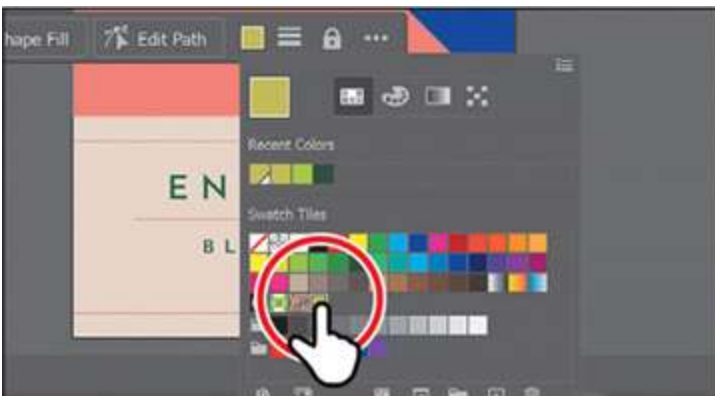
Next you'll edit the global color you just made. When you edit a global color, Illustrator updates *all* artwork with that swatch applied, regardless of which artwork is or isn't selected. You'll apply the Light Green swatch to the shape and then change the color.

1. With the Selection tool () , click the bottom-most green leaf.
2. Click the Fill box () in the Contextual Task Bar, and click to apply the swatch named Light Green in the Recent Colors area toward the top of the panel. Leave the panel of swatches showing.



3. Double-click the Light Green swatch in the Swatches panel to edit it.

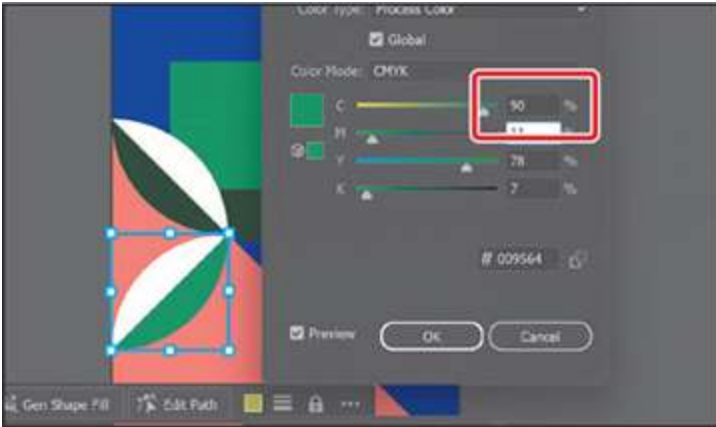
As of this writing, you cannot double-click the swatch in the Recent Colors. You may need to drag the dialog box by the top title bar to see the whole dialog box and the coffee cup and leaf shapes.



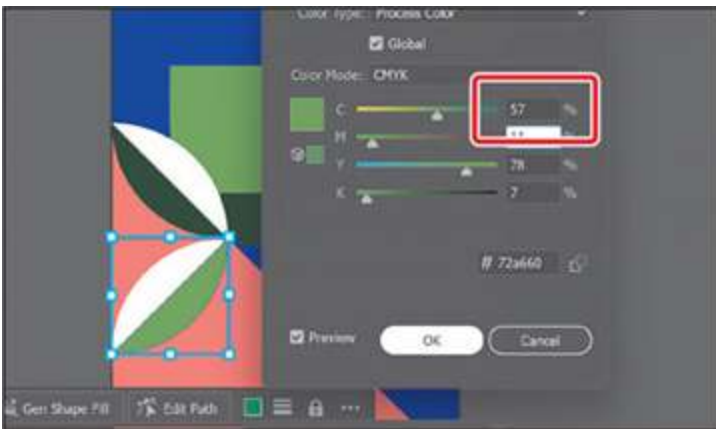
4. In the Swatch Options dialog box select Preview, if necessary, to see the change:

- Change the C (Cyan) value to **90**.
- Click in another field in the dialog box to see the change happen.

Notice that both shapes with the global swatch applied are updated—even though the coffee cup isn't selected.



5. Change the C (Cyan) value to **57**, and click OK.



Editing a non-global swatch

The default color swatches that come with each Illustrator document are *non-global* swatches by default. As a result, when you edit one of those color swatches, the artwork that uses the color will update only if that artwork is selected.

Next, you'll edit the non-global green swatch you applied to the fill of the dark green leaves.

1. With the Selection tool (▸), click to select one of the dark green leaves. See the following figure.
2. Click the Fill box (■) in the Contextual Task Bar, and you'll see that the dark green swatch is applied to the fill.



This was the first color you applied at the beginning of this lesson.

You can tell that the dark green swatch is *not* a global swatch because it doesn't have the small white triangle (▲) in the lower-right corner of the swatch in the Swatches panel.

3. Click away from the Swatches panel to hide it.

4. Choose Select > Deselect.

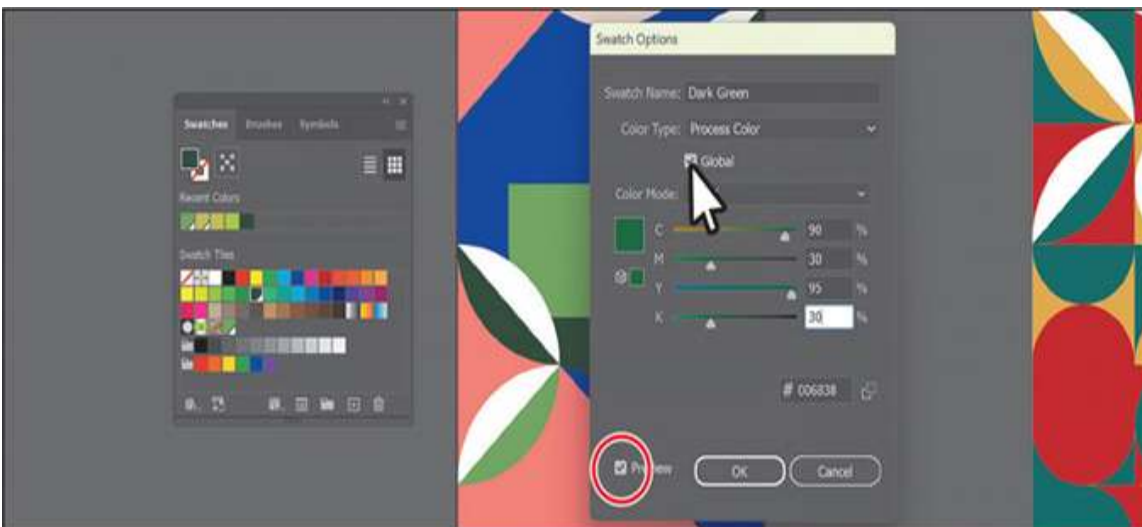
Opening the Swatches panel can be a useful way to, for instance, work with color without having to select artwork.

5. Choose Window > Swatches to open the Swatches panel as a separate panel.

6. Double-click the same dark green swatch to edit it.



7. In the Swatch Options dialog box, change the name to **Dark Green** and the K (Black) value to **30**, select Global to ensure that it's a global swatch, and select Preview.



Notice that none of the dark green leaves changed. That's because Global wasn't selected in the Swatch Options dialog box when the color was applied to them. After changing a non-global swatch, you need to reapply it to artwork.

8. Click OK.
9. Click the X at the top of the Swatches panel group to close it.
10. Select one of the dark green leaves, and then Shift-click to select the other *dark* green leaf and dark green cup saucer (under the coffee cup).
11. Click the Fill box (■) in the Contextual Task Bar, and notice that what was the Dark Green color swatch is no longer applied.



12. Click the Dark Green swatch you just edited to apply it.



Using the Color Picker to create color

Another method for creating color is to use the Color Picker. The Color Picker lets you select a color in a color field or spectrum by defining colors numerically or clicking a swatch. You'll also find the Color Picker in Adobe applications like InDesign and Photoshop. To try it out you'll create a color using the Color Picker and then save that color as a swatch in the Swatches panel.

1. Choose Select > Deselect.
2. Select the deep royal blue shape behind the coffee cup.
3. Double-click the deep royal blue Fill box (■) at the bottom of the toolbar, to open the Color Picker.



In the Color Picker dialog box that opens, the larger color field shows saturation (horizontally) and brightness (vertically). The color spectrum bar to the right of the color field shows the hue.

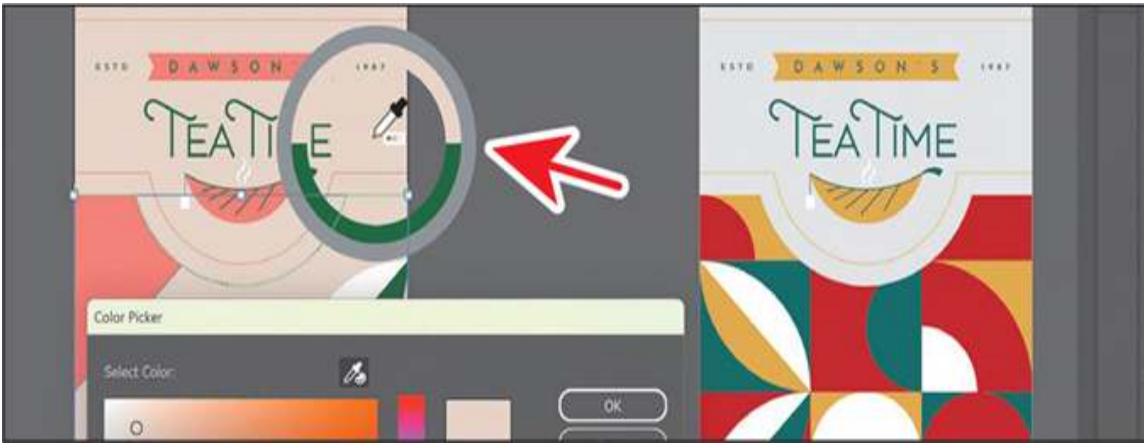
4. In the Color Picker dialog box, click the Eyedropper button (🔍) to be able to sample color. It's circled in the following figure.



5. Click the light pink area at the top of the artwork to sample that color.

● **Note**

You may not see the ring around the Eyedropper and that's okay.

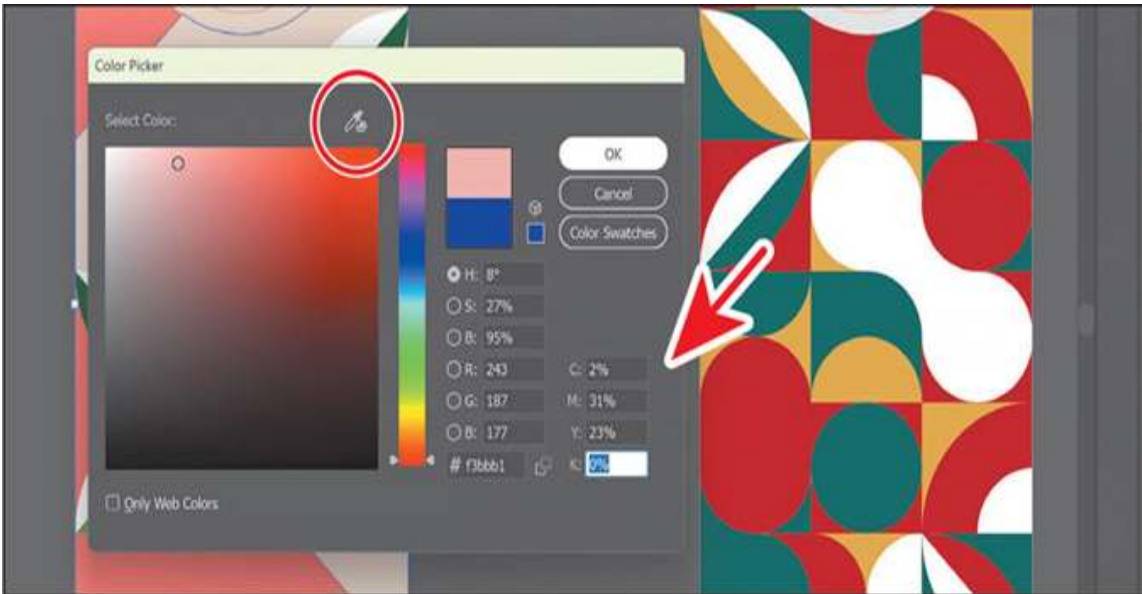




Next, you'll enter color values so we all have the same color.

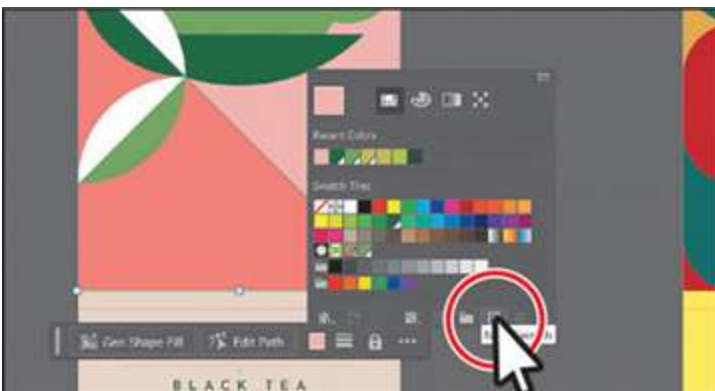
6. In the Color Picker dialog box, click the Eyedropper button to stop sampling and turn it "off."
7. In the CMYK fields, change the values to C=2, M=31, Y=23, and K=0.

Note

The Color Swatches button in the Color Picker shows you the swatches in the Swatches panel and the default color books (the sets of swatches that come with Illustrator). It also lets you select a color from one. You can return to the color spectrum by clicking the Color Models button and then editing the swatch color values, if necessary.

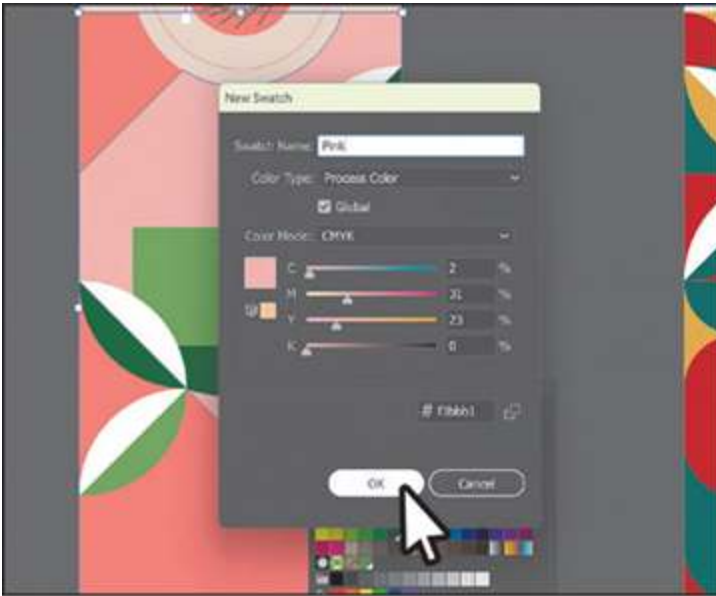


8. Click OK, and you should see that the pink color is applied to the background shape.
9. To save the color as a swatch so you can reuse it, click the Fill box () in the Contextual Task Bar to show the swatches.
10. Click the New Swatch button () at the bottom of the panel.



11. Change the following options in the New Swatch dialog box:

- Swatch Name: **Pink**
- Global: Selected (the default setting)



12. Click OK to see the color appear as a swatch in the Swatches panel.

13. Choose Select > Deselect.

14. Choose File > Save.



Using Illustrator swatch libraries

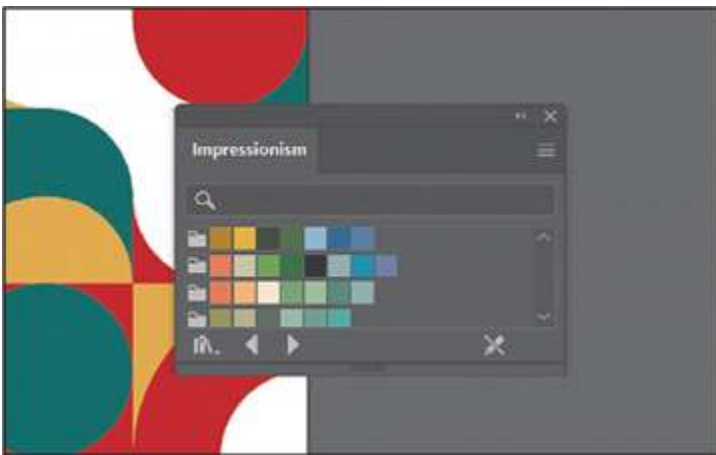
Swatch libraries are collections of preset colors, such as TOYO and others, as well as thematic libraries, such as Earthtone and Ice Cream. Illustrator has default swatch libraries that appear as separate panels and can't be

edited when you open them. Swatch libraries are a great starting point for creating colors.

Let's apply a color from a library to the artwork.

1. Choose 2 Tea - Tint from the Artboard Navigation menu in the lower-left corner of the Document window.
2. Choose Window > Swatch Libraries > Art History > Impressionism.

The Swatch Libraries option is toward the bottom of the Window menu.



3. With the Selection tool (🖱), click one of the red shapes. A group of red shapes is now selected.

► **Tip**

If you know the name of a color, you can type the name in the search field at the top of the panel to filter the list.

● **Note**

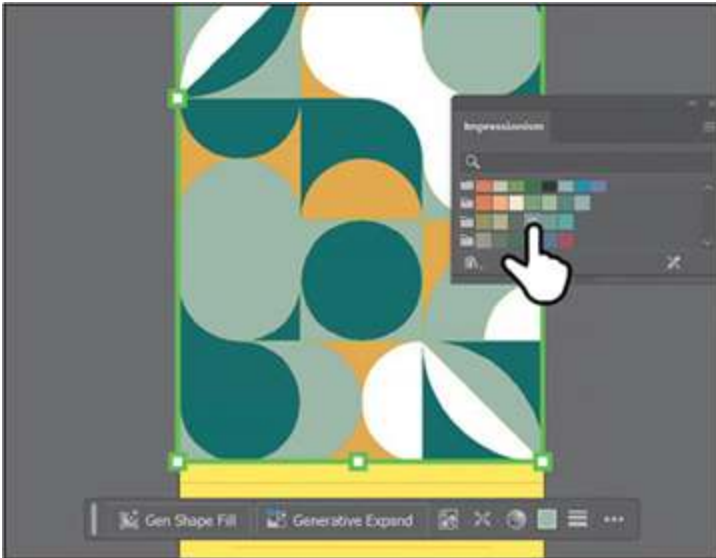
If you exit Illustrator with a color library panel still open and then relaunch Illustrator, the panel does not reopen. To automatically open the panel whenever Illustrator opens, choose Persistent from the panel menu (☰).



4. In the Impressionism panel, find a lighter green color. Click the color swatch to apply it to the shape.

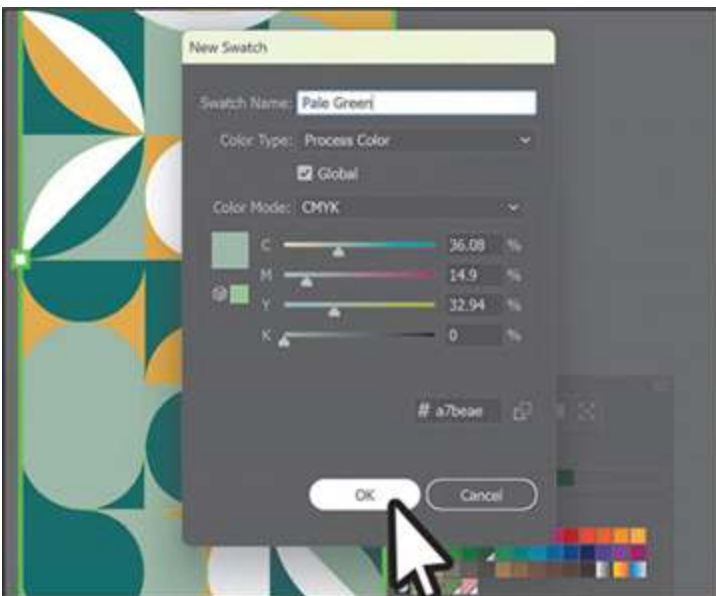
I chose a color with a value of C=36, M=15, Y=33, K=0. See the figure for which.

5. Close the Impressionism panel.



6. Click the Fill box (□) in the Contextual Task Bar to show the swatches, click the New Swatch button (+) at the bottom of the panel, and change the following options in the New Swatch dialog box:

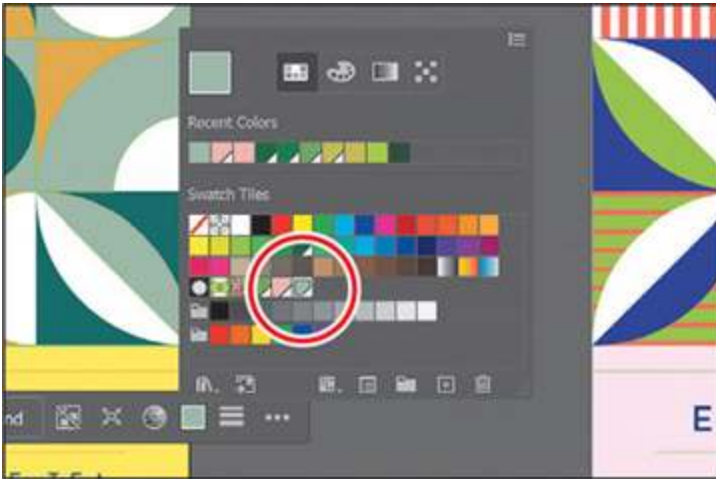
- Swatch Name: **Pale Green**
- Global: Selected (the default setting)



7. Click OK.

You should see the color now in the Swatches panel.

8. Choose Select > Deselect, and then choose File > Save.



Pantone colors

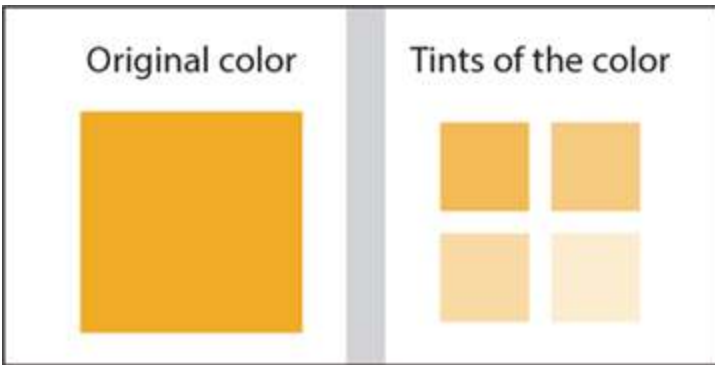
Color system manufacturers like Pantone create standardized colors for relaying color information across apps like Adobe Photoshop, Illustrator, and InDesign.

Customers who rely on Pantone colors in their creative workflows will need a Pantone license via the Pantone Connect plugin available on Adobe Exchange.

To learn more about these color libraries, visit helpx.adobe.com/illustrator/kb/pantone-color-books-illustrator.xhtml.

Creating and saving a tint

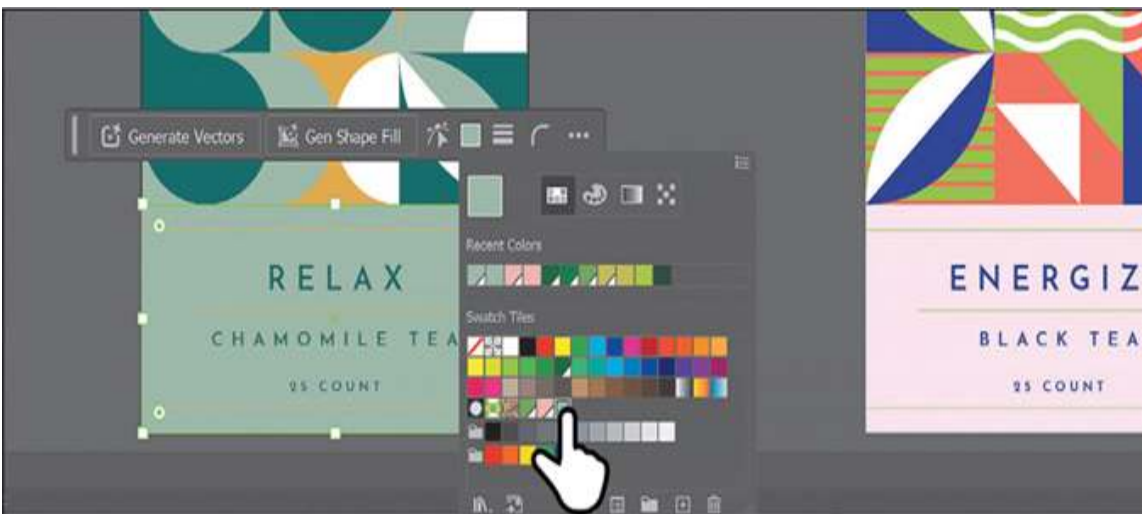
A tint is a lighter version of a color. You can create a tint from a global process color, like CMYK, or from a spot color. Next, you'll create a tint of the pale green swatch you added to the document to make the background a new color.



1. With the Selection tool (🖱️), click the yellow shape at the bottom of the tea label.



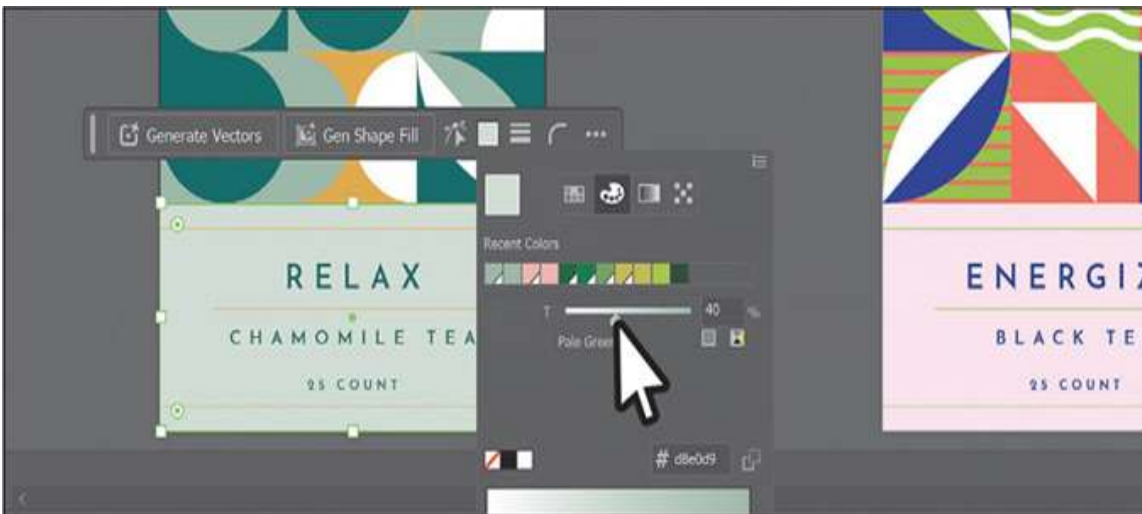
2. Click the Fill box in the Contextual Task Bar (🟡). Select the Pale Green swatch to fill the shape. Leave the panel open.



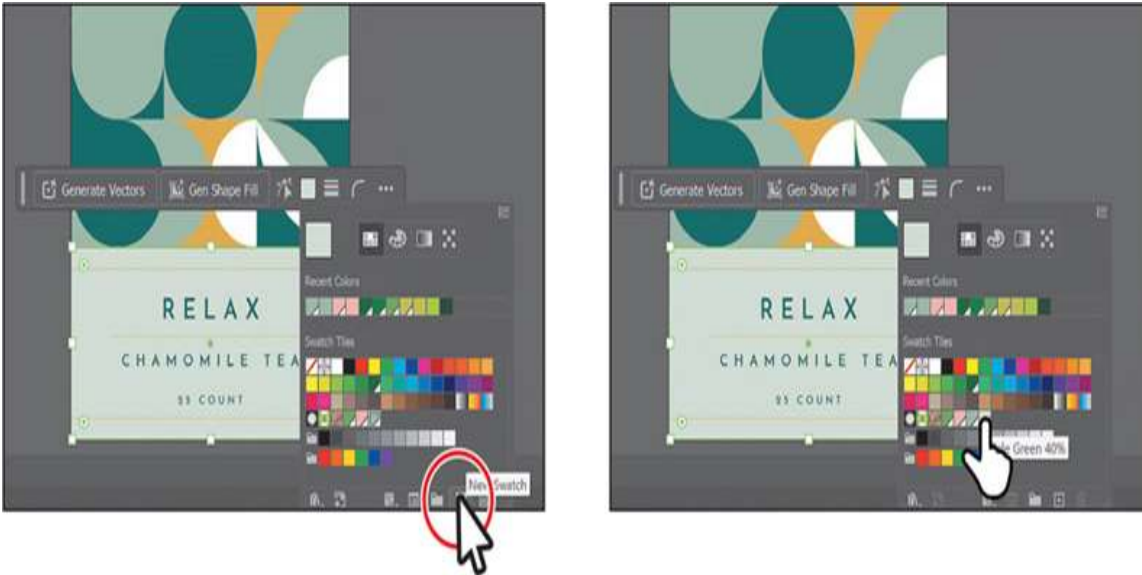
3. Click the Color Mixer button (🎨) at the top of the panel.

In the section “[Making a custom color](#),” you created a custom color using the Color Mixer sliders. In that section, you were creating a custom color from scratch—that’s why there were CMYK sliders. Now you’ll see a single slider labeled T for tint. When using the Color Mixer for a global swatch, you create a tint instead of mixing CMYK values.

4. Drag the Tint slider to the left to change the tint value to 40%.



5. Click the Swatches button (📁) at the top of the panel to show the swatches. Click the New Swatch button (⊕) at the bottom of the panel to save the tint.
6. Move the pointer over the swatch icon to see its name, which is Pale Green 40%.



7. Choose Select > Deselect, and then choose File > Save.

Converting colors

Illustrator offers commands for selected artwork that allow you to convert colors between color modes, which is useful for making color artwork grayscale, blending colors, inverting colors, and much more. Perhaps you can no longer justify the added cost of adding a spot color. You can convert the spot color to CMYK and get something close to the original result at a lower price.

1. Select all artwork you want to convert.
2. Choose Edit > Edit Colors > Convert To CMYK (or whichever mode you want).

Copying appearance attributes

Using the Eyedropper tool (👉), you can copy appearance attributes, such as text formatting, fill, and stroke, from one object to another. This can speed up your creative process.

For instance, another shape in the background of the tea label needs the pale green color applied. You could have applied it in the last section, or you could simply apply the Pale Green swatch now. But sometimes you just need to get a color applied quickly.

1. With the Selection tool (▢), select the light gray shape behind the text at the top of the tea label.



2. Select the Eyedropper tool (🔍) in the toolbar.

► **Tip**

You can double-click the Eyedropper tool in the toolbar before sampling to change the attributes that the Eyedropper picks up and applies.



3. Press the Shift key and click in the shape to which you applied the tint at the bottom of the label. See the figure.

The Shift key shows a sampling ring, which indicates which color will be sampled. The once gray shape now has the attributes from the tint-filled shape.

4. Select the Selection tool (▢).
5. Choose Select > Deselect, and then choose File > Save.


Exploring color groups

In Illustrator, you can save colors in *color groups*, consisting of related color swatches in the Swatches panel. To learn how to create and organize colors in groups, check out the video *Exploring color groups*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Using the Color Guide panel for creative inspiration

The Color Guide panel can provide you with color inspiration as you create your artwork. You can use it to pick color tints, analogous colors, and much more, and then apply them directly to artwork, edit them using several methods, or save them as a group in the Swatches panel.

Next, you’ll select a color from another tea label, and then use the Color Guide panel to create new colors based on that original color.

1. Choose 3 Tea - Recolor 1 from the Artboard Navigation menu in the lower-left corner of the Document window.
2. With the Selection tool () , click the light pink background behind the Tea Time text.



3. Make sure that the Fill box is selected.

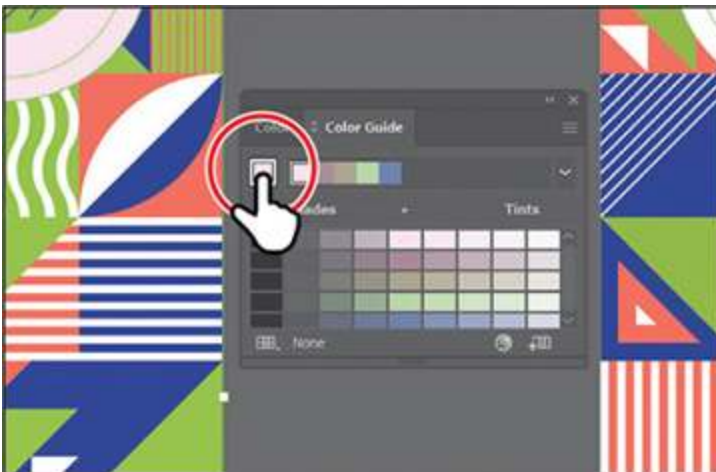
That way, the fill is what you will be using as the base color for exploration.

4. Choose Window > Color Guide to open the panel.



5. In the Color Guide panel, click the Set Base Color To The Current Color button (□) (circled in the figure).

The Color Guide panel suggests colors based on the color showing in the Set Base Color To The Current Color button. The colors you see in the Color Guide panel may differ from what you see in the figure. That's okay. Next, you'll experiment with colors using harmony rules.

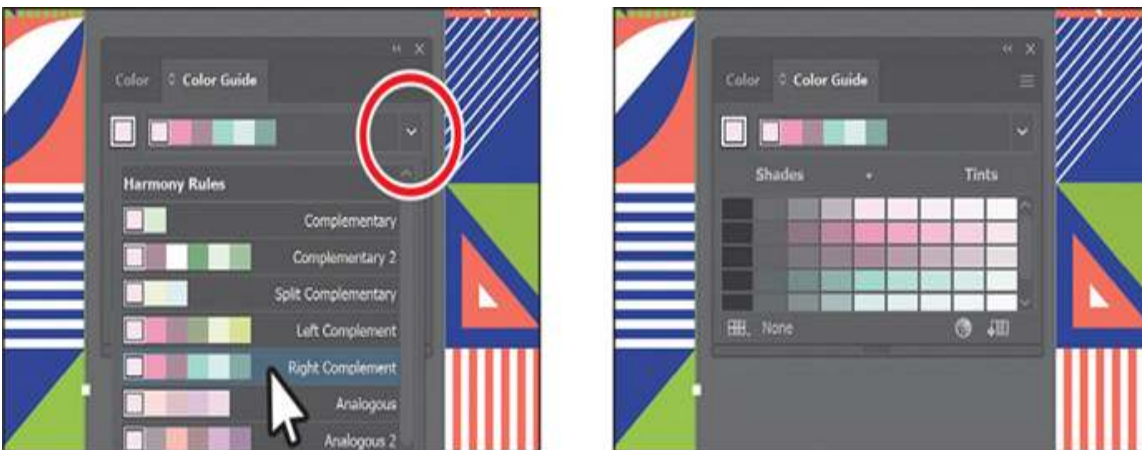


6. Choose Right Complement from the Harmony Rules menu in the Color Guide panel.

► **Tip**

You can also choose a different color variation (different from the default Tints/Shades), such as Show Warm/Cool or Vivid/Muted, by clicking the Color Guide panel menu icon (☰) and choosing one.

A base group of colors is created to the right of the base color (light pink), and a series of tints and shades of those colors appears in the body of the panel. There are lots of harmony rules to choose from, each instantly generating a color scheme based on any color you want. The base color you set (light pink) is the basis for generating the colors in the color scheme.



Applying colors from the Color Guide panel

After creating colors with the Color Guide panel, you can either click a color in the Color Guide panel to apply it to selected artwork or apply colors you saved in the Swatches panel as a color group. Next, you'll apply a color from the Color Guide panel to the tea label for the packaging.

► **Tip**

If you click the Save Swatch Group To Swatch Panel button (📁) at the bottom of the Color Guide panel, the top colors in the Color Group panel are saved in the Swatches panel as a group.

1. Select one of the bright green shapes in the tea label artwork.

2. To select all of the shapes with the same fill, choose Select > Same > Fill Color.



3. Select a pink color in the Color Guide panel to apply it.

After selecting a color, it becomes the base color in the Color Guide panel.



4. Click the base color (see the figure). The colors in the panel are now based on that new color, using the Right Complement rule you set previously.

Using this method, you could continually explore different colors based on the current color.



5. Close the Color Guide panel group.

Using Recolor Artwork to edit colors in artwork

Updating a series of colors in artwork one at a time can be tedious, but using Recolor Artwork you can manually edit colors, sample colors from other artwork or an image, change the number of colors, map an existing color to a new color, and do much more.

Recoloring artwork

Next, you'll use Recolor Artwork to change the color of another tea label.

1. Choose 4 Tea - Recolor 2 from the Artboard Navigation menu in the lower-left corner of the Document window.
2. To select the entire tea package label, choose Select > All On Active Artboard.
3. Click the Recolor button (🌐) in the Contextual Task Bar to open the Recolor Artwork dialog box.



● **Note**

If you don't see the Recolor button in the Contextual Task Bar, you can click the Recolor button in the Properties panel.

The options in the Recolor Artwork dialog box allow you to edit, sample, or reduce the colors in your selected artwork together or separately, and to save colors you create in groups.

● Note

The Recolor Artwork dialog box will close if you click away from the selected artwork.



► Tip

If you need to move the Recolor Artwork dialog box, you can drag it by the top.

You'll see a color wheel in the middle of the dialog box (an arrow is pointing to it in the figure). The colors in the selected tea label are each represented on the color wheel as circles, called *handles*. You can edit the colors individually or together visually by dragging or precisely by double-clicking a handle and entering specific color values in the Color Picker dialog box.

You can choose colors from a color library and even change the number of colors in the selected artwork—maybe to make the artwork a single color with tints of that color applied.

4. Drag the larger salmon-pink handle (circle) to another part of the color wheel.



Notice how all of the colors changed. That's because they are linked together.

● **Note**

The largest circle on the color wheel, the salmon-pink color, is the base color. If you were to pick a color harmony, like you did in the Color Guide panel, the resulting colors would be based on that base color.

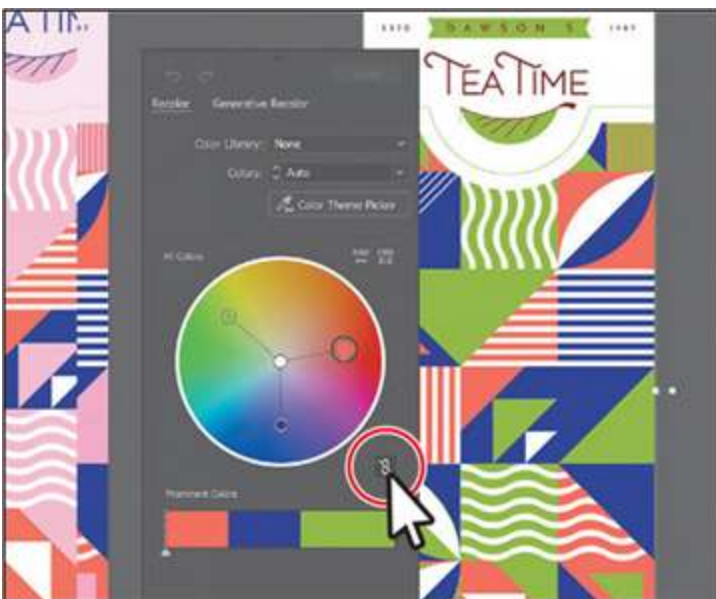
5. To return all of the colors to their original color, click the Reset button in the upper-right of the dialog box.

Now, instead of dragging in the color wheel to change color—maybe you have a specific color value you need to enter—you'll use a different method. First, you'll make it so you can edit one color at a time.



6. Click the Link Unlink Harmony Colors icon (🔗) to disable it. The icon should now look like this: 🔗.

You can now edit the colors independently.

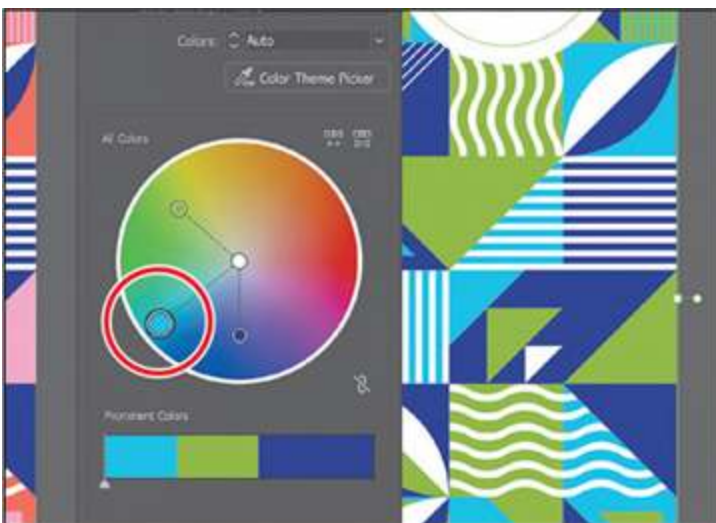


7. Double-click that same salmon-pink handle (circle) to open the Color Picker. Change the color to something else, like a light blue. Click OK.



After clicking OK, notice that only that handle has moved in the color wheel. Why? Because you unlinked the harmony colors before you started editing the color.

8. Leave the artwork selected and the Recolor Artwork dialog box open.



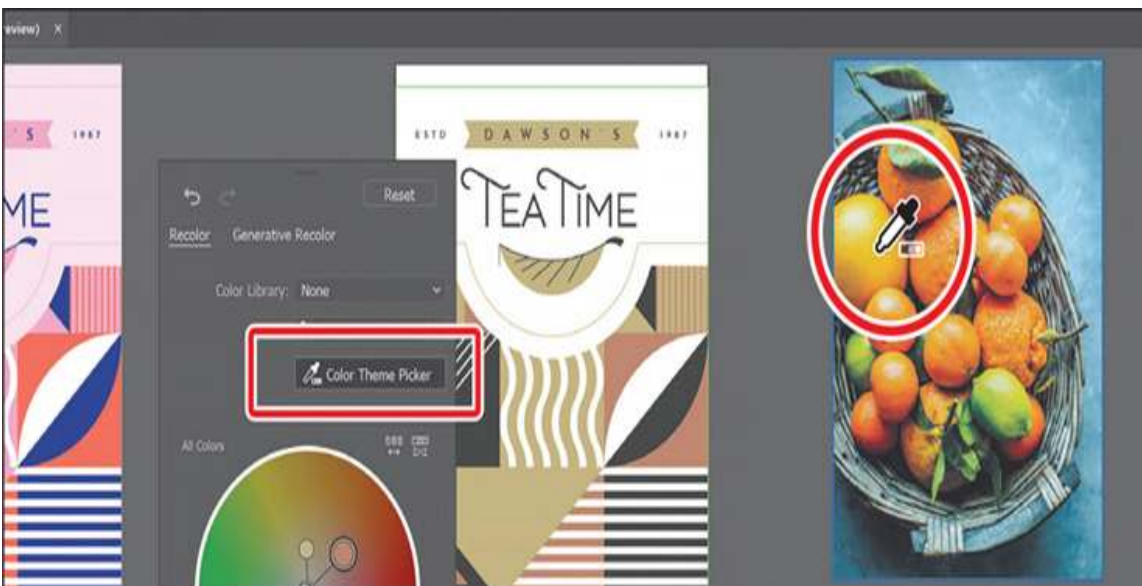
Sampling color in Recolor Artwork

Next, you'll experiment further and see how to use Recolor Artwork to sample color from an image and from vector artwork to apply that color to the same tea label.

1. If necessary, drag the Recolor Artwork dialog box by the top so you can see the image of fruit and the shop artwork.
2. Click the Color Theme Picker button in the Recolor Artwork dialog box. Click in the image of the fruit to sample the colors from the entire image and apply them to the artwork.

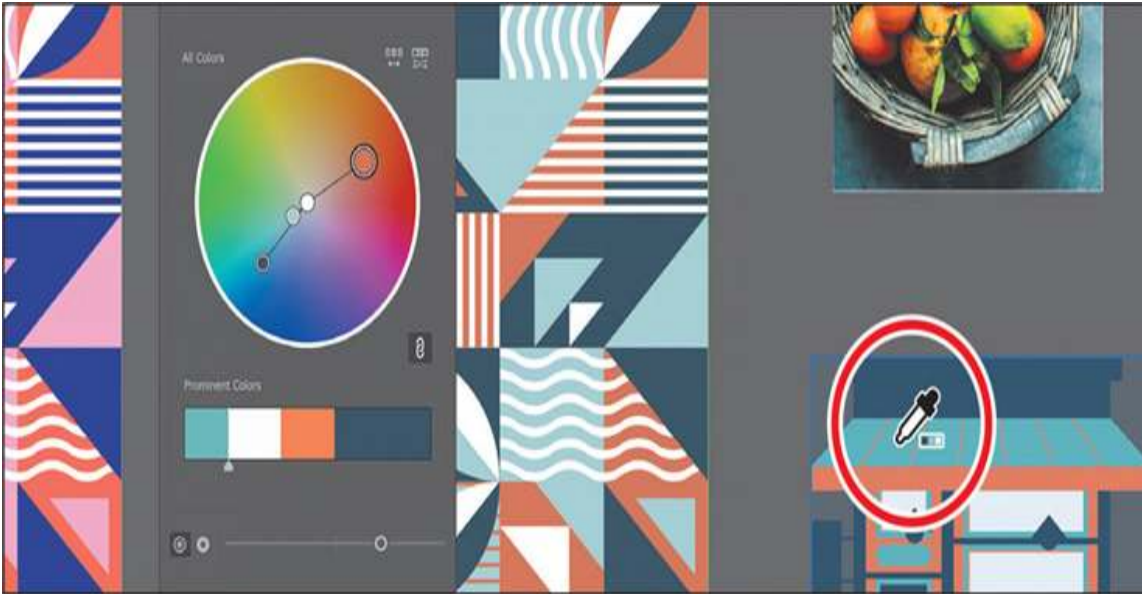
● **Note**

The colors you see applied to the selected artwork will probably be different and that's okay.



The colors are more muted than in the image because it is keeping in mind the tints and shades of the original colors.

3. Click the shop vector artwork below the fruit image to sample the colors and apply them to the tea label.



If you click a single vector object, like a shape, the color is sampled from that single object. If you click a group of objects, like the shop artwork, the color is sampled from all the objects within the group.

► **Tip**

You can also select part of the artwork to sample color from. Simply drag a selection around the part of the artwork you want to sample color from.

4. Click the Color Theme Picker button in the Recolor Artwork dialog box to stop sampling color.
5. Click the Show Saturation And Hue On Color Wheel button toward the bottom to see brightness and hue on the color wheel (circled in the following figure).
6. Drag the slider to the right to adjust the overall saturation. When you release it, the colors will change.

● **Note**

You may or may not see white in your Prominent colors and that's okay. It depends on how saturated you make the colors.



The colors in the tea label are also shown in the Prominent Colors section below the color wheel. The relative sizes of the color areas in that bar is meant to give you an idea of the percentage of area each color occupies in the artwork. Depending on where you dragged the saturation slider, your prominent colors bar may look different. In my case, the aqua color is a bit more prominent, so it shows as larger in the Prominent Colors section.

As a last step, you'll save the colors as a group in the Swatches panel.

7. Click the folder icon (📁) at the bottom of the panel, and choose Save Prominent Colors to save the prominent colors as a group in the Swatches panel.

If the Swatches panel group opens, you can close it.



8. Choose Select > Deselect.

With the tea label artwork no longer selected, the Recolor Artwork dialog box will close.

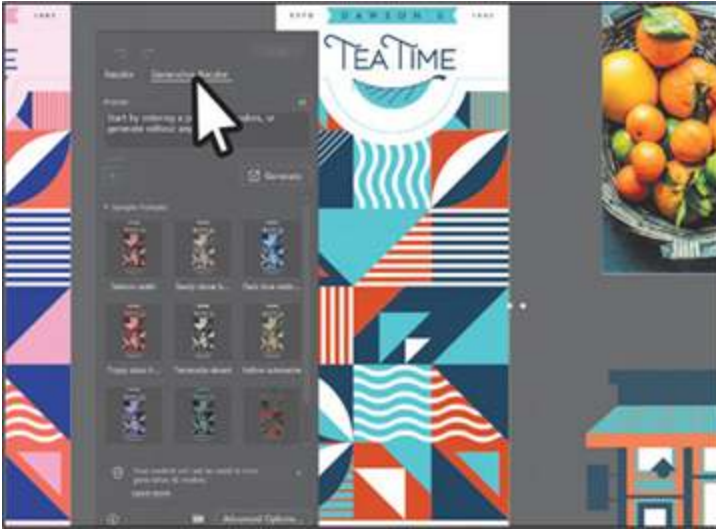
Making color variations with sample prompts using Generative Recolor

In the Recolor Artwork dialog box, you'll find a feature called Generative Recolor. Generative Recolor is part of a suite of AI-powered capabilities powered by Adobe Firefly (firefly.adobe.com). You can recolor artwork using text prompts to achieve quick color variations with it.

Let's experiment with Generative Recolor; then, you can explore on your own!

- 1.** To select the entire same tea package label again, choose Select > All On Active Artboard.
- 2.** Click the Recolor button (🌍) in the Contextual Task Bar or the Recolor button in the Properties panel to open the Recolor Artwork dialog box.
- 3.** Click Generative Recolor at the top of the dialog box.

With Generative Recolor, you can either try one of the sample prompts to generate color variations of your artwork or enter your custom prompt to see color variations.



4. Click one of the sample prompts in the dialog box. I chose the prompt *Dark blue midnight*.



5. Click Generate to create color variations of your selected artwork in the panel.

● **Note**

You might see a dialog box referring to Generative Credits. Go ahead and dismiss it if you do.

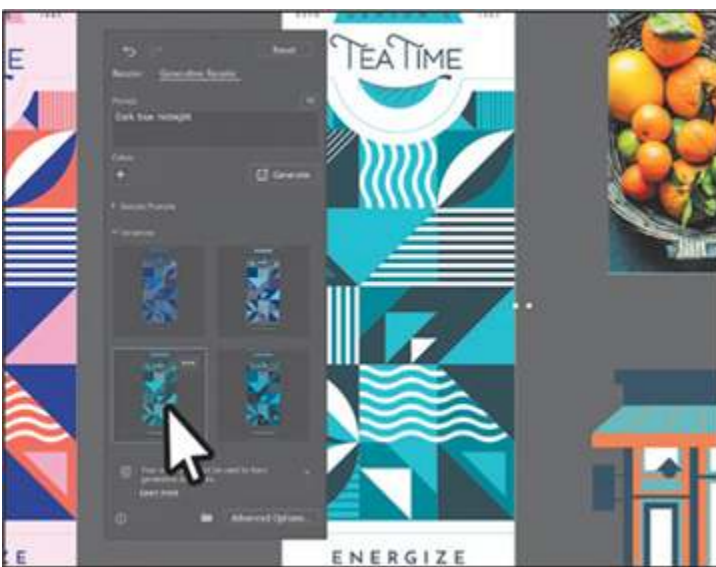


6. Click one of the variation thumbnails to apply it to your tea packaging artwork.

● **Note**

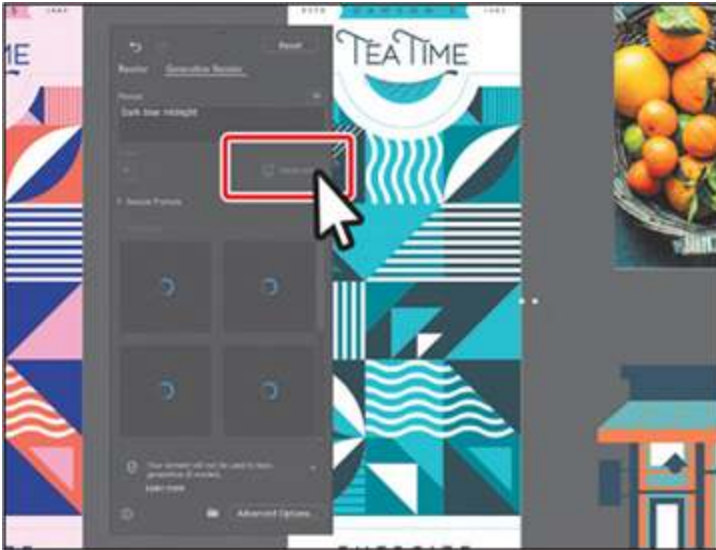
The variations you see in your Recolor Artwork dialog box will most likely differ from those in the figure. That's the nature of generating color!

Suppose you don't like what was generated. You can always ask Illustrator to generate more variations.



7. Click Generate to try again.

New variations now appear in the dialog box. You can either select one to apply the color to your artwork, generate more variations, or create a custom prompt, which is what you'll do next.



Making color variations with custom prompts using Generative Recolor

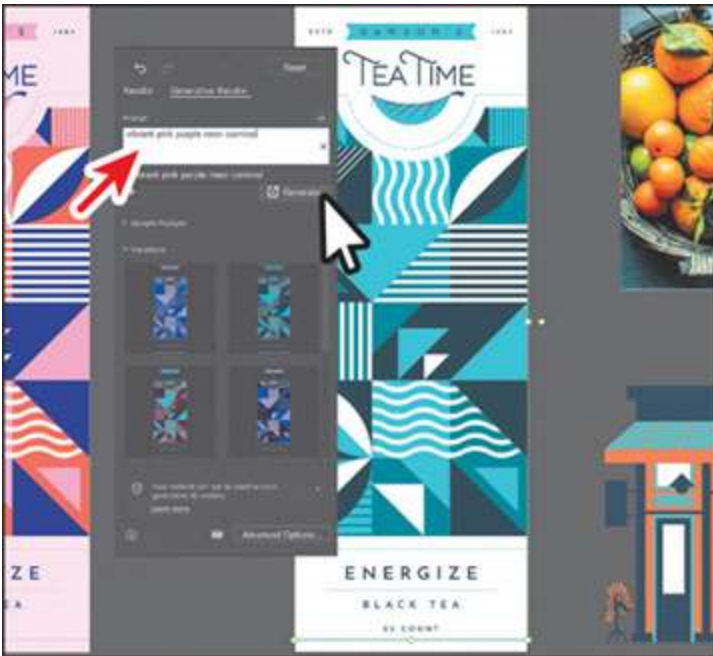
You'll add a custom prompt to make some color variations this time. Crafting effective text prompts is a bit of an art form, but let's give it a try.

Suppose the tea brand wants to go with vibrant pinks and purples and a color palette closer to a carnival theme.

- 1.** In the Generative Recolor dialog box, type **vibrant pink purple neon carnival** in the Prompt field.

► **Tip**

Visit Adobe Help (helpx.adobe.com/illustrator/desktop/use-generative-ai/recolor-artwork-with-generative-recolor.xhtml) for more tips on writing prompts.

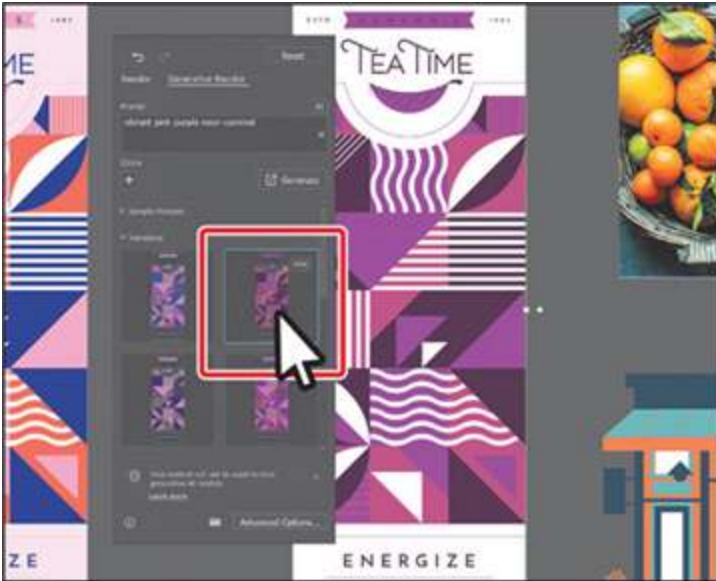


2. Click Generate.

A selection of variations is made. If you don't like any of them, you can click Generate again and select one you like!

3. Click a variation thumbnail you would like to apply to the tea label.

Here's a tip for you: You aren't stuck with the result! Think about the previous sections, where you explored the Recolor options. You can click the Recolor option at the top of the dialog box and continue exploring color by editing the number of colors, the colors together, and each color independently.



4. Choose **Select > Deselect**.

5. Choose **File > Save**.

Working with Live Paint

Live Paint lets you paint vector graphics intuitively by automatically detecting and correcting gaps that might otherwise affect the application of fills and strokes. Painting objects with Live Paint is like coloring in a coloring book or using watercolors to paint a sketch. The underlying shapes are not edited.

Note

To learn more about Live Paint and all that it can do, search for “Live Paint groups” in Illustrator Help (Help > Illustrator Help).

Creating a Live Paint group

To start, you’ll turn another tea label design into a Live Paint group so you can edit the colors using the Live Paint Bucket tool (.

1. Choose **5 Tea - Live Paint** from the Artboard Navigation menu in the lower-left corner of the Document window.

2. Select the Selection tool (▀), and double-click the coffee cup in the center of the artboard to enter Isolation mode for the group that it's in.



3. Select the Line Segment tool (↖), nested under the Rectangle tool, in the toolbar so you can draw a few lines.



4. Drag to make a line across the pink background shape, like you see in the figure.
5. Ensure that the stroke and fill colors are both None (☐) in the Properties panel.



6. Now make another line below the coffee cup, starting where the leaves meet, down past the corner of the pink background. See the figure.

Right now, the lines aren't making a visual difference. But soon you'll be able to use them to define where a fill color ends.

7. Press the Escape key to exit Isolation mode.
8. Select the Selection tool, and click the coffee cup to select the group again.
9. With the group still selected, choose Object > Live Paint > Make.

► Tip

You can convert selected artwork to a Live Paint group by clicking it with the Live Paint Bucket tool selected. You'll explore the Live Paint Bucket tool next.

The whole coffee cup group is now a Live Paint object. Notice that the points on the bounding box have changed (⊠). One of them is circled in the figure.



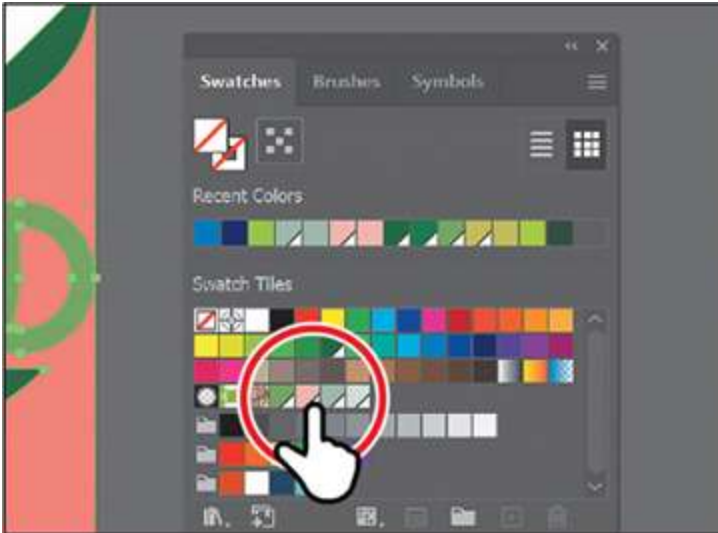
Painting with the Live Paint Bucket tool

With objects converted to a Live Paint group, you can paint them with the Live Paint Bucket tool using several methods, which is what you'll do next.

1. Choose Window > Toolbars > Advanced.
2. Press and hold on the Shape Builder tool (🔗) in the toolbar, and select the Live Paint Bucket tool (🪄) from the menu.
3. Open the Swatches panel by choosing Window > Swatches.

You don't have to have the Swatches panel open when working with the Live Paint Bucket tool. You can just select a color from the Fill box in the Properties panel. It helps to have the Swatches panel open so you can understand how color selection works with the tool.

4. Select the swatch you made earlier, named Pink, in the Swatches panel.



5. Move the pointer outside of the artwork to see the three little swatches above the pointer.

The three colors above the pointer represent the selected color (the middle, Pink color), the color before it in the color group (Light Green), and the color after it in the group (Pale Green).

6. Move the pointer into the area above the coffee cup, shown in the figure.

Can you see the red outline? If you click, the red outline shows you the edges where the color will fill up to.

7. Click to apply the color to the area.

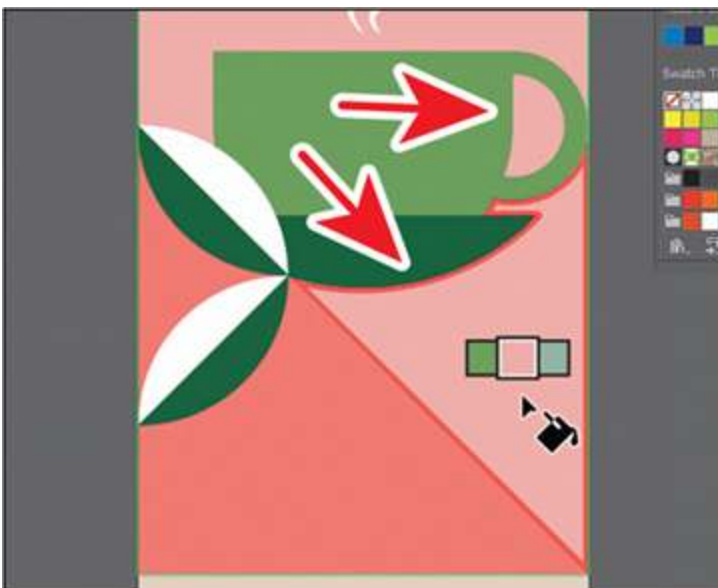


You just filled a *face*, which is an enclosed area. The color fills the area you click up to the path edges it finds.

8. Click to apply the color to the areas shown in the figure.

You can select another color to paint with from the Swatches panel, or you can work faster and switch to another color using the arrow keys.

9. Close the Swatches panel group.



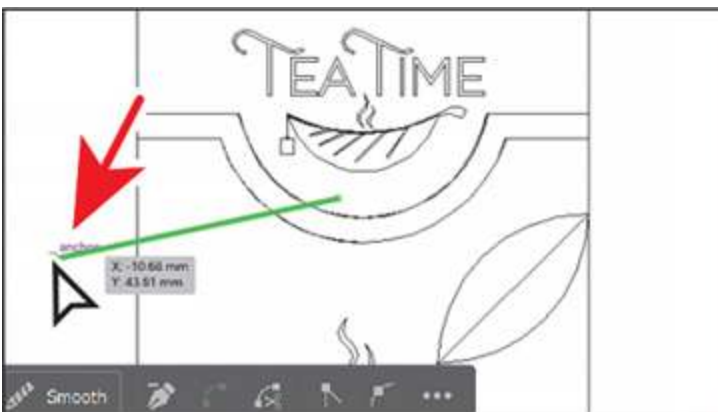
Modifying a Live Paint group

When you make a Live Paint group, each path remains editable. When you move or adjust a path, the colors that were previously applied don't just stay where they were, as they do in natural media paintings or with image-editing software. Instead, the colors are automatically reapplied to the new regions that are formed by the intersecting paths. Next you'll edit a path in the same Live Paint group.

► Tip

A Live Paint group is similar to a regular group of objects. The individual objects in the artwork are still accessible when you double-click to enter Isolation mode. When you enter Isolation mode, you can move, transform, add, or remove shapes as well.

1. Select the Direct Selection tool (⬮).
2. Choose View > Outline to see the outlines of the artwork.
3. Move the pointer over the end of the top path you drew, and click to select the anchor point. See the figure.
4. Choose View > Preview to see the color of the artwork again.



5. Drag the selected anchor point to reshape the line.

● **Note**

Can't see the line? Make sure Edges are showing (View > Show Edges).

This is the magic of Live Paint! The line position and shape determines where each fill is.

6. Choose Select > Deselect.

7. Choose Window > Toolbars > Getting Started to reset the toolbar.



8. Choose View > Fit All In Window to see everything you've done.




9. Choose File > Save, and then choose File > Close as many times as necessary to close all open files.



Review questions

- 1 Describe what a global color is.
- 2 How can you save a color?
- 3 Describe what a tint is.
- 4 How can you choose color harmonies for color inspiration?
- 5 Name two things that the Recolor Artwork dialog box allows you to do.
- 6 Explain what Live Paint allows you to do.

Review answers

- 1 A global color is a color swatch that, when you edit it, automatically updates all artwork to which it is applied. All spot colors are global; however, process colors you save as swatches are global by default, but they can be either global or non-global.

2 You can save a color for painting other objects in your artwork by adding it to the Swatches panel by clicking the New Swatch button () at the bottom of the Swatches panel. Here are some ways you haven't seen:

- Drag the color from a Fill box, and drop it over the Swatches panel.
- Choose New Swatch from the Swatches panel menu ()
- Choose Create New Swatch from the Color panel menu ()

3 A *tint* is a lighter version of a color. You can create a tint from a global process color, like CMYK, or from a spot color.

4 You can choose color harmonies from the Color Guide panel. Color harmonies are used to generate a color scheme based on a single color.







5 You use the Recolor Artwork dialog box to change the colors used in selected artwork, create and edit color groups, reassign or reduce the colors in your artwork, and quickly explore color combinations using Generative Recolor, among other functions.

6 Live Paint lets you paint vector graphics intuitively by automatically detecting and correcting gaps that might otherwise affect the application of fills and strokes. Paths divide the drawing surface into areas, any of which can be colored, regardless of whether the area is bounded by a single path or by segments of multiple paths. If you edit those paths, the color reflows to fill the new shape.

9 Adding Type to a Project

Lesson overview

In this lesson, you'll learn how to do the following:

- Create and edit area and point type.
- Import and thread text.
- Change text formatting.
- Exploring fonts. 
- Fix missing fonts. 
- Snap to glyphs. 
- Work with glyphs. 
- Vertically align area type.
- Create columns of text.
- Create and edit paragraph styles.
- Create character styles. 
- Add text lists.
- Wrap text around an object.
- Curve text on a path.
- Reshape text with a warp.
- Create text outlines.
- Explore Retype .



This lesson will take about 75 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.





Text is an important design element in your illustrations. You can recolor it, scale it, rotate it, and more. In this lesson, you'll

create basic text and add interesting text effects.

Starting the lesson

You'll be adding type to three projects during this lesson, but before you begin, you'll restore the default preferences for Adobe Illustrator. Then you'll open the finished art file for this lesson to see the illustration.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. With Illustrator open, choose File > Open. Open the L9_end.ai file in the Lessons > Lesson09 folder.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

4. If you see the Missing Fonts dialog box, click Close. *Do not add the fonts.*

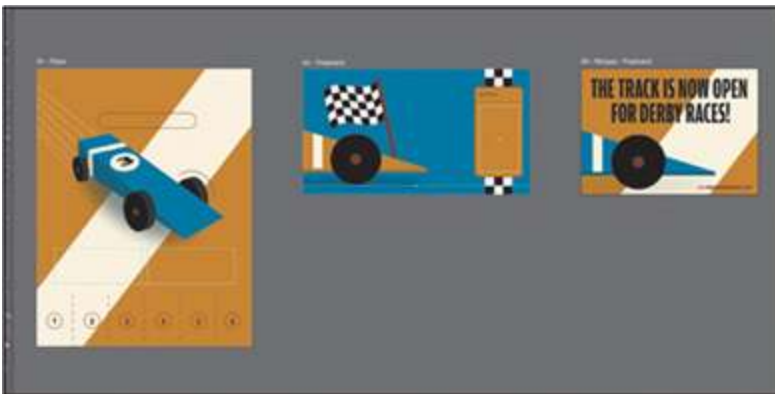
Do you see pink highlighting on some of the text? An arrow is pointing to an example in the figure. The pink highlighting indicates that the font for that text is missing.

You will learn all about Adobe Fonts later in this lesson.



5. If you see a dialog box about font auto-activation, click Skip.
6. Choose File > Open. Open L9_start.ai in the Lessons > Lesson09 folder.

You'll add text and formatting to complete a flyer and postcard.



7. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer.
8. In the Save As dialog box, navigate to the Lesson09 folder, and name the file **PinewoodDerby.ai**. Leave Adobe Illustrator (.ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and click Save.
9. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and then click OK.

10. Choose Window > Workspace > Reset Getting Started.

● **Note**

If you don't see Reset Getting Started in the Workspace menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.



Adding text

Type features are some of the most powerful in Illustrator. As in Adobe InDesign, you can create columns and rows of text, place text, flow text into a shape or along a path, work with letterforms as graphic objects, and more.

In Illustrator, you can create three main types of text: point type, area type, and type on a path. You'll explore all three types as you progress through the lesson.

Adding text at a point

Point type is a horizontal or vertical line of text that begins where you click and expands as you enter characters. Entering text this way is perfect for small amounts of text, like a headline or button text. To start, you'll add a headline using point type.

- 1.** Choose 1 Flyer from the Artboard Navigation menu below the document, if it's not already selected.
- 2.** Select the Zoom tool () and zoom into the top of the artboard above the car.
- 3.** Select the Type tool () in the toolbar on the left. Click (*don't drag*) near the top of the artboard. Type **Pinewood Derby!** (with the exclamation point).

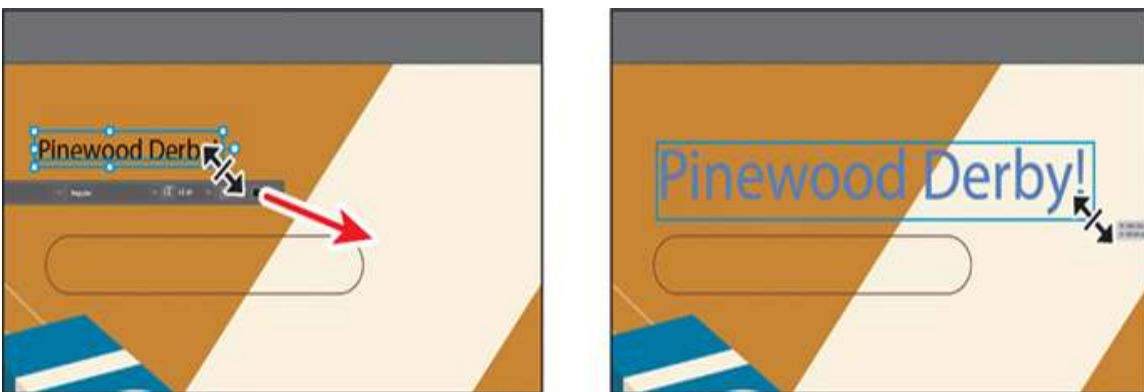


The “Lorem ipsum” text you saw is just placeholder text that you can replace.

4. Press the Escape key to select the Selection tool (▸).

To switch from typing, this is a fast way to get to the Selection tool so you can move or resize the text.

5. Shift-drag the lower-right bounding point to make the text much larger.



If you scale point type without the Shift key held down, the text stretches. The Shift key maintains the proportions of the text.

Practice: Add more text

For practice, follow the previous steps to add a little more text.

1. Select the Type tool (**T**) again, and click to add more text below the text you just added. Type **Pick your fast lane.**

2. Select the Selection tool (▢). Shift-drag a corner to make the new text bigger.



As you go through this chapter, you will refine the appearance of this text and put it where it belongs.

Adding area type

Area type uses the edges of an object, like a rectangle, to control how text flows. When text reaches an edge, it automatically wraps to fit inside the object. Entering text in this way is useful when you want to create one or more paragraphs, such as for a poster or a brochure.

Making your home
as beautiful as it
can be.

Text flowing within a frame

To create area type with the Type tool (**T**), you drag where you want the text—which creates an area type object (also called a *type object*, *text box*, *text area*, or *text object*). Next, you'll create some area type and add some text to the postcard.

1. Choose 2 Postcard from the Artboard Navigation menu below the document.

In the lesson, you will be moving between artboards a lot!

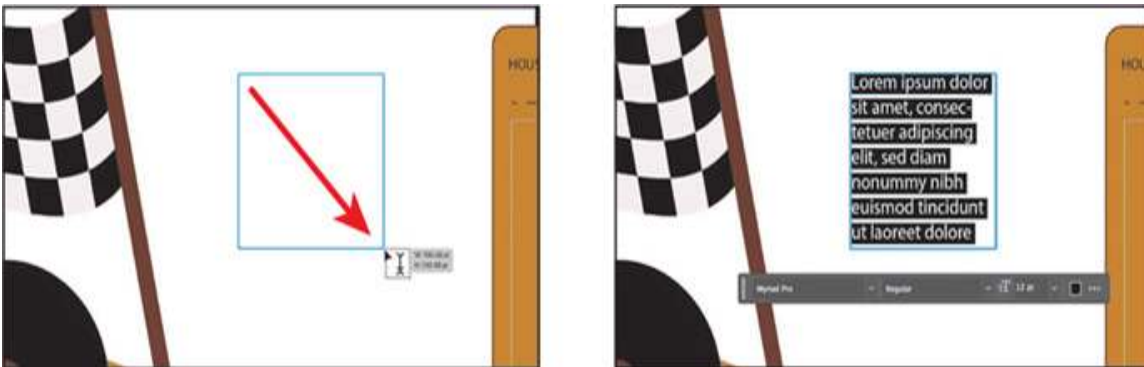
2. With the Selection tool (▢), select the blue background rectangle. To temporarily hide it, press Command+3 (macOS) or Ctrl+3 (Windows).

This way, you can more easily see the type that you create.

► **Tip**

Filling type objects with placeholder text is a preference you can change. Choose Illustrator > Settings (macOS) or Edit > Preferences (Windows), select the Type category, and deselect Fill New Type Objects With Placeholder Text to turn the option off.

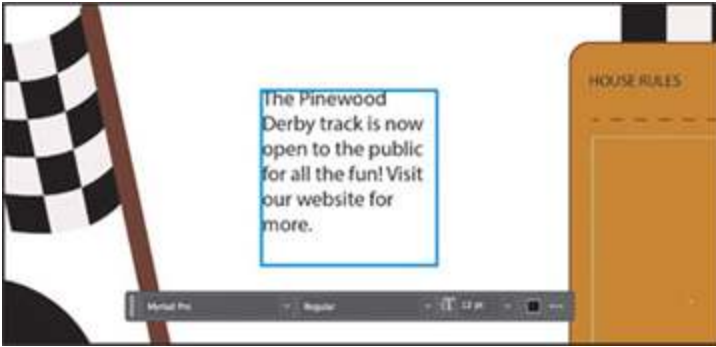
3. With the Type tool (T) selected, move the pointer to the right of the checkered flag. Drag to make an area that is about 100 pt in width and height.



By default, area type objects are filled with selected placeholder text that you can immediately replace with your own.

4. With the placeholder text selected, type **The Pinewood Derby track is now open to the public for all the fun! Visit our website for more.**

Notice how the text wraps horizontally to fit within the type object.



5. Press the Escape key to select the Selection tool (▢). Drag the lower-right bounding point to the left and then back to the right to see how the text wraps within but doesn't resize.

You can drag any of the eight bounding points on the type object to resize it.



6. Drag the lower-right bounding point to make the type object shorter so that you still see all of the text and it wraps as you see in the figure.

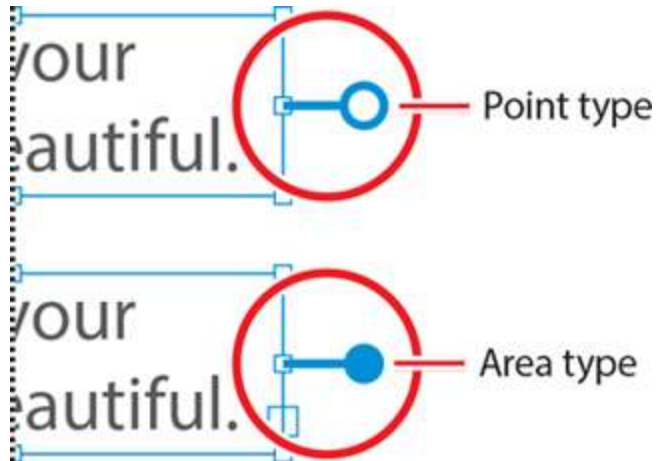


Converting between area type and point type

You can easily convert a text object from area type to point type and vice versa. This can be useful if you type a headline by clicking, which creates

point type, but later want to resize and add more text without stretching the text inside.

Next, you will convert a type object from point type to area type.





1. With the Type tool (**T**) selected, above the text you just added, click (don't drag) to add some point type.
2. Type **Are you ready for the fast lane?**

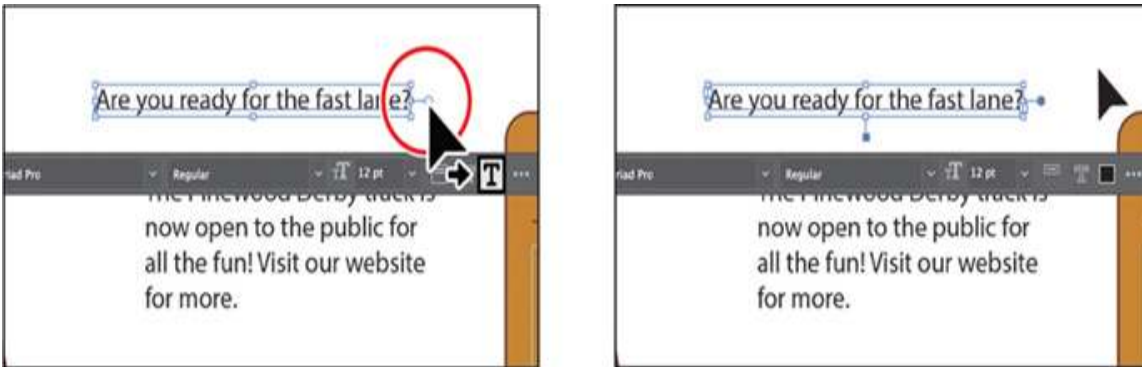
Notice that the text keeps going. We need to have the text wrap, so area type might be a better choice in this case.




3. Press the Escape key to select the Selection tool (**V**).
4. Move the pointer over the annotator (—○) off the right edge of the type object. A hollow end on the annotator means it's point type. When the pointer changes (➤➤), double-click the annotator to convert the point type to area type.

► Tip

With a type object selected, you can also click the Area Type button () or the Point Type button () in the Contextual Task Bar, depending on what the selected type object is.



The annotator end should now be filled (), indicating that it is area type.

5. Drag the lower-right bounding point to wrap the text within and the words “the fast lane?” are on the second line.



Importing a plain-text file

You can also import text into your Illustrator document from a text file created in another application. One of the advantages of importing text from a file, rather than copying and pasting it, is that imported text retains its character and paragraph formatting (by default). For example, text from an RTF file retains its font and style specifications in Illustrator, unless you remove formatting when you import the text.

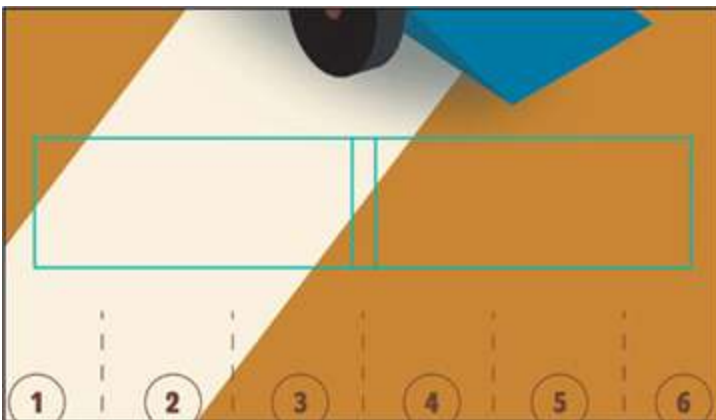
In this section, you'll place text from a plain-text file into your design to get the bulk of the text for the flyer and postcard in place.

1. Navigate back to the flyer.
2. Zoom in to the aqua guide box at the bottom of the artboard. Make sure you can see the whole thing.

► **Tip**

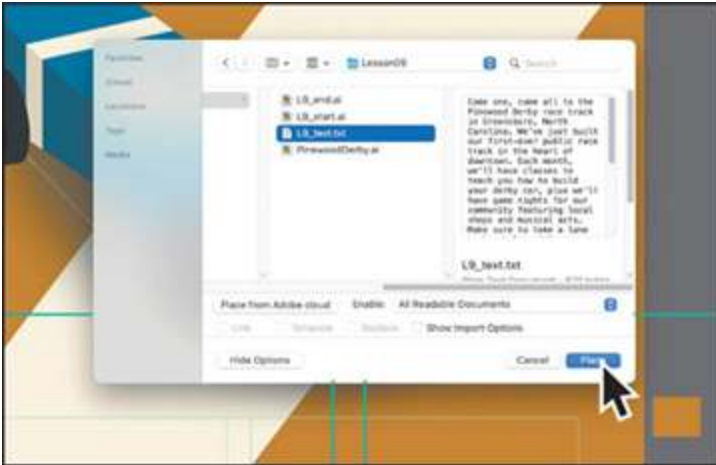
I made a rectangle and a few lines and converted them to guides by choosing View > Guides > Make Guides. This is useful for creating custom guides, for instance.

3. Choose Select > Deselect.

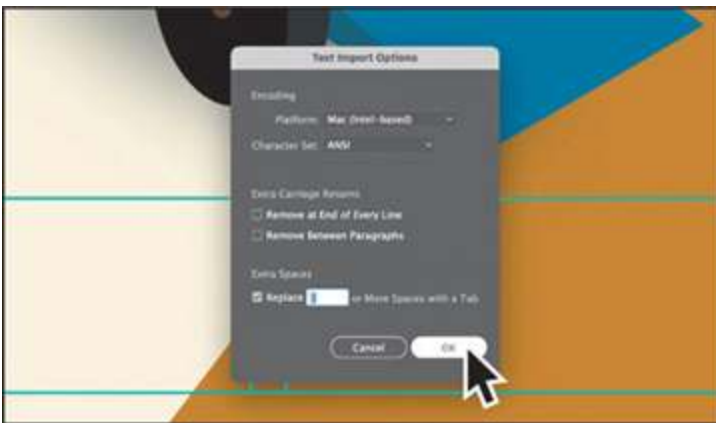


4. Choose File > Place. In the Place dialog box, navigate to the Lessons > Lesson09 folder, and select the L9_text.txt file.
5. Click Place.

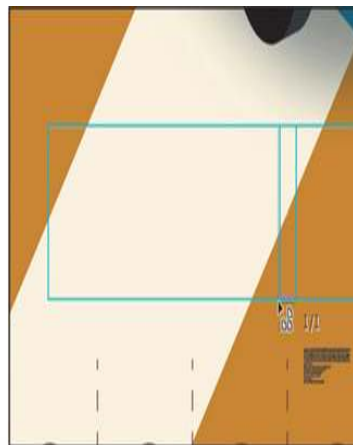
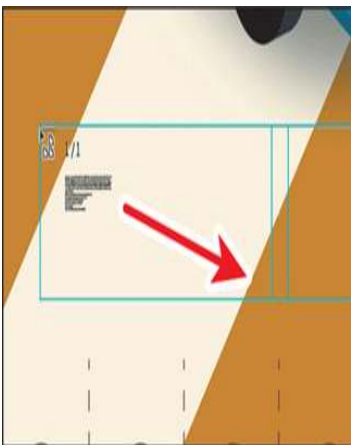
In the Text Import Options dialog box that appears, you can set some options prior to importing text.



6. Leave the default settings, and click OK.



7. Move the pointer with the loaded text icon into the upper-left corner of the aqua box. Drag to make a text box. Use the figure as a guide.



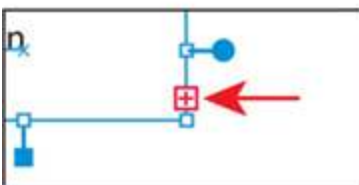
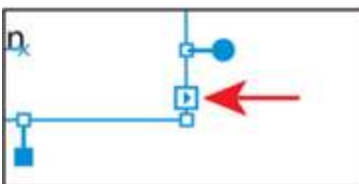
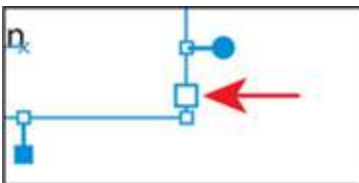
If you were to simply click with the loaded text pointer, an area type object would be created.

Threading text

When working with area type, each area type object has an *in port* and an *out port*. Those ports enable you to link type objects and flow text between them.



- An empty out port indicates that all the text is visible and that the type object isn't linked.
- A small arrow in a port indicates that the type object is linked to another type object.
- A red plus sign (⊕) in an out port indicates that the object contains additional text called *overflow text*. You can adjust the text, resize the type object, or thread the text to another type object to show all of the overflow text.



To *thread* or continue text from one object to the next, you have to link the objects. Linked type objects can be of any shape; however, the text must be

entered in an object or along a path, not as point type (simply clicking to create text).

Next, you'll thread text between two type objects.

1. With the Selection tool (🖱️) selected, click the out port (⊕) in the lower-right corner of the type object.

● **Note**

If you double-click an out port, a new type object appears. If this happens, you can either drag the new object where you would like it to be positioned or choose Edit > Undo Link Threaded Text, and the loaded text icon will reappear.

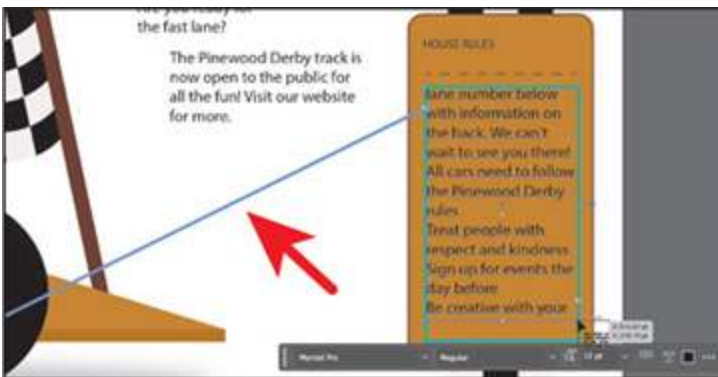
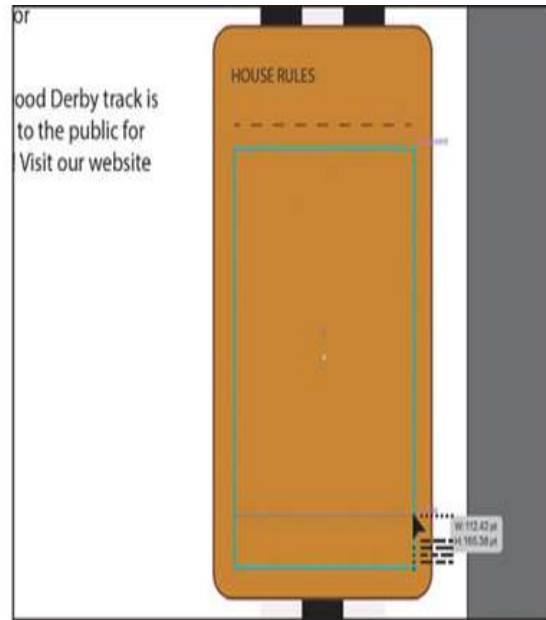
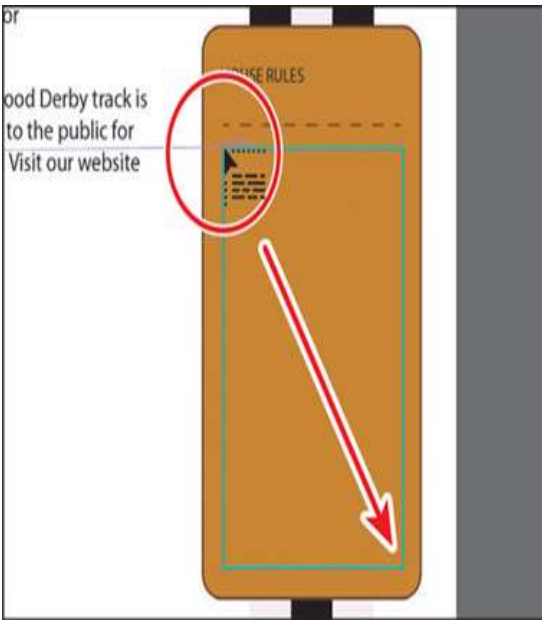
The out port is most likely pretty small and zooming won't make it bigger.

2. Move the pointer away.



The pointer changes to a loaded text icon (📄) when you move it away from the original type object.

3. Choose View > Fit All In Window.
4. Move the pointer to the upper-left corner of the aqua box on the right side of the postcard. Drag across the aqua box to make an area type object. See the figure.



► Tip

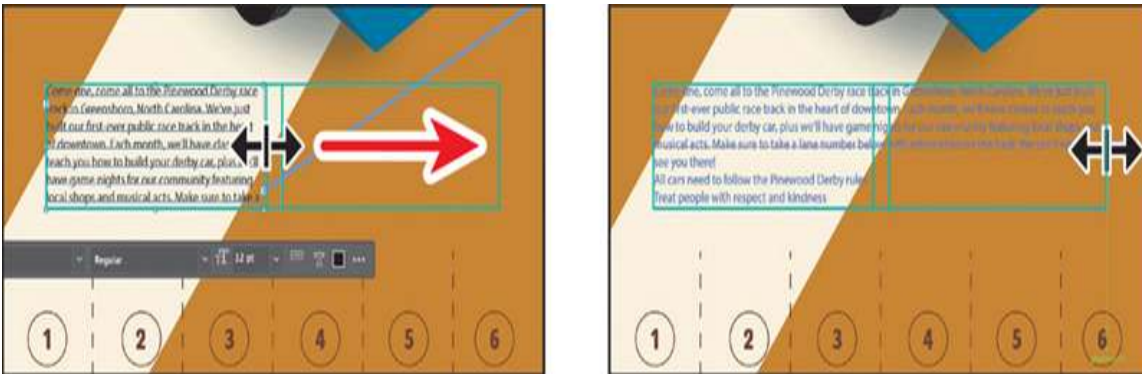
Another way to thread text between objects is to select an area type object, select the object (or objects) you want to link to, and then choose **Type > Threaded Text > Create**.

With the second type object still selected, do you see a line connecting the two type objects? (An arrow is pointing to it in the figure.)

If you don't see this thread (line), choose **View > Show Text Threads**. This (non-printing) line is the *text thread* that tells you that the two objects are connected. The out port (▶) of the type object on the flyer artboard and the in port (◀) of the type object on the

postcard artboard contain small arrows indicating how the text is flowing from one to the other.

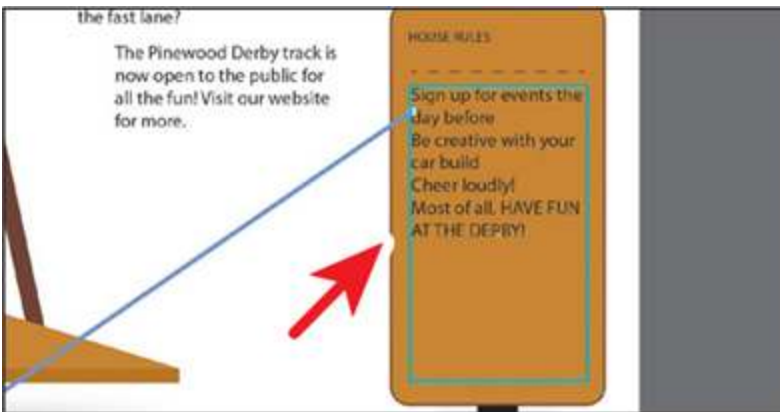
5. With the Selection tool (▸), select the placed text on the flyer artboard.
6. Zoom in to the text by pressing Command and + (macOS) or Ctrl and + (Windows) a few times.
7. Drag the right-middle point to the right to make it as wide as the aqua guide box.



The text will flow between the type objects. If you were to delete the second type object, the text would be pulled back into the original object as overflow text. Although not visible, the overflow text isn't deleted.

After resizing your type object, you may see less text on the postcard on the right, and that's okay.

8. Choose File > Save.



Formatting type

You can format text in a lot of creative ways. You can apply formatting to one character, a range of characters, or all characters. As you'll soon see, selecting the type object, rather than selecting the text inside, lets you apply formatting options to all of the text in the object, including options from the Character and Paragraph panels, fill and stroke attributes, and transparency settings.

In this section, you'll discover how to change text attributes, such as size and font, and later learn how to save that formatting as text styles.

● Note

The Creative Cloud desktop application must be installed on your computer, and you must have an internet connection to initially activate fonts. The Creative Cloud desktop application is installed when you install your first Creative Cloud application, like Illustrator.

Changing font family and font style

In this section, you'll apply a font to text. In addition to local fonts, Creative Cloud members have access to a library of fonts for use in desktop applications such as InDesign or Microsoft Word and on websites. Trial Creative Cloud members can also access select fonts from Adobe. Fonts you choose are added and appear alongside other locally installed fonts in the fonts list in Illustrator. By default, Adobe Fonts are turned on in the Creative Cloud desktop application to add fonts and make them available in your desktop applications.

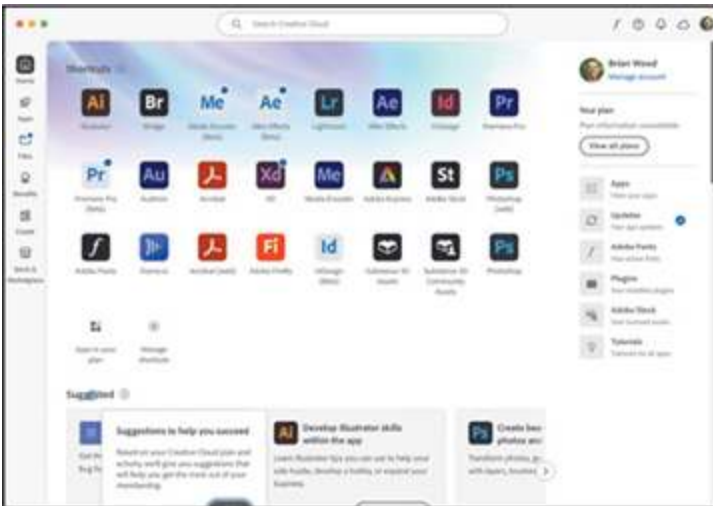
Using Adobe Fonts

Next, you'll select and add Adobe Fonts so that you can use them in your project.

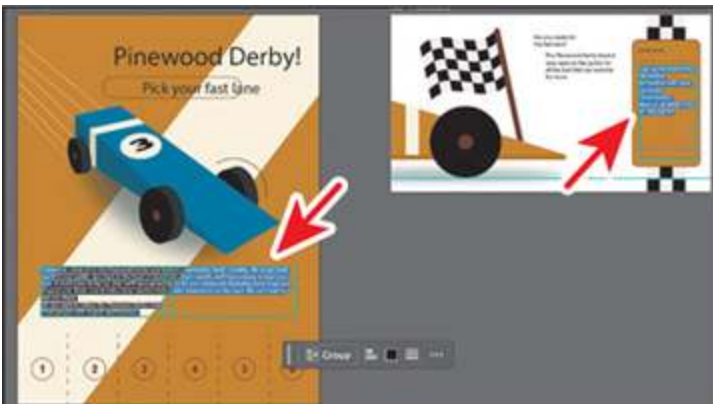
1. Ensure that the Creative Cloud desktop application has been launched and you are signed in with your Adobe ID (this requires an internet connection).

Note

To learn about the Creative Cloud desktop application, visit adobe.com/creativecloud/desktop-app.xhtml.

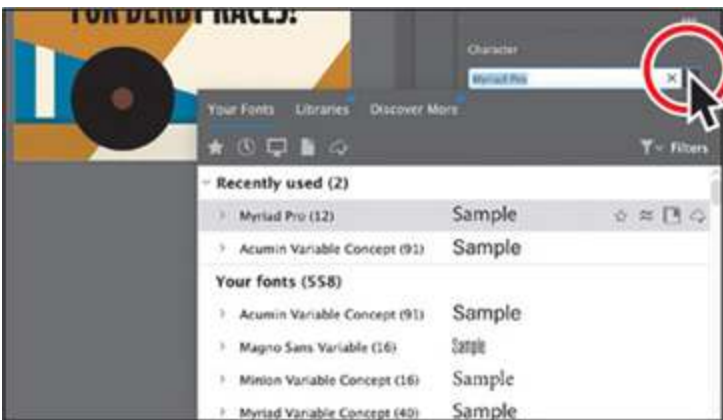


2. Back in Illustrator, choose View > Fit All In Window.
3. Select the Type tool (**T**), and click in the text at the bottom of the flyer.
4. Choose Select > All or press Command+A (macOS) or Ctrl+A (Windows) to select all of the text in both threaded type objects.



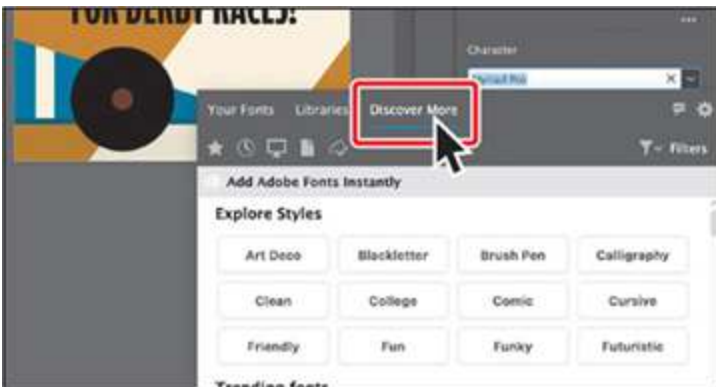
5. In the Properties panel, click the arrow to the right of the Font Family menu (where you see Myriad Pro), and notice the fonts that appear in the menu.


The fonts you see by default are all of those available to Illustrator at the moment. Your list will look different.

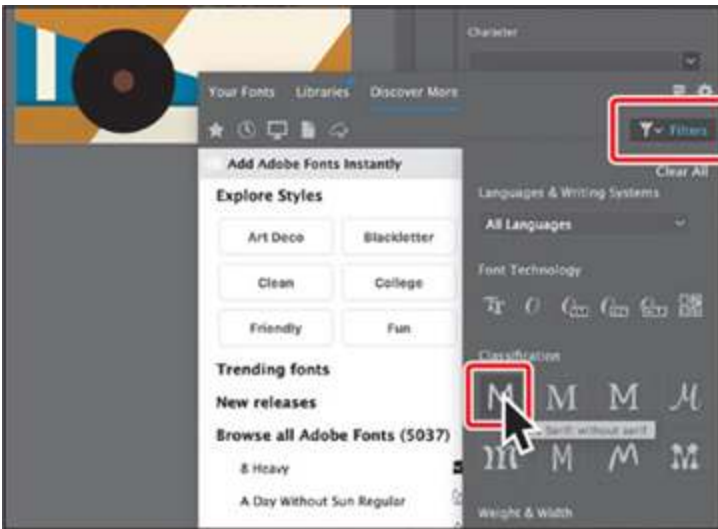


6. Click Discover More to see a list of Adobe Fonts you can choose from.

The list you see in the figure will look different from yours, because Adobe is constantly updating the font selections.



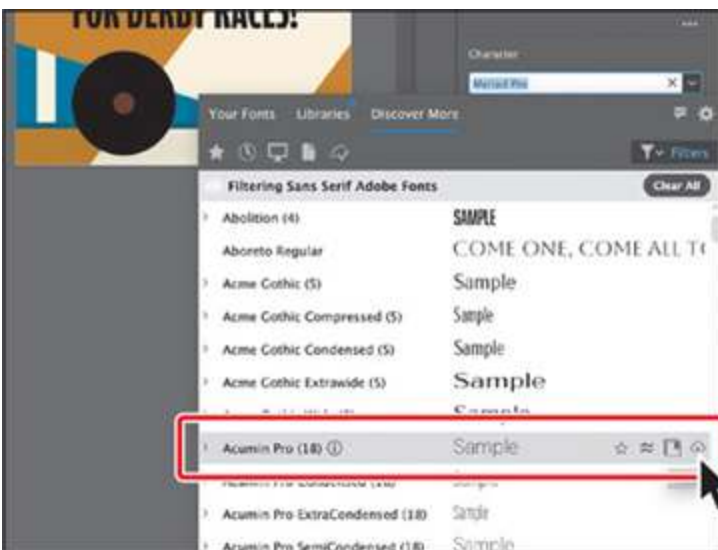
7. Click the Filter Fonts icon () to open a menu. You can filter the font list by selecting classification and property criteria. Click the Sans Serif option under Classification to filter the fonts.



8. Scroll down in the font list to find Acumin Pro.

9. Click Add (☁) to the far right of the name Acumin Pro.

If you see ☁ or, when the pointer is over the font name in the list, ☁, then the font is already added, so you don't need to do anything.

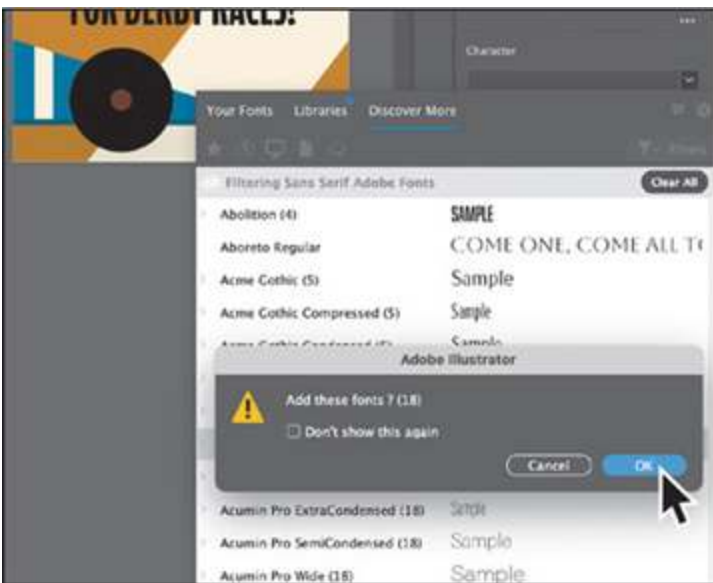


10. Click OK in the dialog box that appears.

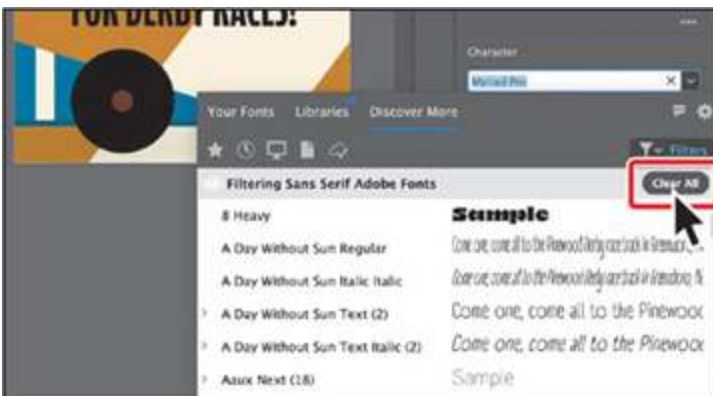
11. Scroll down in the font list and click Add (☁) to the far right of the HWT Artz (Regular) font name.

12. Click OK in the dialog box that appears.

Once the font is added (be patient; it may take some time), you can use it.



13. After adding the fonts, click the words “Clear All” toward the top of the menu to remove the Sans Serif filtering and see all of the fonts again.




Exploring fonts

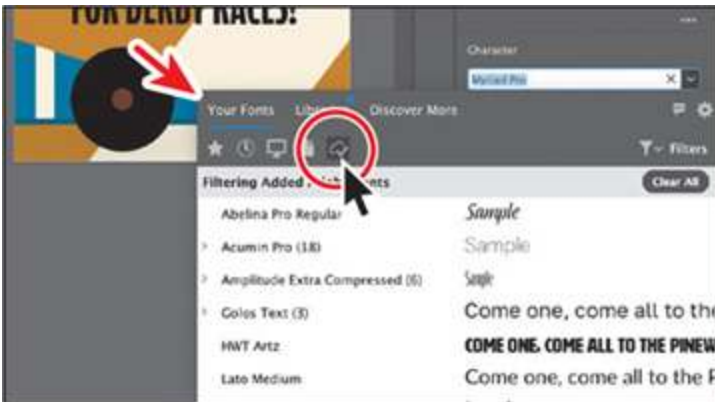
To explore more with fonts to find exactly the font you need, check out the video *Exploring fonts*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Applying fonts to text in Illustrator

Now that the Adobe Fonts are added, you can use them your Illustrator projects. Next, you'll apply the fonts to text.

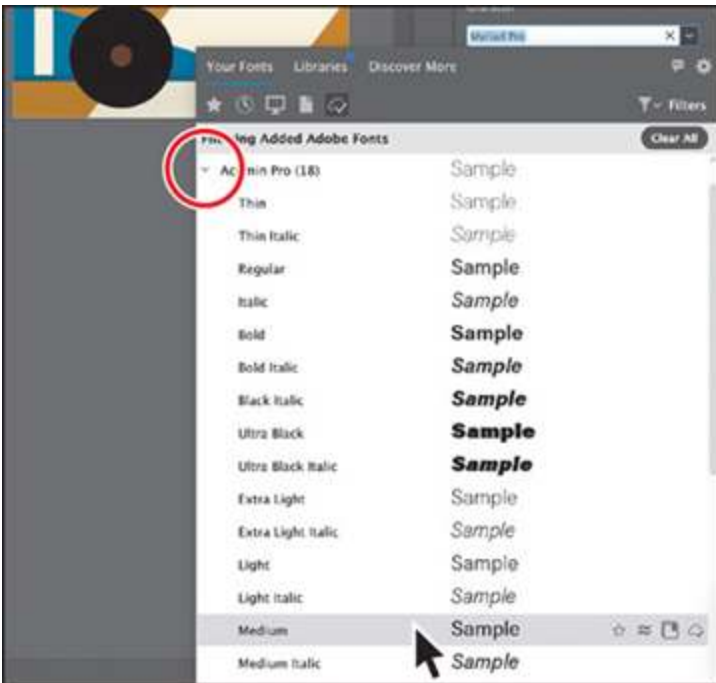
1. With the threaded text still selected and the Font Family menu still showing, click Your Fonts. An arrow is pointing to it in the following figure.
2. Also, click the Show Added Fonts button () to filter the font list and show only added Adobe Fonts.

The list in the figure will be different than yours—that's okay, as long as you see the Acumin Pro and HWT Artz fonts.



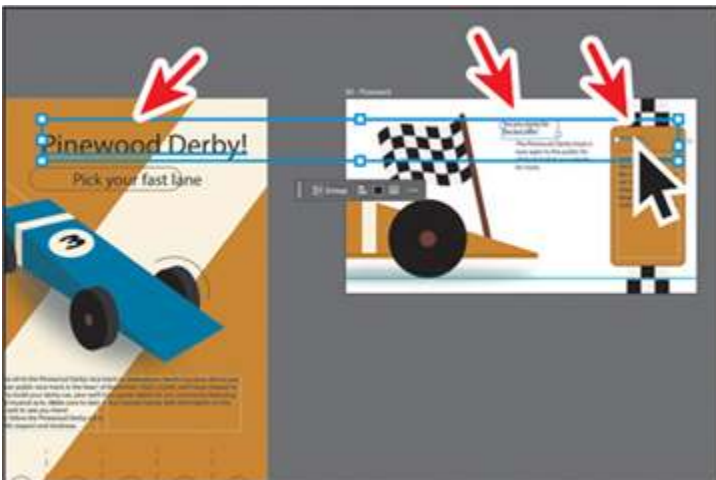
3. Move the pointer over the fonts in the menu. The selected text will show a preview of the font the pointer is over.
4. Click the arrow to the left of Acumin Pro in the menu, and choose Medium (or simply choose Acumin Pro Medium).

Acumin Pro is the *font family*, and Medium is the *font style* within the family.



5. With the Selection tool (▢), on the flyer on the left, click the “Pinewood Derby!” text. On the postcard, Shift-click the “Are you ready for the fast lane?” and “HOUSE RULES” text to select all three.

If you want to apply the same font to all of the text in a point type or area type object, you can simply select the object, not the text, and then apply the font.

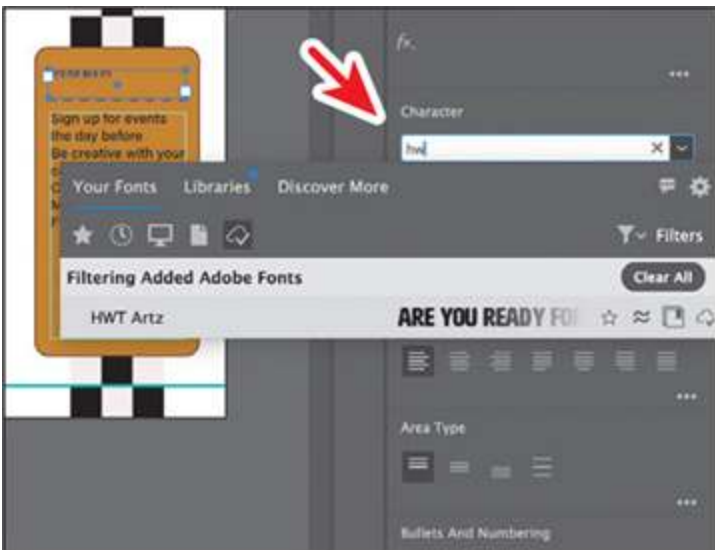


6. With the type objects selected, click the font name in the Properties panel (I see Myriad Pro). Begin typing the letters **hwt**.

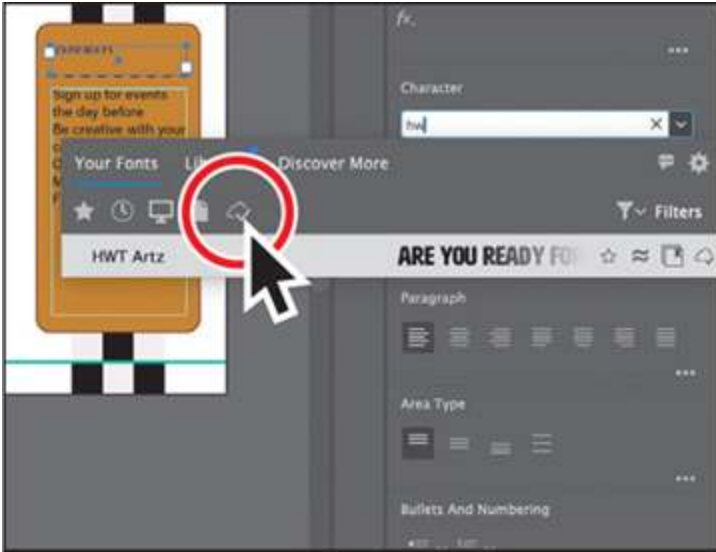
► **Tip**

With the pointer in the Font Name field, you can also click the X on the right side of the Font Family field to clear the search field.

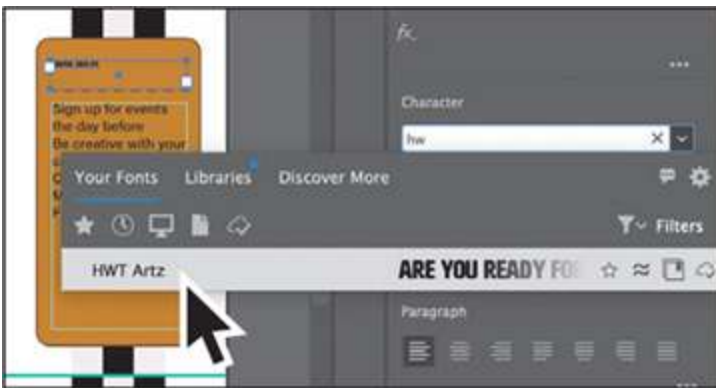
A menu appears above or below where you are typing. Illustrator filters through the list of fonts and displays the font names that contain “hwt,” regardless of where “hwt” is in the font name and regardless of whether it’s capitalized. The Show Activated Fonts (☒) filter is still turned on from before, so you’ll turn it off next.



7. Click Clear Filter (☒) in the menu that is showing to see all of the available fonts.
8. In the menu that appears beneath where you are typing, move the pointer over the fonts in the list. I have only the one font, HWT Artz, that was added. Illustrator shows a live font preview on the text.



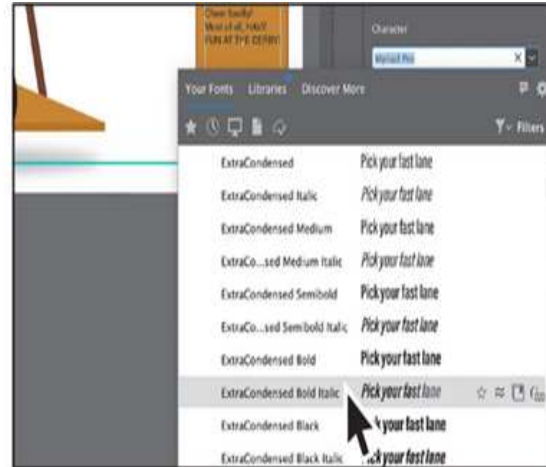
9. Click to apply the HWT Artz font to the text.



Practice: Applying fonts!

For practice, follow the previous steps to apply fonts to the following text using the Selection tool.

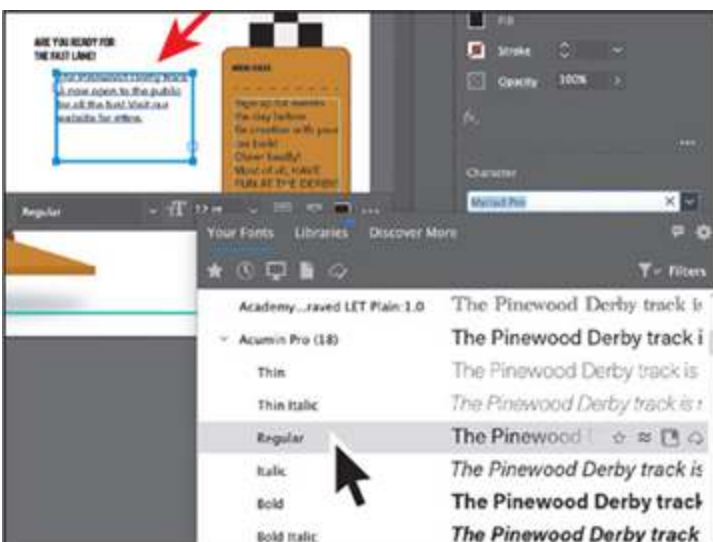
1. Click the “Pick your fast lane” text to select the type object.
2. In the Font Family menu, find Acumin Variable Concept (it should come with Illustrator). I had to scroll up in the menu to see it. Click the arrow to reveal the font styles and select ExtraCondensed Bold Italic.



Note

If you don't see Acumin Variable Concept, you can use any another font like Acumin Pro Bold Italic. The text will look a little different and that's okay.

3. On the postcard, click the “The Pinewood Derby track is now open...” text.
4. In the Font Family menu, find Acumin Pro. Click the arrow to reveal the font styles, and select Regular.




Fixing missing fonts

To learn how to fix missing fonts, check out the video *Fixing missing fonts*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Changing font size

By default, typeface size is measured in points. In this section, you’ll change the font size of text and also see what happens to point type that is scaled.

1. With the Selection tool () , click to select the “Pick your fast lane” type object again, on the flyer artboard on the left.

Looking in the Contextual Task Bar, you’ll see that the font size probably isn’t a whole number. That’s because you scaled the point type earlier by dragging. The number you see will be different, and that’s okay.



2. Choose 36 pt from the Font Size menu in the Contextual Task Bar.



► Tip

Aside from choosing a value from the menu, you can also type in a font size you want.

Did you notice that the text and the surrounding text box it's in both got bigger? In the next section this will make more sense. For point type, which this text is, it just resizes the text and container. For area type, changing the font size of the text doesn't change the size of the type object (the text box).

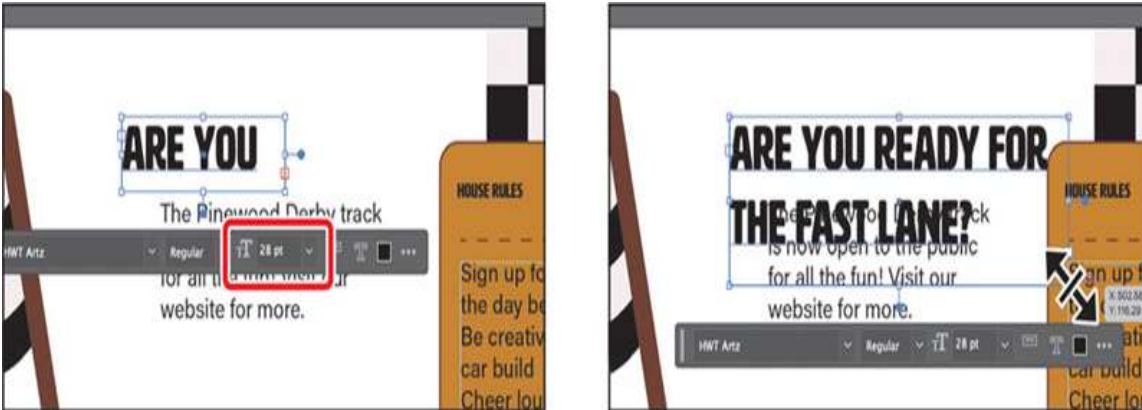
Practice: Changing font size

Time for a little practice changing the font size for the rest of the text.

1. Click the “Pinewood Derby!” text on the flyer to select it.
2. Select the font size in the Contextual Task Bar, type in **80**, and press Return (macOS) or Enter (Windows).

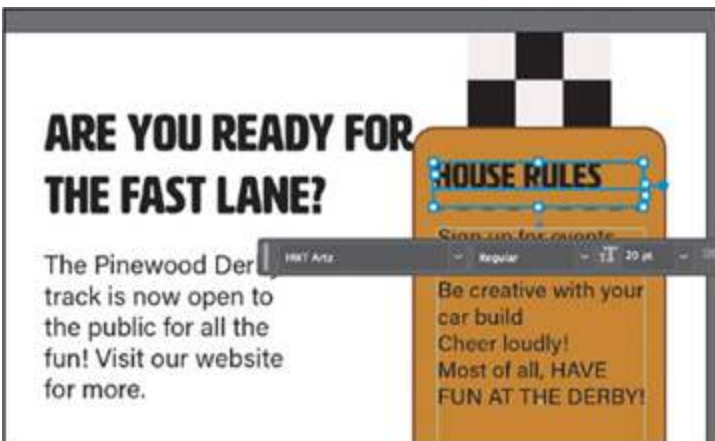


3. On the postcard, click the “Are you ready for the fast lane?” text. Practice changing the font size, this time to **28 pt**.
4. Choose View > Fit Artboard In Window.
5. If any text disappears, that means it's too big to fit in the text box. Drag a corner until you can see the text. See the following figure.



You can move any of the type objects so they are no longer overlapping. They will be moved into position soon.

6. Click the “HOUSE RULES” text, and change the font size to **20 pt**.



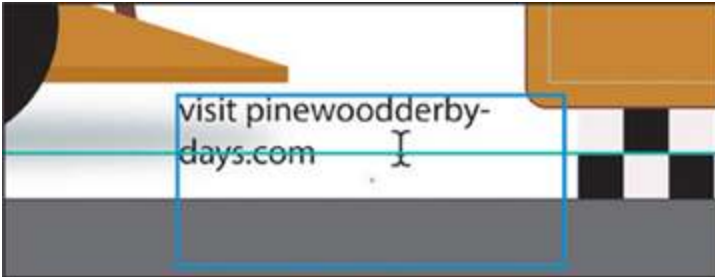
Vertically aligning area type

You can align or distribute lines of text in a frame vertically or horizontally when using horizontal type. You can align text to the frame’s top, center, or bottom using each paragraph’s leading and paragraph spacing values. You can also justify text vertically, evenly spacing lines regardless of their leading and paragraph spacing values. Next, you’ll vertically align some text to the bottom of the type object so it more easily aligns with a guide.

1. Select the Type tool (**T**) in the toolbar. Drag to make a text area near the bottom of the postcard. Type **visit pinewoodderbydays.com**.

● **Note**

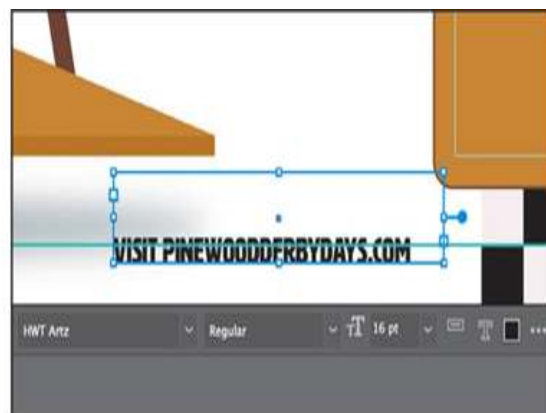
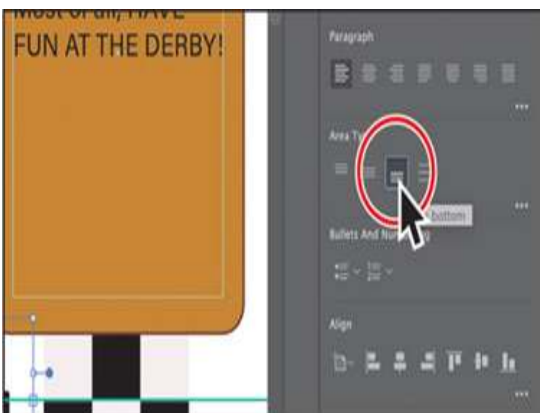
You may see a different font and size—that's okay. You'll change it next.



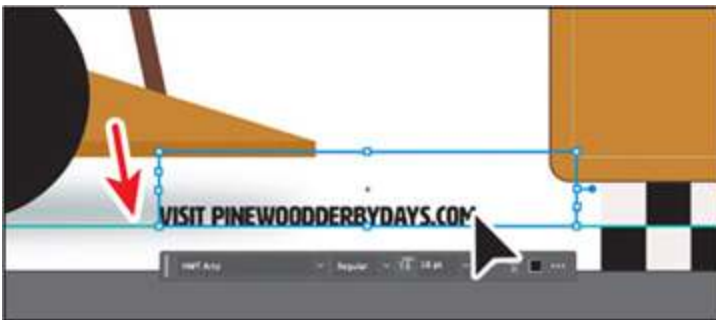
2. Select the Selection tool.
3. In either the Contextual Task Bar or the Properties panel, make the font size **16 pt**, and ensure the font family is HWT Artz.
4. Drag a corner to make the text flow like you see in the previous figure. Make sure the box is taller than the text.



5. In the Area Type section of the Properties panel, click Align Bottom to align the text to the bottom of the text area.



6. Drag the text area so the bottom of the text box is aligned to the aqua guide.



Changing the color of text

You can change the appearance of text by applying fills, strokes, and more. In this section, you'll change the fill of text by selecting type objects—which means all of the text in the object will be the same color. If you select text with the Type tool, you can apply different color fills and strokes to text within the text object.


1. Choose View > Fit All In Window.
2. With the Selection tool (▀), select the “PINEWOOD DERBY!” type object on the flyer.
3. Click the Fill color box in the Contextual Task Bar. With the Swatches option (■) selected in the panel that appears, select the brown swatch.



4. Choose Select > Deselect, and then choose File > Save.



Changing additional character formatting

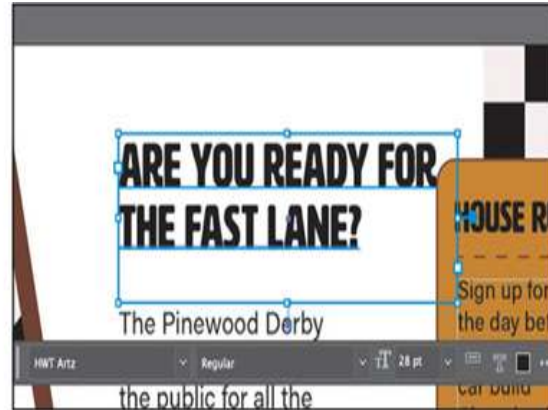
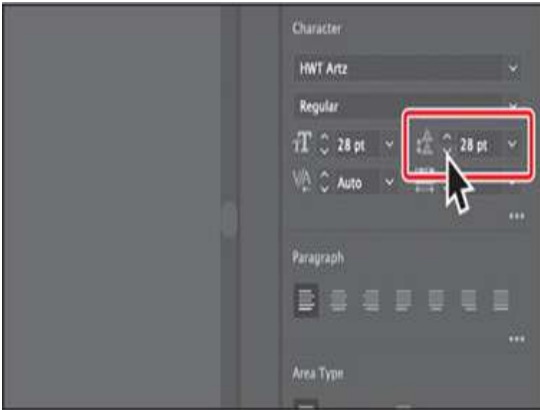
In Illustrator, you can adjust many text attributes beyond font, size, and color. As in InDesign or Word, text formatting is divided into character and paragraph settings, found in panels like Properties, Control, Character, and Paragraph.

The Character panel—accessed through More Options () in the Properties panel or by choosing Window > Type > Character—controls attributes such as font, size, kerning, and more. This section explores several of these options to demonstrate the range of text formatting available.

1. With the Selection tool () , click the “Pick your fast lane...” type object near the “PINWOOD DERBY!” text.



2. Choose Type > Change Case > UPPERCASE.
3. On the postcard, with the Selection tool () , select the “ARE YOU READY FOR THE FAST LANE?” text.
4. In the Properties panel, change Leading () to 28 pt by selecting the value and typing **28**. Press Return or Enter to accept the value. Leave the text selected.



► Tip

By default, text leading is set to a value called Auto. When looking at the Leading value in the Properties panel, you can tell it's set to Auto if the value has parentheses around it. To return the leading to the default auto value, choose Auto from the Leading menu.



Leading is the vertical space between lines of text. Adjusting the leading can be useful for fitting text into a type object. Now, you'll make all of the headings capital letters.

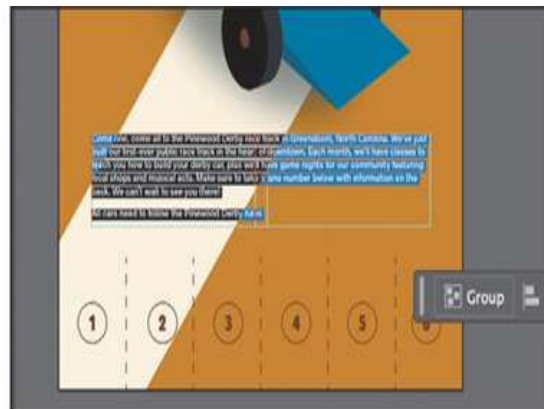
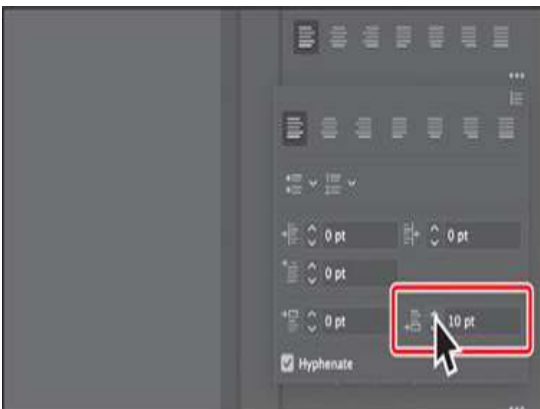
Changing paragraph formatting

As with character formatting, you can set paragraph formatting, such as alignment or indenting, before adding new text or changing the existing text appearance. Paragraph formatting applies to entire paragraphs rather than just selected content and can be found in the Properties panel, Control panel, or Paragraph panel.


1. With the Type tool (**T**) selected, click in the threaded text at the bottom of the flyer on the left.
2. Press Command+A (macOS) or Ctrl+A (Windows) to select all of the text between the two type objects.



3. With the text selected, click More Options () in the Paragraph section of the Properties panel to show the Paragraph panel options.
4. Change Space After Paragraph () to **10 pt** in the Paragraph panel.

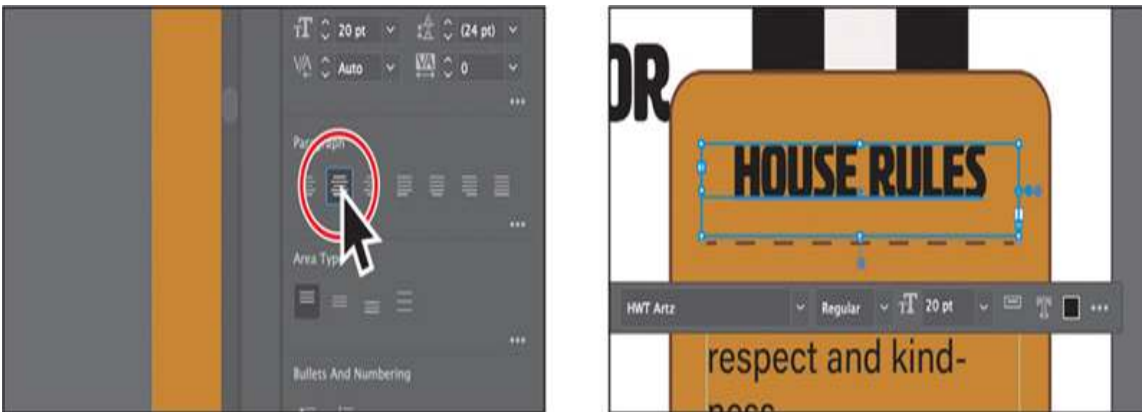


Setting a spacing value after paragraphs, rather than pressing the Return or Enter key, helps you maintain consistency and makes editing easier.

5. With the Selection tool (), on the postcard, select the “HOUSE RULES” text.

If you need to, you can zoom in to the text by pressing Command and + (macOS) or Ctrl and + (Windows).

6. To center align the text, click Align Center (≡) in the Paragraph section of the Properties panel.



7. Choose Select > Deselect, and then choose File > Save.

Using glyph snapping

To learn about glyph snapping, check out the video *Working with glyph snapping*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Working with glyphs

To learn about the Glyphs panel, check out the video *Working with the Glyphs panel*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Resizing and reshaping type objects

You can create unique type object shapes by reshaping them using a variety of methods, including adding columns to area type objects or reshaping type objects using the Direct Selection tool (⌘).

Creating columns of text

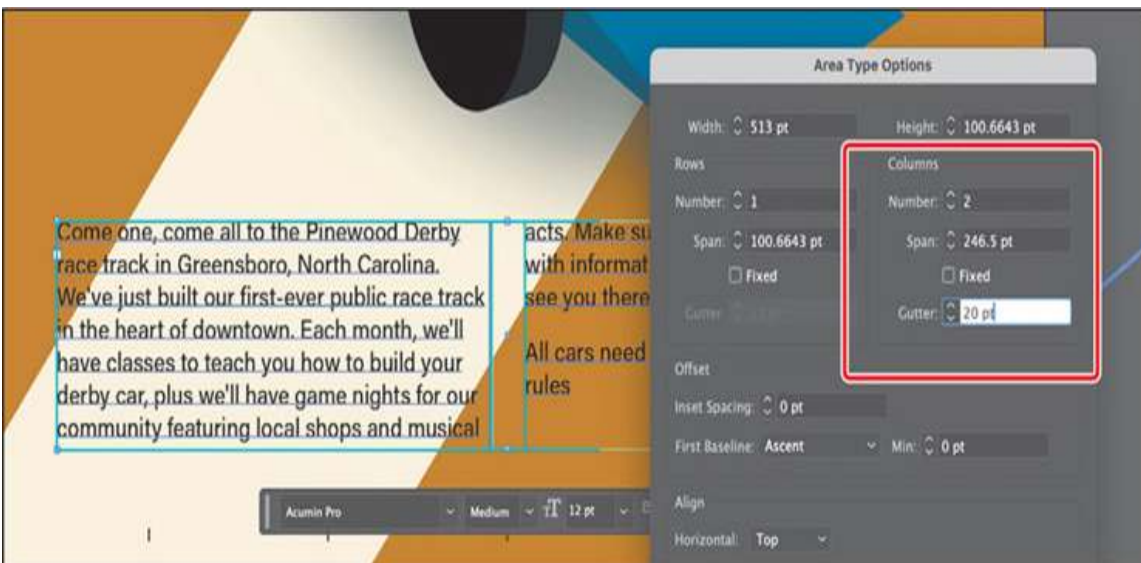
You can easily create columns and rows of text by using the Type > Area Type Options command. This can be useful for creating a single type object

with multiple columns or for organizing text such as a table or simple chart, for instance. Next, you'll add a few columns to a type object.

Our home repair expertise makes your fix-it project simpler and faster. From old home restorations to new builds, we have the know-how to fill in the blanks on what	you need and how to get it done. With our network of qualified specialists, we can also refer you to home repair technicians who can complete the parts of the process you'd
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Area type with columns

1. Choose View > Fit All In Window.
2. With the Selection tool (⬮), click the threaded text at the bottom of the flyer.
3. Zoom in to the text by pressing Command and + (macOS) or Ctrl and + (Windows) a few times.
4. Choose Type > Area Type Options. In the Area Type Options dialog box, change Number to **2** in the Columns section, and change Gutter to **20 pt**. Select Preview to see the change, and then click OK.



The text box is now split into two columns.

Reshaping type objects

In this section, you'll reshape a type object to better flow next to a graphic.

1. Navigate to the postcard.
2. With the Selection tool (▢), click the “Are you ready for the fast lane?” text on the postcard to select the type object.
3. Press Command and + (macOS) or Ctrl and + (Windows) several times to zoom in to the text.
4. Drag the text closer to the checkered flag, like you see in the figure.
5. Select the Direct Selection tool (⬚). Click the lower-left corner of the type object to select the anchor point.



6. Drag that point to the right to adjust the shape of the path so the text follows the contour of the checkered flag to its left.




Creating and applying text styles

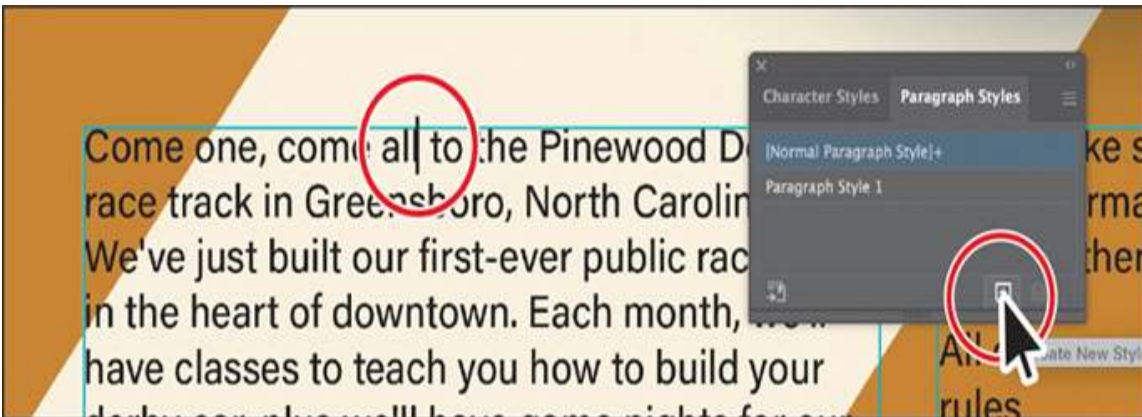
Text styles allow you to save text formatting to apply it consistently and to be updated globally. Once a style is created, you only need to edit the saved style, and then all text formatted with that style is updated. Illustrator has two types of text styles.

- **Paragraph**—Retains character and paragraph attributes and applies them to an entire paragraph.
- **Character**—Retains character attributes and applies them to selected text.

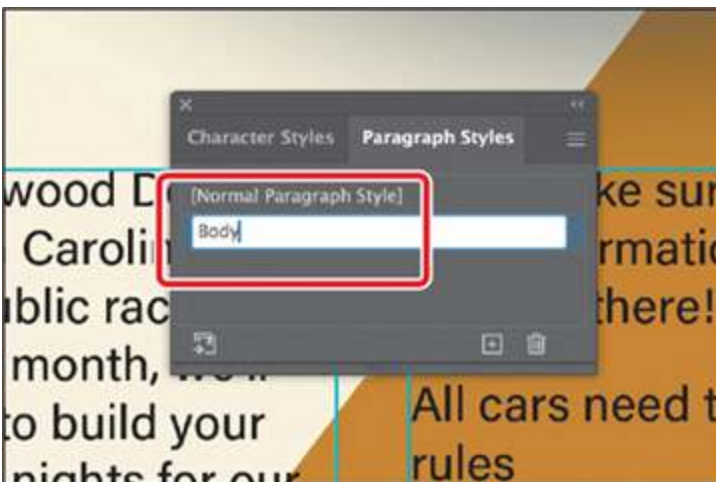
Creating and applying a paragraph style

You'll start by creating a paragraph style for the body copy.

1. Navigate to the flyer artboard on the left.
2. With the Type tool (**T**) selected, click somewhere in the text to place the *insertion point* (circled in the figure).
3. Choose Window > Type > Paragraph Styles, and click the Create New Style button () at the bottom of the Paragraph Styles panel.



A new paragraph style appears in the panel and is called Paragraph Style 1. To create a paragraph style from text, you don't have to select the entire paragraph. You can just place the insertion point in the text when making a paragraph style. The text formatting attributes are saved from the paragraph that the insertion point is in.

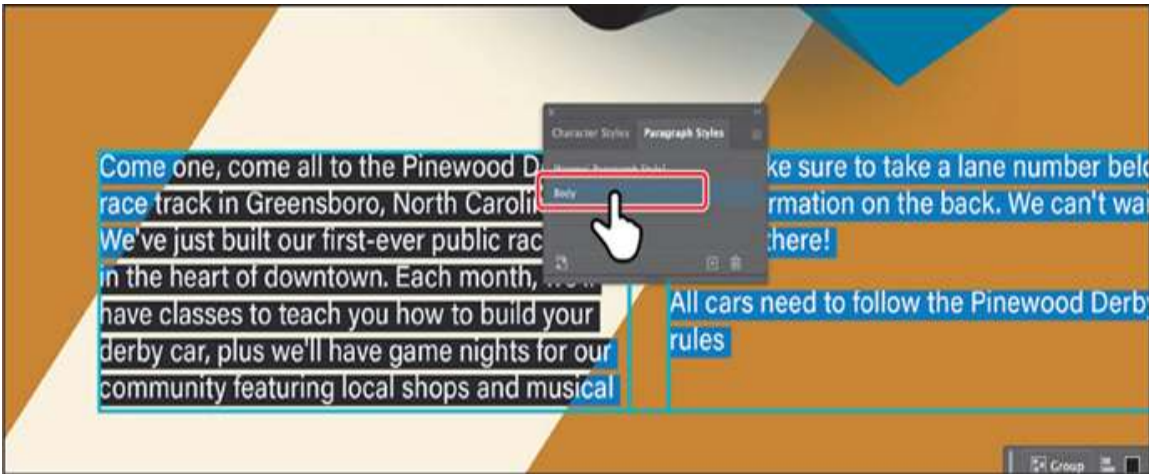


4. Double-click the style name Paragraph Style 1 in the list of styles. Change the name of the style to **Body**, and press Return or Enter to confirm the name inline.

By double-clicking the style to edit the name, you apply the new style to the paragraph (where the insertion point is). This means that if you edit the formatting for the Body paragraph style, only this paragraph will update.

Now you'll apply the style to all of the text in the threaded frames.

5. With the insertion point in the paragraph text, choose Select > All to select it all.
6. Click the Body style in the Paragraph Styles panel to apply the formatting.




Practice: Create more paragraph styles

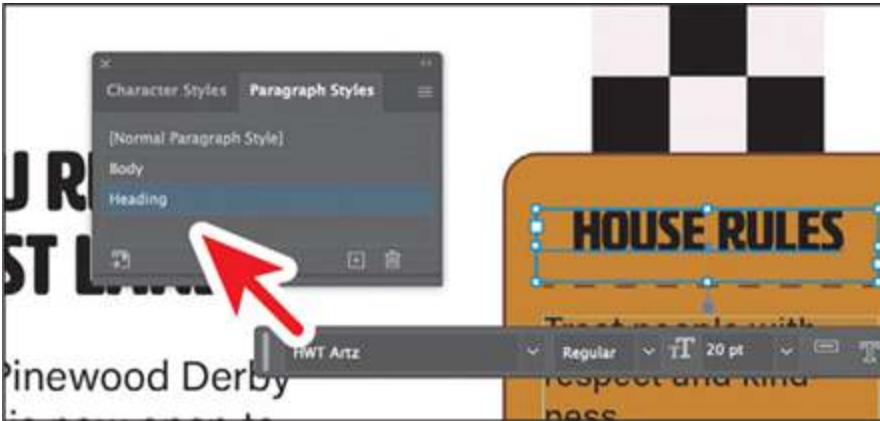
With one paragraph style made, you'll practice by creating another for a few of the headlines in the document.

1. Navigate to the postcard.
2. With the Selection tool, select the "HOUSE RULES" type object.



3. Make a new paragraph style by clicking the Create New Style button () at the bottom of the Paragraph Styles panel.
4. Double-click the new style name, Paragraph Style 2 (or whatever name you see), in the list of styles. Change the name of the style to **Heading**,

and press Return or Enter to change the name.



5. With the Selection tool, click the text “Are you ready for the fast lane?” to select the type object.



6. Make a new paragraph style named Heading2 based on that text. Leave the type object selected.

Applying paragraph styles

As you learned with the Body paragraph style, applying paragraph styles is pretty straightforward. Next, you’ll practice by applying a couple more.

1. With the “Are you ready for the fast lane?” type object still selected, click the Heading paragraph style in the Paragraph Styles panel to apply it.



You can see the font family, size, color, and center align are applied.



2. Apply the Heading2 style again.

Editing a paragraph style

After creating a paragraph style, you can easily edit the style formatting. Then, anywhere the style has been applied, the formatting will be updated automatically. Next, you'll edit the Body style to see firsthand why paragraph styles can save you time and maintain consistency.

1. With the Type tool, click in any of the paragraphs of text with the Body style applied on either artboard to place the insertion point.

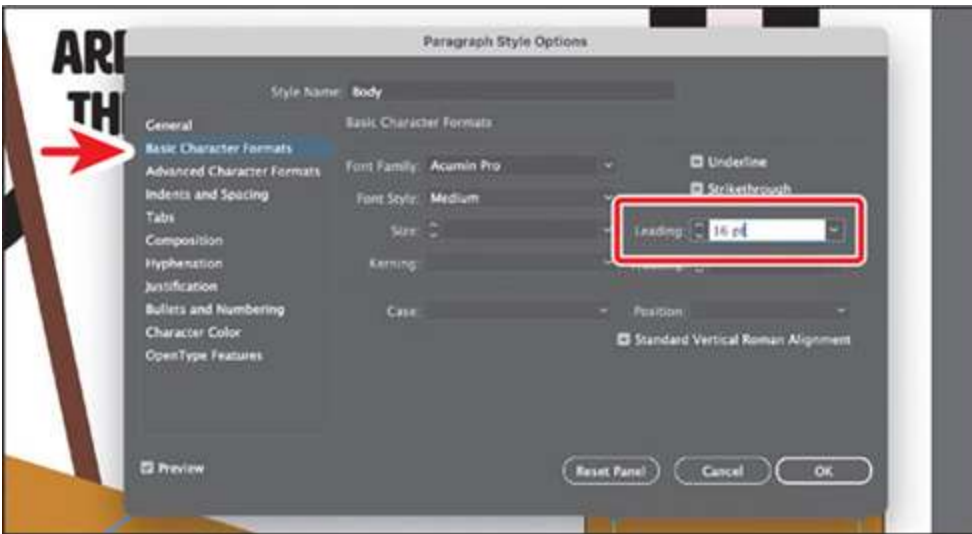
► **Tip**

There are many more options for working with paragraph styles, most of which are found in the Paragraph Styles panel menu, including duplicating, deleting, and editing paragraph styles. To learn more about these options, search for “paragraph styles” in Illustrator Help (Help > Illustrator Help).

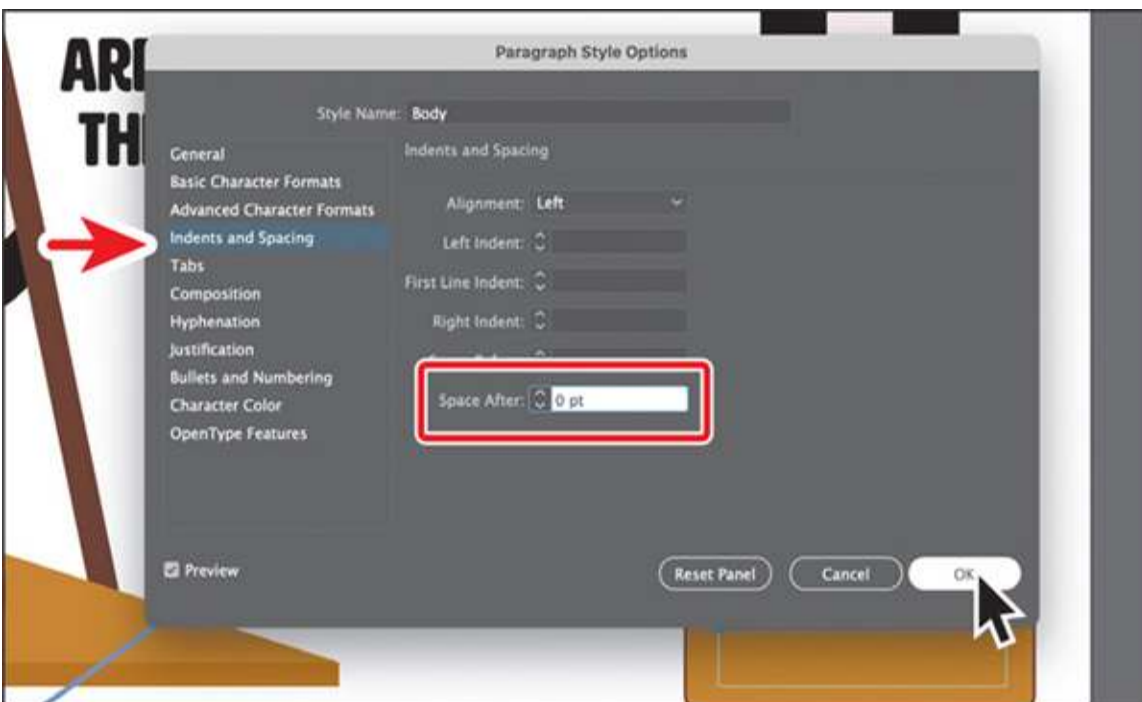
2. To edit the Body style, double-click to the *right* of the style named Body in the Paragraph Styles panel list (otherwise, you will just edit the name inline).



3. In the Paragraph Style Options dialog box, select the Basic Character Formats category on the left side of the dialog box.
4. Change the Leading to **16 pt** (the Leading value will be empty because it is the default value).



5. In the dialog box, select the Indents And Spacing category on the left side, and change the Space After to 0 (zero).



Because Preview is selected by default, you can move the dialog box out of the way to see the text change everywhere the Body style is applied.

6. Click OK.

Creating character styles

To learn about working with character styles, check out the video *Working with character styles*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Creating text lists

In Illustrator you can add bullet and number lists to your text easily. They work just as they do in other apps in which you can add bullets—click a button and they're applied! There are some options, like appearances and sublists, so let's get to it and add a list to the postcard text.

Applying text lists

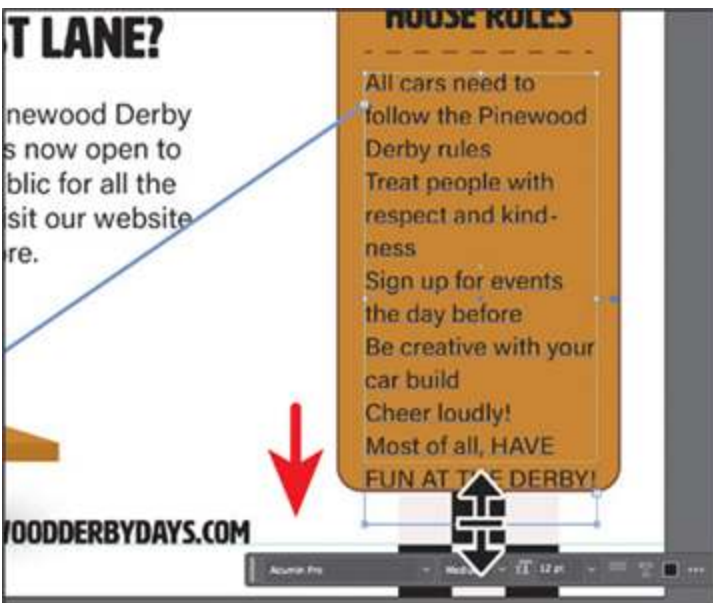
1. Go over to the flyer. At the bottom of the flyer, with the Type tool (**T**) selected, click to insert the cursor in front of the paragraph that begins with “All cars need to follow...”



2. Press Return or Enter a few times until that text is at the top of the type object on the postcard. I had to press it twice.
3. Choose Select > Deselect.
4. On the postcard, with the Selection tool, click the type object below the “HOUSE RULES” text.



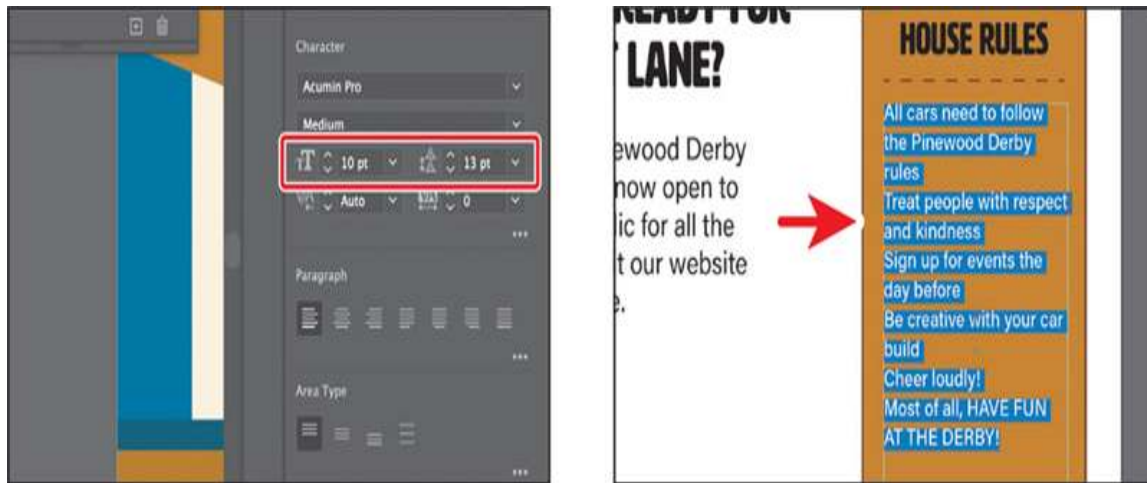
5. If some of the text is hidden, you will see a red plus (+). If that's the case, drag the bottom handle down until you see all the text.
6. Double-click the text to switch to the Type tool, and drag across all of the text to select it.



7. In the Properties panel, change the Font Size to **10 pt** and then change the Leading to **13 pt**.

Note

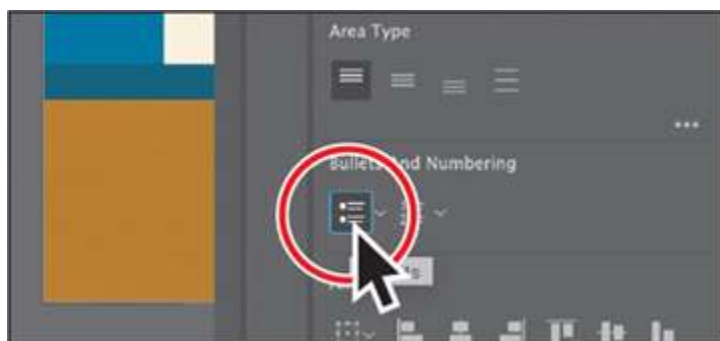
If the first line that starts with “All cars need to follow...” ends up back on the flyer, you can insert the cursor before the text again and press Return or Enter until it’s on the postcard.



8. In the Properties panel, click the Bullets button (☰) to convert the text in the box to a bullet list.

Tip

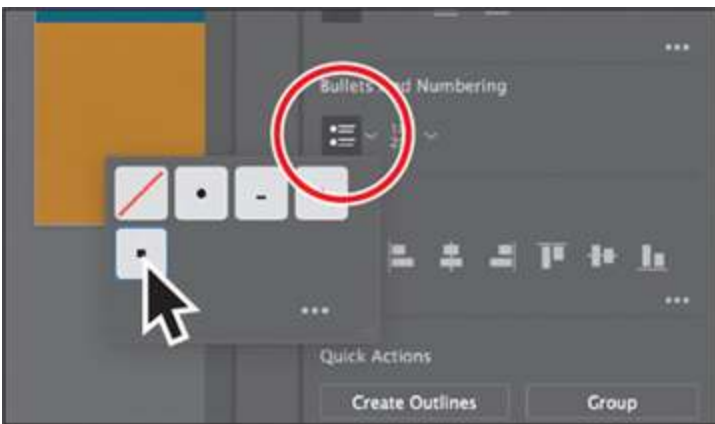
To remove the bullet list, you can click the same Bullets button in the Properties panel!





Editing text lists

Now, let’s set a few options for the list.

1. Click the arrow to the right of the Bullets button (). Try selecting a different bullet appearance.



2. Choose Select > Deselect.
3. With the Type tool, drag across “Treat people with respect...” and “Cheer loudly!” to select all of the paragraphs between.
4. Click the arrow to the right of the Bullets button (). Click more options () in the menu to open the Bullets And Numbering dialog box.

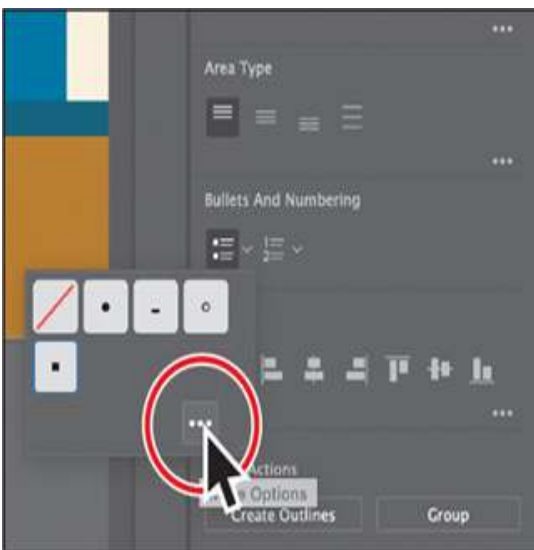


5. In the Bullets And Numbering dialog box, change Level to **2** and try a different bullet appearance.

► **Tip**

To work smarter, you could save the level 2 bullet list as a paragraph style or sample the formatting using the Eyedropper tool!

6. Change the Left Indent and First Line Indent Values. I changed the Left Indent to **26 pt** and the First Line Indent to **-8 pt** to move those list items to the left and decrease the space between the bullet and the text.
7. Click OK.



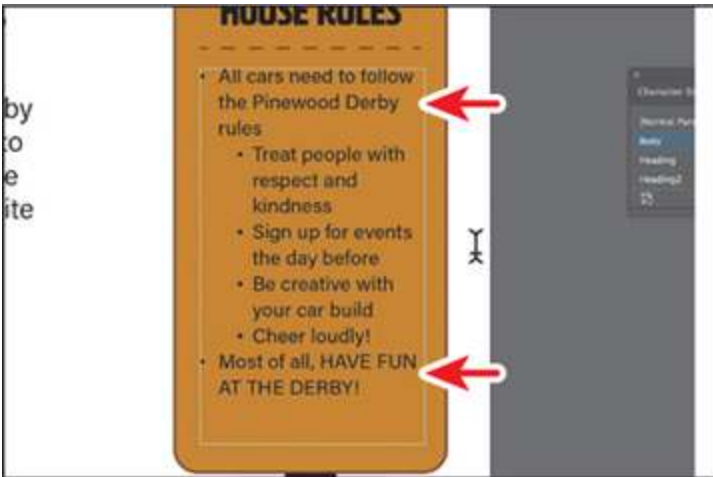
Practice: Editing list options

Time for a little practice editing the appearance of other list items.

1. Select the first list item that starts with “All cars need to follow...”
2. Click the arrow to the right of the Bullets button (•••). Click more options (•••) in the menu to open the Bullets And Numbering dialog box.
3. Try adjusting the Left Indent and First Line Indent to move the text to the left. See the figure.

► Tip

Up to this point, you've learned about font size, space after, leading, and more. Use what you've learned to refine the appearance of the text!



4. Select the last list item that starts with “Most of all...” and do the same.
5. Choose Select > Deselect and then File > Save.

Wrapping text

In Illustrator, you can wrap text around objects, to avoid text running over those objects or to create interesting design effects. Next, you'll wrap text around artwork. In Illustrator, as in InDesign, you apply Text Wrap to the content that the text will wrap around.



Text wrapping around a logo

1. Choose View > Fit Artboard In Window to fit the postcard in the window.

2. Select the Selection tool (🖱️), and click the checkered flag.

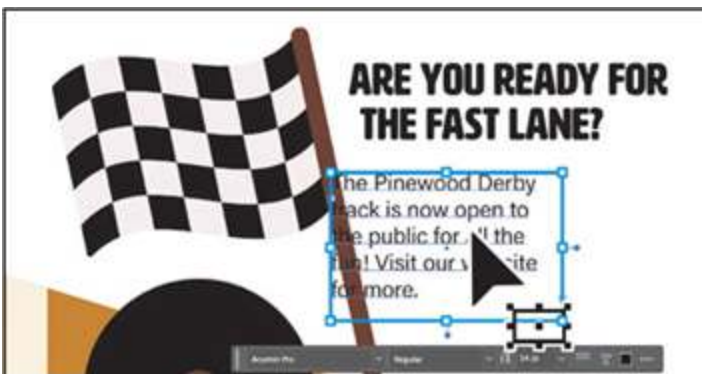
Text Wrap needs to be applied to the object(s) that the text will wrap around.

3. Choose Object > Text Wrap > Make. Click OK if a dialog box appears.



4. Drag the paragraph text that starts with “The Pinewood Derby track is now open...” onto the checkered flag.

Notice that the text is not wrapping. That’s because in order to wrap text around an object, that object must be in the same layer as the text that will wrap around it, *and* the object must also be located above the text in the layer hierarchy.



5. Select the checkered flag and Shift-click to select the car. Choose Object > Arrange > Bring To Front.

The text is now behind the checkered flag in the stacking order, and the text should be wrapping around the flag.

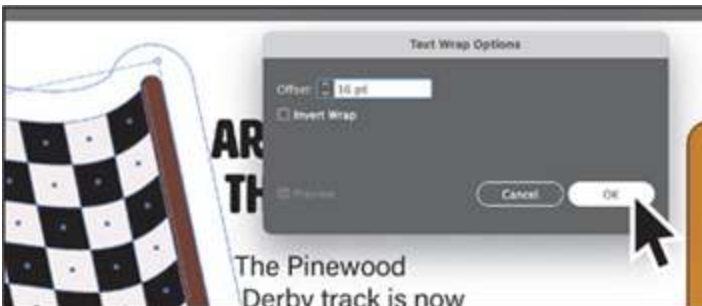


6. Select only the checkered flag.

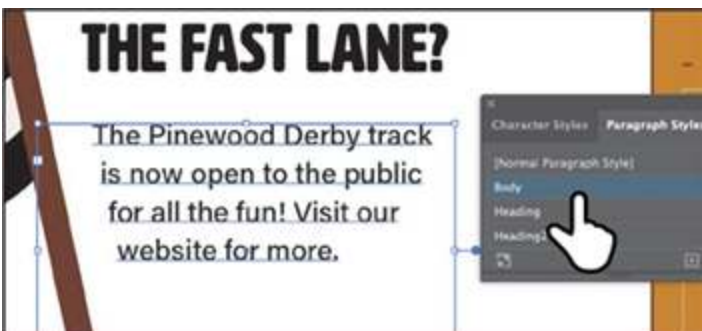
► **Tip**

Try dragging the selected artwork to see how the text flows.

7. Choose Object > Text Wrap > Text Wrap Options. In the Text Wrap Options dialog box, change Offset to **16 pt**, and select Preview to see the change. Click OK.



8. I wound up dragging a corner of the type object to make it bigger. I also wound up applying the Body paragraph style to the text.



Curving text on a path

In addition to having text in point and type objects, you can have type along a path. Text can flow along the edge of an open or closed path and can lead to some uniquely creative ways to display text. In this section, you'll add text to an open path.

FAMILY-OWNED SINCE 1918

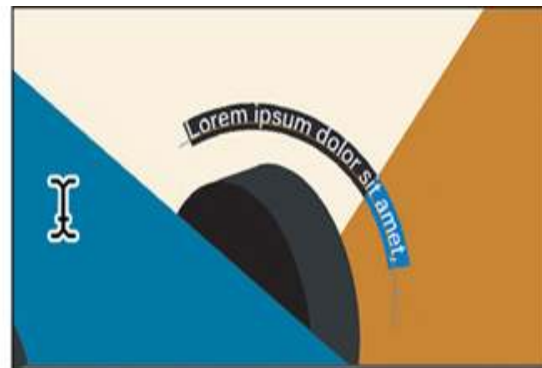
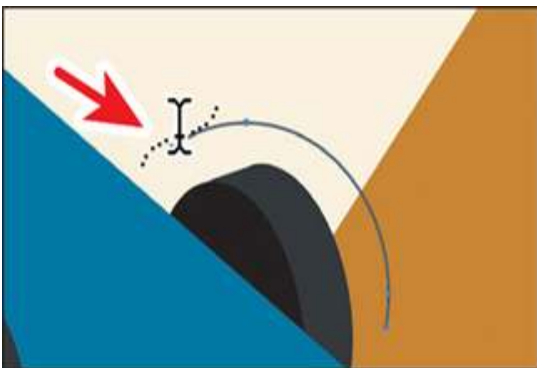


Text on a path

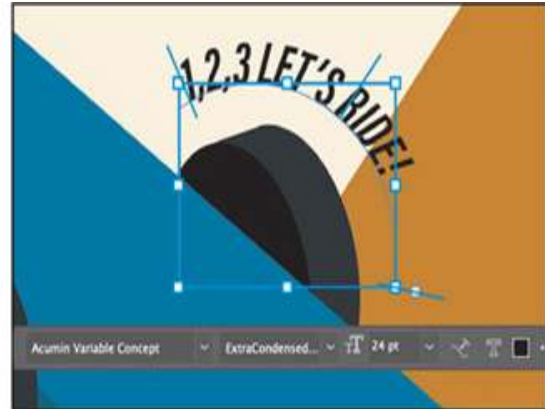
1. On the flyer to the left, with the Selection tool (▢), select the black curved path by the black car wheel.
2. Press Command and + (macOS) or Ctrl and + (Windows) to zoom in, if necessary.
3. Select the Type tool (T). Move the pointer over the left end of the black path and click when this pointer appears: (⌵). Placeholder text is added to the path, and it starts where you clicked.

Note

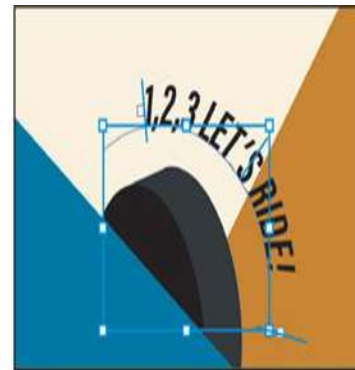
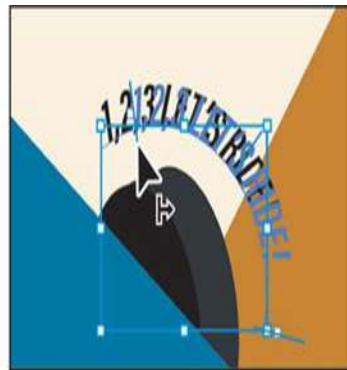
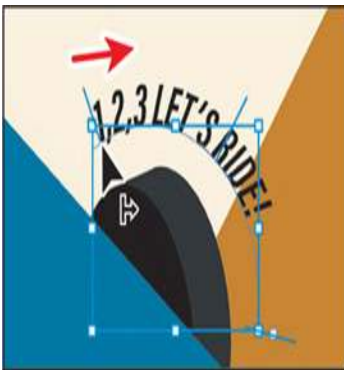
Your text may have different formatting than you see in the figure, and that's okay.



4. Type **1,2,3 LET'S RIDE!**
5. Select the Selection tool. With the path selected, experiment with font size and pick another font family in the Contextual Task Bar. I chose Acumin Variable Concept, ExtraCondensed Bold Italic, and a font size of 24 pt.



6. With the Selection tool, move the pointer over the line on the left edge of the text (just to the left of the "1"). When you see this pointer (↖), drag to sort of center the text on the path.



Warping text

You can create some original design effects by warping text into different shapes using envelopes (shapes). You can make an envelope out of an object on your artboard, or you can use a preset warp shape or a mesh grid as an envelope.



Warped text

Reshaping text with a preset envelope warp

Illustrator comes with a series of preset warp shapes that you can warp text with. Next, you'll make a creative heading by applying a preset warp shape.


1. At the top of the flyer artboard you are on, with the Selection tool selected, click the “PINEWOOD DERBY!” text.
2. Choose Object > Envelope Distort > Make With Warp.
3. The Warp Options dialog box appears, with Preview selected. Make sure Arc is chosen from the Style menu.



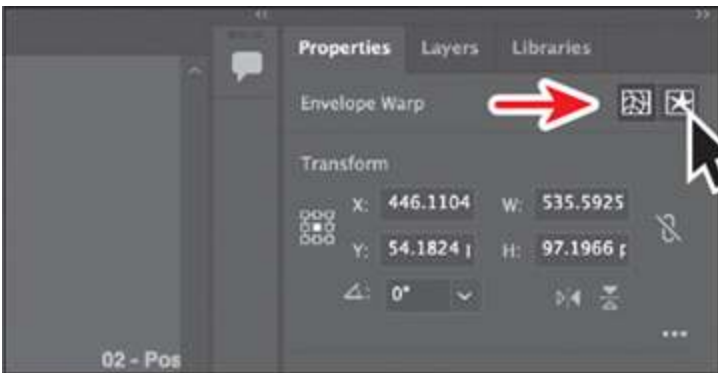
4. Drag the Bend, Horizontal, and Vertical Distortion sliders to see the effect on the text. You may need to deselect and then select Preview.
5. Ensure the Distortion sliders are 0%, and make sure that Bend is 20%. Click OK.

Editing the content of the envelope warp

If you want to make any changes, you can edit the text and shape that make up the envelope warp object separately. Next, you will edit the text and then the warp shape.

1. With the envelope object still selected, click the Edit Contents button () at the top of the Properties panel.


The Edit Contents button enables you to select what is inside of the warp—in this case, the text.

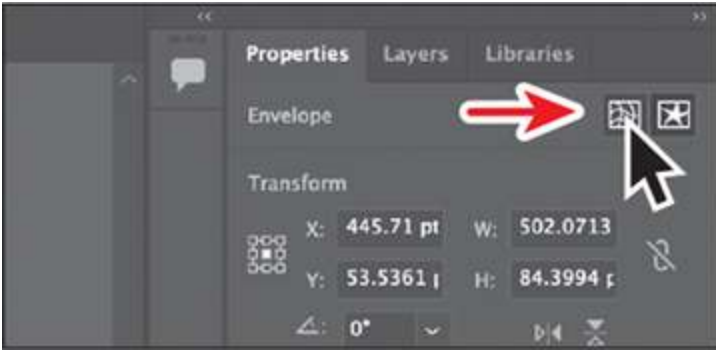


2. Select the Type tool (**T**), and move the pointer over the warped text. Notice that the unwarped text appears in blue. Change the “PINWOOD DERBY!” text to **PINEWOOD DERBY** (*no exclamation point*).



You can also edit the preset shape, which is what you’ll do next.

3. Select the Selection tool (**⬮**), and make sure the envelope object is still selected. Click the Edit Envelope button () at the top of the Properties panel.



4. Click the Warp Options button in the Properties panel.

► **Tip**

If you double-click with the Selection tool instead of with the Type tool, you enter Isolation mode. This is another way to edit the text within the envelope warp object. Press the Escape key to exit Isolation mode.

5. In the Warp Options dialog box, change Bend to **11%** and click OK.



6. With the Selection tool, drag the warped text and the text “PICK YOUR FAST LANE” to center them above the car artwork.



7. Choose Select > Deselect, and then choose File > Save.

Creating text outlines

Turning text into outlines changes it into vector shapes you can edit like graphics, but the text itself is no longer editable. It's useful for headlines or sharing files without fonts but not for small text. You must outline all text in a selection—individual letters can't be converted alone.

● Note

Bitmap fonts and outline-protected fonts cannot be converted to outlines, and outlining text that is less than 10 points in size is not recommended.


You must also convert all text in a selection to outlines; you cannot convert a single letter within a type object. Next, you will convert the subheading to outlines.

1. With the Selection tool (▸), click the “PICK YOUR FAST LANE” type object.
2. Choose Edit > Copy, and then choose Object > Hide > Selection.



The original text is still there; it's just hidden. This way, you can always choose Object > Show All to see the original text if you need to make changes.

3. Choose Edit > Paste In Front.
4. Choose Type > Create Outlines.

The text is no longer text. Instead, it is now editable artwork. With it selected, if you were to select the Direct Selection tool () you could click anchor points and move them!



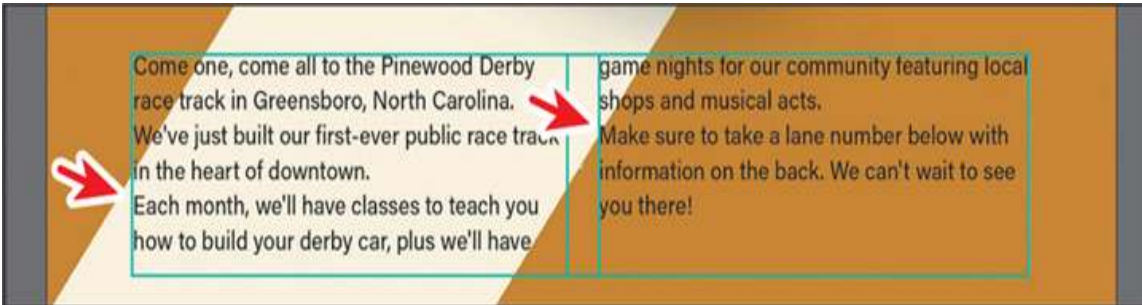
Final tweaks

There are a few odds and ends that would look better with some cleanup.

1. Zoom in to the bottom of the flyer.

There need to be paragraph returns in the text you will add.

2. With the Type tool selected, insert the cursor in front of “Each month...” and press Return or Enter to make it a new paragraph. Insert the cursor in front of the text that starts with “Make sure to take...” and press Return or Enter.



3. Choose Object > Show All to show the blue background on the postcard.
4. Try changing the “ARE YOU READY FOR THE FAST LANE?” text to white.

● Note

I also changed the formatting for the word “visit” in “visit PINEWOODDERBYDAYS.COM” because I think it now looks better. I made it uppercase and changed the font family and style. Feel free to explore!

Also, because you added paragraph returns to the text on the flyer, the bullet list text might have moved down.



5. With the Type tool, insert the cursor and press Delete (macOS) or Backspace (Windows) as many times as needed so the text is again at the top of the list type object.



Exploring Retype

To learn about the Retype feature, check out the video *Using Retype*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting wStarted](#)” at the beginning of the book.

6. Choose File > Save
7. Close any open files.

Review questions

- 1 Name a few methods for creating text in Adobe Illustrator.
- 2 What is overflow text?
- 3 What is text threading?
- 4 What is the difference between a character style and a paragraph style?
- 5 What is the advantage of converting text to outlines?

Review answers

- 1 The following methods can be used for creating text:
 - With the Type tool (**T**), click the artboard, and start typing when the insertion point appears. A point type object is created to accommodate the text.
 - With the Type tool, drag to create a type area object. Type when an insertion point appears.
 - With the Type tool, click an open path or closed shape to convert it to text on a path, or click in a type object. Here's a tip: Option-clicking (macOS) or Alt-clicking (Windows) when crossing over the stroke of a *closed* path creates text around the shape.
- 2 Overflow text is text that does not fit within an area type object or path. A red plus sign (**+**) in an out port indicates that the object contains additional text.
- 3 Text threading allows you to flow text from one object to another by linking type objects. Linked type objects can be of any shape; however, the text must be entered in an area or along a path (not at a point).
- 4 A character style can be applied to selected text only. A paragraph style is applied to an entire paragraph. Paragraph styles are best for indents, margins, and line spacing.
- 5 Converting text to outlines eliminates the need to send the fonts along with the Illustrator file when sharing with others and makes it possible to add effects to type that aren't possible when the type is still editable (live).

10 Organizing Your Project with Layers

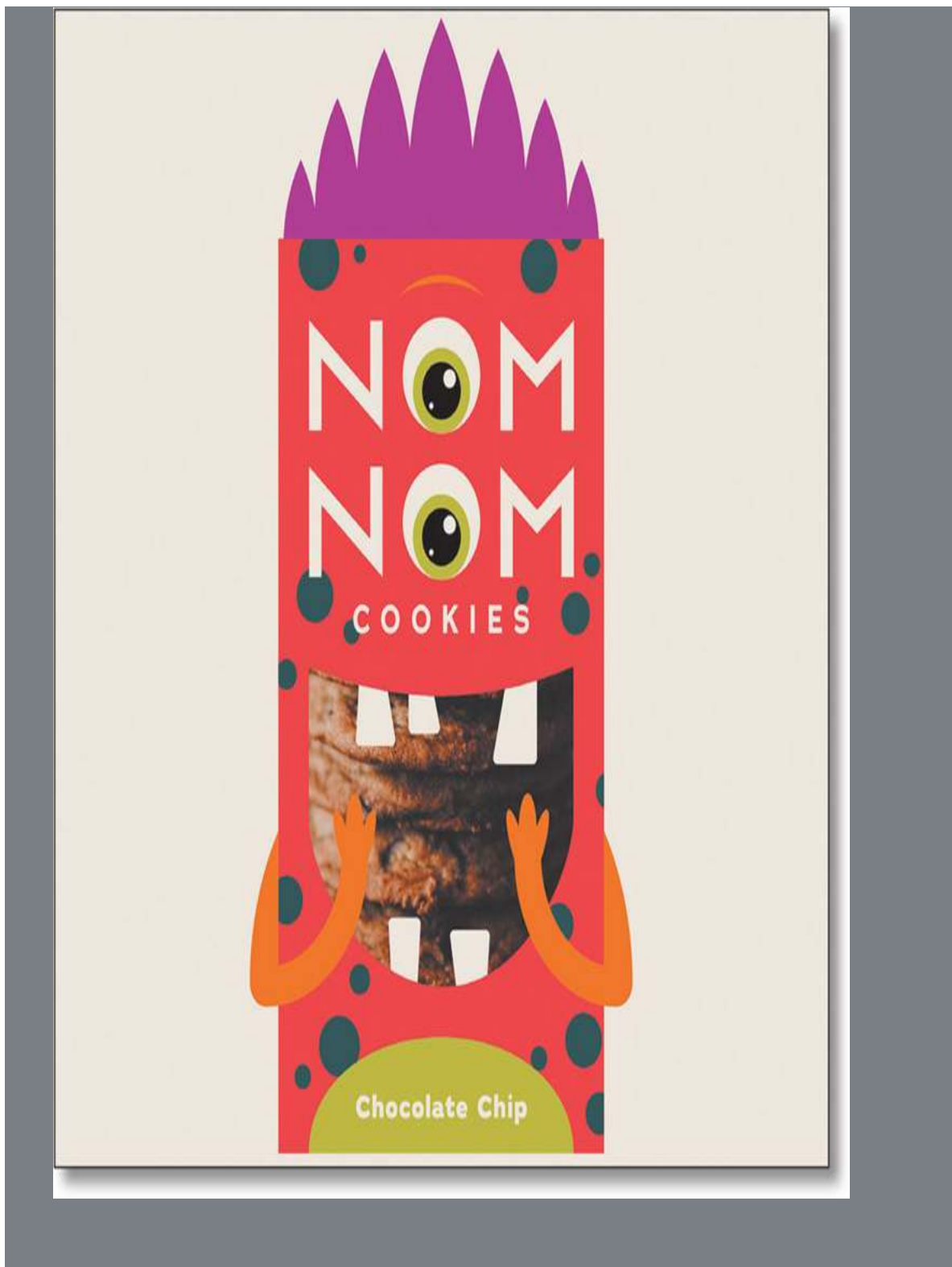
Lesson overview

In this lesson, you'll learn how to do the following:

- Work with the Layers panel.
- Create, rearrange, and lock layers and sublayers.
- Name layers.
- Locate objects in the Layers panel.
- Move objects between layers.
- Copy and paste objects and their layers from one file to another.
- Search and filter layers.
- Make a layer clipping mask.



This lesson will take about 45 minutes to complete. To get the lesson files used in this lesson refer to the instructions in [“Accessing the lesson files and Web Edition”](#) in the [“Getting Started”](#) section at the beginning of this book.



Creating layers in your Illustrator artwork lets you organize

your artwork and easily control how it is printed, displayed, selected, and edited.

Starting the lesson

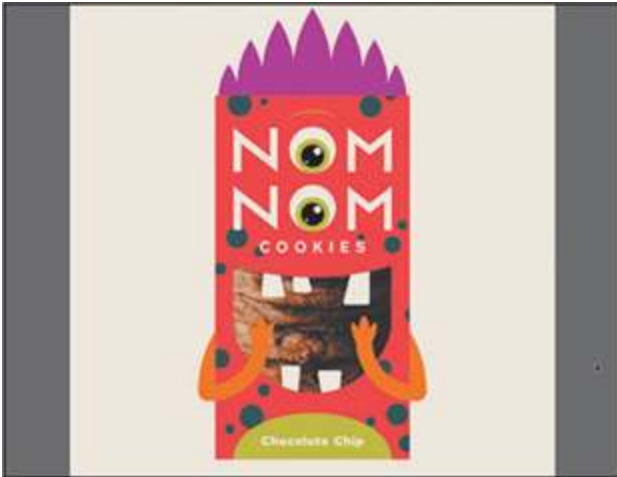
In this lesson, you'll organize the packaging artwork for a fictitious company, Nom Nom Cookies, and explore various ways to work with layers in the Layers panel.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. Choose File > Open. Open L10_end.ai in the Lessons > Lesson10 folder you copied to your computer.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

The Missing Fonts dialog box may appear, indicating that fonts were used in the file that aren't on your machine. The file uses Adobe fonts that you most likely don't have added, so you will fix these before moving on.



4. In the Missing Fonts dialog box, make sure any missing fonts are selected, and click Add Fonts. After some time, the font(s) should be added, and you should see a success message in the Missing Fonts dialog box. Click Close.



5. If you see a dialog box about font auto-activation, click Skip.
6. Choose View > Fit All In Window.
7. Choose Window > Workspace > Reset Getting Started.

● Note

If you don't see Reset Getting Started in the menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

8. Choose File > Open. Open L10_start.ai in the Lessons > Lesson10 folder.
9. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer.
10. In the Save As dialog box, name the file **CookiePackage.ai**, and select the Lesson10 folder. Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and then click Save.



11. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and then click OK.

Using layers

What are layers in Illustrator?

- Layers are like invisible folders that help you hold and manage all the items that make up your project.

- You can't see layers on the artboard, but they are there, ready to help you when needed.



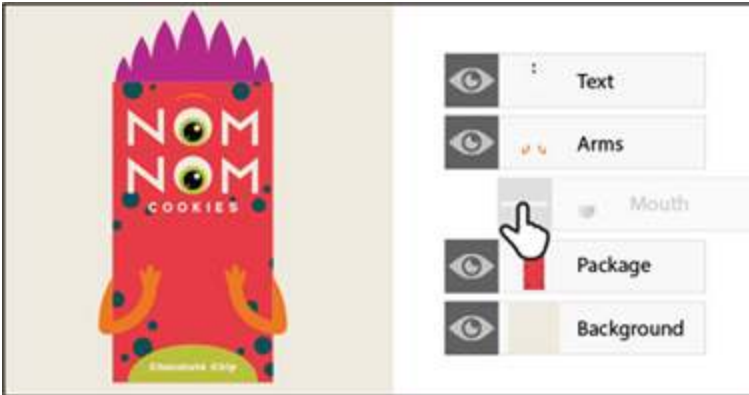
► **Tip**

You learned all about stacking order in [Lesson 2](#)!

If you shuffle content within those folders (layers) or reorder the layers themselves, you change the *stacking order* of your artwork.

You could work on an entire project and never touch layers. For instance, maybe you have a straightforward design with only a few pieces, like an icon. Layers might not be useful in that case. Designs that are more complicated or involved tend to have more pieces and parts. It becomes challenging to select specific artwork, quickly move related items, or temporarily hide things you need to get out of the way for a minute.

Using layers to organize your artwork can help you to deal with these issues and more. For example, you could place text on a separate layer and lock that layer to focus on other artwork without affecting the text, or have multiple languages that you can turn on and off. In the figure, I've "turned off" an entire layer, the mouth artwork, to hide everything on that layer at once.



With an idea of what layers are, you're ready to get into the project and see how you can use them to your advantage when working with a design.

When should you use layers?

The short answer is, it's up to you and your project needs.

Here are a few of many scenarios where adding layers to your project makes sense:

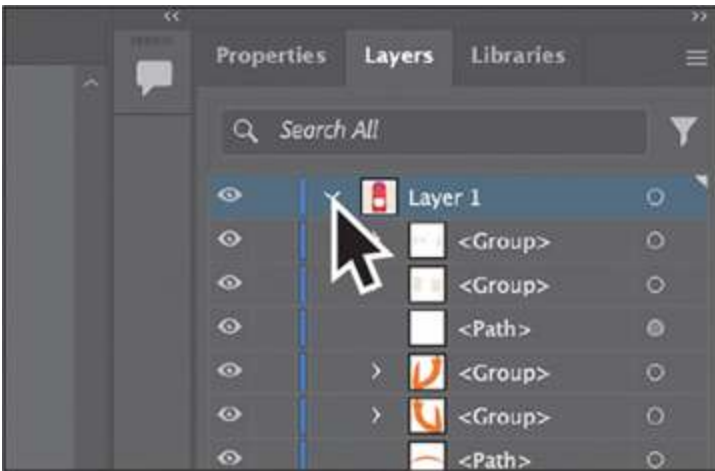
- You have multiple design concepts or text with multiple languages and want to be able to show and hide the versions easily.
- Putting type, artwork, and design elements like background colors on separate layers makes it easier to lock and hide content.
- For web or app design, having all UI elements on their own layer can make exporting or hiding to work on other things much easier.

Creating layers

In this lesson, you'll add layers to organize *existing* content, making it easier to make selections and edit content in a packaging design. Before you begin, know that there is no “wrong” layer structure, but as you gain

more experience with layers, you'll see what makes sense for you and your specific projects.

1. Choose View > Fit Artboard In Window.
2. To show the Layers panel, click the Layers panel tab on the right side of the workspace, or choose Window > Layers.

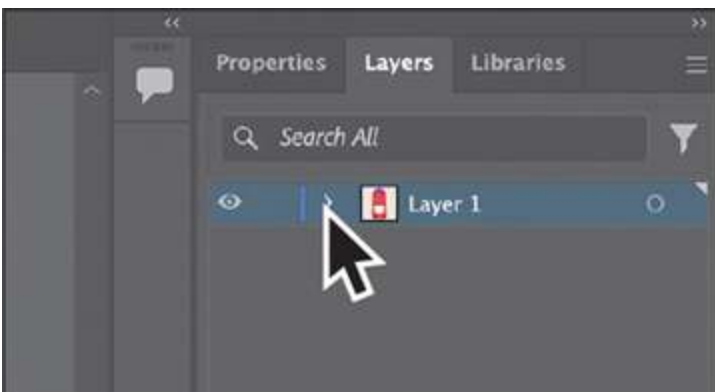


3. Click the triangle (▸) to the left of the Layer 1 thumbnail (▢) to show the layer content in the panel, if you don't already see it.

The Layers panel lists *all* content in the document, with default names like <Group> for groups and <Image> for images.

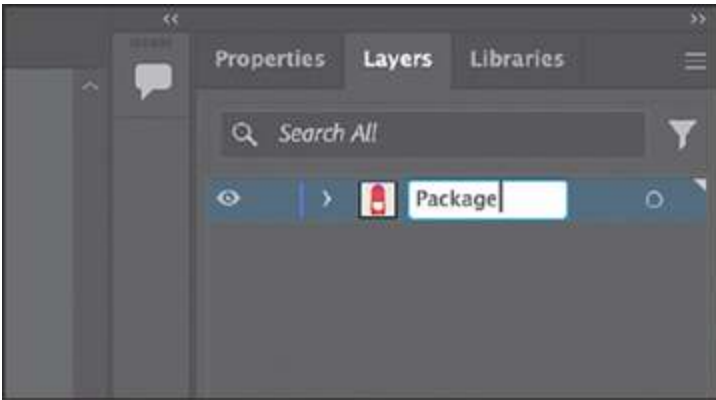
4. Click the same triangle (▾) to the left of the Layer 1 thumbnail (▢) to hide the content on that layer so the panel doesn't look as busy.

The first thing you'll do is give Layer 1 a name that makes sense.



5. In the Layers panel, double-click *directly* on the layer name (Layer 1) to edit it inline. Type **Package** and then press Return (macOS) or Enter (Windows).

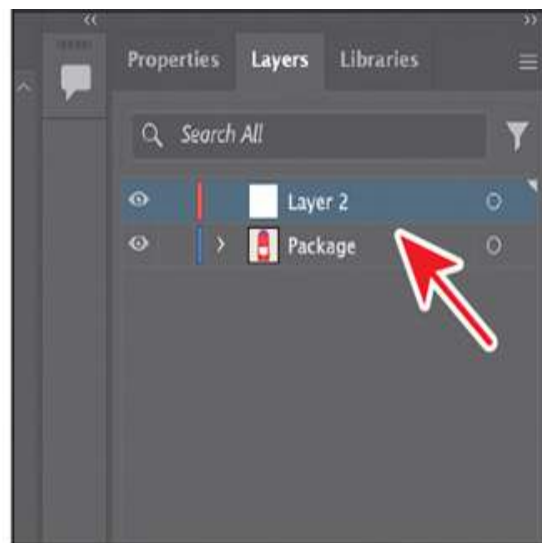
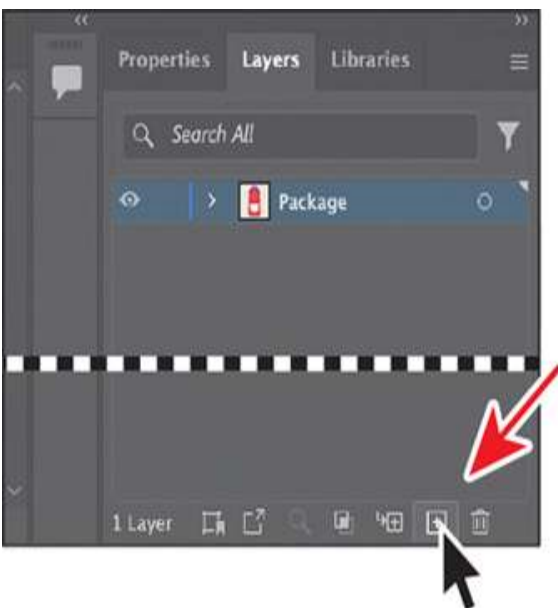
Now let's make a new layer.



6. Click the Create New Layer button (⊞) at the bottom of the Layers panel to make a new layer.

● **Note**

In the figure, I split the very tall Layers panel, indicated by the dashed line. That way, you can see the top and bottom of the panel.



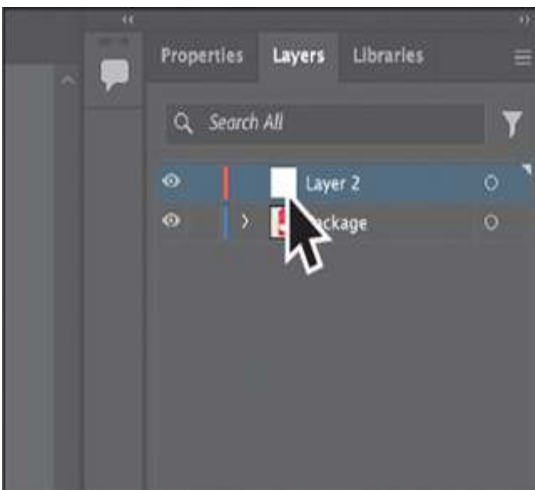
By default, the new layer is added above the currently selected layer in the Layers panel and becomes active. When you make a new layer, it's named in sequence, like Layer 1, Layer 2, and so on.

Notice that the new layer doesn't have a triangle (▶) to the left of the layer name. That's because it's empty to start with.

7. Double-click the empty layer thumbnail (the white box) to the left of the layer name (Layer 2) or in the blank area to the right of the name in the Layers panel.
8. In the Layer Options dialog box that opens, change the name to **Arms**, and notice all the other options available.

Note

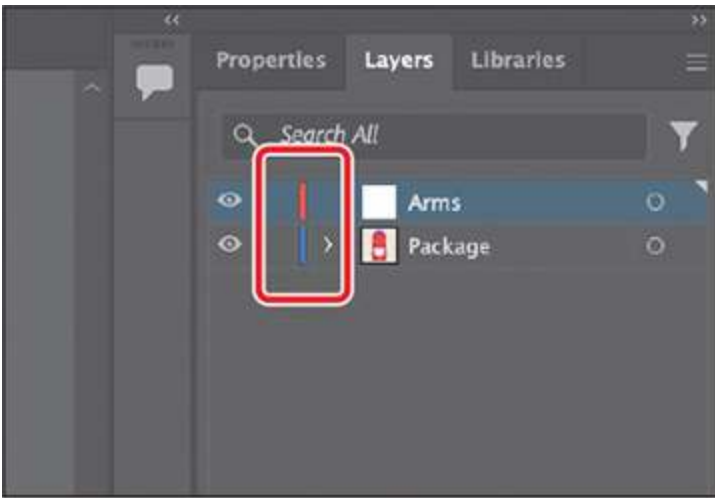
The Layer Options dialog box has a lot of options you've already worked with, including naming layers, setting Preview or Outline mode, locking, showing and hiding (layers, in this case). If you deselect Print, any content on that layer will not print.



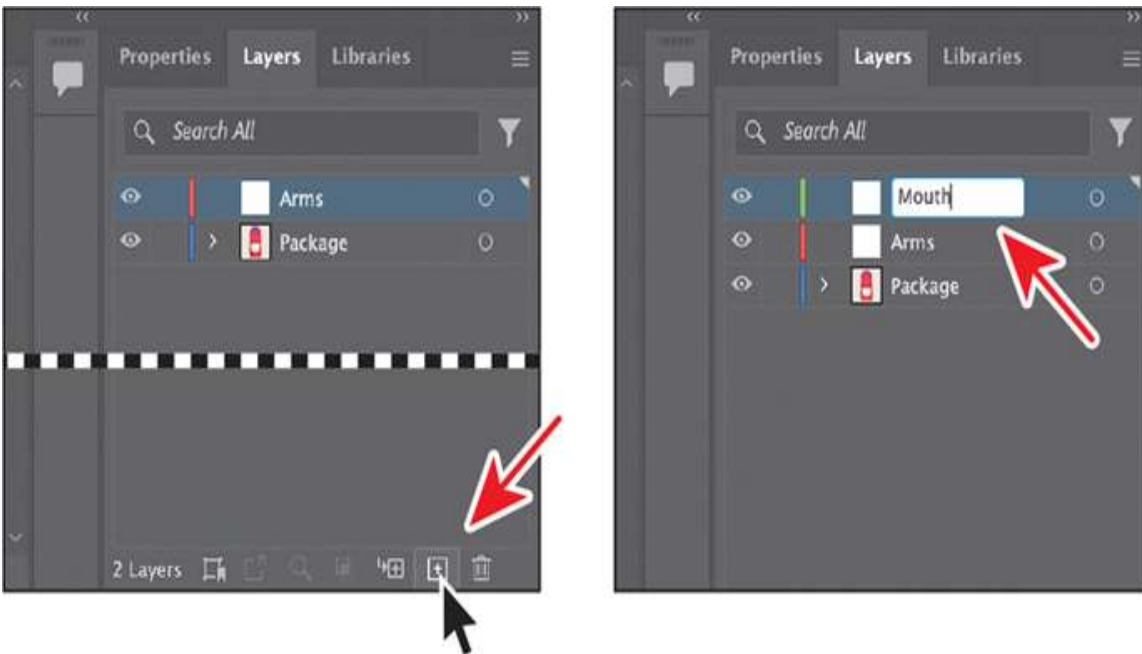
9. Click OK.

Notice that the new layer has a different layer color (a light red). This will become more important later, as you select content. Next, you'll practice by creating a new layer named Mouth.

10. Click the Create New Layer button (⊞) at the bottom of the Layers panel again.

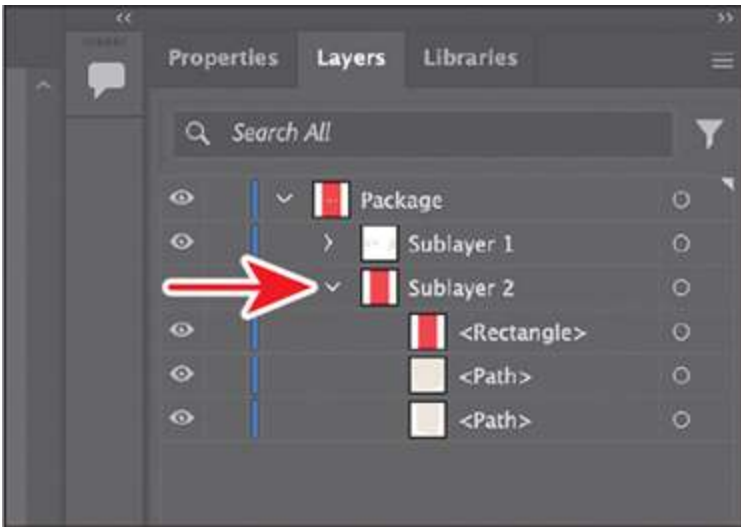


11. Double-click the new layer name (Layer 3), and change the name to **Mouth**. Press Return or Enter to accept the change.



Creating a sublayer


Think of a sublayer as a subfolder within a layer—essentially, a layer nested within a layer. Sublayers can be useful for organizing content within a layer without having to group content.



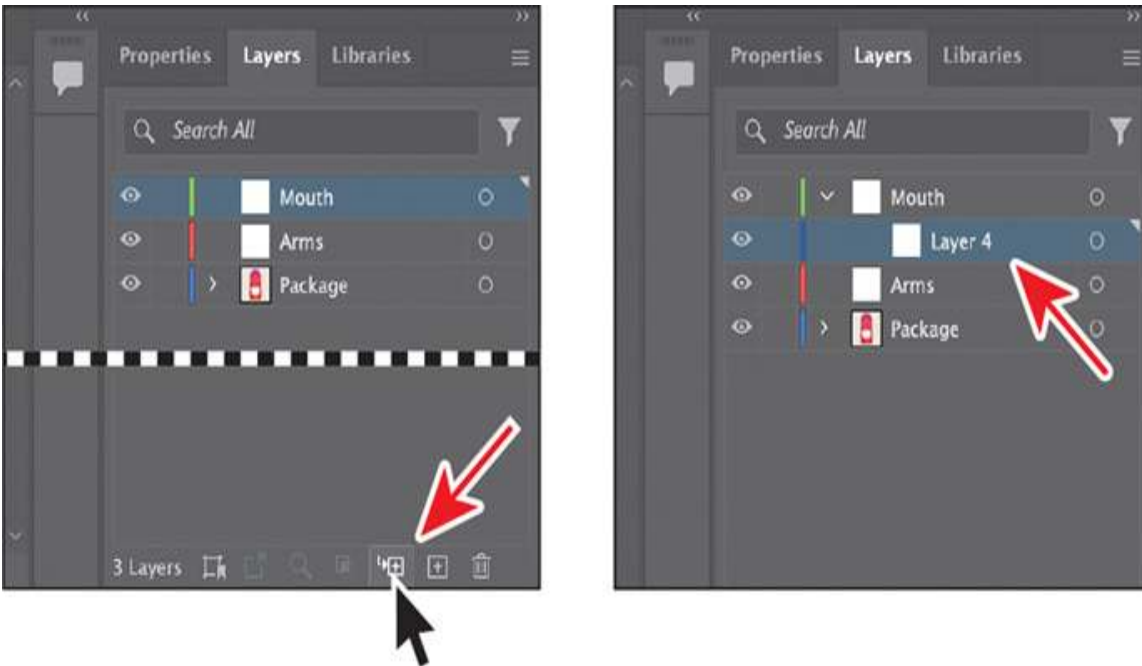
Next, you'll create a sublayer to put the monster's teeth onto so that you can keep them together.

1. In the Layers panel, select the Mouth layer, if it isn't already selected.

Selecting a layer does not select the artwork on the artboard. Only the layer itself is selected, allowing you to do things like move it or delete it.

2. Click the Create New Sublayer button () at the bottom of the Layers panel.

A new sublayer is created on that layer and is selected. You can think of this new sublayer as a “child” of the “parent” layer, which is named Mouth.

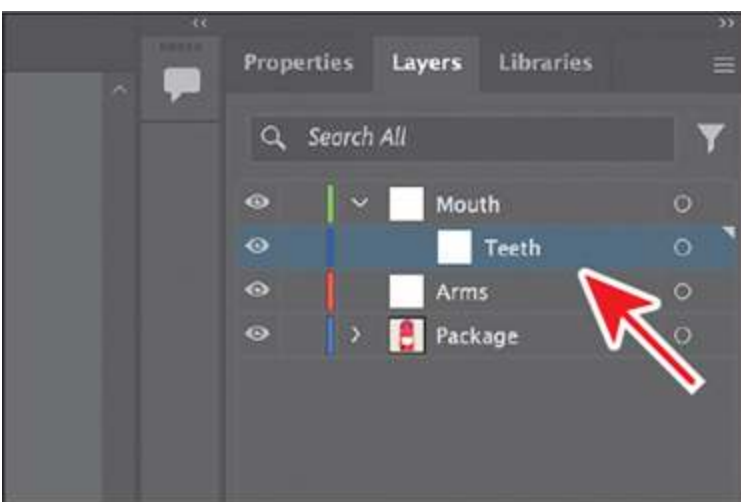


3. Double-click the new sublayer name (Layer 4, in my case), change the name to **Teeth**, and then press Return or Enter.

Creating a new sublayer opens the selected layer to show the content.

4. Leave the Teeth sublayer showing in the Mouth layer.

In the next sections, you'll add content to the Teeth sublayer.



Editing layers and objects

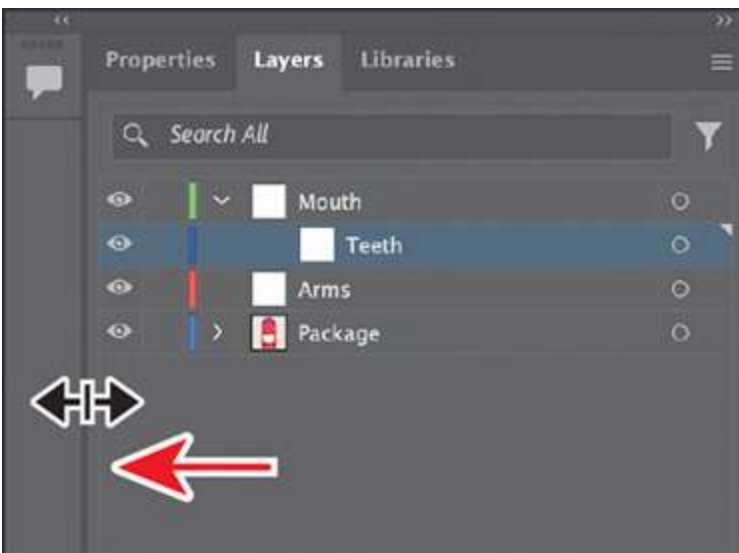
As you create and add layers and sublayers, you'll move content between those layers to better organize it, and you'll rearrange the layers in the Layers panel to change the stacking order of objects in your artwork.

Locating content in the Layers panel

There may be times when you select something on the artboard and want to see where that content is in the Layers panel. This can help you determine how content is organized—whether it's on the right layer, for instance. You'll find the teeth in the Layers panel so you can drag them to another layer in the next section.

1. Drag the left edge of the Layers panel to the left to make it wider.

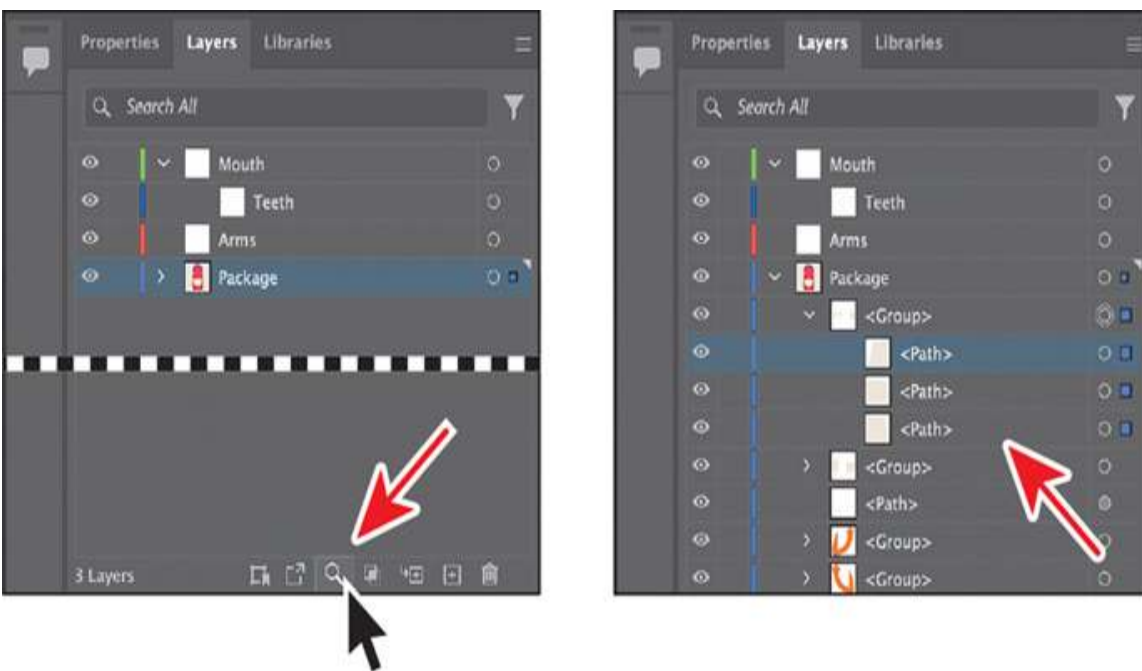
When the names of layers and objects are long enough or objects become further nested one in another, the names can become truncated—in other words, you can't see all of them.



2. With the Selection tool (▢), click one of the teeth in the top part of the mouth to select a group of teeth.



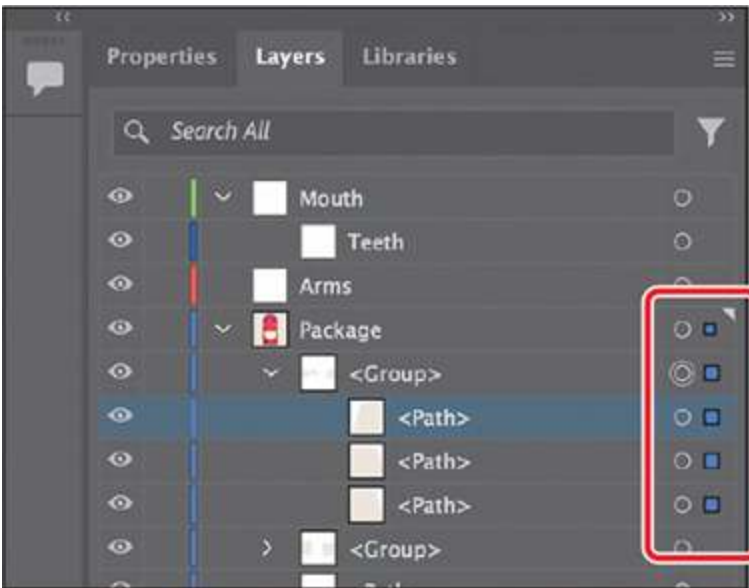
3. Click the Locate Object button (🔍) at the bottom of the Layers panel to reveal the selected content within the Layers panel.



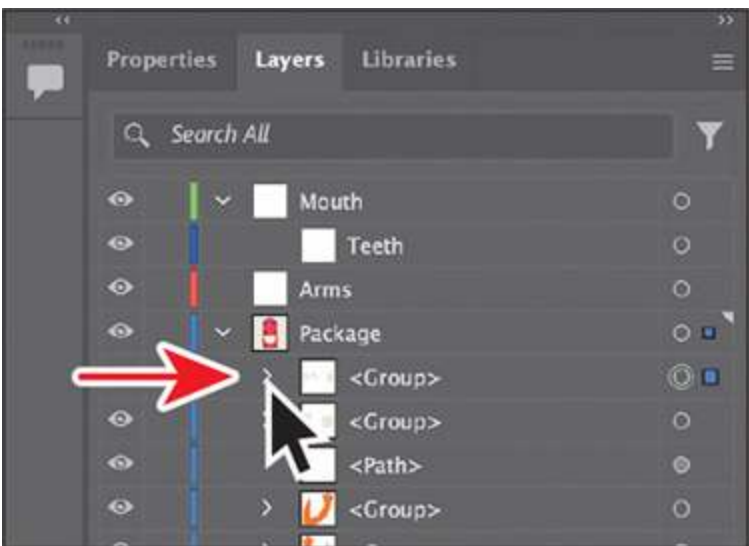
The layer that the teeth are on opens (if it wasn't already), and you should see each tooth listed (named <Path>) in a group (named <Group>) within the Package layer.

In the Layers panel, can you see the little *selected-art indicators* (■) to the far right of the teeth <Group>? They're circled in the figure.

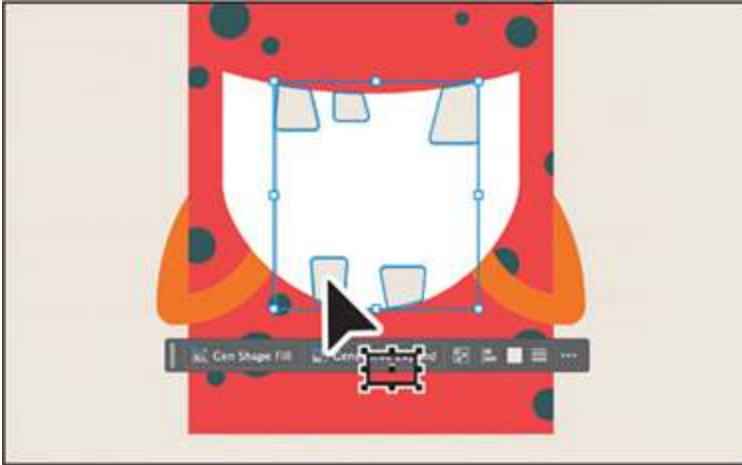
Those little boxes mean that content is selected on the artboard. The <Path> objects you see listed are the teeth.



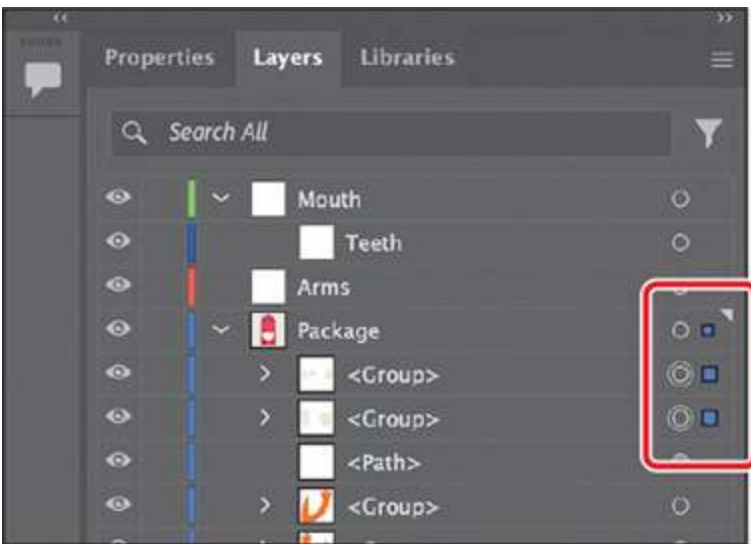
4. So that you don't see each individual tooth in the Layers panel, click the triangle (▼) to the left of the <Group> name to hide them.



5. On the artboard, Shift-click a tooth in the bottom row of teeth to select that group as well.



In the Layers panel, you should see a selected-art indicator (■) to the far right of the other group of teeth. Each row of teeth is named <Group> in the Layers panel for an obvious reason—they are groups of individual shapes.



Also, look at the teeth artwork on the artboard. Notice that the color of the bounding box, paths, and anchor points of the selected artwork matches the layer's color (the small color strip [] you see to the left of the layer name in the Layers panel). When you select artwork on the artboard, you can tell what layer it's on by the color of the bounding box, paths, or anchors.

6. Choose Select > Deselect.

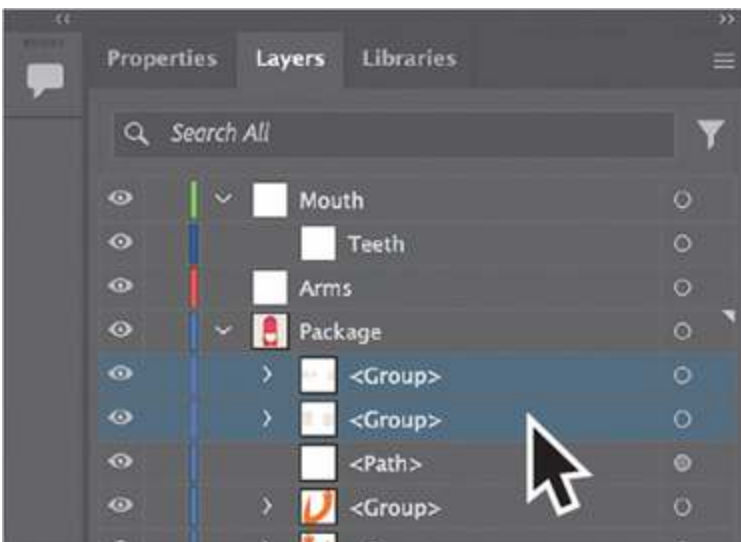
In the next section, I will ask you to select those same groups in the Layers panel.

Dragging content between layers

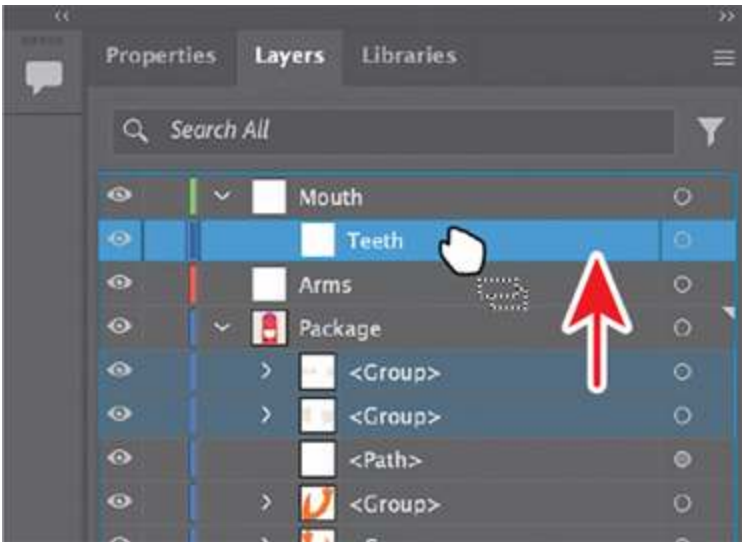
There are several ways to move content from one layer to another. Next you'll move artwork to different layers using a few different methods to take advantage of the layers and sublayers you've created.

1. In the Layers panel, click one of the teeth <Group> names; then Shift-click the other <Group> name.

Notice that this does not select the teeth on the artboard! All you are doing is selecting the layer groups within the Layers panel so you can move them, rename the groups, and more.

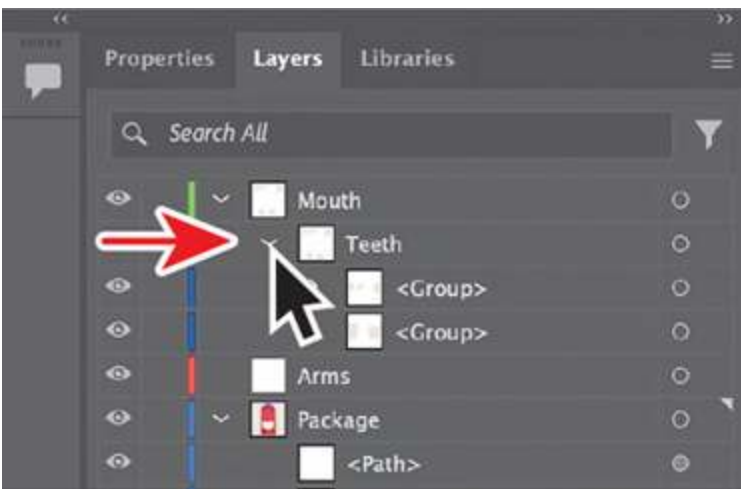


2. Drag either selected <Group> straight up onto the Teeth sublayer in the Mouth layer. When the sublayer shows a highlight, release to add the layer.

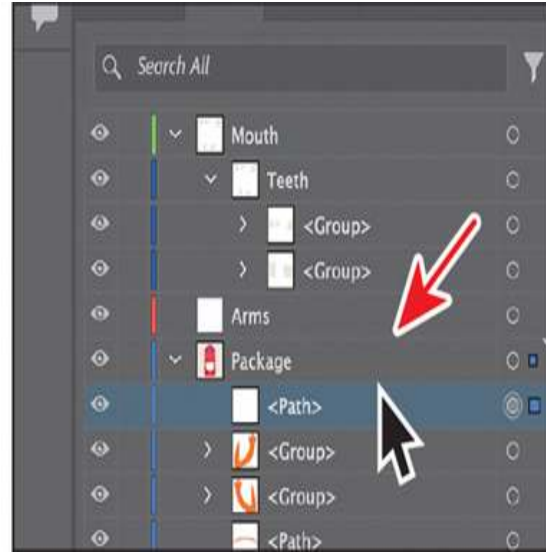
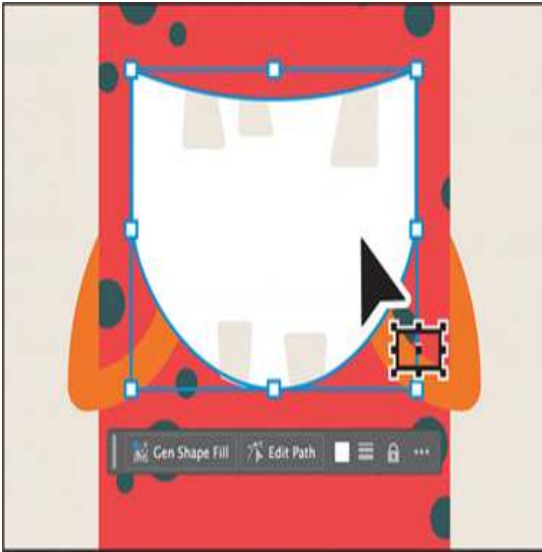


3. Click the triangle to the left of the Teeth sublayer, and you can now see both groups nested in there.

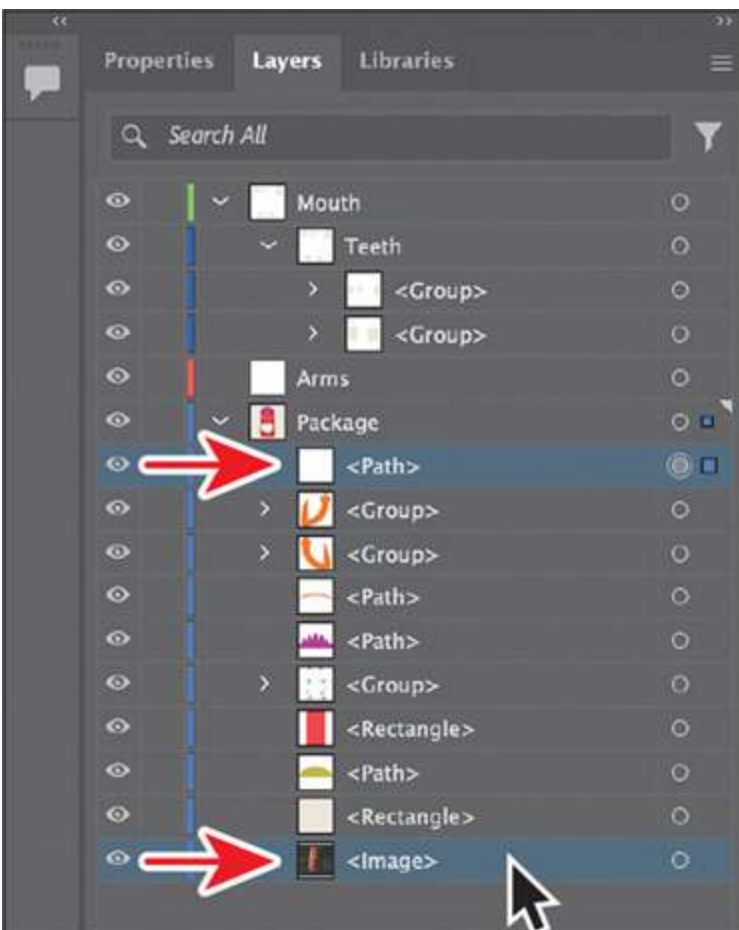
Now for some practice!



4. Click the white mouth shape on the artboard so you can see where that shape is listed in the Layers panel.
5. On the Package layer, click the name of that selected path to select it in the layer list.



6. In the Layers panel, find the <Image> object on the Package layer. Command-click (macOS) or Ctrl-click (Windows) its name in the Layers panel to select it as well.



7. Drag either the selected <Path> or <Image> layer directly onto the Mouth layer. Release when the layer is highlighted.

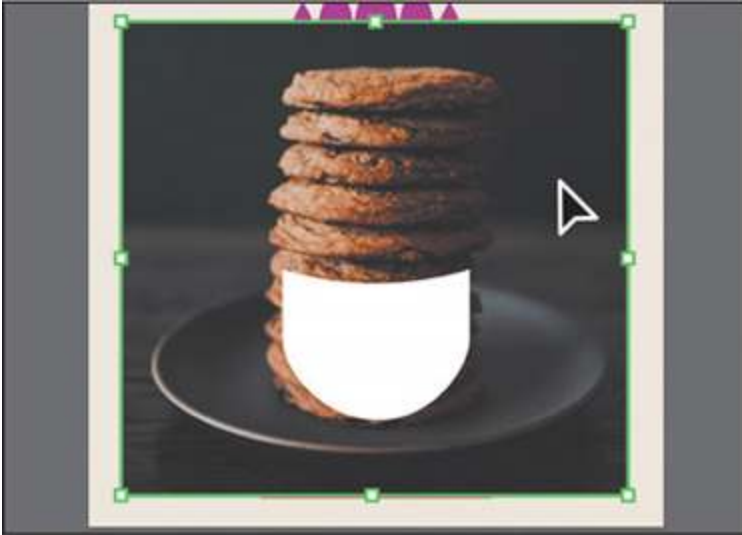


Be careful! Don't drag them onto the Teeth sublayer or they will go into that sublayer, which you don't want, because they are not teeth!

Notice that the white mouth shape and image are covering the teeth and the arms in the design. Any content that is dragged to another layer or sublayer is automatically at the top of the layer or sublayer ordering. You'll fix that shortly.

8. Select the image out on the artboard.
9. To hide it, choose Object > Hide > Selection.

You'll learn how to hide layers in the Layers panel in a later section.



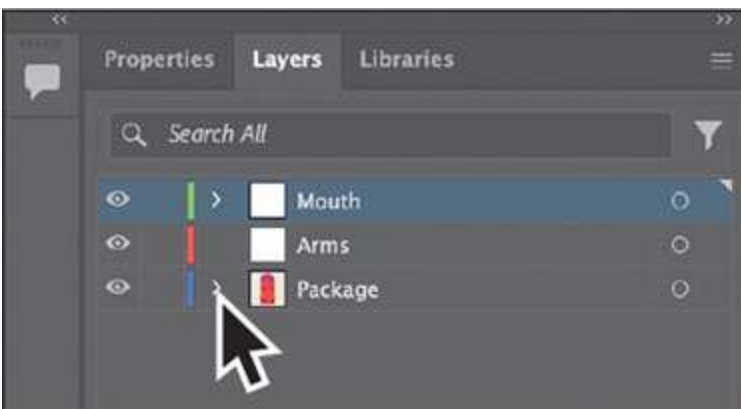
Trying another method for dragging content to a layer

Now you'll try another way to move something from one layer to another. This method can be faster at times, especially if you can't see where the content is in the Layers panel—maybe because none of the layer content is showing.

Let's move the arms onto the Arms layer.

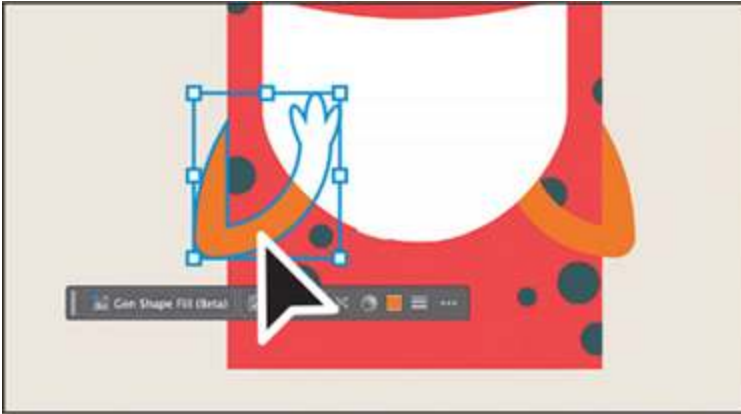
1. Click the triangles to the left of the Package layer and Mouth layer names in the Layers panel to hide the content.

Hiding the layer content is a great way to make the Layers panel less visually cluttered.

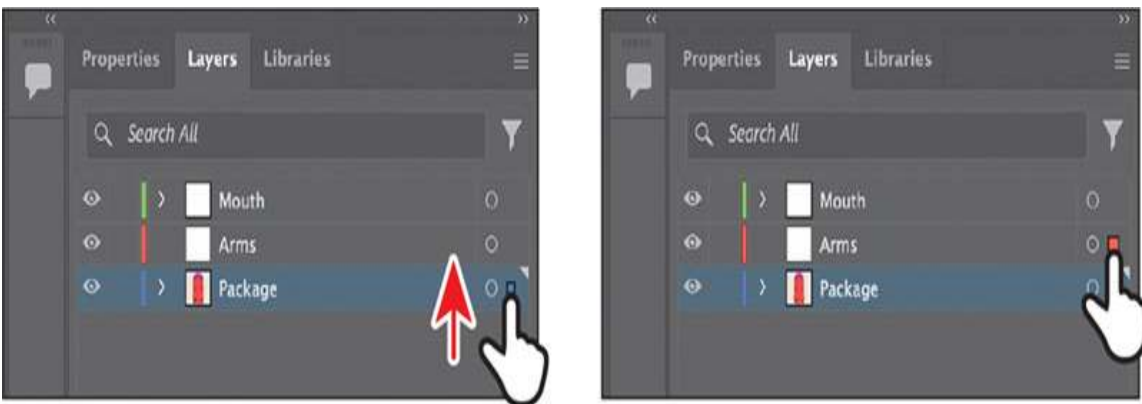


2. Select one of the orange arms on the artboard.

You should see a blue selected-art indicator (■) to the right of the Package layer in the Layers panel. That little indicator tells you that the arm is on the Package layer without having to reveal the content of that layer!

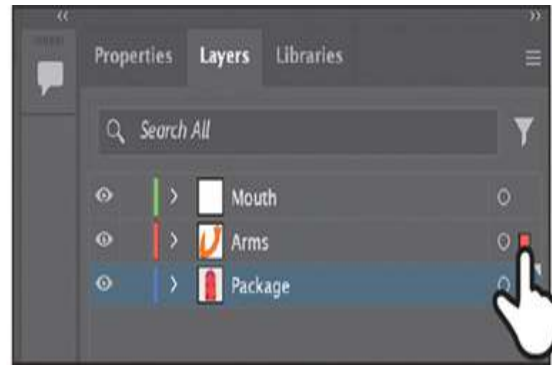
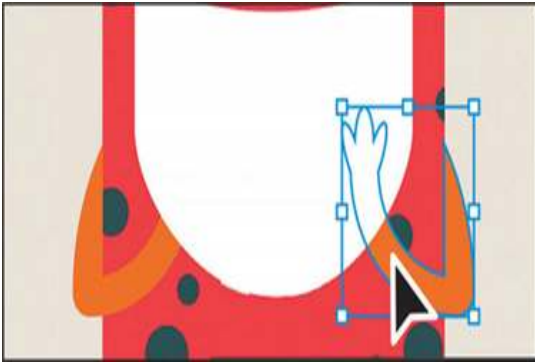


3. Drag that blue selected-art indicator straight up in the same column of the panel to the Arms layer—you won't have to drag very far.

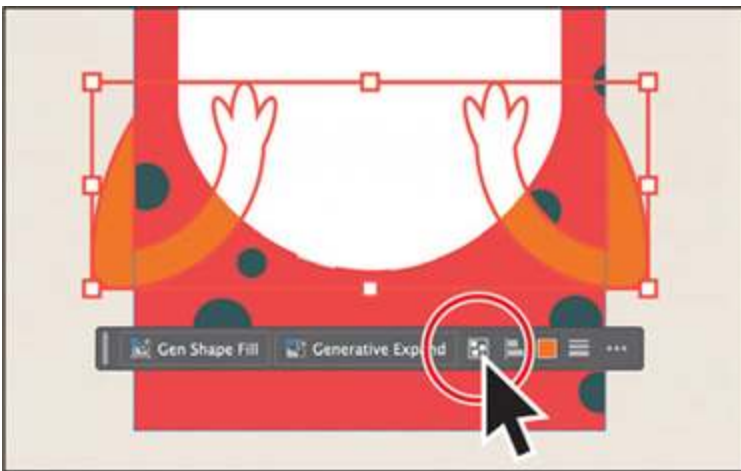


The one arm is now on the Arms layer, and you should see that the bounding box is now the same color as the Arms layer—red.

4. Practice by selecting the other orange arm on the artboard and dragging the selected-art indicator from the Package layer to the Arms layer. Both arms are now on the Arms layer.

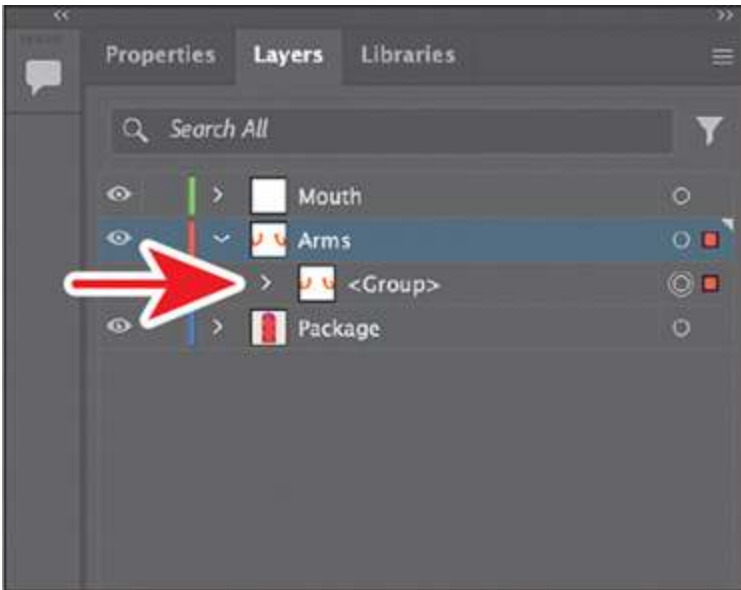


5. Click the triangle (▸) to the left of the Arms layer to show the arms in the list.
6. On the artboard, with the one arm still selected, Shift-click the other arm. Group them by clicking the Group button (⌘+G) in the Contextual Task Bar.



Looking in the Arms layer, you should now see a <Group> object and, if you were to click the triangle to the left of the <Group> name, you would see the separate arms within the group.


7. If necessary, click the triangle (▸) to the left of the Arms layer to hide the content.

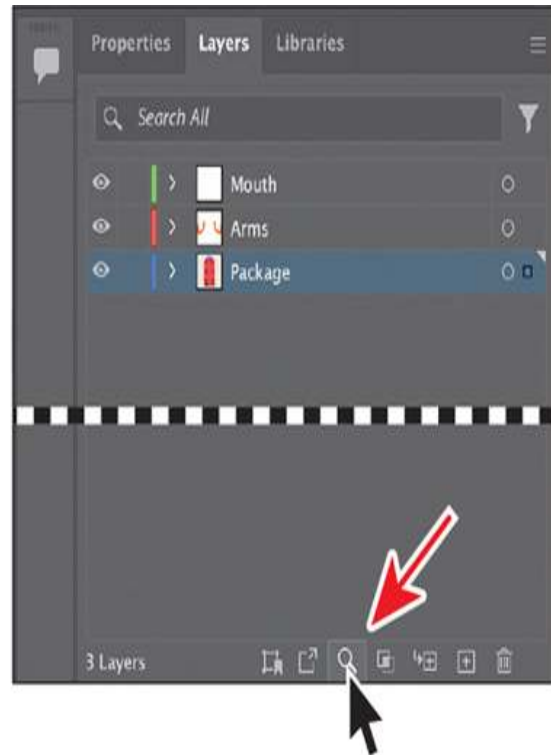
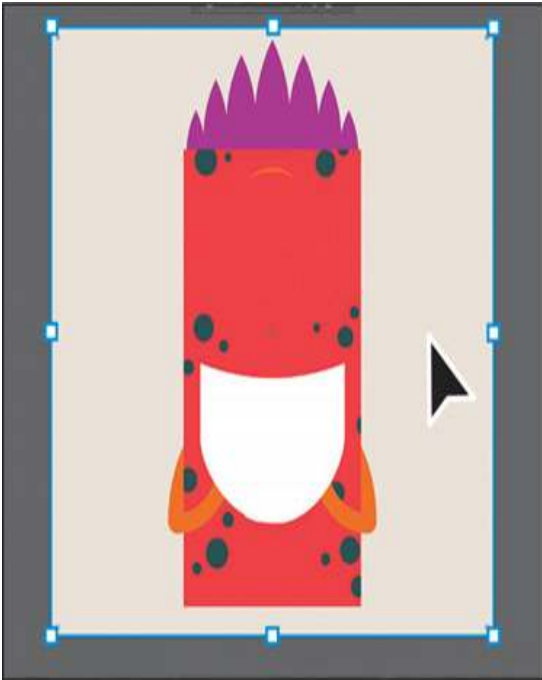


8. Choose Select > Deselect, and then choose File > Save.

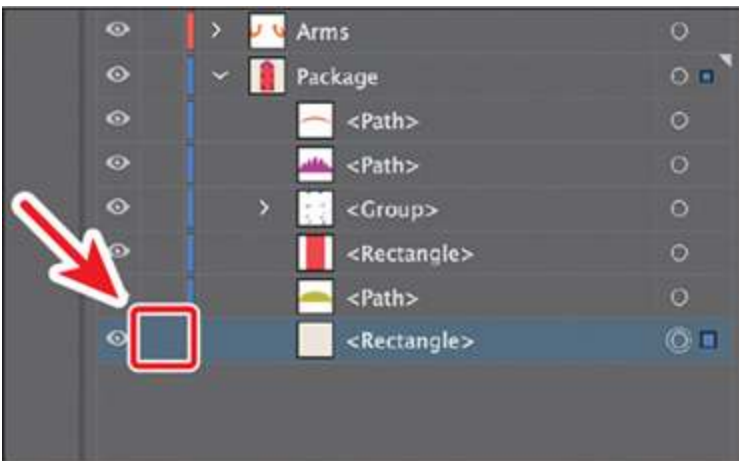
Locking and hiding layers

In [Lesson 2](#), “[Selecting Artwork](#),” you learned about locking and hiding content. When you lock and hide content using menu commands or keyboard shortcuts, you can see the result in the Layers panel. The Layers panel also lets you hide or lock content. The best part about hiding or locking in the Layers panel? You can perform these actions on layers, sublayers, or individual objects. In this section, you’ll lock some content and hide other content to make it easier to select things.

1. Click the background light-brown rectangle on the artboard.
2. Click the Locate Object button () at the bottom of the Layers panel to find it in the layer list.



Find the rectangle in the layers list. See the empty column to the right of the Visibility icon (👁️)? This is where you can lock content and also see if something is locked.



3. Choose Object > Lock > Selection.

In the Layers panel, a little lock icon (🔒) now shows in that column.

We need to rearrange the mouth and arms and work on them a little. It would be easier if the rest of the content were locked—so let's do

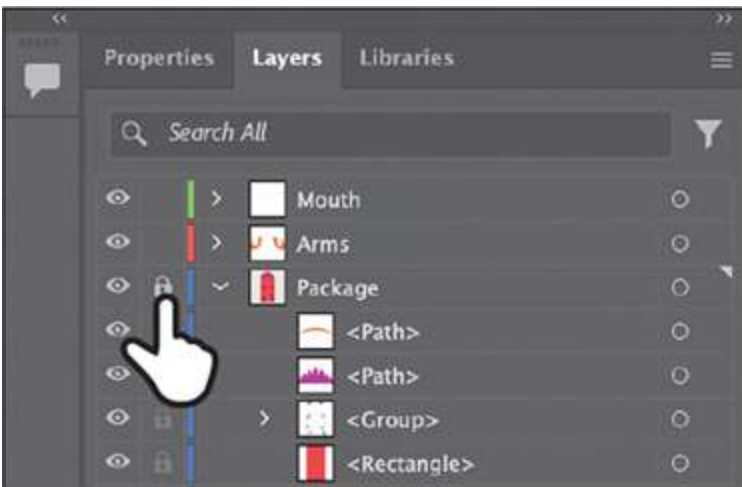
that.

Now you'll see the power of using the Layers panel after all of this setup!

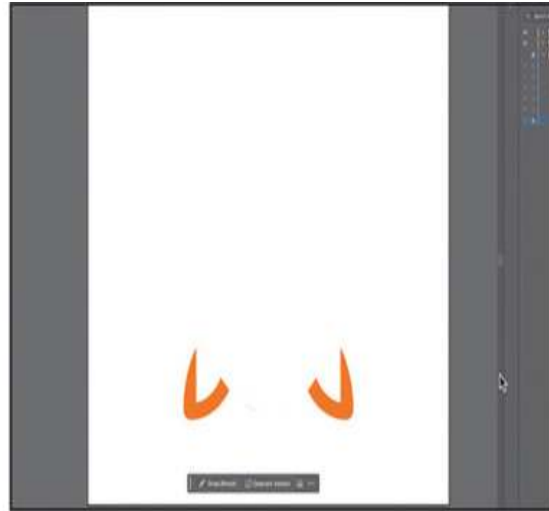
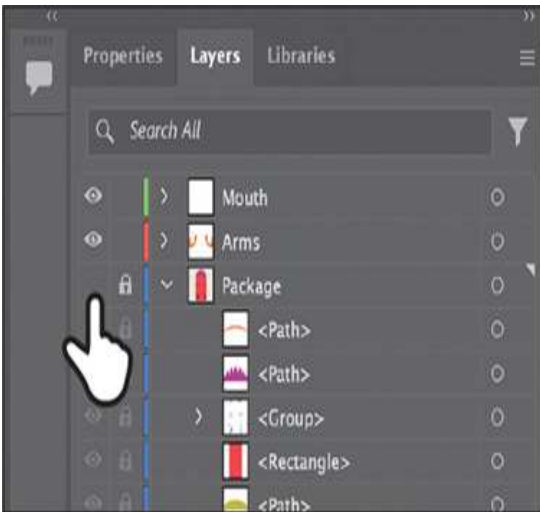


4. In the Layers panel, click the empty lock column to the right of the Visibility icon (👁) for the Package layer.

This action locks all of the objects on the Package layer, so you cannot select them on the artboard.



5. To temporarily hide the content on the Package layer, in the Layers panel, click the Visibility icon (👁) for the layer.



Without the colorful packaging showing, you can really see only the arms, because the mouth shape is white on the white artboard. In the next section, you'll rearrange things so the mouth is behind the arms.

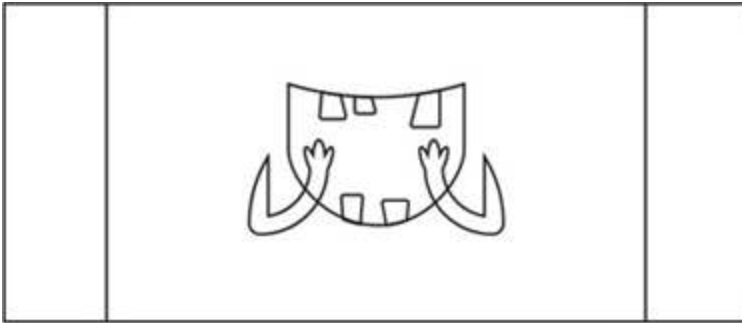
Reordering layers and content


In earlier lessons, you learned that objects have a stacking order, depending on when and how they were created. You used *arrange* commands like Bring To Front and Send To Back to reorder artwork.

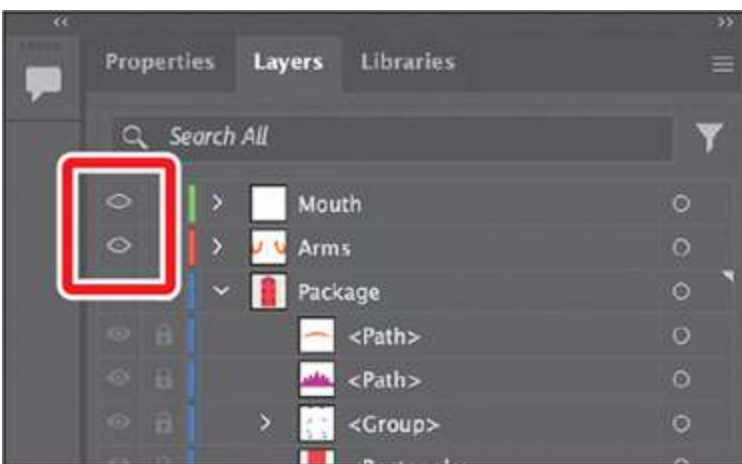
Those arrange commands apply within the content of a single layer. You can also reorder layers to control how overlapping objects are displayed. Next, you'll fix the arms and teeth so they are no longer underneath the white mouth shape.

1. To view the artwork in Outline mode, press Command+Y (macOS) or Ctrl+Y (Windows).

You should now see the teeth, mouth, and arms! Next, you'll put the teeth on top of the mouth shape.

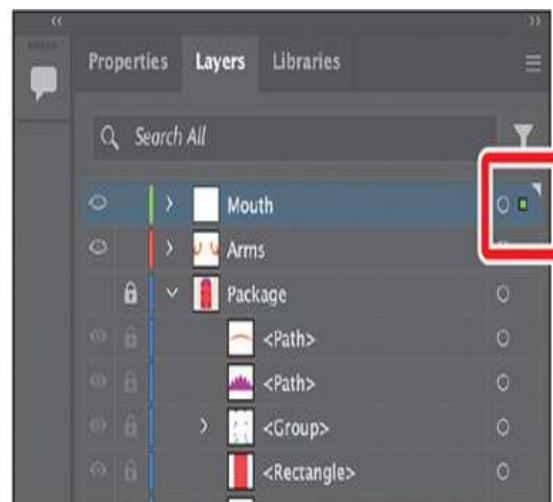
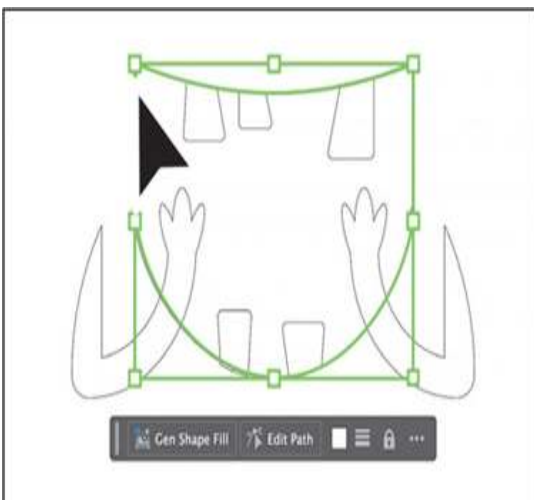


Notice the hollow Visibility icons () in the Layers panel now. They indicate that the content on those layers is in Outline mode.



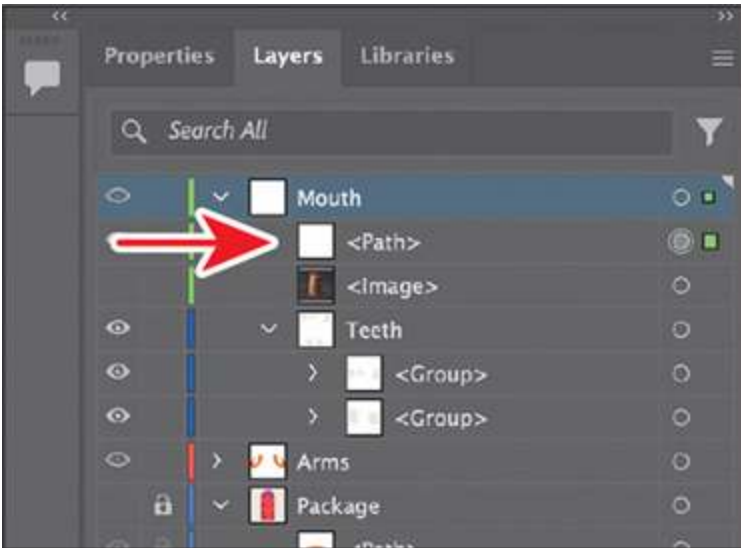
2. On the artboard, click the edge of the mouth shape to select it.

In the Layers panel, notice the selected-art indicator for the Mouth layer, telling you what layer it's on (highlighted in the following figure).



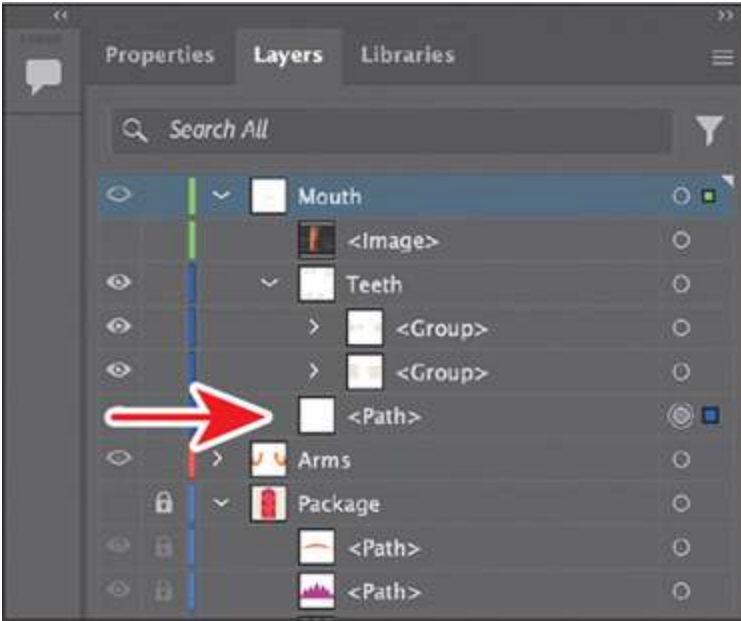
3. In the Layers panel, click the triangle (▾) for the Mouth layer so you can see what is on the layer.

Looking in the Layers panel, you can now see that the mouth <Path> is at the top of the Mouth layer.



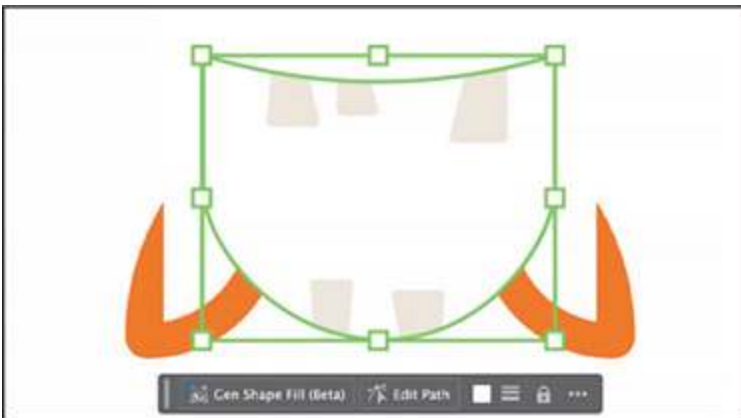
4. Choose Object > Arrange > Send To Back so the white shape is behind the teeth.

The arrange commands arrange content only within the layer that the object is on! If you want the mouth to go behind something on the Package layer, either the mouth shape would have to be on the Package layer or you could move the entire Mouth layer beneath the Package layer in the Layers panel.

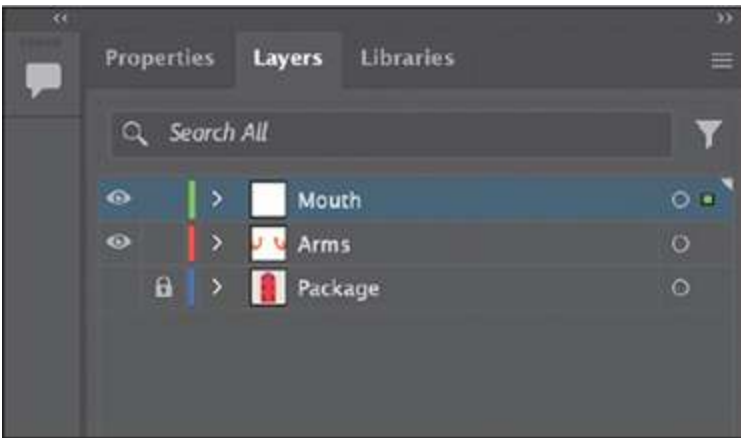


5. Press Command+Y (macOS) or Ctrl+Y (Windows) to exit Outline mode.

You can now see the teeth! But you still have a problem. The arms are still behind the mouth. You cannot use arrange commands to fix this, because the arms and mouth are on different layers. To fix this, you need to reorder the layers themselves.



6. In the Layers panel, click the triangle (▼) to the left of the Mouth, Arms, and Package layers to hide the content for each.



This will make it easier to drag layers.

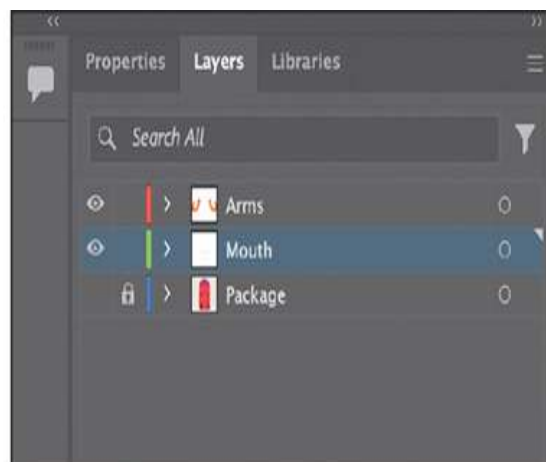
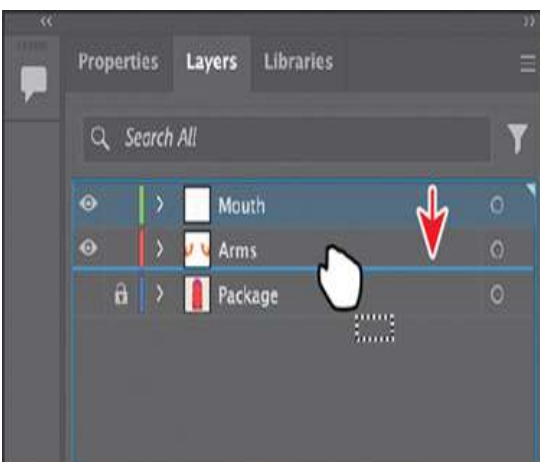
7. Choose Select > Deselect.

► **Tip**

Press Cmd+Shift+A (MacOS) or Ctrl+Shift+A (Windows) to deselect!

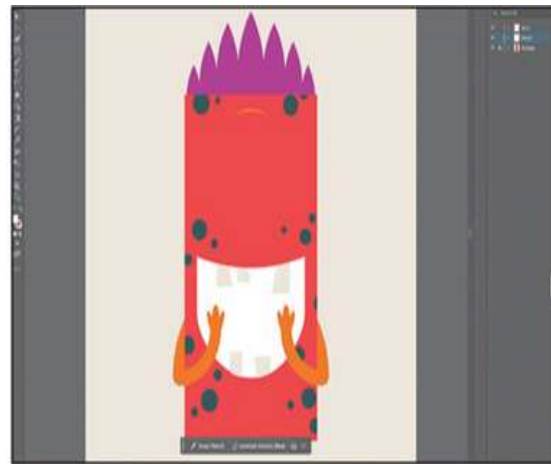
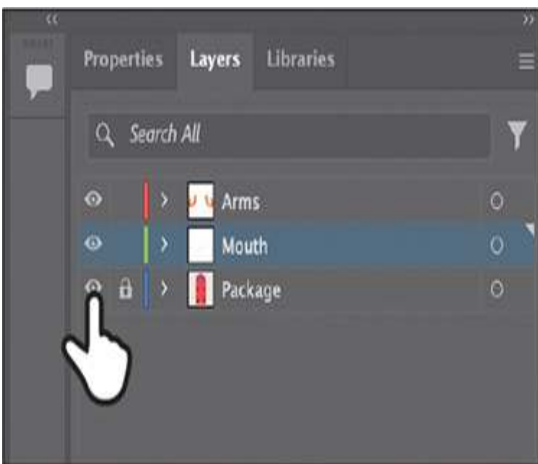
I deselect out of habit so I don't accidentally move something I don't intend to.

8. In the Layers panel, drag the Mouth layer down beneath the Arms layer. When a line appears below the Arms layer, release to put the mouth below the arms on the artboard.



You could have also dragged the Arms layer up above the Mouth layer—either would have worked.

9. In the Layers panel, show the Package layer content by clicking where the Visibility icon (👁) was.



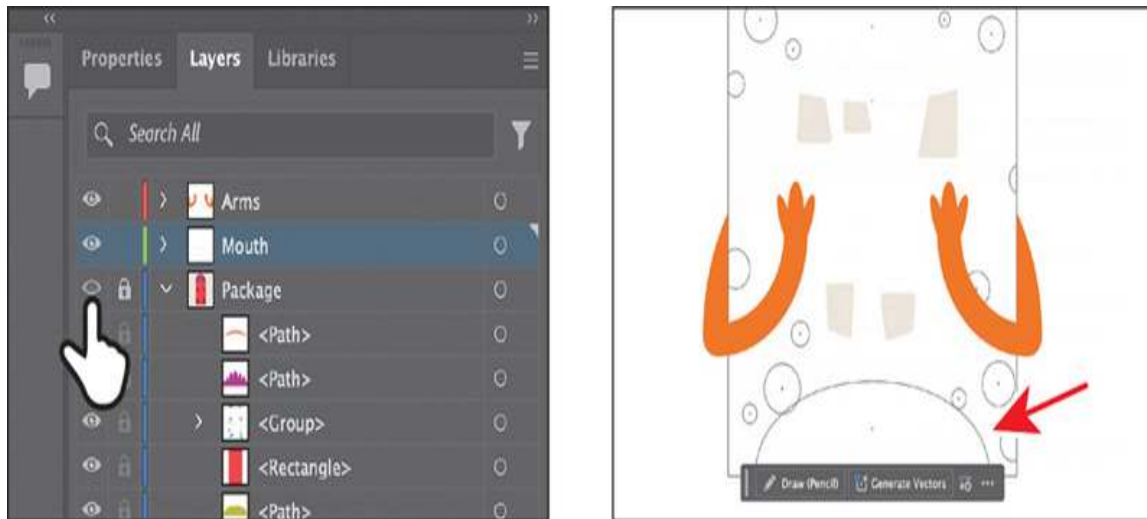
Viewing individual layers or objects as outlines

In Outline mode, you see all artwork without appearance attributes. But sometimes you may need to see only some of the artwork in Outline mode while retaining the strokes and fills for the rest of the artwork. In the Layers panel, you can display layers or individual objects in either Preview or Outline mode. In this section, you'll learn how to discover a hidden object on the Package layer using Outline mode so you can easily select it.

1. In the Layers panel, click the triangle (▶) for the Package layer so you can see what's on the layer.
2. Command-click (macOS) or Ctrl-click (Windows) the Visibility icon (👁) to the left of the Package layer name to show the content for *only that layer* in Outline mode.

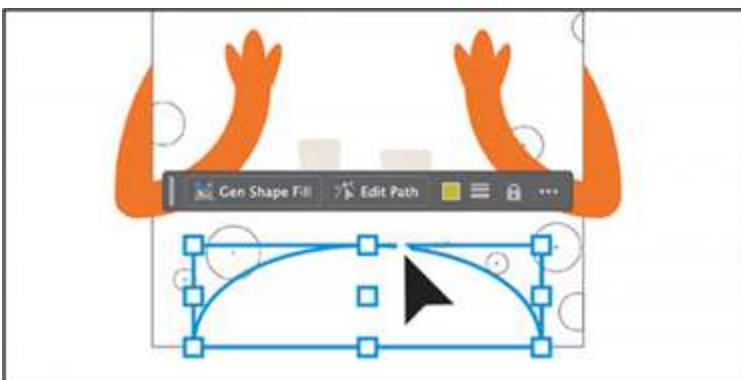
► Tip

Displaying a layer in Outline mode is also useful for selecting the anchor points or center points of objects.



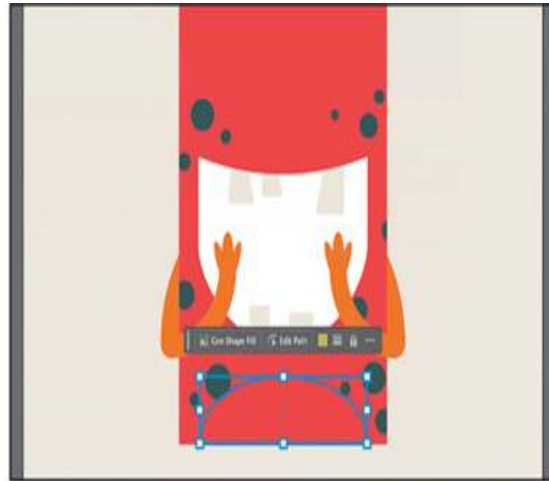
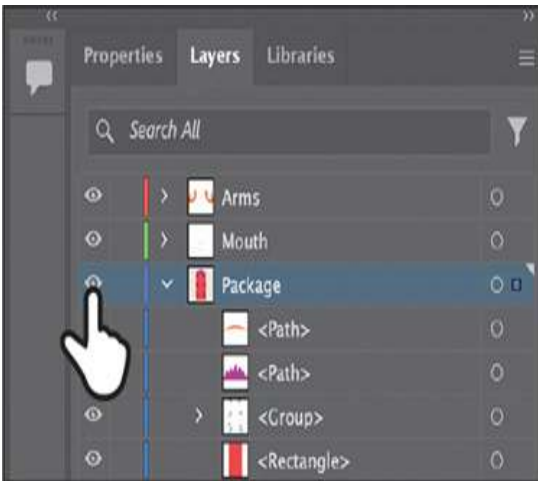
You should be able to see the rounded shape near the bottom of the packaging. An arrow is pointing to it in the figure above. To select it so you can bring it to the front of the other layer content, the layer needs to be unlocked.

3. Click the lock icon (🔒) in the Layers panel to unlock the Package layer content, except for the background rectangle.
4. With the Selection tool (🖱️) selected, on the artboard click the edge of the rounded shape or drag across part of it to select it.



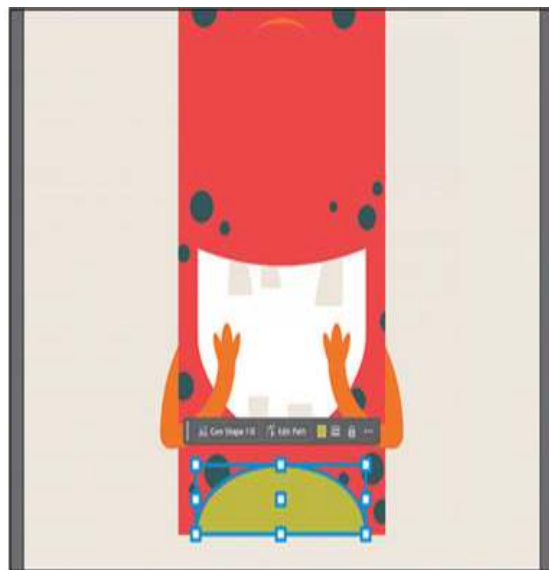
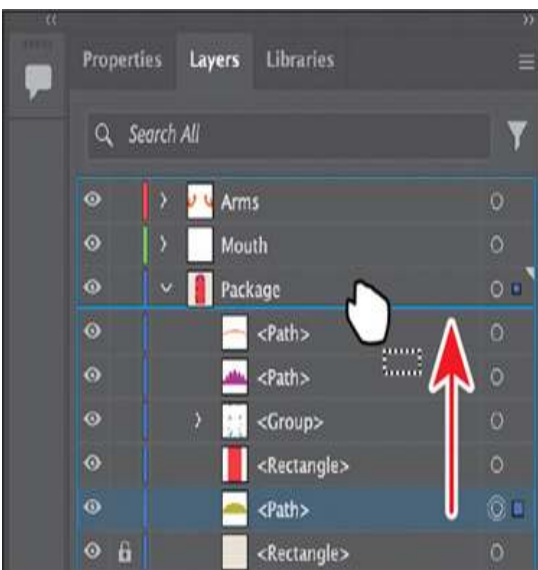
5. Command-click (macOS) or Ctrl-click (Windows) the Visibility icon (👁️) to the left of the Package layer name to show the content for that

layer in Preview mode again.



You can still see the outline and bounding box of the shape on the artboard because it's still selected.

6. In the Layers panel, drag the selected <Path> by its name up above the top object in the layer. When you see a line appear, release.



In this case, you could have also used the Object > Arrange > Bring To Front command. It would have produced the same result.

7. Click the triangle (▾) to the left of the Package layer to hide the layer content.
8. Choose Select > Deselect and then File > Save.



Pasting layers from another document

Sometimes you need to bring artwork from outside of your project into your project. If you paste content into your project from another Illustrator document that has layers, you can preserve those original layers in the document you are pasting into.

In this section, you'll add the final content to the packaging artwork by pasting text from another document into your project.

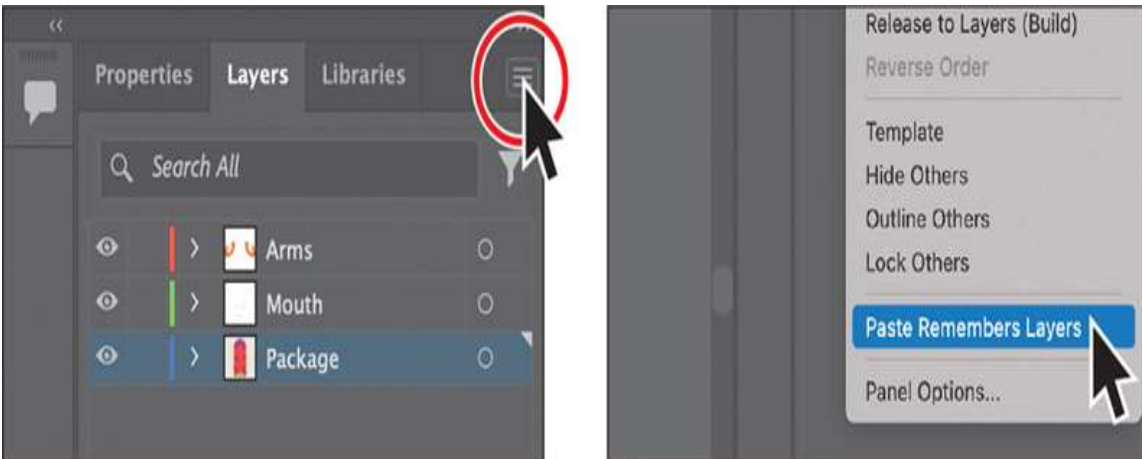
1. Choose Window > Workspace > Reset Getting Started.
2. Choose File > Open. Open the Packaging_text.ai file in the Lessons > Lesson10 folder on your computer.
3. Choose View > Fit Artboard In Window.
4. Click the Layers panel tab to show the panel and the layers.



5. Choose Select > All.

6. Choose Edit > Copy to copy the content to the clipboard.
7. Choose File > Close to close the Packaging_text.ai file *without* saving any changes.
8. Back in the CookiePackage.ai file, in the Layers panel, click the menu (≡) icon and choose Paste Remembers Layers.

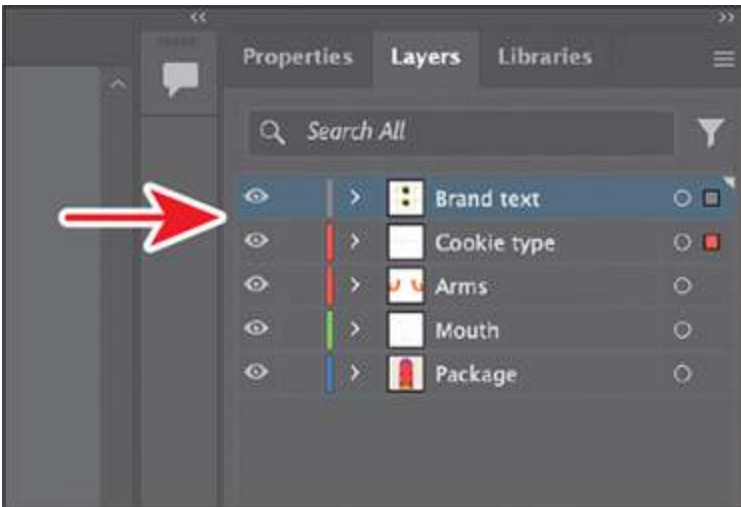
A checkmark next to the option indicates that it's selected.



Paste Remembers Layers is not selected by default, which means new content you paste goes onto whatever layer is selected when pasting. With Paste Remembers Layers turned on, the layers from the original document are added to the document you are pasting into at the top of the Layers panel list.

9. Choose Edit > Paste to paste the content into the center of the Document window.

The Paste Remembers Layers option causes the layers from the Packaging_text.ai document to be added to the top of the Layers panel.

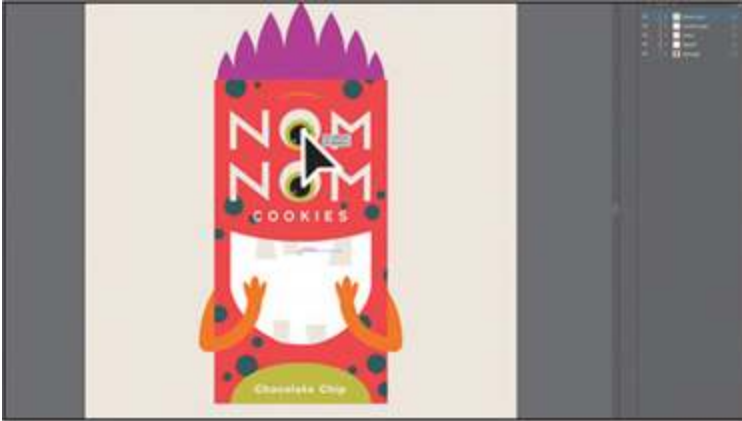


10. If you see a Swatch Conflict dialog box, ensure that Merge Swatches is selected and click OK.

Merging swatches will merge the incoming swatches using the color values of the existing swatches.



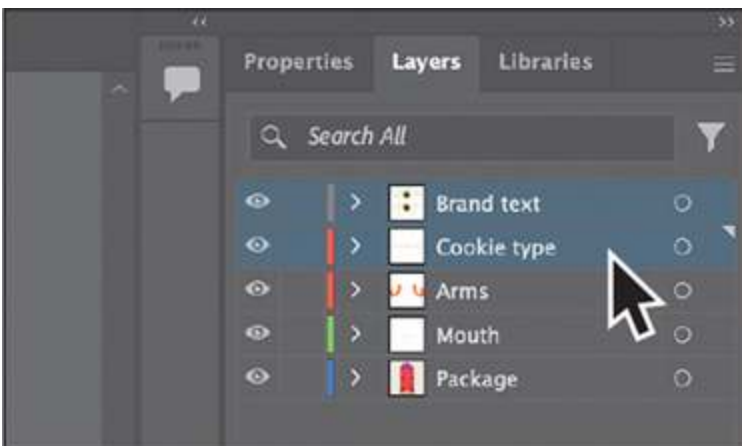
11. Drag the selected artwork on the artboard down into position, like you see in the figure.
12. Choose Select > Deselect.



Merging layers into a new layer

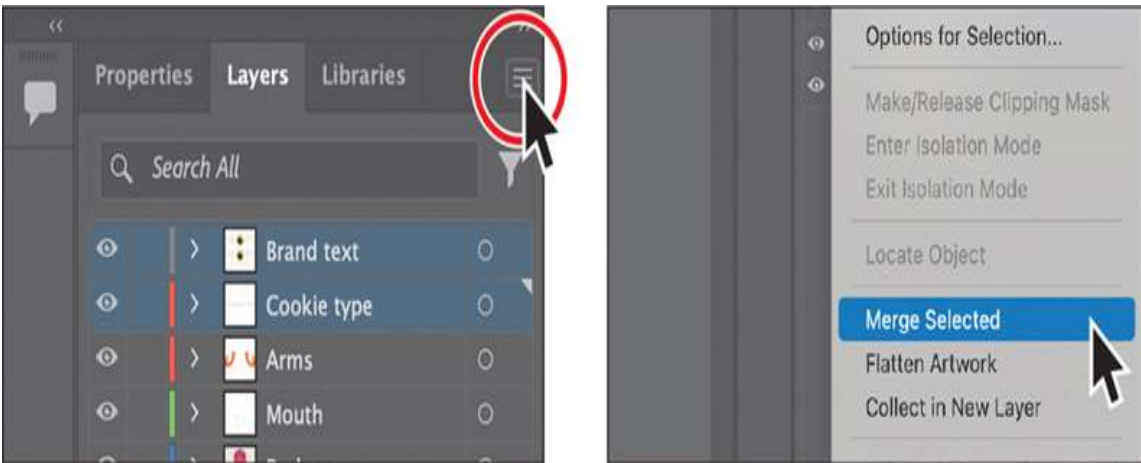
At times, you may want to simplify your layers and combine a few of them. You just pasted text from an outside document that has two layers into your project. It might make more sense to have a single layer named Text. So you'll merge those two layers into a single layer.

1. In the Layers panel, select the Brand Text layer in the list. Shift-click the Cookie Type layer to select both.



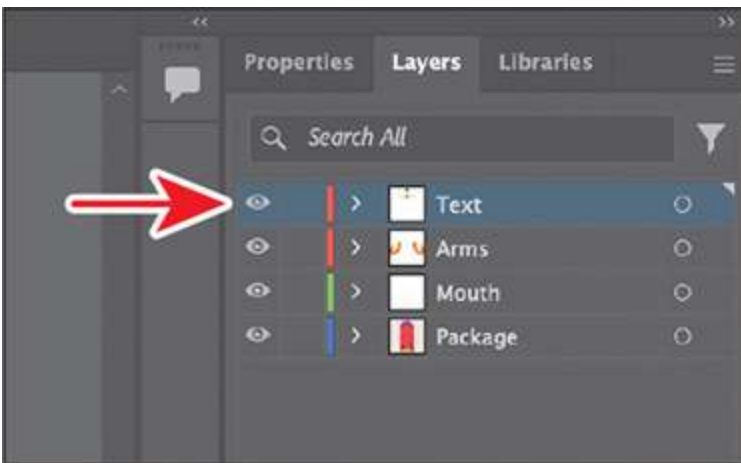
2. Click the Layers panel menu icon (☰), and choose Merge Selected.

The content from the two selected layers is now merged into one layer.



3. Double-click the new layer name (Brand Text or Cookie Type), and change the name to **Text**. Press Return or Enter.

You could have left the layers as is, but having a single layer for all of the text will make it easier for you to select, hide, and lock it all at once.



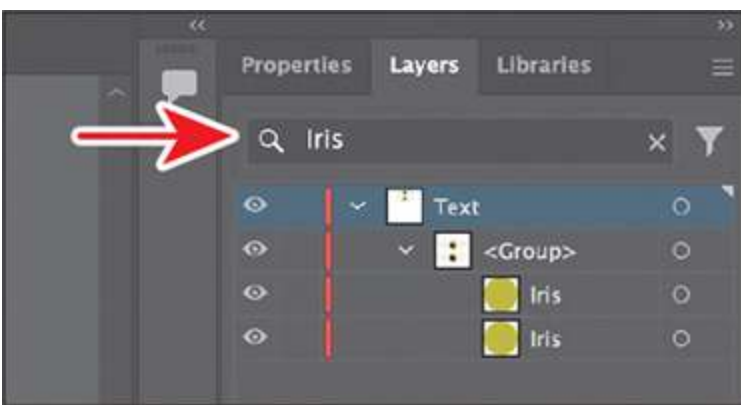
Searching and filtering layers

When you spend enough time working with layers, you eventually find yourself trying to find specific content in the Layers panel. Using Locate Object, like you've used so far in this lesson, is a great way to see where *selected* content is in the Layers panel. But what if you need to find *all* the text—maybe to change the font? Or maybe to find *any* artwork with effects applied to remove them?

You can search for a layer or object name or use the layer and object filters in the Layers panel to locate specific layers and objects quickly. Let's change the color of the eyes in the text.

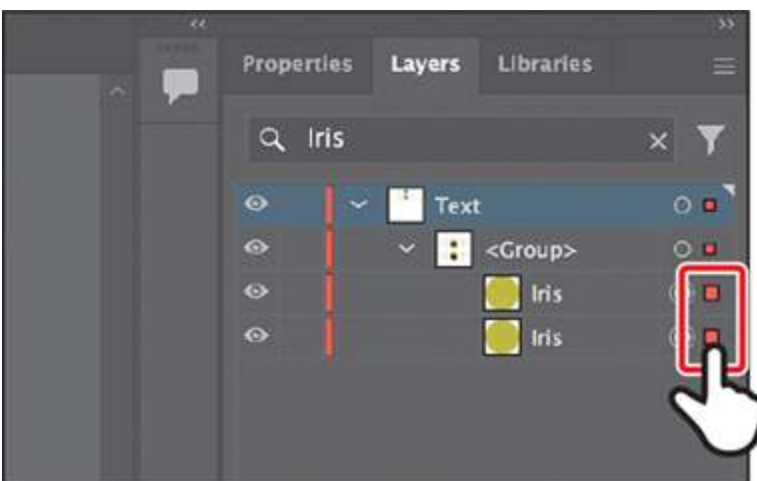
1. In the Layers panel, type **Iris** into the search field at the top (see the figure).
2. Click the triangles to the left of the Text layer and the <Group> to see the objects named Iris.

The Layers panel content is filtered to show only items named Iris.



3. To select both Iris objects, click the Selected Indicator column for one. See the figure. Shift-click the same column for the other Iris object to select both.

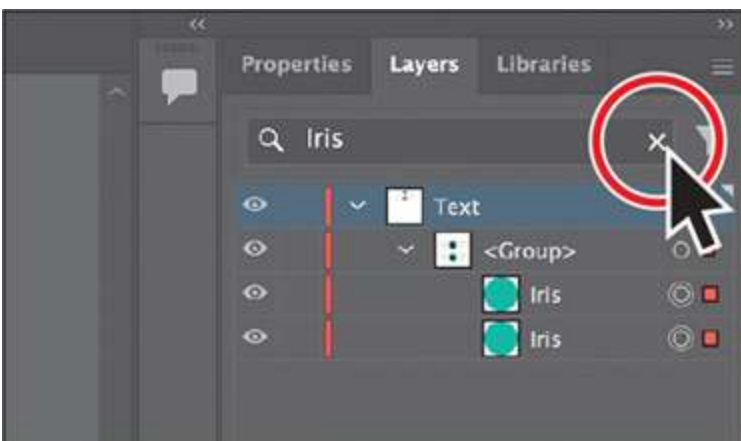
Selecting in this way is sometimes easier—especially when the items you want to select are buried in groups.



4. In the Contextual Task Bar change the fill color to something different.



5. Back in the Layers panel, click the X to the right of the “Iris” text you typed to clear the results.




Creating a clipping mask

In the Layers panel, you can control whether artwork on a layer is hidden or revealed using a clipping mask. A *clipping mask* is a shape (usually) or group of objects that masks (hides) artwork below it in the same layer or sublayer so that only artwork within the shape is visible.

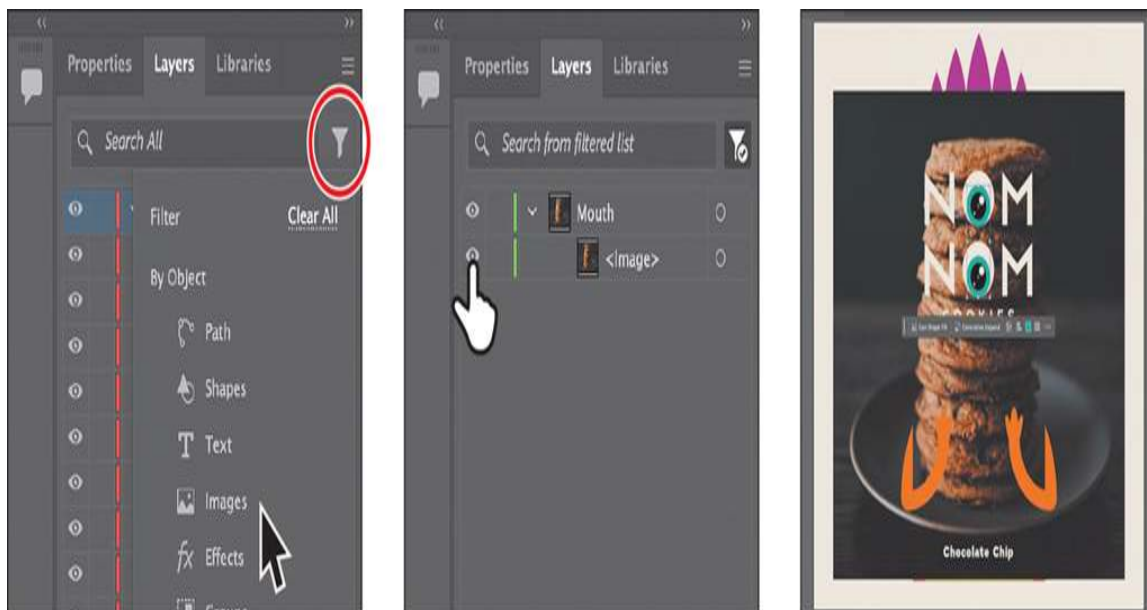
Next, you'll make the image you hid visible again, and use the white mouth shape as a mask to hide part of it. You want it to look like the cookies are in

the bag and visible through the little mouth opening.

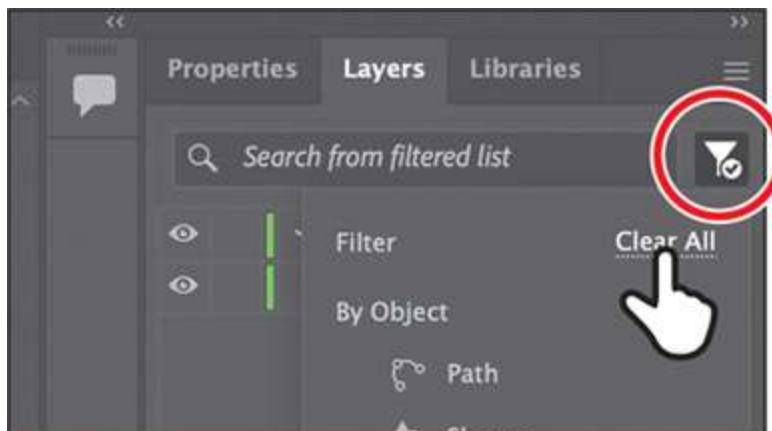
1. In the upper-right of the Layers panel, click the Apply Filter button () and choose Images from the menu. Click away from the menu to hide it.

Only images will now be showing in the Layers panel.

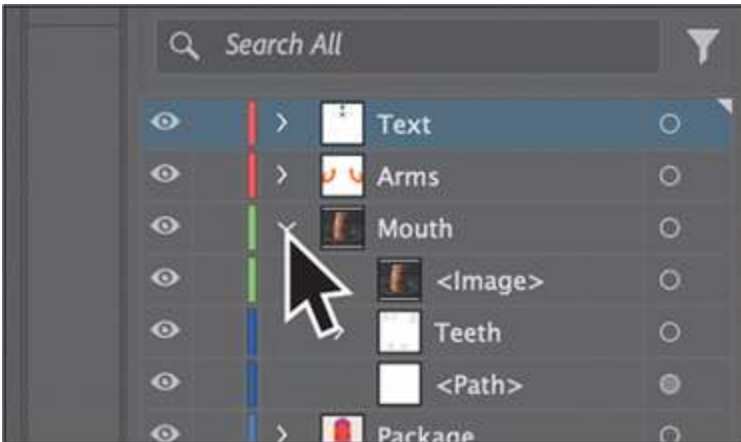
2. To show the cookie image on the artboard, click the triangle to open the Mouth layer, then click the visibility column. See the second part of the following figure.



3. Click the Apply Filter button again, and select Clear All to see all layer content again.

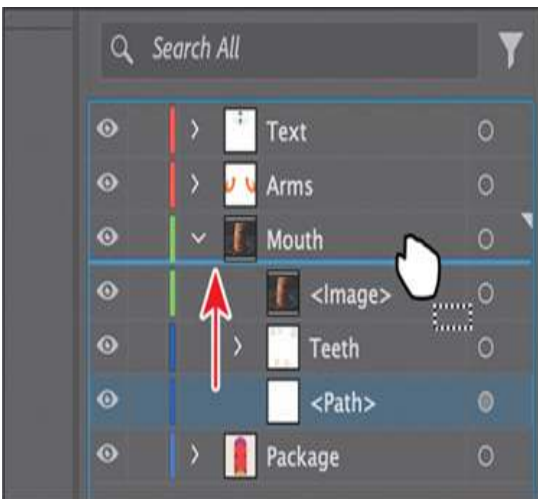


4. Choose Select > Deselect.
5. In the Layers panel, click the triangle (▼) to the left of the Arms, Text, and Package layers to hide the content for each. If necessary, click the triangle for the Mouth layer to see the content for that layer.



You will see <Image> listed at the top and will use the *white mouth shape* as the mask. In the Layers panel, a masking object must be above the objects it masks. In the case of a layer mask, the masking object must be the topmost object on a layer.

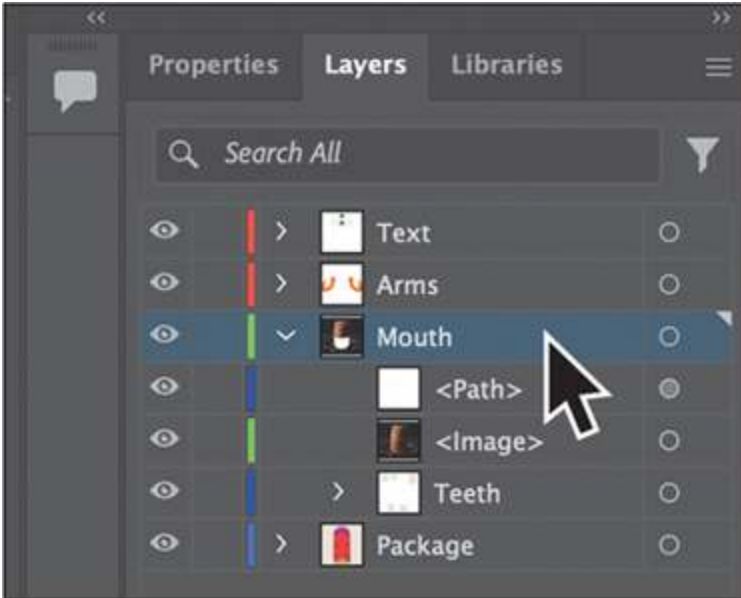
6. In the Layers panel, drag the white mouth shape, labeled <Path>, up in the layer stack, above the image.



This mouth shape will be used as the clipping mask for all of the content on the layer, so it needs to be at the top of the layer stack.

7. In the Layers panel, click the name of the Mouth layer to highlight it.

This is important! For the following step to work, the layer needs to be selected.



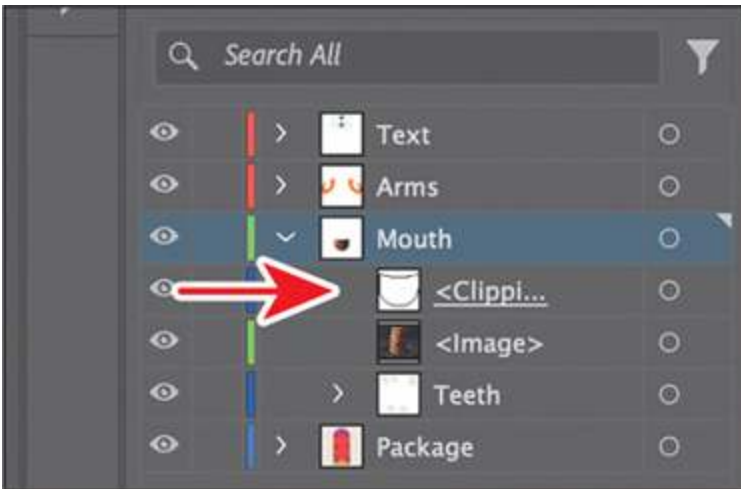
8. Click the Make/Release Clipping Mask button (📏) at the bottom of the Layers panel. The figure shows the button just before clicking.

► **Tip**

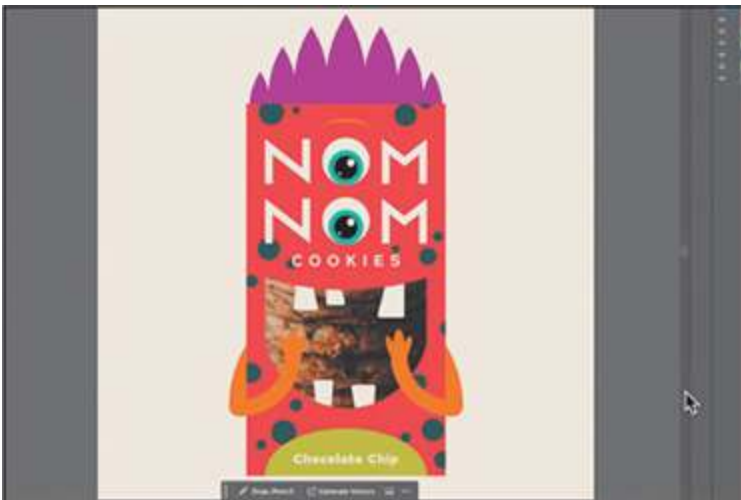
To release the clipping mask, you can select the Mouth layer again and click the Make/Release Clipping Mask button (📏).



If you look in the Layers panel at the Mouth layer, you will see that the name of the mouth shape is now <Clipping Path> and is underlined. Both indicate that it is the masking shape.



9. Click the cookie image on the artboard, and choose Object > Arrange > Send To Back so the image is behind the teeth.



On the artboard, the mouth shape has hidden the parts of the image that extended outside of the shape.


10. Choose File > Save, and then choose File > Close.


Review questions

- 1 Name at least two benefits of using layers when creating artwork.
- 2 Describe how to reorder layers in a file.

- 3 What is the purpose of changing the color for a layer?
- 4 What happens if you paste a layered file into another file? Why is the Paste Remembers Layers option useful?
- 5 How do you create a layer clipping mask?
- 6 Name two ways you can locate artwork in the Layers panel.

Review answers


- 1 The benefits of using layers when creating artwork include organizing content, selecting content more easily, protecting artwork that you don't want to change, hiding artwork that you aren't working with so that it's not distracting, controlling what prints, and applying effects to all of the content on a layer.
- 2 You reorder layers by selecting a layer name or its selected-art indicator in the Layers panel and dragging the layer to its new location. The order of layers in the Layers panel controls the document's layer order—topmost in the panel is frontmost in the artwork.
- 3 The color for a layer controls how selected anchor points and direction lines are displayed on a layer and helps you identify which layer an object resides on in your document.
- 4 The Paste commands paste layered files or objects copied from different layers into the active layer by default. The Paste Remembers Layers option keeps the original layers intact when the objects are pasted.
- 5 Create a clipping mask on a layer by selecting the layer and clicking the Make/Release Clipping Mask button () in the Layers panel. The topmost object in the layer becomes the clipping mask.
- 6 To locate artwork in the Layers panel, you can:

- Simply look through the content in the Layers panel.
- Select the artwork in the document, and click the Locate Object button () at the bottom of the Layers panel.

11 Gradients, Blends, and Patterns

Lesson overview

In this lesson, you'll learn how to do the following:

- Edit and save a gradient fill.
- Apply and edit a gradient on a stroke.
- Apply and edit a radial gradient.
- Adjust the opacity of color in a gradient.
- Create and edit freeform gradients.
- Blend the shapes of objects in intermediate steps.
- Create smooth color blends between objects.
- Modify a blend and its path, shape, and color.
- Blend with the Blend tool. 
- Create and apply patterns.



This lesson will take about 60 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.



To add depth and interest to your artwork in Illustrator, you can apply gradient fills and patterns to shapes, and blend artwork. In this lesson, you'll explore how to work with each of these to complete a presentation slide.

Starting the lesson

In this lesson, you'll explore various ways to work with gradients, blend shapes, and colors, and to create and apply patterns. Before you begin,

you'll restore the default preferences for Adobe Illustrator. Then you'll open a finished art file to see what you'll create.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.



3. Choose File > Open, and open the L11_end.ai file in the Lessons > Lesson11 folder on your computer.

● **Note**

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

To begin working, you'll open an art file that you need to finish.



4. Choose File > Open, and open the L11_start.ai file in the Lessons > Lesson11 folder.
5. Choose View > Fit All In Window.
6. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer.
7. In the Save As dialog box, name the file **Presentation.ai** and select the Lessons > Lesson11 folder in the Save As menu. Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and then click Save.
8. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and then click OK.
9. Choose Reset Getting Started from the workspace switcher in the Application bar.

● **Note**

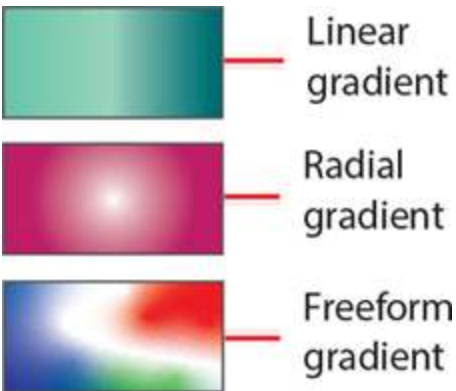
If you don't see Reset Getting Started in the workspace switcher menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

Working with gradients

A *gradient* is a graduated blend of two or more colors, and it always includes a starting color and an ending color. You can create three different

types of gradients in Illustrator:

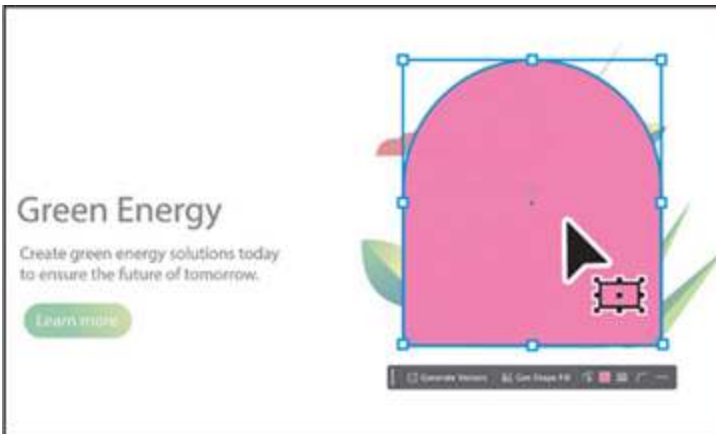
- **Linear**—One color blends into another color along a straight line.
- **Radial**—A beginning color radiates outward from the center point to an ending color.
- **Freeform**—A graduated blend of color stops within a shape in an ordered or random sequence that gives the blending a smooth appearance, like natural color.



In Illustrator, use default gradients or create and save your own (currently you cannot save freeform gradients). Gradients let you blend colors, add volume, and create light and shadow effects. This lesson provides examples of each gradient type and their applications.

Applying a linear gradient to a fill

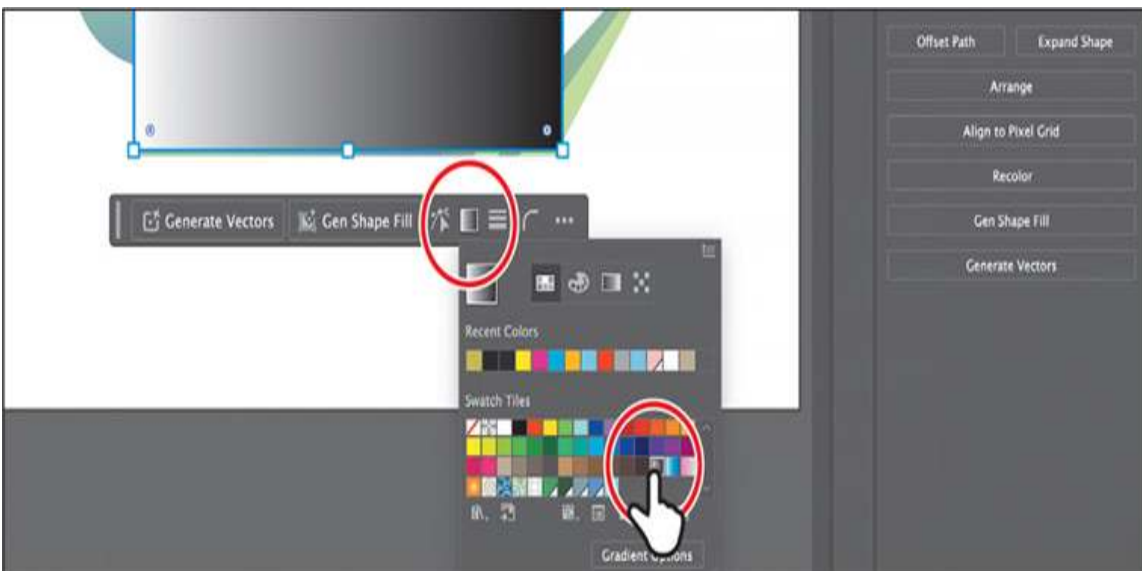
To begin the lesson, you'll apply a linear gradient fill that comes with Illustrator to a background shape and then edit the colors to give the idea of a sunset.



1. With the Selection tool (▶), double-click the big pink shape in the background.

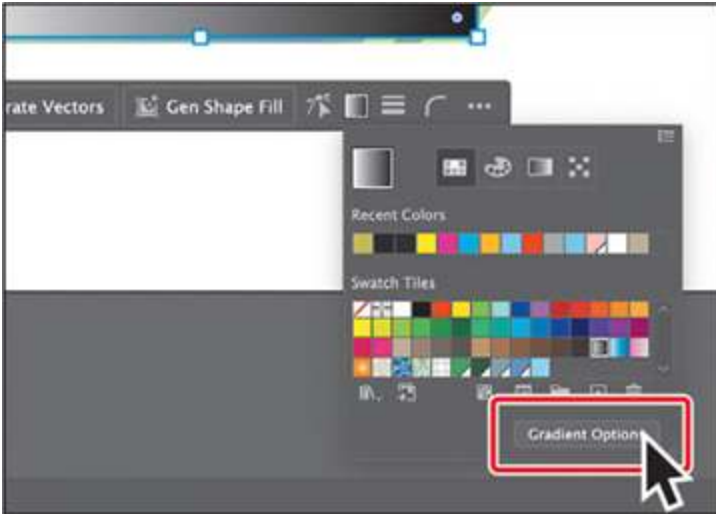
This is a great way to enter Isolation mode for a single shape so you can focus on the pink shape without the other content on top of it.

2. Choose View > Fit Artboard In Window.
3. Click the Fill color box (■) in the Contextual Task Bar, make sure the Swatches option (■) is selected, and select the gradient swatch named White, Black. Leave the swatches showing.

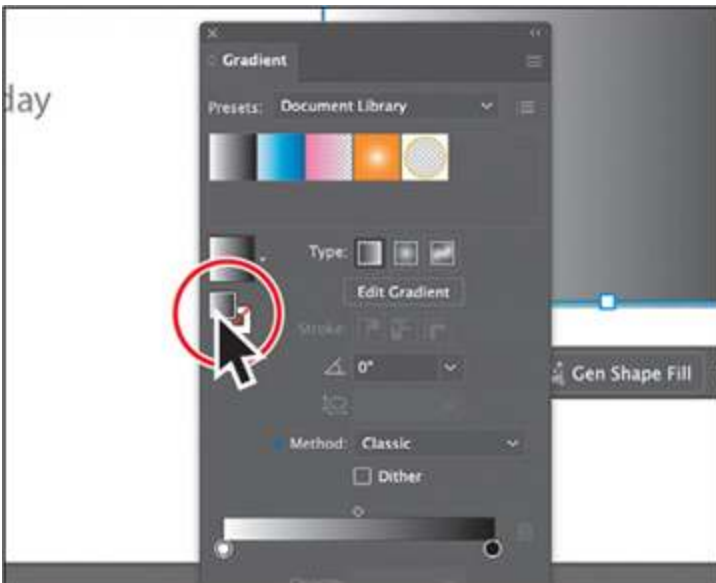


Editing a gradient color

Next, you'll edit the colors in the default White, Black gradient you applied.



1. With the Swatches panel still showing, click the Gradient Options button at the bottom of the panel to open the Gradient panel (Window > Gradient).
2. Do the following in the Gradient panel:

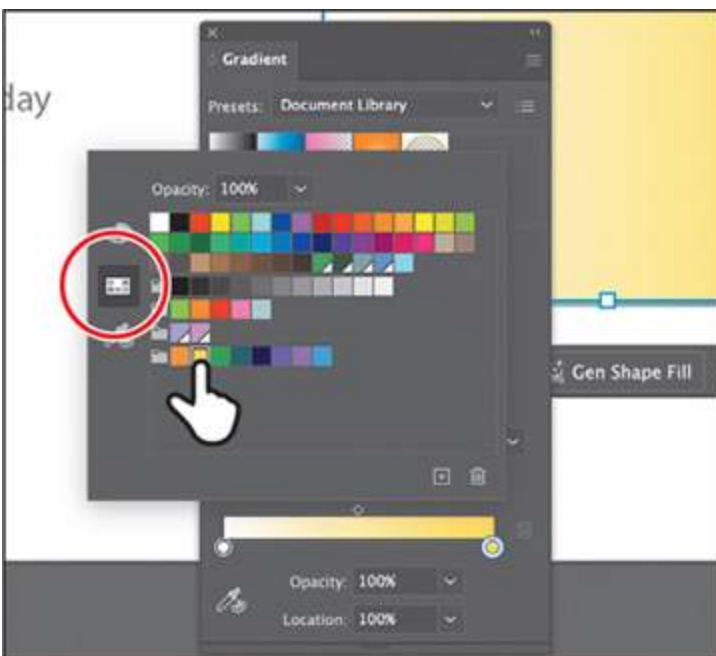


- Click the Fill box so it's selected.

If the icon is on top of the stroke icon, then it is already selected. With the fill selected, you will edit the fill color and not the stroke color.



- In the panel, double-click the black color circle—called a *color stop*—on the right side of the gradient bar to edit the color in the Gradient panel. It's circled in the figure.

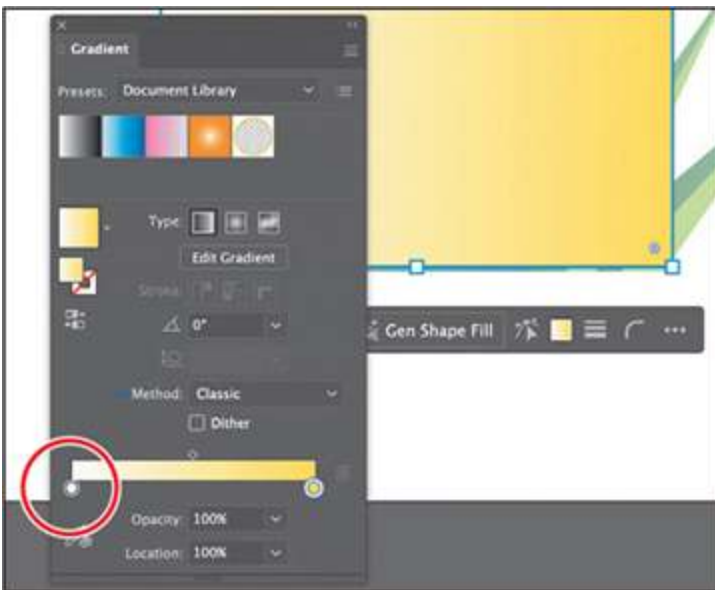


- In the panel that appears, select the Swatches option (📁) to show swatches. It's circled in the figure.
- Select the yellow swatch in the folder.

You will be using the colors in that folder for the rest of the lesson.

- Press the Escape key after selecting the swatch to close the Swatches panel.

3. Leave the color stop at the left end of the gradient slider white.



► Tip

Illustrator has a whole host of gradients in the app you can use and make your own. In the Gradient panel, at the top, you can see the presets available. Choose from any of the color libraries to add those gradients to your document.

If you want to try practicing, change the white color by double-clicking the white, leftmost color stop to edit the starting color of the gradient. Know that your gradient won't match what you see in the rest of the lesson.

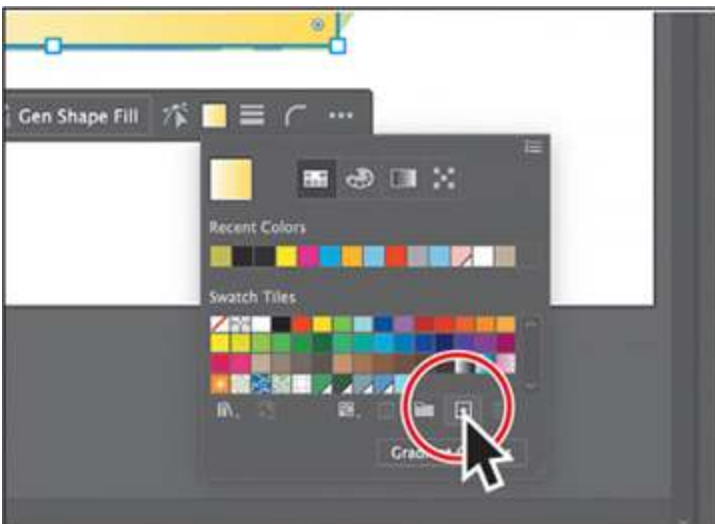
Saving a gradient as a swatch

Next, you'll save the gradient as a swatch in the Swatches panel. Saving a gradient is a great way to be able to apply it to other artwork easily and maintain consistency in the gradient appearance across artwork.

1. Click the Fill color box (□) in the Contextual Task Bar (or Properties panel).

► Tip

You can also save a gradient from the Gradient panel. In the panel, click the Gradient menu triangle (▾) to the left of the word “Type,” and click the Add To Swatches button (➦) at the bottom of the panel that appears.

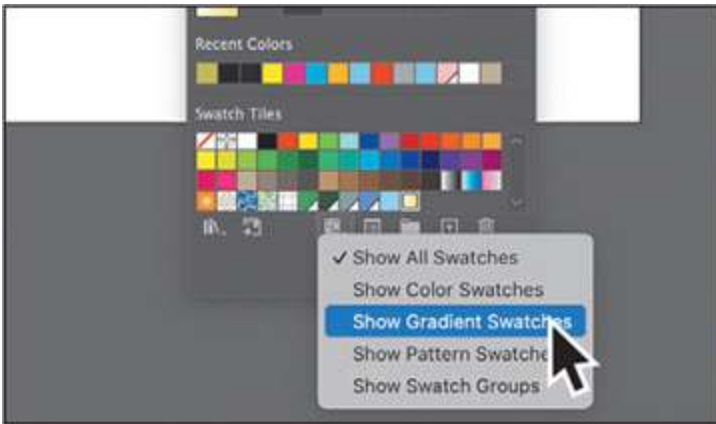



2. In the Swatches panel that opens, click the New Swatch button (⊞) at the bottom of the panel.



3. In the New Swatch dialog box, type **Background** in the Swatch Name field, and then click OK.

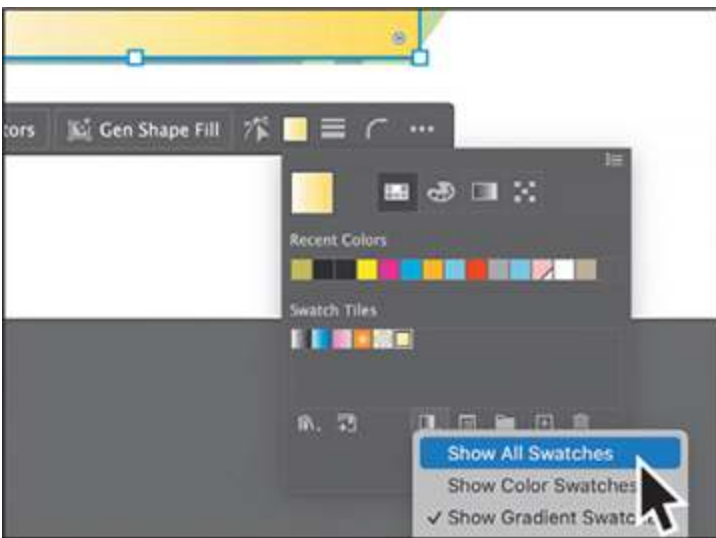
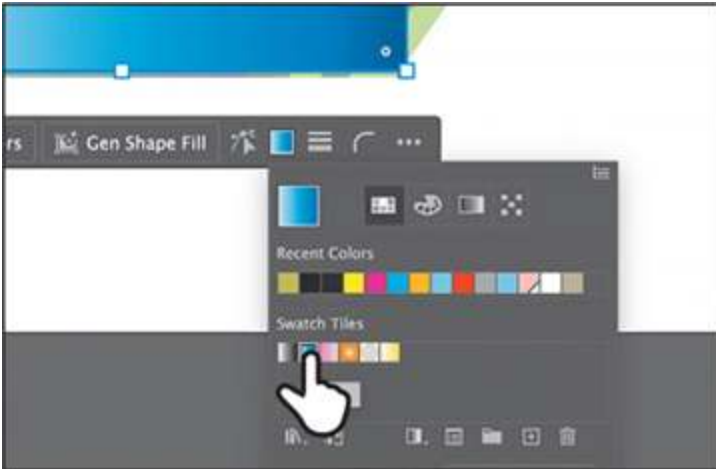
You should now see the new gradient swatch in the Swatches panel. It's usually at the end of the main color list and should be highlighted, because it's applied to the selected shape.




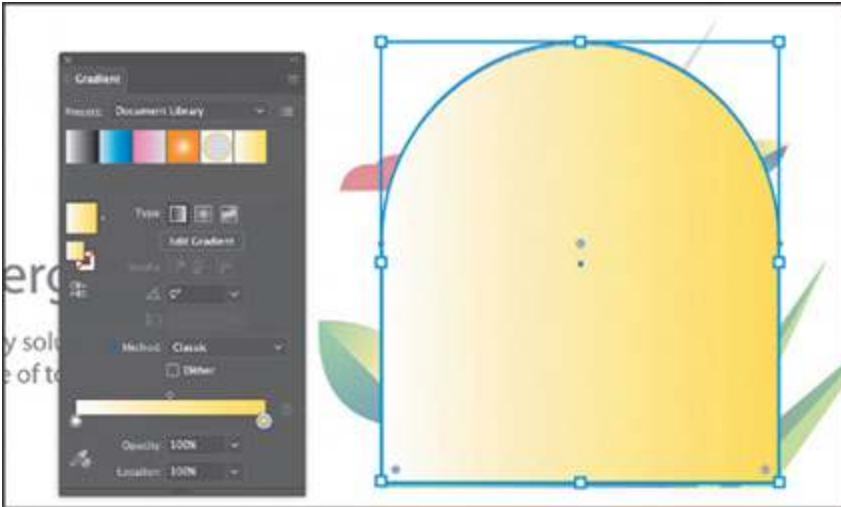
4. Click the Show Swatch Kinds Menu button () at the bottom of the Swatches panel, and choose Show Gradient Swatches from the menu to display only gradient swatches in the Swatches panel.

The Swatches panel lets you sort colors based on type, like gradient swatches.

5. With the shape still selected on the artboard, apply some of the different gradients to the shape fill by selecting them in the Swatches panel.
6. Click the gradient named Background (the one you just saved) in the Swatches panel to make sure it's applied.



7. Click the Show Swatch Kinds Menu button () at the bottom of the Swatches panel, and choose Show All Swatches from the menu.
8. Save the file by choosing File > Save, and leave the shape selected.



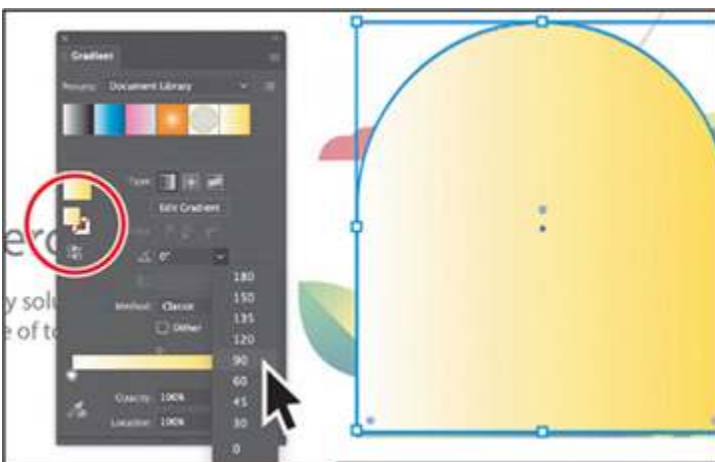
Adjusting a linear gradient fill

Not only can you adjust the color of a gradient, but you can adjust the gradient's direction, origin, and beginning and endpoints using the Gradient tool. Now you'll adjust the gradient fill in the selected shape so the colors look more like a bright sky.

1. With the shape still selected, make sure you still see Isolation mode—double-click the white/yellow shape again if you don't after saving.

Note

If you no longer see that the shape is in Isolation mode after saving, double-click the shape again.

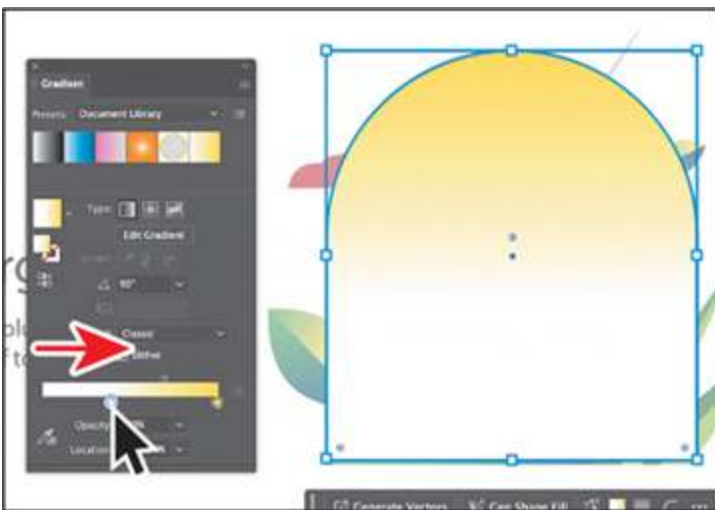


2. With the Gradient panel still open (Window > Gradient), make sure that the Fill box is selected in the panel (circled in the following figure) so you can edit the gradient applied to the fill.
3. Change the Angle value to 90 by choosing it from the menu.

Make sure the gradient shows yellow on top and white at the bottom.

4. In the Gradient panel, drag the white color stop (the circle) to the right to shorten the gradient.

The transition from white to yellow will now happen over a shorter distance in the shape. Now you will see how to *visually* adjust the gradient in a shape by editing it directly on the artwork using the Gradient tool.

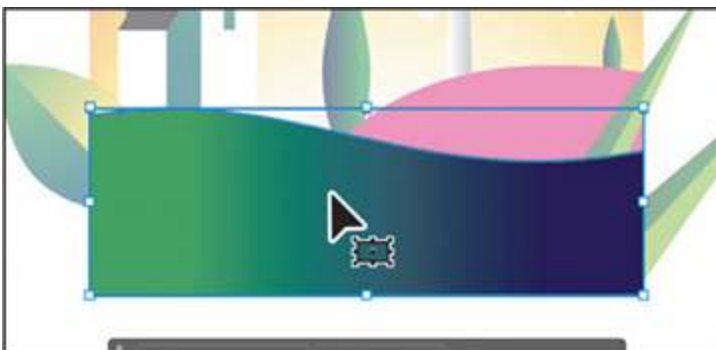


5. Press the Escape key to exit Isolation mode.



6. With the Selection tool (▸), double-click the dark rolling hill shape to isolate it.
7. Select the Gradient tool (▢) in the toolbar.

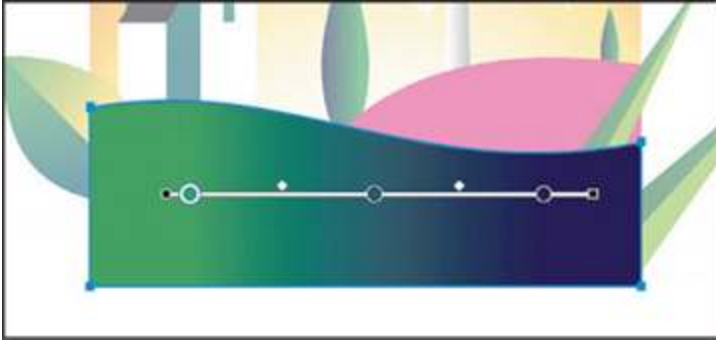
With the Gradient tool, you can apply a gradient to an object's fill or edit an existing gradient fill.



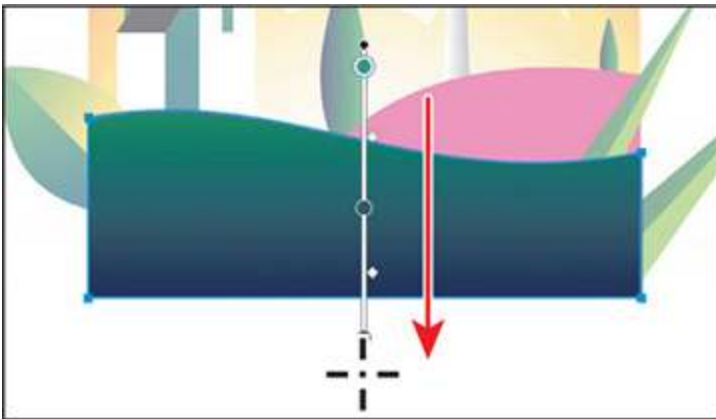
► Tip

You can also click the Edit Gradient button in the Gradient panel to select the Gradient tool.

Notice the horizontal gradient bar in the middle of the artwork now? Similar to the one found in the Gradient panel? That bar is called the *gradient annotator*.



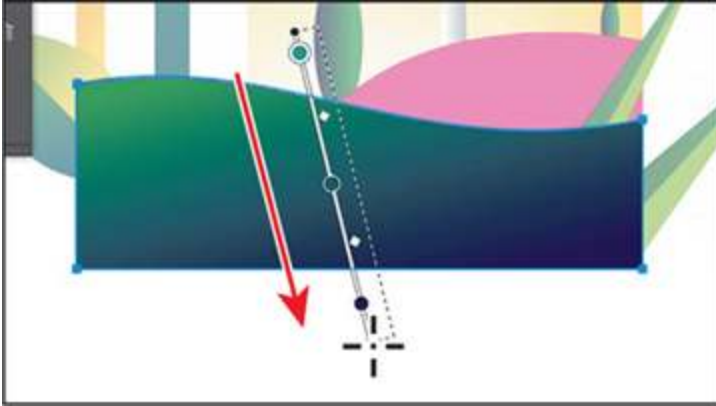
The gradient annotator indicates the color, direction, and length of the gradient. You can use the gradient annotator on the art to edit the gradient without opening the Gradient panel. The color circles represent the color stops. The tiny black circle on the left shows the starting point of the gradient, and the tiny square on the right is the ending point. The diamonds you see between the color stops are the midpoints between adjacent colors.



8. With the Gradient tool selected, starting just above the top of the shape, press the Shift key and drag down to just below the bottom of the shape.

You just changed the angle and length of the gradient. It is now perfectly straight up and down in the shape. Where you begin dragging is where the first color starts, and where you end is where the last color stops. As you drag, you see a live preview of the gradient as it's adjusted in the object.

Now you'll redraw the gradient so you can change the angle to follow the contour of the hill better.



9. With the Gradient tool, move the pointer above the left side of the shape. Drag down and to the right, at an angle. Release when it looks good.

You can keep redrawing the gradient as many times as you want!

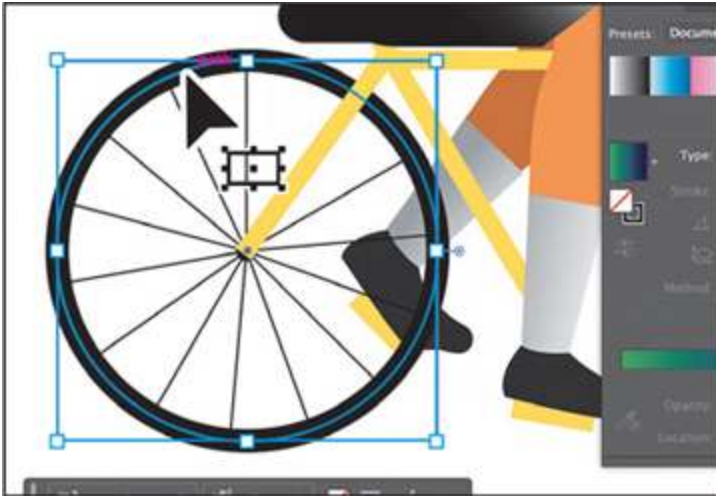


10. Select the Selection tool, and press the Escape key to exit Isolation mode.

Applying a linear gradient to a stroke

You can also apply a gradient to the stroke of an object. Unlike with a gradient applied to the fill of an object, you cannot use the Gradient tool to edit a gradient for a stroke. However, a gradient on a stroke has more options available in the Gradient panel than does a gradient fill. Next, you'll add colors to a stroke to give wheels on a bike a funky look.

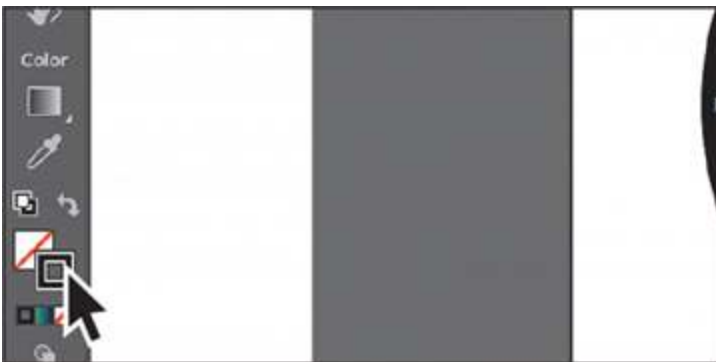
1. Choose 3 Bike from the Artboard Navigation menu below the Document window to fit that artboard in the window.



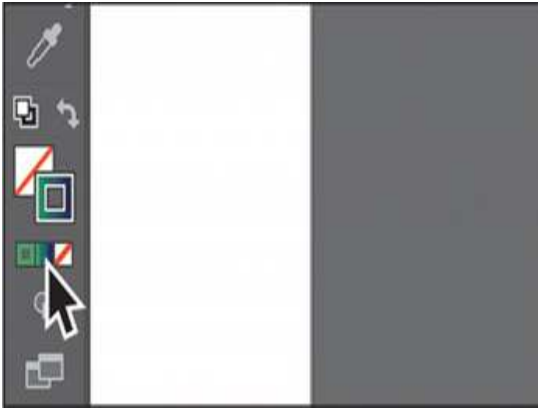
2. With the Selection tool (▸), click one of the black bike wheels. The wheel is actually a path with a stroke.
3. Click the Stroke box at the bottom of the toolbar on the left.

● **Note**

After clicking the Stroke box in the toolbar, the Color panel group may open. If it does, you can close it.




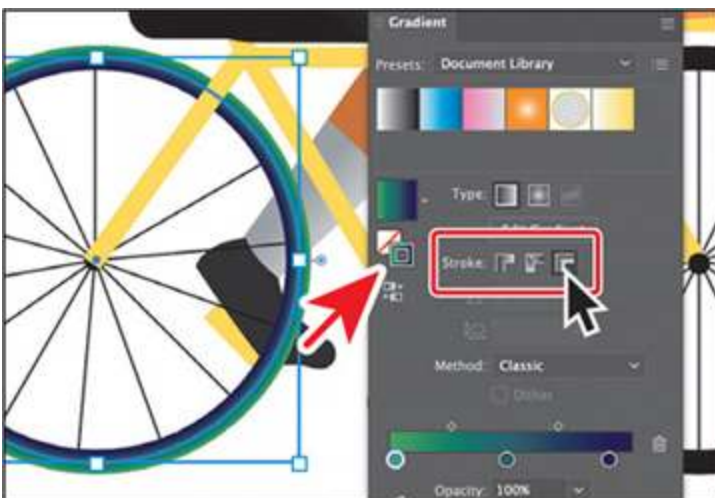
4. Click the Gradient box below the Stroke box in the toolbar to apply the last used gradient for the current session.




Editing a gradient on a stroke

For a gradient applied to a stroke, you can choose different alignments on the stroke: within, along, or across. In this section, you'll explore how to align a gradient to the stroke and edit the gradient's colors.

1. In the Gradient panel (Window > Gradient), set the following:
 - Ensure that the Stroke box is selected (an arrow is pointing to it in the figure) so you can edit the gradient applied to the stroke.
 - Click the Apply Gradient Across Stroke button () to change the Stroke type.



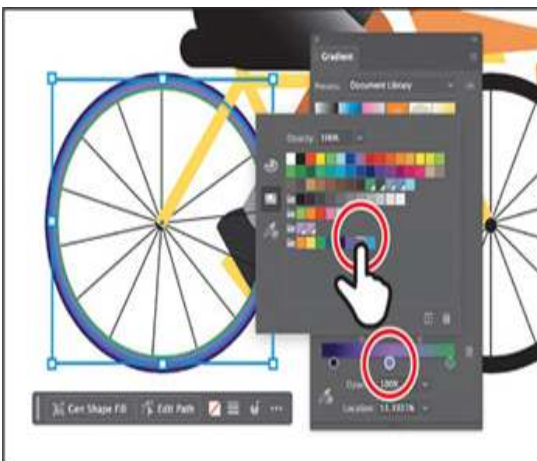
- Click the Reverse Gradient button () so the darkest color (indigo) is on the left side of the gradient ramp in the panel.

With this type of path, aligning the gradient across the stroke can give the path a three-dimensional appearance.

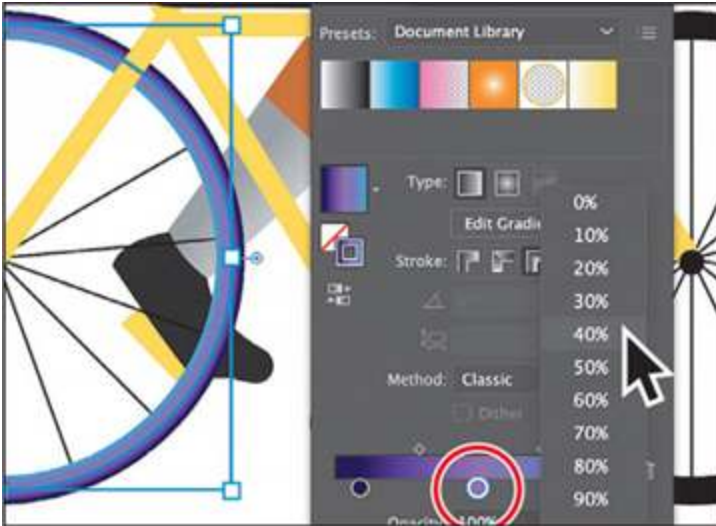


Now to change the colors in the gradient!

2. In the panel, double-click the middle blue color stop on the gradient annotator (also called a *slider*), and with the Swatches option selected, select the swatch named Magenta to apply it. See below.
3. Double-click the green color stop on the right end of the bar, and with the Swatches option selected, select the swatch named Light Blue to apply it.

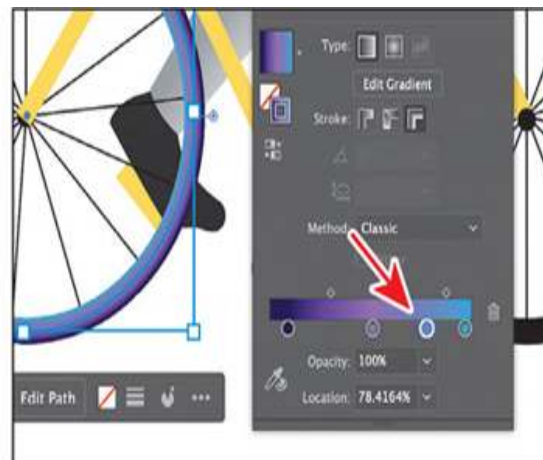
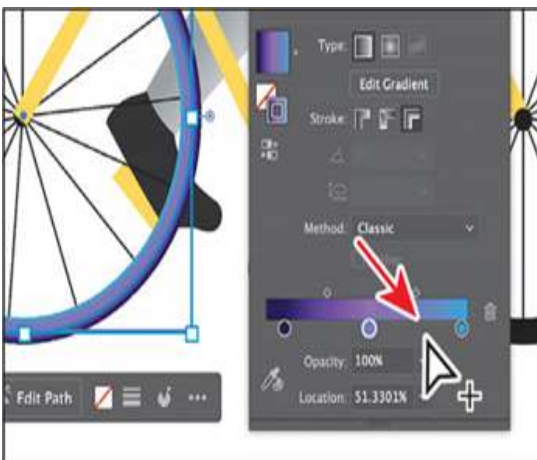


4. In the Gradient panel, click the middle Magenta color stop. Choose 40% from the Location menu.



The color stop is now 40% between the end and beginning of the annotator. You could also have dragged the color stop to change the Location value. Next, you'll add a new color to the gradient to experiment a little.

5. In the Gradient panel, move the pointer below the gradient slider, between two color stops. When the pointer with a plus sign (D^+) appears, click to add another color stop, as you see in the first part of the following figure.

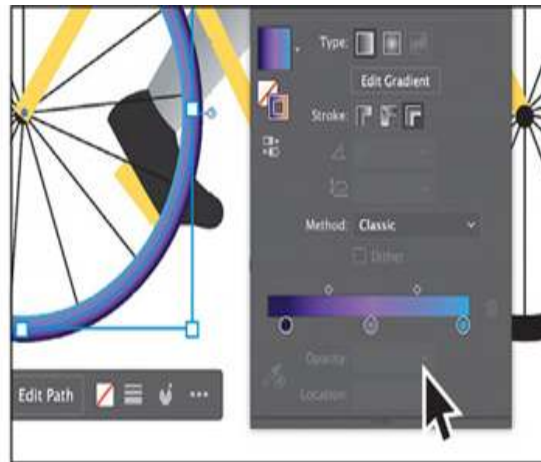
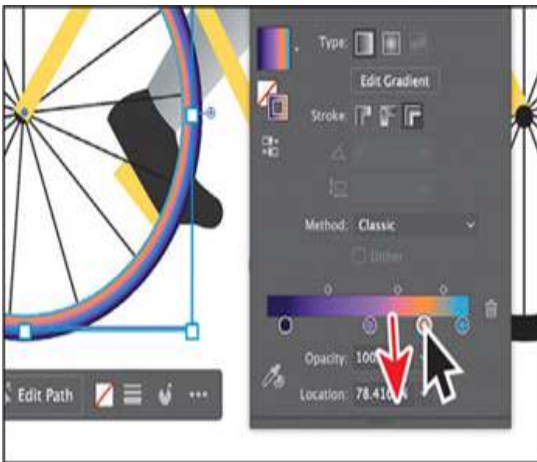


6. Double-click that new color stop, and select any other color.
7. Press the Escape key to hide the swatches and return to the Gradient panel.



When experimenting, sometimes you want fewer colors, rather than more. Next, you'll remove the color you just added.

8. Drag the color stop that you just added down and away from the gradient slider. When you see that it's gone from the slider, release the drag to remove it.

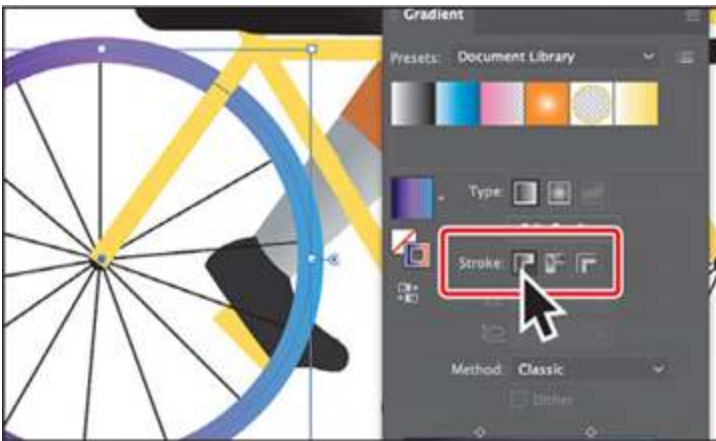


● Note

The gradient you see in your wheel may be rotated differently. You can change the Angle setting just below the Stroke option in the panel to rotate the gradient.

I wound up setting the Stroke option in the Gradient panel to Apply Gradient Within Stroke because it looked better to me.

Practice by applying the gradient to the other black wheel shape to the right.



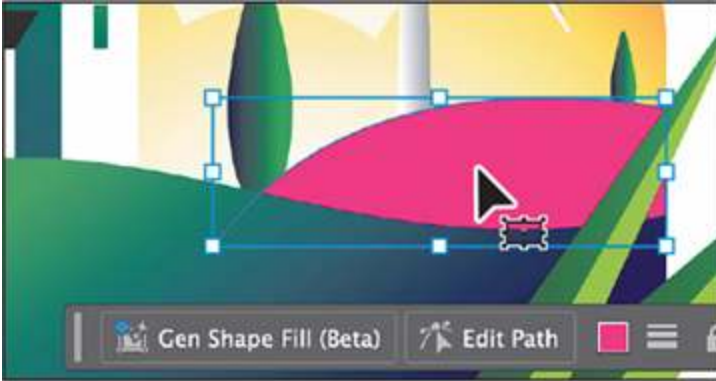
9. Choose File > Save.

Applying a radial gradient to artwork

With a radial gradient, the starting color is the center of the fill. That color radiates outward to another color. Radial gradients are useful for giving circular shapes a three-dimensional look. Next, you'll sample a gradient fill and apply it to another hill shape.



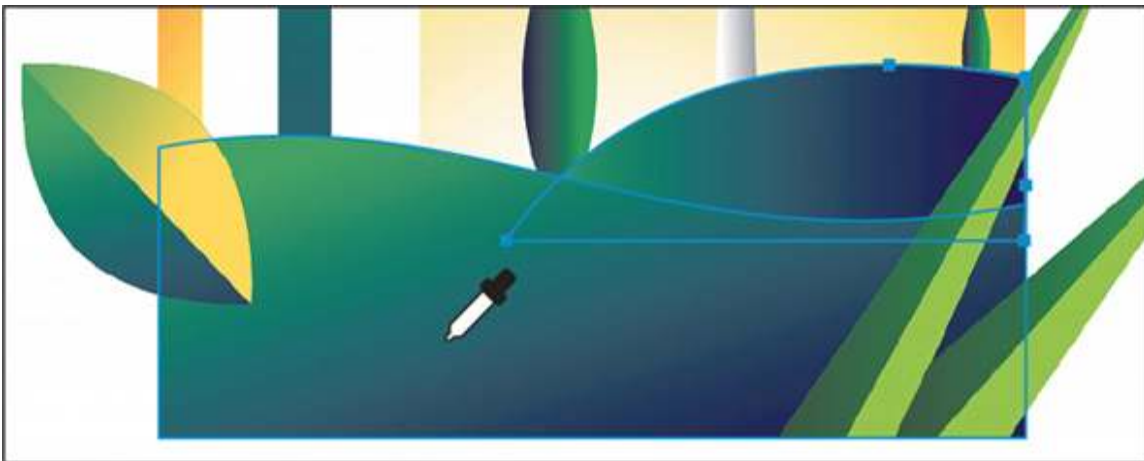
1. Choose 1 Presentation Slide from the Artboard Navigation menu below the Document window to fit that artboard in the window.



2. With the Selection tool (▀), click the pink hill shape.
3. Select the Eyedropper tool (🔍) in the toolbar or press the I key.
4. Click the rolling hill shape you adjusted the gradient in earlier to sample the gradient.

► **Tip**

You can press the Shift key while sampling with the Eyedropper tool to enable the Color Picker with sampling ring.



The same gradient is applied to the shape. This time, however, you want the gradient to follow the contour of the hill, which requires the gradient to be an elliptical gradient. You'll make that change next.

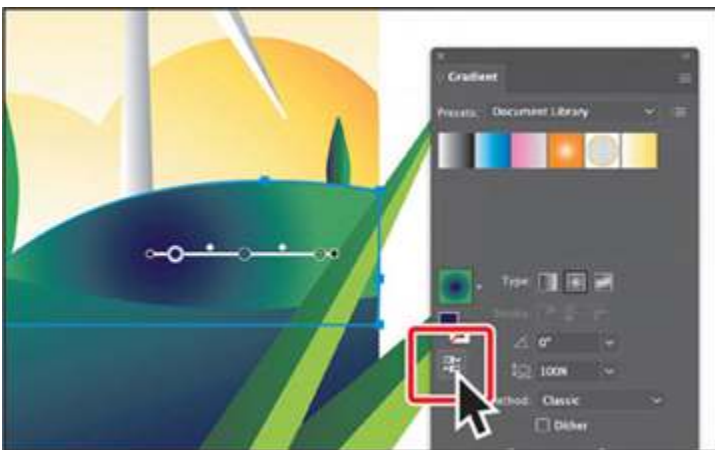
5. In the Gradient panel, ensure that the Fill box is selected (an arrow points to it in the figure). Click the Radial Gradient button to convert the linear gradient to a radial gradient.




Editing the colors in the radial gradient

Previously in this lesson, you edited gradient colors in the Gradient panel. You can also edit the colors directly on artwork with the Gradient tool, which is what you'll do next.

1. Click the Edit Gradient button in the Gradient panel to select the Gradient tool in the toolbar.



2. In the Gradient panel, with the hill shape still selected, click the Reverse Gradient button () to swap the colors in the gradient.
3. To zoom in to the shape, press Command and + (macOS) or Ctrl and + (Windows) a few times.




Move the pointer over the shape and a dashed circle appears around it. That circle indicates that it's a radial gradient. You can set additional options for radial gradients using it, as you'll soon see.

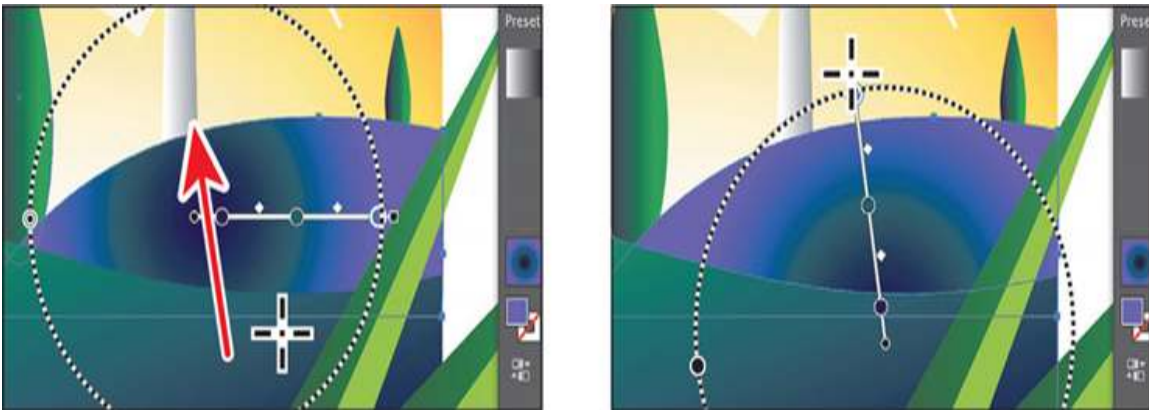
4. Move the pointer over the gradient annotator in the shape, and double-click the lighter green color stop on the right end of the annotator to edit the color (it's circled in the figure). In the panel that appears, click the Swatches button (📦), if it's not already selected. Select the swatch named Purple.
5. Press Escape to hide the Swatches panel.
6. Choose File > Save.





Adjusting the radial gradient



Next, you'll adjust the size, aspect ratio, and radius of the radial gradient so it follows the contour of the shape better.

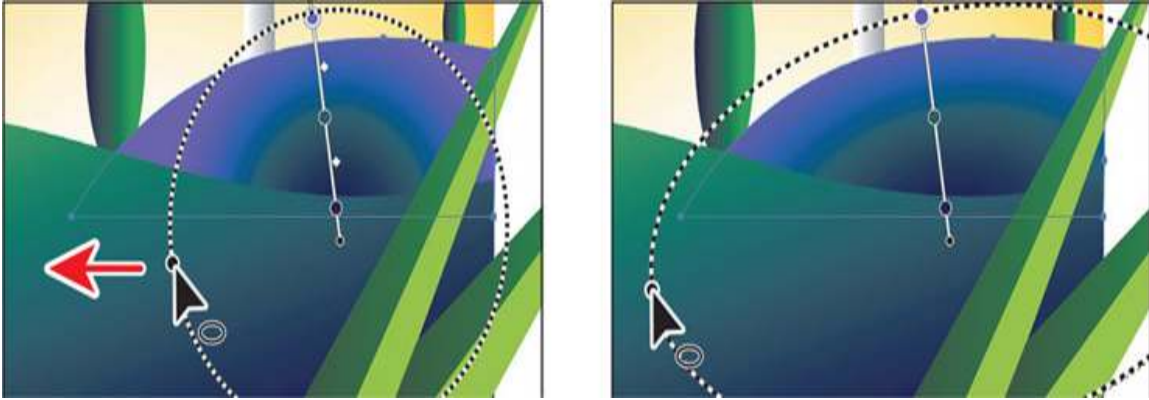
1. With the Gradient tool () selected in the toolbar and the shape still selected, move the pointer toward the bottom center of the shape (see the first part of the following figure).
2. Drag up to the top of the shape to change the gradient.






3. Move the pointer over the gradient annotator on the artwork so you can see the dashed ring around the gradient.

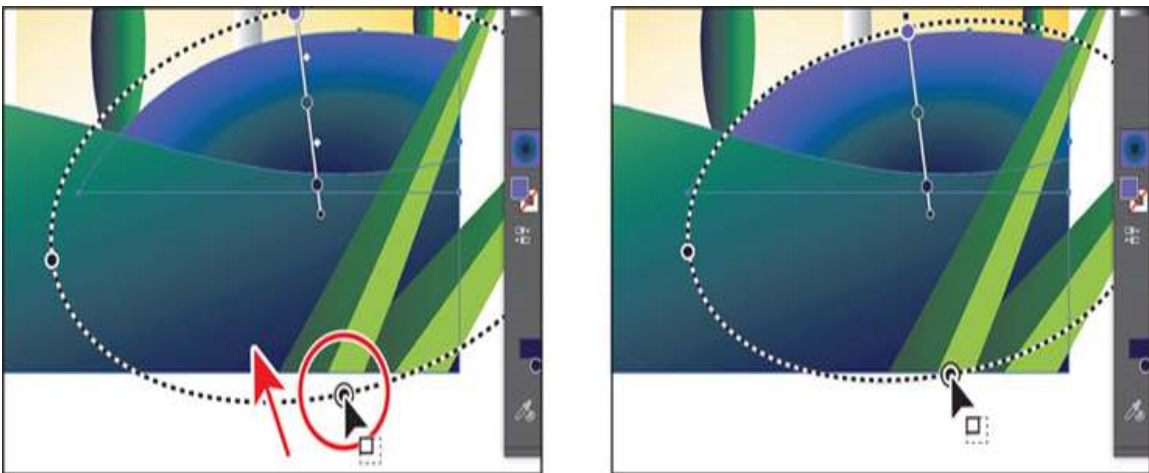
You can rotate this ring to change the angle of the radial gradient. The black point on the ring () is for changing the shape of the ring (called the *aspect ratio*), and the double-circle point () is for changing the size of the gradient (called the *spread*).

4. Move the pointer over the black circle () on the left side of the dashed ring. When the pointer changes () , drag to make the gradient wider. Drag so the gradient follows the edge of the shape.



In the Gradient panel, you just changed the aspect ratio () by dragging the black circle. The aspect ratio changes a radial gradient into an elliptical gradient and makes the gradient better match the shape of the artwork.

5. Move the pointer over the double-circle on the dashed circle () (see the first part of the following figure). When the pointer changes () , drag to make the gradient larger or smaller—whichever looks best to you. I made it a little smaller.



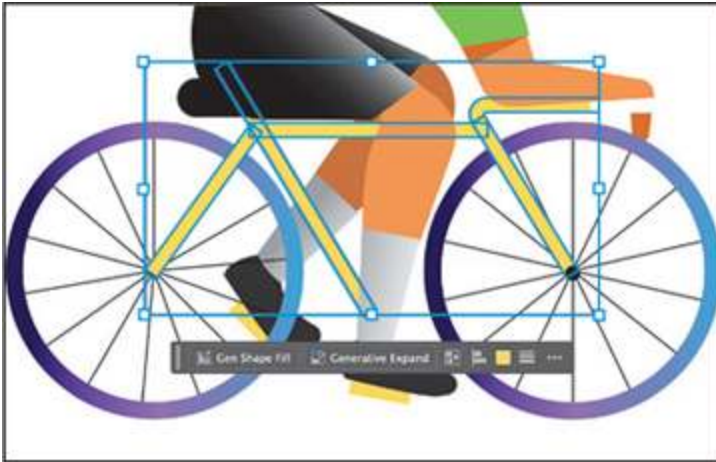
6. Leave the Gradient panel open.
7. Choose Select > Deselect, and then choose File > Save.

Applying gradients to multiple objects

You can apply a gradient to multiple objects by selecting all the objects, applying a gradient color, and then dragging across the objects with the

Gradient tool to unify them. Now you'll apply a linear gradient fill to the yellow frame of a bike.

1. Choose 3 Bike from the Artboard Navigation menu below the Document window to fit that artboard in the window.




2. With the Selection tool (▸), choose Select > Bike Frame to select the five yellow parts of the bike frame.

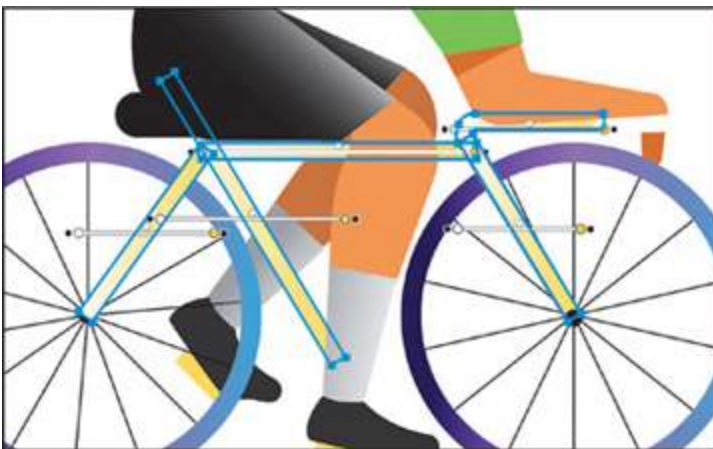
► **Tip**

I saved the selected bike frame parts by choosing Select > Save Selection.

3. Click the Fill box in the Contextual Task Bar. In the panel that appears, select the Background (yellow/white) gradient swatch.



4. Select the Gradient tool () in the toolbar.

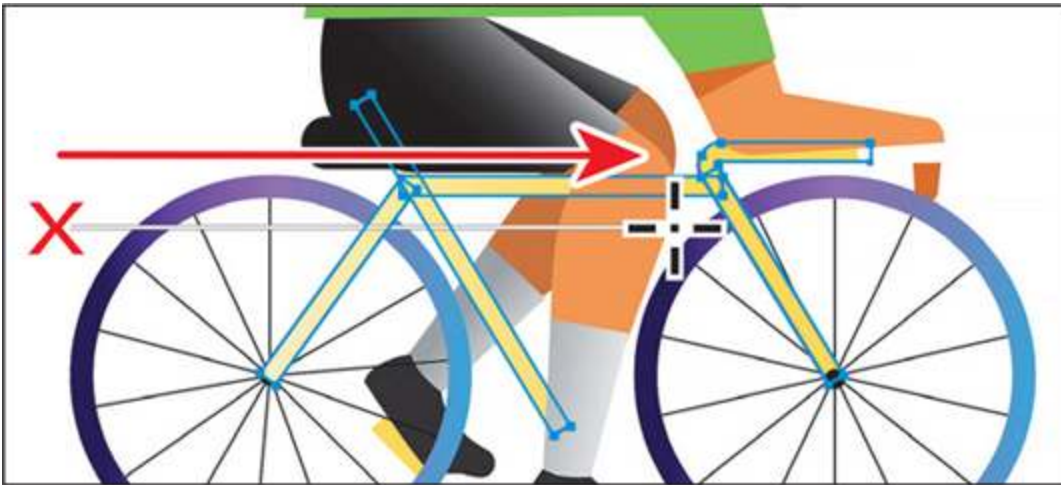


You can see that every object now has the gradient fill applied separately. With the Gradient tool selected, you can see that each object has its own annotator bar.

5. Looking at the following figure for guidance, start from off the left side of the left bike wheel and drag across to the right.

● Note

In this case, where you start dragging is pure white. You don't want white on the frame because it will seem to “disappear” (white on white). If you start dragging farther from the left, by the time you drag into the frame, the gradient is already transitioning to a light yellow.



Dragging across multiple shapes with the Gradient tool allows you to apply a gradient across those shapes.

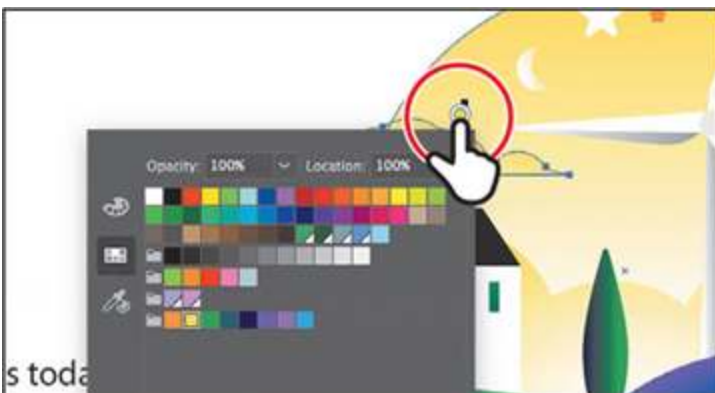
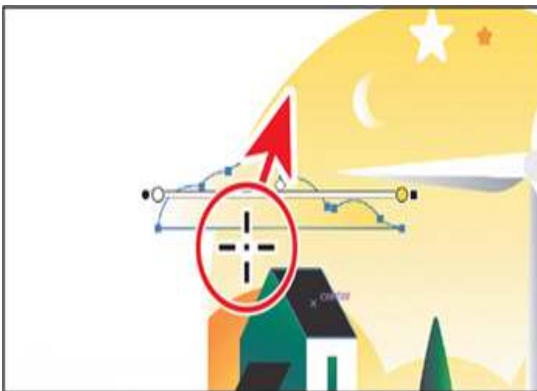
Adding transparency to gradients

By specifying varying opacity values for the different color stops in your gradient, you can create gradients that fade in or out and that show or hide underlying artwork. Next, you'll apply a gradient that fades to transparent in a cloud shape.


1. Choose 1 Presentation Slide from the Artboard Navigation menu.
2. Select the Selection tool (▀), and click the red cloud in the design.

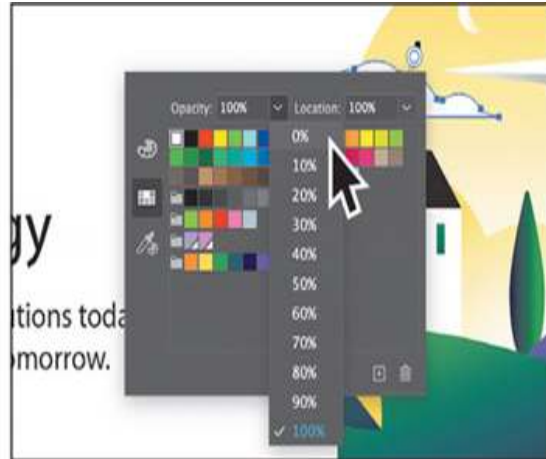


3. Click the Fill box in the Contextual Task Bar. Select the Background gradient.
4. Select the Gradient tool (▬) in the toolbar. Drag from below the cloud up past the top edge at a slight angle.

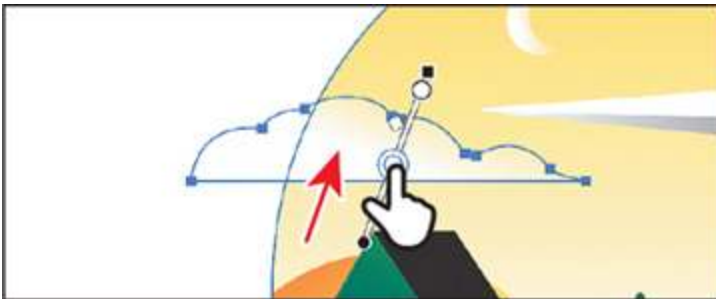


5. With the pointer over the shape, double-click the yellow color stop at the top of the annotator bar.

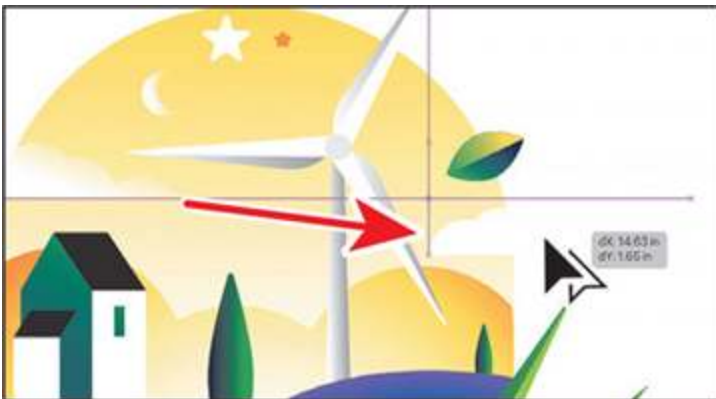
6. In the panel that opens, make sure the Swatches option () is selected, and then select white.
7. Choose 0% from the Opacity menu. Press the Escape key to hide the swatches.



The color is completely transparent at the end of the gradient.



8. Drag the bottom color stop up to shorten the gradient a little.





9. Select the Selection tool and make a cloud copy by Option-dragging (macOS) or Alt-dragging (Windows) the cloud to the right.
10. Choose File > Save.

Applying a freeform gradient

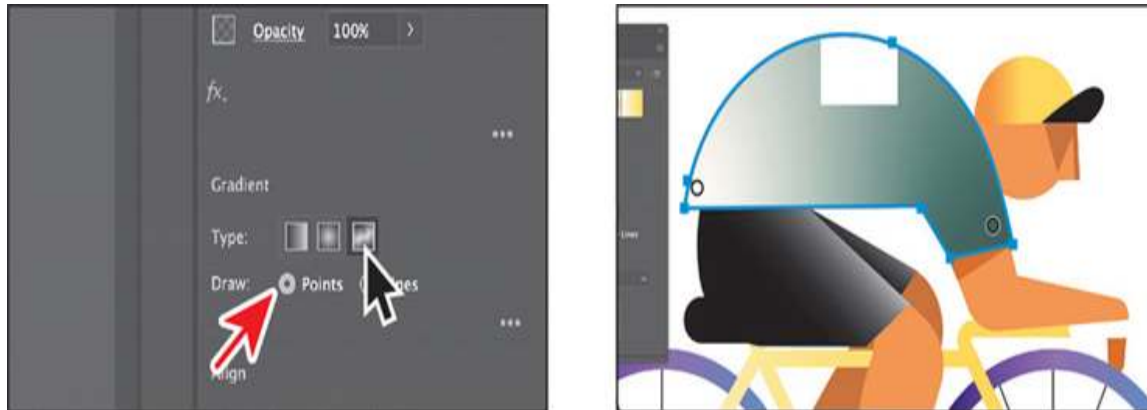
Freeform gradients are made of a series of color stops that you can place anywhere within a shape randomly or as a path. The colors blend between the color stops to create a freeform gradient. Freeform gradients help add color blends that follow the contour of a shape, adding realistic shading and more to artwork.

Next, you'll apply a freeform gradient to the jersey of the bike rider.

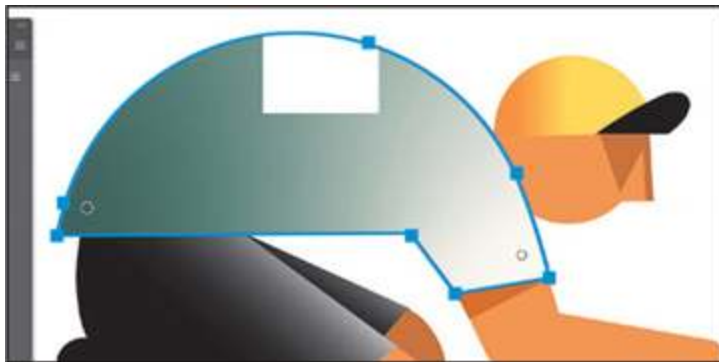
1. Choose 3 Bike from the Artboard Navigation menu below the Document window to fit that artboard in the window.
2. Select the bright green jersey on the rider with the Selection tool.
3. Choose View > Zoom In.
4. Select the Gradient tool () in the toolbar.
5. Click the Freeform Gradient option () in the Properties panel on the right.
6. Ensure that the Points option is selected in the Gradient section of the Properties panel (an arrow is pointing to it in the figure).

● Note

By default, Illustrator chooses color from surrounding artwork. This is because the preference Illustrator > Settings > General > Enable Content Aware Defaults (macOS) or Edit > Preferences > General > Enable Content Aware Defaults (Windows) is on by default. You can deselect this option to create your own color stops.



By default, a freeform gradient is applied in Points mode. Illustrator automatically adds individual solid colors that blend into each other. As with a linear or radial gradient, the colors are called *color stops*. The number of color stops Illustrator automatically adds depends on the shape and surrounding artwork.



● Note

If you don't see the same color stops (they might even be reversed), know that you can drag color stops so they are in the same position to start, or you can click to add a new color stop.

Editing a freeform gradient in Points mode

With Points mode selected, you add, move, edit, or delete individual color stops to change the overall gradient. In this section, you'll edit the color stops in your freeform gradient.

1. Double-click the color stop on the sleeve of the jersey to show the color options.

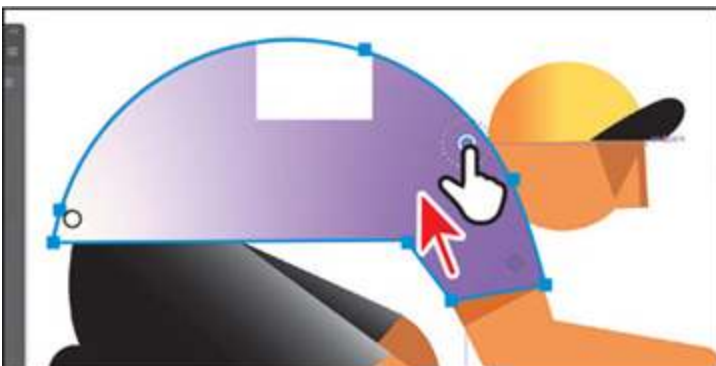


2. With the swatches showing, select the Magenta swatch to apply it.

● Note

The magenta color looks more like a purple in the figures throughout this section because the document color on-screen is RGB and the book is printed in CMYK! RGB color space has more colors available than CMYK.

3. Press the Escape key to hide the panel.



4. Drag the color stop up higher on the shoulder.

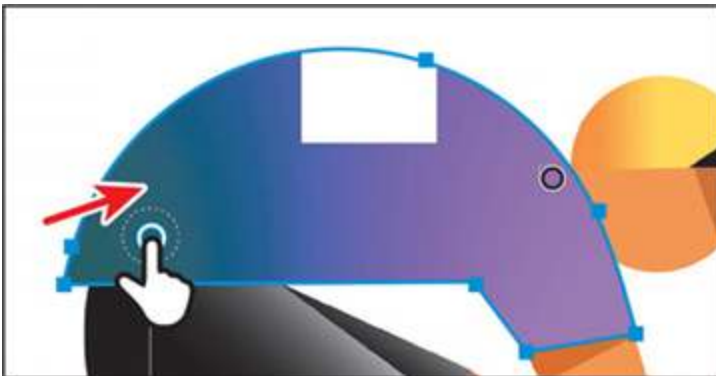
You can see that the gradient blending changes as you drag it. With each color stop, you can drag it, double-click to edit its color, and more.

5. Double-click the color stop at the back of the jersey (mine is white), and change the color to the Dark Green swatch.

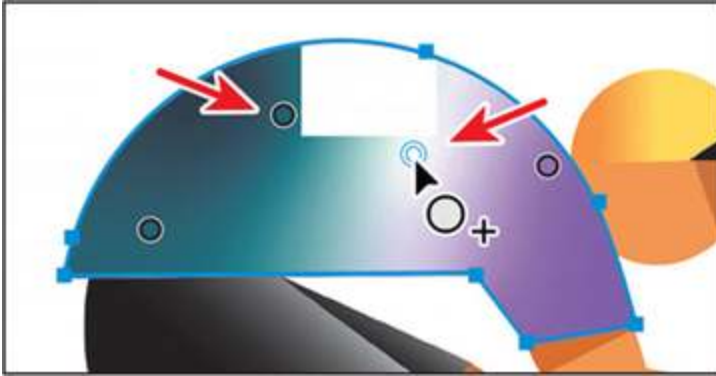


6. Drag the (now) dark green color stop to the right a little.

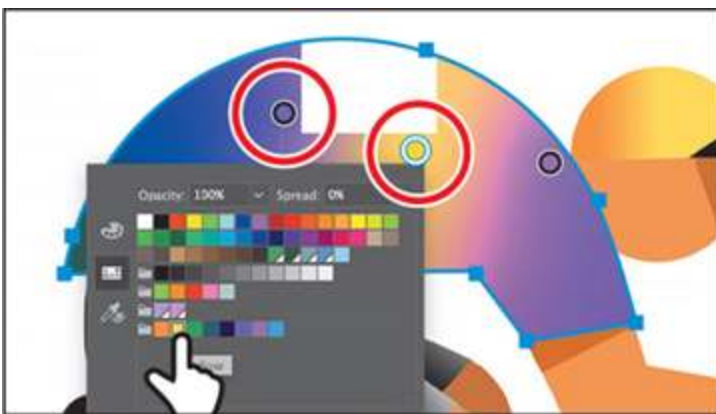
Dragging this color stop closer to the other adds more green and shortens the color transition from green to magenta. Next, you'll add a few color stops.



7. Add two more color stops by clicking in different areas of the jersey.



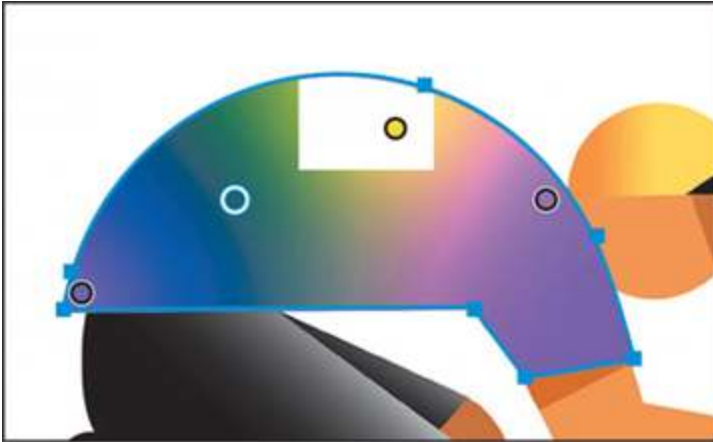
Don't worry what color they are, you'll change them next.



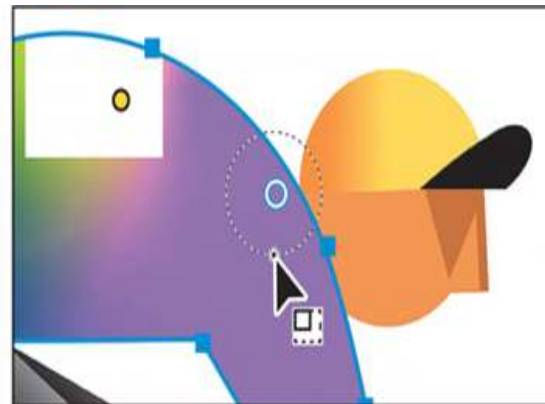
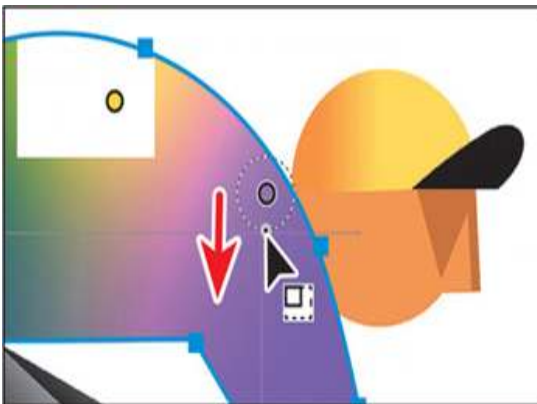
8. Double-click each color stop, one at a time, to edit the individual color. You can choose whatever colors you like. I chose purple and yellow.

► **Tip**

If you want to remove colors from the gradient, you can select one of the color stops on the back and press Delete or Backspace to remove it!



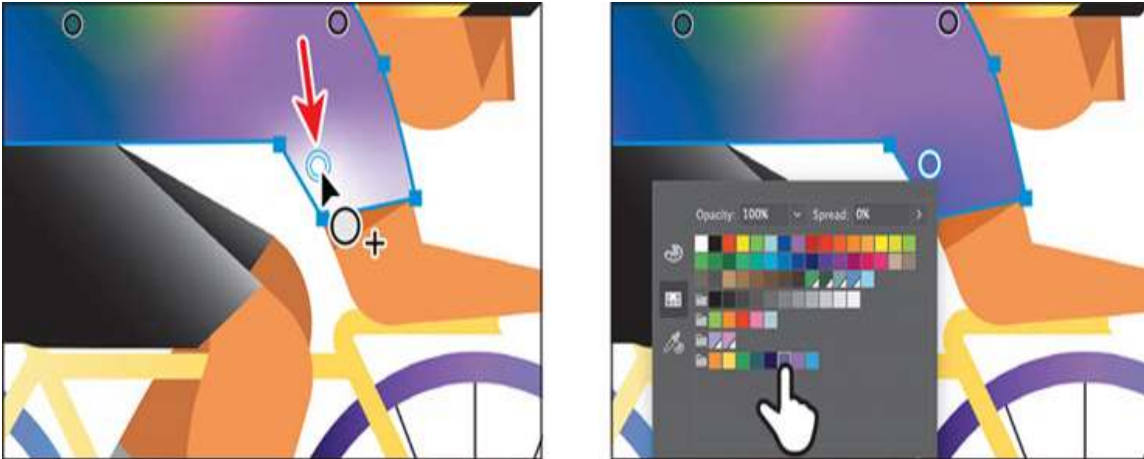
9. Leaving the magenta color on the shoulder where it is, drag a few of the other color stops around to experiment with blending. You can see the result I came up with.
10. Move the pointer over the magenta color stop of the jersey. When you see the dotted circle appear, drag the widget at the bottom of the circle away from the color stop so the color spreads more.



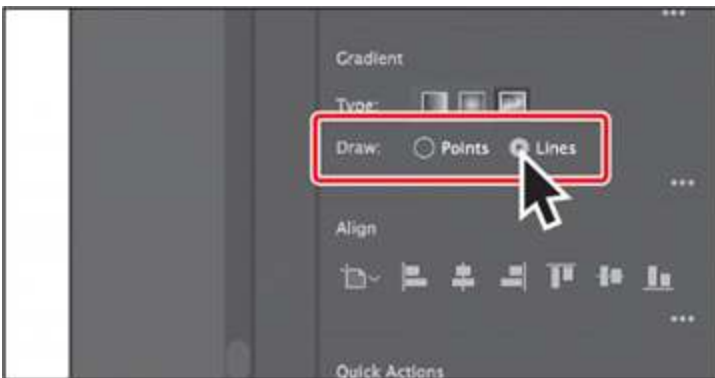
Applying color stops in Lines mode

You can also add multiple solid colors that blend along a line in Lines mode. In this section, you'll add more color to the rider's jersey using Lines mode to add a darker shading.

1. Click near the end of the sleeve to add a new color stop. Mine is white —yours may be different, and that's okay.
2. Double-click the new color, and change the color to the swatch named Purple.



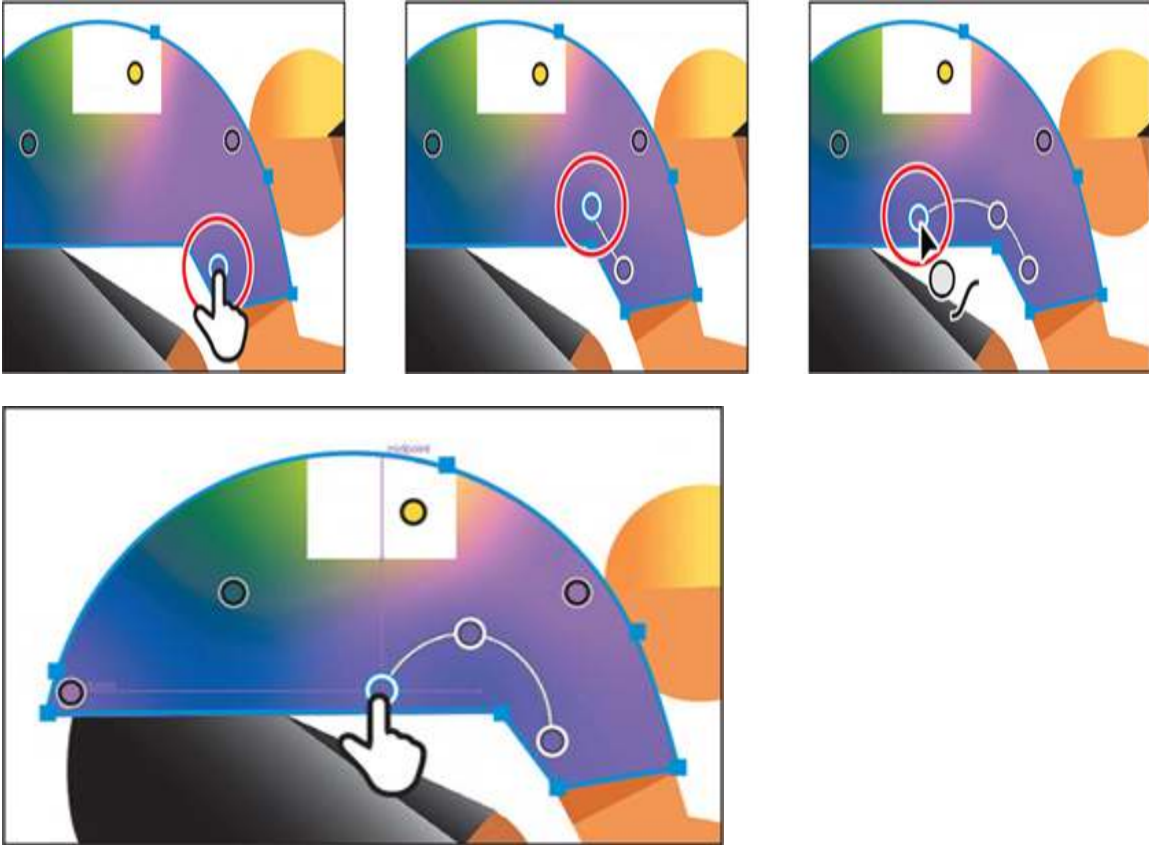
3. In the Gradient panel or Properties panel, select the Lines option to be able to draw a gradient along a path.



4. Select the last purple color stop you just added to the sleeve.

You start a path with a single color stop, so you need to either select the stop you want to start with or make a new one.

5. Move the pointer up, and you'll see the path preview. Click to create a new color stop. You should see that it's the same purple color.
6. Click to make a final color stop down the jersey. The color stops are part of a curved path.



7. Try dragging any color stop on the path to reshape it.

The color gradient follows the new path.

8. Close the Gradient panel.

9. Choose Select > Deselect, and then choose File > Save.

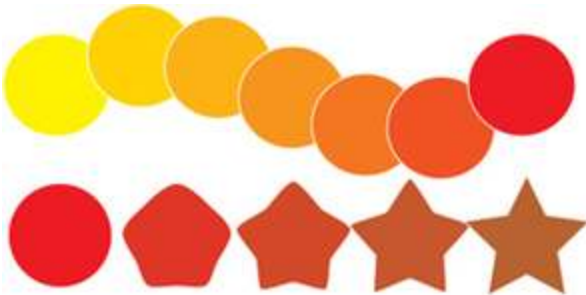
Creating blends

You can take two or more objects and “blend” them together. In a simple type of blend, Illustrator will create and distribute shapes evenly between those two objects. The shapes you blend can be the same or different. Here are a few examples of what is referred to as a “step” or “specified step” type of blend:



Blend between two of the same shape

Blend between two of the same shape, each with a different color fill



Blend between two of the same shape along a path

Blend between two different shapes with different fill colors

You can also blend between two open paths to create a smooth transition of color between them, or you can combine blends of colors and objects to create color transitions in the shape of a particular object. Here are examples of this “smooth color” type of blend:



Smooth color blend between two stroked lines (original lines on left, blend on right)



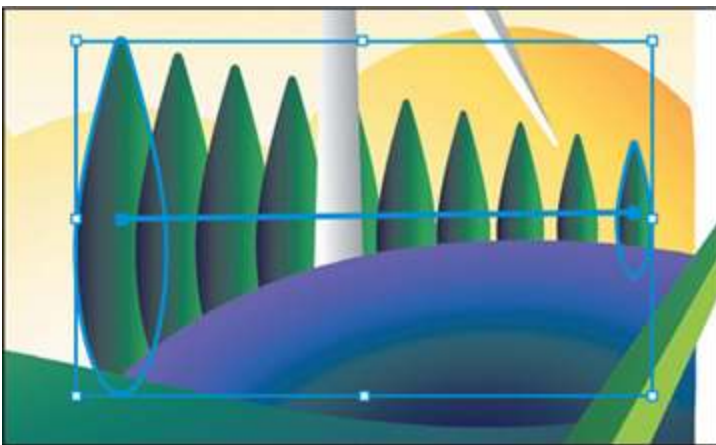
Smooth color blend between two shapes with different color fills

When you create a blend, the blended objects are grouped and called a *blend object*. If you move one of the original objects or edit the anchor points of the original object, the blend changes accordingly.

Creating a blend with specified steps

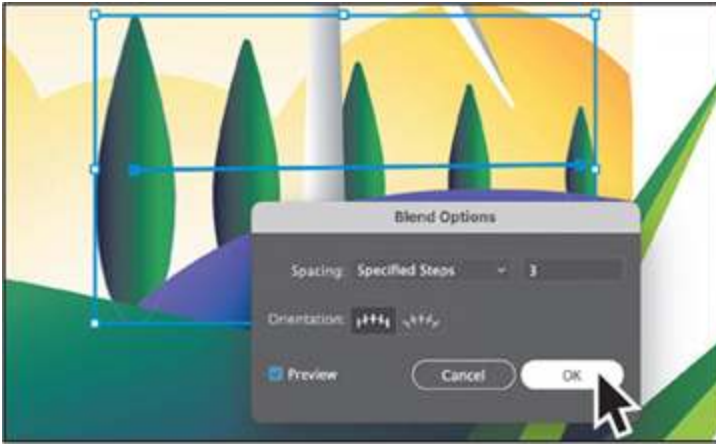
When objects are blended, you can choose from two options to blend them: Specified Steps and Smooth Color. In this section, you'll blend two trees to create a series of trees using Specified Steps.

1. Choose 1 Presentation Slide from the Artboard Navigation menu.
2. Zoom in to the trees on the right side of the artboard using any method.
3. With the Selection tool (▸), select both trees.
4. Choose Object > Blend > Make.



You should now see a series of copies of the trees, each copy changing in size from one tree to the next. Next, you'll edit the blend settings to change the number of trees.

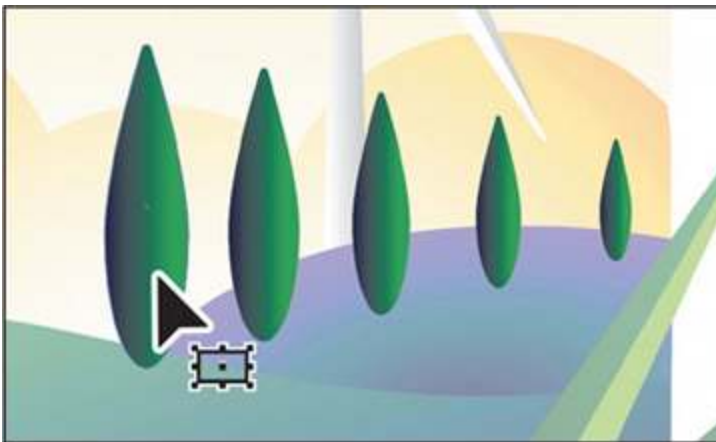
5. With the blended object still selected, choose Object > Blend > Blend Options.



6. In the Blend Options dialog box, choose Specified Steps from the Spacing menu. Change Specified Steps to **3** to see what it looks like—there are now three copies between the two trees. You may need to deselect and select Preview to see the change. Click OK.

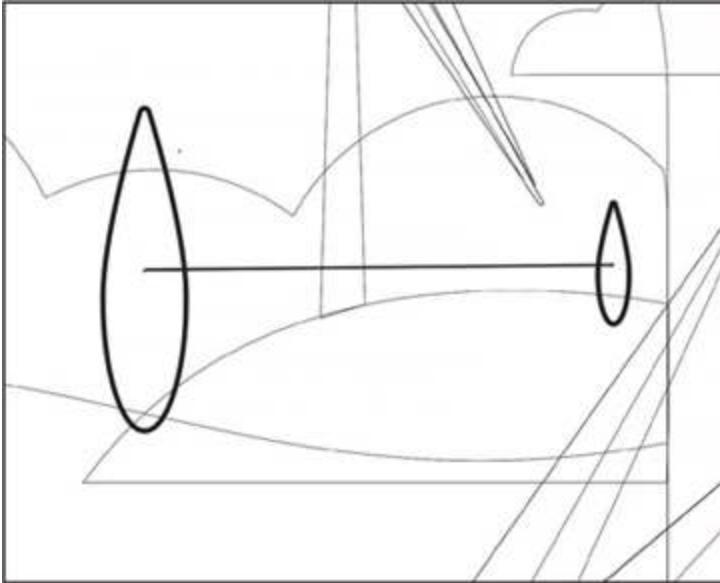
Modifying a blend

Now you'll edit one of the trees in the blend as well as the “spine” of the blend you just created so the shapes blend along a curve.



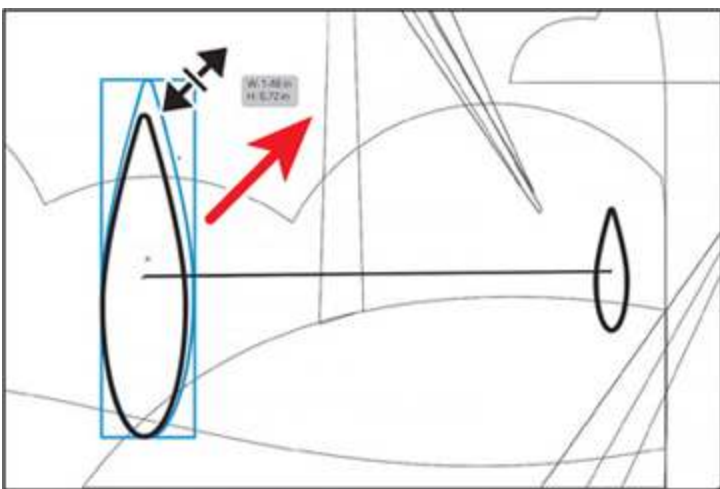
1. With the Selection tool (▀), double-click anywhere on either of the original trees in the blend object to enter Isolation mode.

The trees are temporarily ungrouped so you can edit each independently like any other group in Isolation mode.



2. Choose View > Outline.



Can you see the line between the trees? That is called the spine. The spine is a path along which the steps in a blended object are aligned. By default, the spine is a straight line. In Outline mode, you can see the outlines of the two original trees and the spine between them. These three objects are what a blend object is composed of, by default.

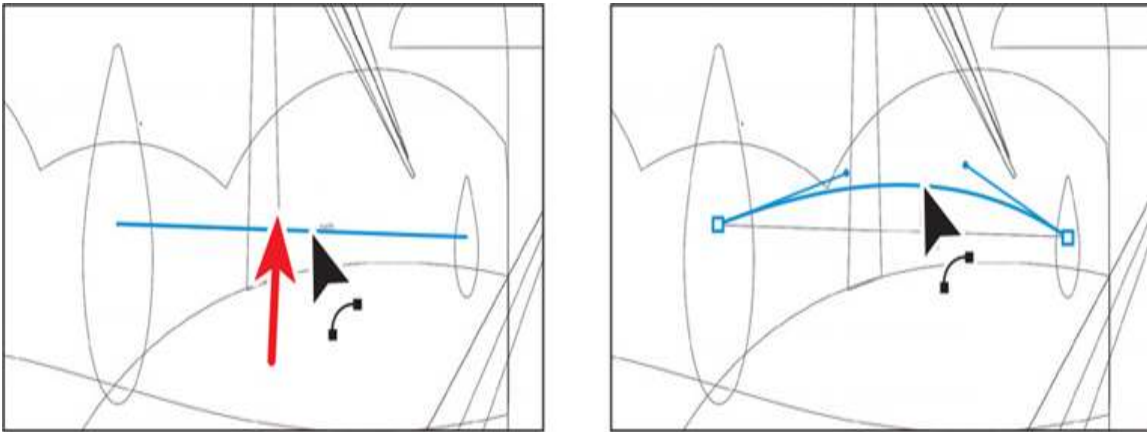


3. Click the edge of the larger tree to select it. Shift-drag a corner to make it taller.

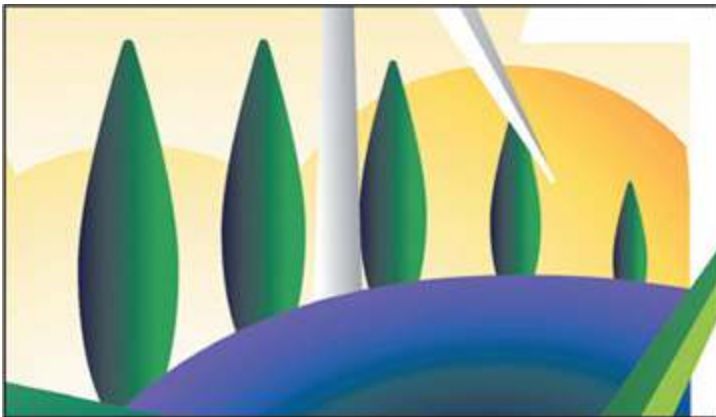
4. Choose Select > Deselect, and remain in Isolation mode.

Next, you'll curve the spine (path) that the blend follows.

5. Select the Pen tool () in the toolbar. Press the Option key (macOS) or Alt key (Windows), and move the pointer over the path between the trees. When the pointer shows this next to it: (), drag the path up so it follows the contour of the hill beneath it, as in the figure.



6. Choose View > Preview (or GPU Preview).
7. Press the Escape key to exit Isolation mode.
8. Choose Select > Deselect.

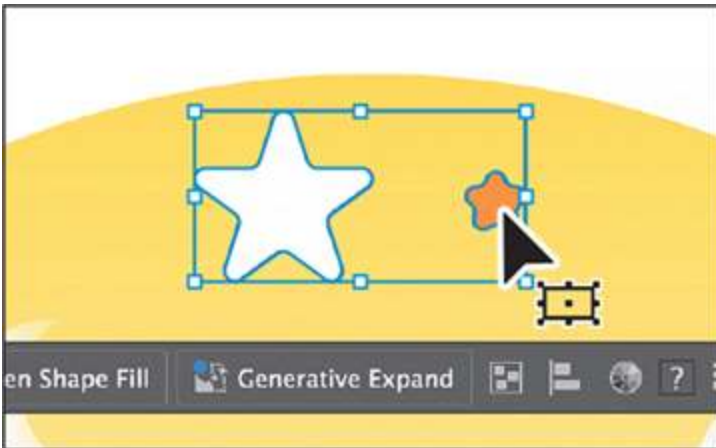


Creating a smooth color blend



When making a blend, if you choose the Smooth Color option for the blend when you edit the blend options, Illustrator combines the shapes *and* colors of the objects into a lot of intermediate steps, creating a smooth, graduated blend between the original objects, as you see in the figure above.

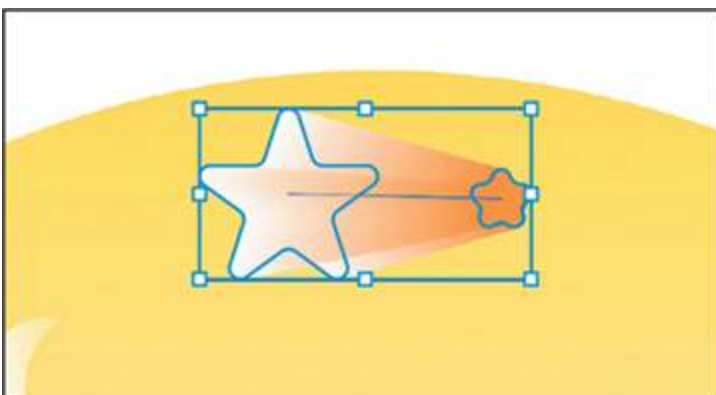
To see this in action you'll combine two stars to create a smooth color blend between them so they look like a shooting star.



1. Select the Selection tool (▀), and in the yellow sky, above the trees, click the larger white star; then Shift-click the smaller orange star on the right to select both.

You may need to pan with the Hand tool.

2. Choose View > Zoom In.



3. Choose Object > Blend > Make.

4. With the blend object still selected, click the Blend Options button in the Properties panel.

● **Note**

Creating smooth color blends between paths can be difficult in certain situations. For instance, if the lines intersect or the lines are too curved, unexpected results may occur.

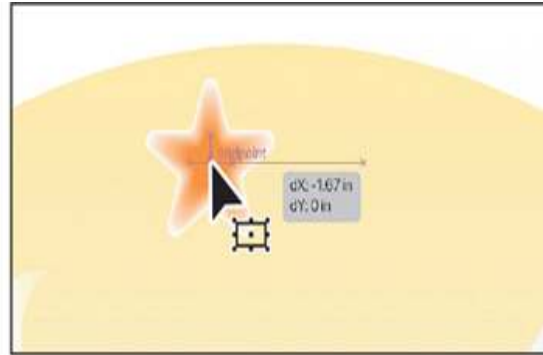
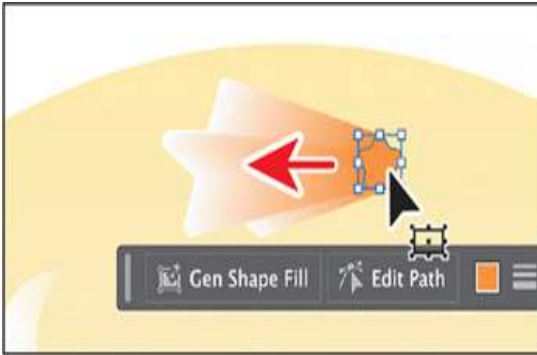
5. In the Blend Options dialog box, make sure that Smooth Color is chosen from the Spacing menu. Click OK.
6. Choose Select > Deselect.



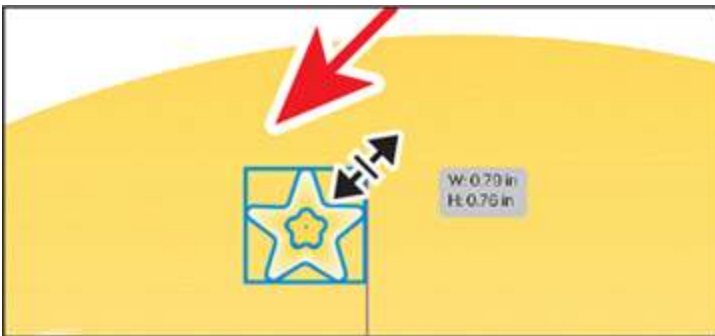
Editing a smooth color blend

Next, you'll edit the paths that make up the blend.

1. Select the Selection tool (☛), and double-click either star to enter Isolation mode.
2. Click the smaller star on the right to select it. Drag it into the center of the larger star. Notice that the colors are now blended.



3. Change the fill color of the smaller star to a yellow.
4. Press the Escape key, or double-click outside of the star shapes to exit Isolation mode.
5. Choose Select > Deselect.
6. Select the blended stars, and Shift-drag to make them a little smaller.



7. Option-drag (macOS) or Alt-drag (Windows) the star to another part of the sky to make a copy. Release the drag and then the key.
8. To see the whole artboard again, choose View > Fit Artboard In Window.
9. Choose File > Save.



Blending with the Blend tool

To learn other ways to create a blend using the Blend tool, watch the video *Blending with the Blend tool*, which you'll find in the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

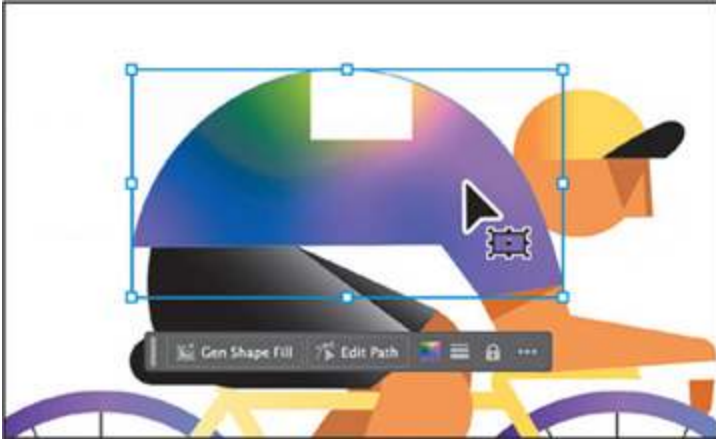
Getting creative with patterns

A *pattern* is repeating artwork that can be applied to the stroke or fill of an object. In addition to colors, spot colors, and gradients, you can also make and save patterns as swatches. Illustrator provides sample swatches of each type as separate libraries in the default Swatches panel, and it lets you create your own patterns as well. In this section, you will focus on creating, applying, and editing patterns.

Applying an existing pattern

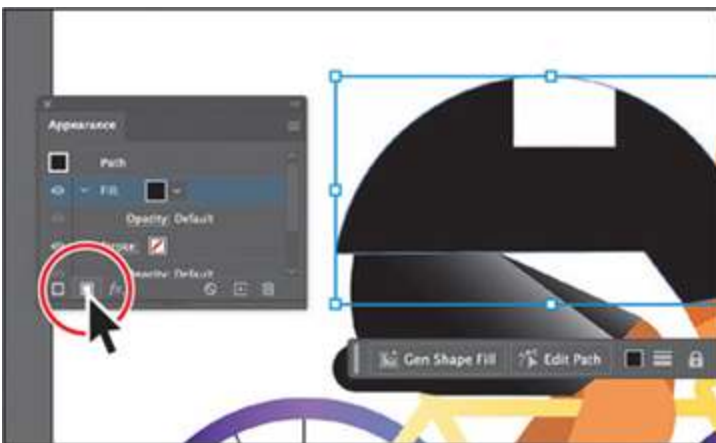
You can design patterns from scratch or customize existing patterns with any of the Illustrator tools. Next, you'll apply a pattern that comes with Illustrator to the bicyclist's jersey.

1. Navigate to the artboard with the biker on it.



2. With the Selection tool (▀), click to select the rider's colorful jersey.
3. Choose Window > Appearance to open the Appearance panel.

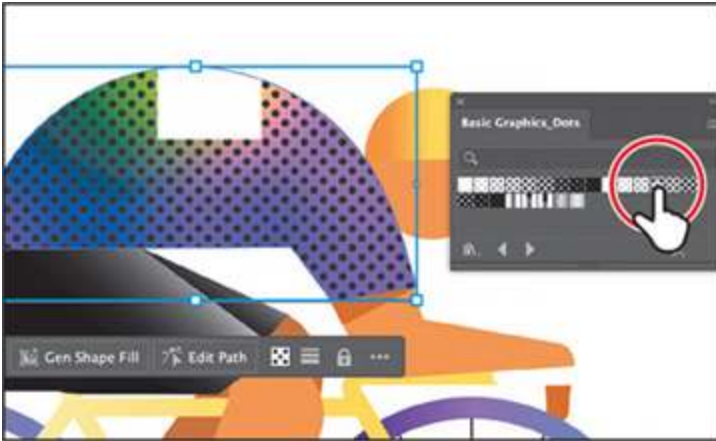
You'll learn a lot more about the Appearance panel in [Lesson 13](#), "Exploring Creative Uses of Effects and Graphic Styles," but for now, know that you can add multiple strokes and fills on top of each other to the same artwork in the panel!



4. Click the Add New Fill button at the bottom of the Appearance panel.

This adds a new black fill to the shape that is layered on top of the colorful fill that you saw.

5. Choose Window > Swatch Libraries (near the bottom of the menu) > Patterns > Basic Graphics > Basic Graphics_Dots to open a library of patterns you can use.



6. Select the 6 dpi 40% swatch.

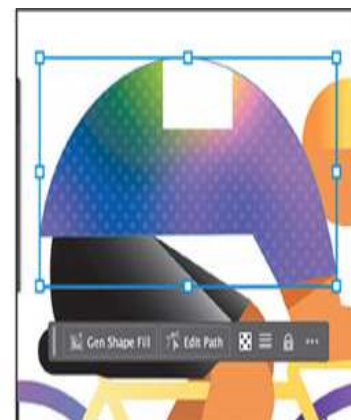
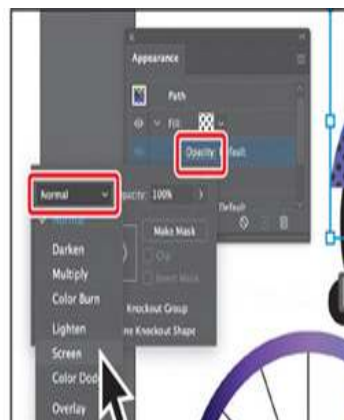
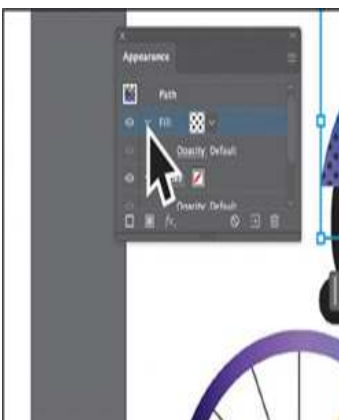
The pattern swatch fills the shape, replacing the black, as a second fill on top of the colorful gradient.

7. In the Appearance panel, click the triangle to the left of the *top* word “Fill” with the dot pattern thumbnail (🔲) to show “Opacity,” if you don’t see it already.

► Tip

You can drag the bottom of the panel down to see more of the panel content.

8. Click Opacity to open the Transparency panel. Choose Screen from the Blending Mode menu. Press the Escape key to hide the panel.

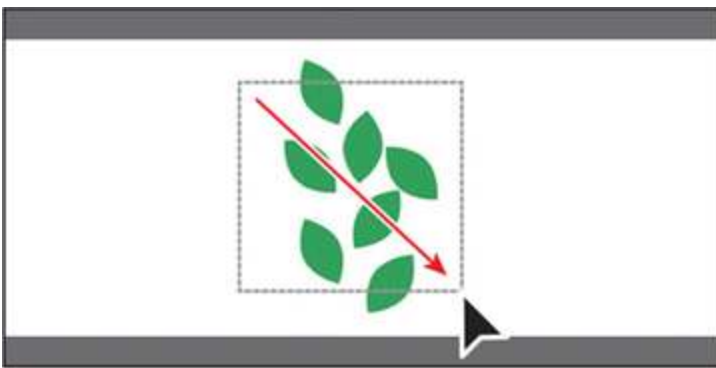


9. Choose Select > Deselect, leave the Appearance panel open, and close the other floating panels.

Creating your own pattern

In this section, you'll create your own custom pattern from leaves. Each pattern you create is saved as a swatch in the Swatches panel for the document you're working in.

1. Choose 2 Pattern from the Artboard Navigation menu below the Document window to fit the artboard in the window.



2. With the Selection tool (▀), drag across the leaves to select them.
3. Choose Object > Pattern > Make.

If you happen to see an error, try again.



4. Click OK in the dialog box that appears.

● Note

A pattern can be composed of shapes, symbols, or embedded raster images, among other objects that you can add in Pattern Editing mode. For instance, to create a flannel pattern for a shirt, you can create three overlapping rectangles or lines, each with varying appearance options.

When you create a pattern, Illustrator enters Pattern Editing mode, which is similar to the Isolation mode you've worked with.

Pattern Editing mode allows you to create and edit patterns while previewing the changes to the pattern. All other artwork is hidden and can't be edited in this mode. The Pattern Options panel (Window > Pattern Options) also opens, giving you all the necessary options to create and edit your pattern.

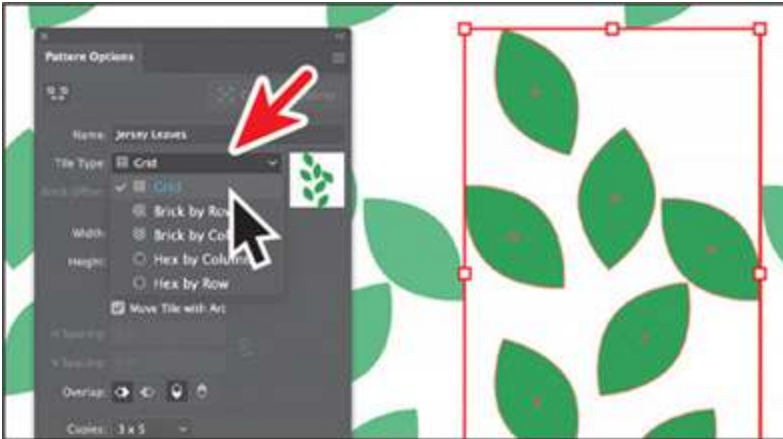


See the blue box around the darker leaves in the center? An arrow is pointing to it in the figure. I made it bolder so you could see it more easily. That box is the *pattern tile*—the area that repeats.

The series of lighter-colored leaves around the artwork in the center consists of generated copies that you can't edit. They are there for a preview and are a little dimmed so you can focus on the original.

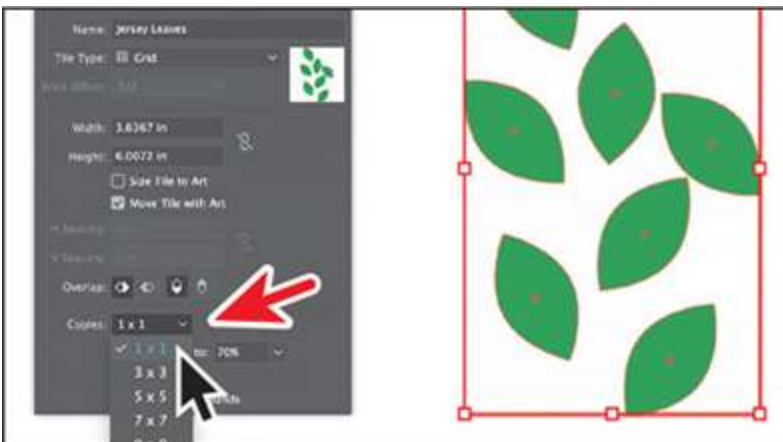
5. Choose Select > All On Active Artboard to select the leaves.
6. In the Pattern Options panel, change Name to **Jersey Leaves**.

The name in the Pattern Options panel becomes the name of the swatch saved in the Swatches panel.



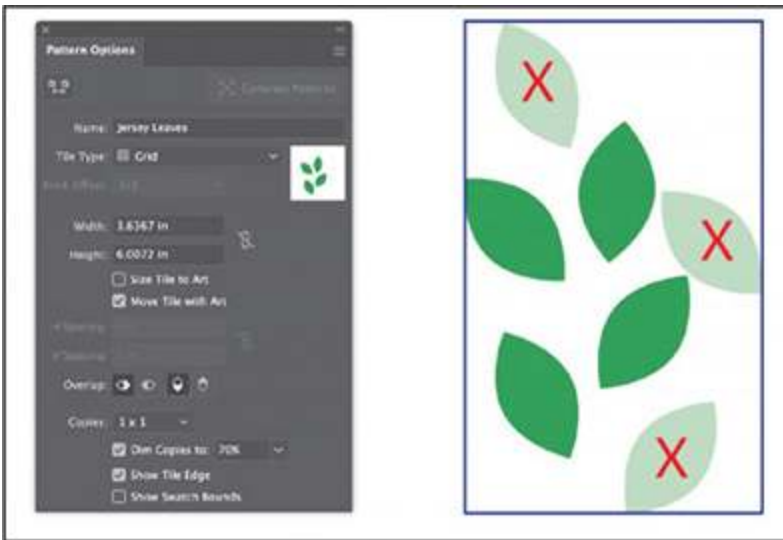
7. Try choosing different options from the Tile Type menu to see the effect on the pattern. Before continuing, make sure Grid is chosen.

Tile Type determines how the pattern is tiled. You have three main Tile Type choices: the default grid pattern, a brick-style pattern, and a hex pattern.

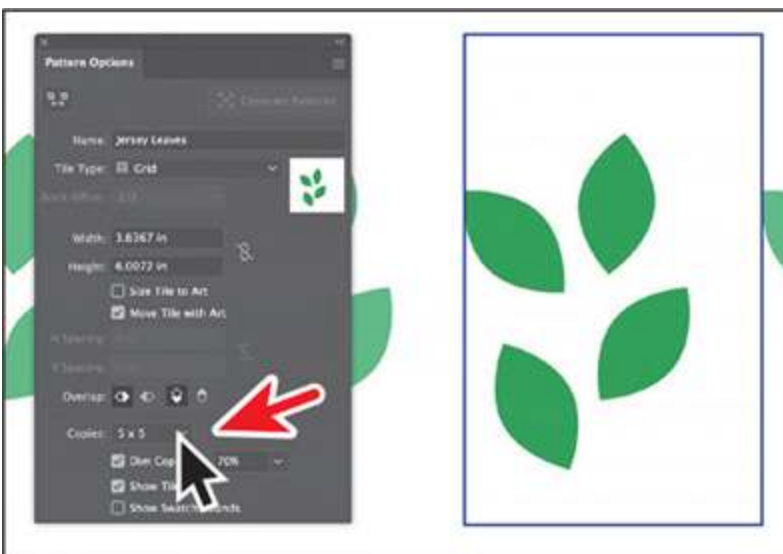


8. Choose 1 x 1 from the Copies menu at the bottom of the Pattern Options panel.

You'll see only the original artwork now, not the repeat, so you can temporarily focus on it.



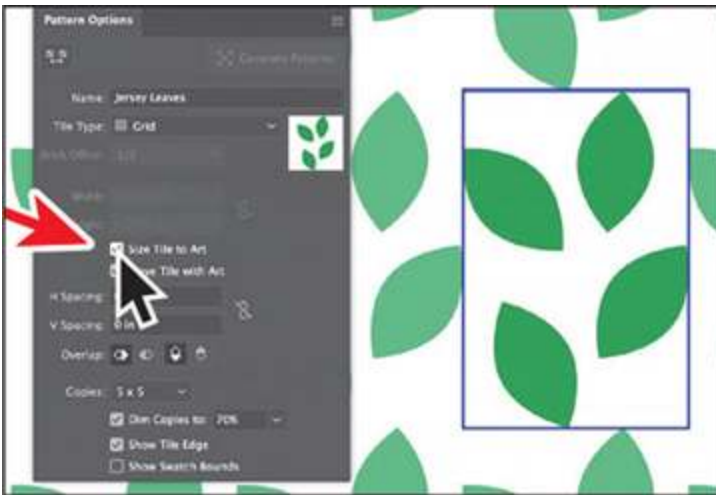
9. Choose Select > Deselect.
10. Click to select the top, bottom, and far-right leaves.
11. Delete them.



12. In the Pattern Options panel, choose 5 x 5 from the Copies menu to see the repeat again.

Notice how the blue tile box stayed the same size after deleting the leaves? By default, the tile doesn't resize—but because the pattern needs less space around the artwork, you'll make the tile smaller.

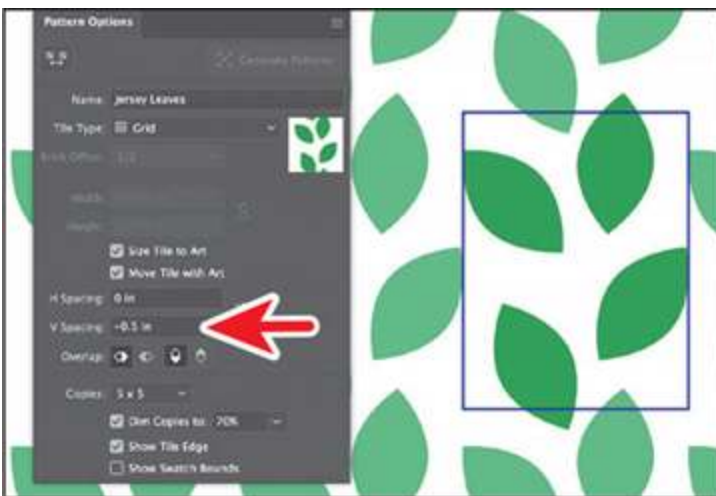
13. Select the Size Tile To Art option in the Pattern Options panel.



The Size Tile To Art selection fits the tile area to the bounds of the artwork, changing the spacing between the repeated leaves, in this case.

► Tip

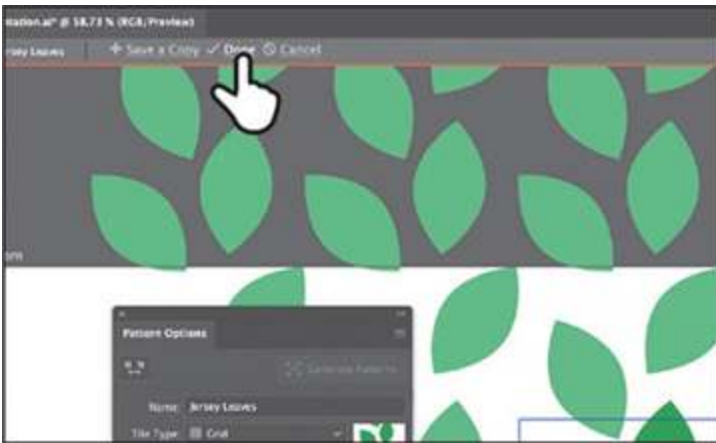
With Size Tile To Art unselected, you could manually change the width and the height of the pattern definition area in the Width and Height fields to include more content or edit the spacing between.



14. To bring the leaves close together, change the V Spacing (vertical spacing between the tiles) to **-0.5** inches in the Pattern Options panel.

The H Spacing and V Spacing values can be either positive or negative, and they move the tiles apart or bring them closer together

either horizontally (H) or vertically (V).



15. Click Done in the bar along the top of the Document window. If a dialog box appears, click OK.

► Tip

If you want to create pattern variations, you can click Save A Copy in the bar along the top of the Document window when in Pattern Editing mode. This saves the current pattern in the Swatches panel as a copy and allows you to continue creating.

16. Choose File > Save.


You'll still see the original art on the artboard that the pattern was made from!

Applying your pattern

In this section, you'll apply your pattern to the biker's jersey.

1. Navigate to the artboard with the biker on it.
2. With the Selection tool (▀), click the rider's colorful jersey.



3. In the top “Fill” row of the Appearance panel, click the Fill color box () to show a panel of swatches. You might need to click a few times. Select the Jersey Leaves pattern swatch you just made!
4. Close the Appearance panel.

Editing your pattern

Next, you’ll edit the Jersey Leaves pattern swatch in Pattern Editing mode.

1. With the jersey shape still selected, click the Fill box in the Contextual Task Bar.



2. Double-click the Jersey Leaves pattern swatch to edit it in Pattern Editing mode.

● **Note**

After double-clicking, if you just see a white artboard with no artwork, zoom in. The artwork most likely will appear.

3. Press Command and + (macOS) or Ctrl and + (Windows) to zoom in.

4. Choose Select > All to select the leaves.



5. Change the fill color to Indigo.

6. Click Done in the gray bar along the top of the Document window to exit Pattern Editing mode.

7. Select the jersey again and choose Object > Transform > Scale.



8. In the Scale dialog box, make sure that Transform Objects is not selected (you aren't trying to scale the jersey itself). Select Transform

Patterns so the pattern will scale. Set the Uniform Scale to **60%**. Click OK.

Putting it all together

In this last section, you will put the artwork for the presentation together.

1. Choose **Select > All On Active Artboard** to select all of the rider artwork.
2. Group it by clicking the **Group** button in the Properties panel.
3. Choose **View > Fit All In Window**.
4. Drag the bicycle rider group onto the larger artboard on the left and arrange it like you see in the following figure.

Note

If your artwork goes behind the artwork on the presentation artboard, click the **Arrange** button in the Properties panel and choose **Bring To Front**.




5. You might want to make the bicycle rider group smaller by Shift-dragging a corner and then dragging it to fit in the presentation slide area better.
6. Choose **File > Save**, and then choose **File > Close** for all open files.

Review questions

- 1 What is a gradient?
- 2 How do you adjust the blend between colors in a linear or radial gradient?
- 3 Name two ways you can add colors to a linear or radial gradient.
- 4 How can you adjust the direction of a linear or radial gradient?
- 5 What is the difference between a gradient and a blend?
- 6 When you save a pattern in Illustrator, where is it saved?

Review answers

- 1 A gradient is a graduated blend of two or more colors or tints of the same color. Gradients can be applied to the stroke or fill of an object.
- 2 To adjust the blend between colors in a linear or radial gradient, with the Gradient tool () selected and with the pointer over the gradient annotator or in the Gradient panel, drag the diamond icons (midpoints) or the color stops of the gradient slider.
- 3 To add colors to a linear or radial gradient, in the Gradient panel, click beneath the gradient slider to add a color stop to the gradient. Then double-click the color stop to edit the color, using the panel that appears, to mix a new color or to apply an existing color swatch. You can also select the Gradient tool in the toolbar, move the pointer over the gradient-filled object, and then click beneath the gradient annotator that appears in the artwork to add or edit a color stop.

- 4 Drag across artwork with the Gradient tool to adjust the direction of a linear or radial gradient. You can also rotate the gradient using the Gradient tool and change the radius, aspect ratio, starting point, and more.
- 5 The difference between a gradient and a blend is the way that colors combine—colors blend together within a gradient and between objects in a blend.
- 6 When you save a pattern in Illustrator, it is saved as a swatch in the Swatches panel. By default, swatches are saved with the currently active document.

12 Using Brushes to Create a Social Ad

Lesson overview

In this lesson, you'll learn how to do the following:

- Use four brush types: Calligraphic, Art, Pattern, and Bristle.
- Apply brushes to paths.
- Paint and edit paths with the Paintbrush tool.
- Change brush color and adjust brush settings.
- Create new brushes from Adobe Illustrator artwork.
- Work with the Blob Brush tool and the Eraser tool.



This lesson will take about 60 minutes to complete. To get the lesson files used in this lesson refer to the instructions in [“Accessing the lesson files and Web Edition”](#) in the [“Getting Started”](#) section at the beginning of this book.



The variety of brush types in Adobe Illustrator lets you create a myriad of effects by painting with the Paintbrush tool or drawing with the drawing tools. You can work with the Blob Brush tool; choose from the Art, Calligraphic, Pattern, Bristle, and Scatter brushes; and create new brushes based on your artwork.

Starting the lesson

In this lesson, you will learn how to work with the different brush types in the Brushes panel, change brush options, and create your own brushes. Before you begin, you'll restore the default preferences for Adobe Illustrator. Then you'll open the finished art file for the lesson to see the finished artwork.

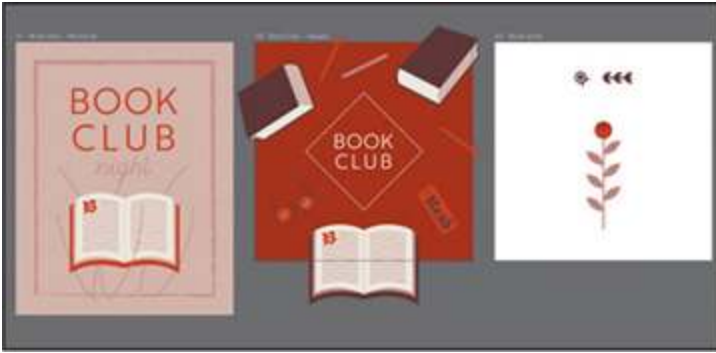
1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. Choose File > Open. Open L12_end.ai in the Lessons > Lesson12 folder you copied to your computer.

Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.



To begin working, you'll open an existing art file.



4. Choose File > Open. Open L12_start.ai in the Lessons > Lesson12 folder you copied to your computer.
5. Choose View > Fit All In Window.
6. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer to save it locally.
7. In the Save As dialog box, name the file **BookClub.ai**, and select the Lesson12 folder. Leave Adobe Illustrator (.ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows) and then click Save.
8. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and then click OK.
9. Choose Reset Getting Started from the workspace switcher in the Application bar to reset the workspace.

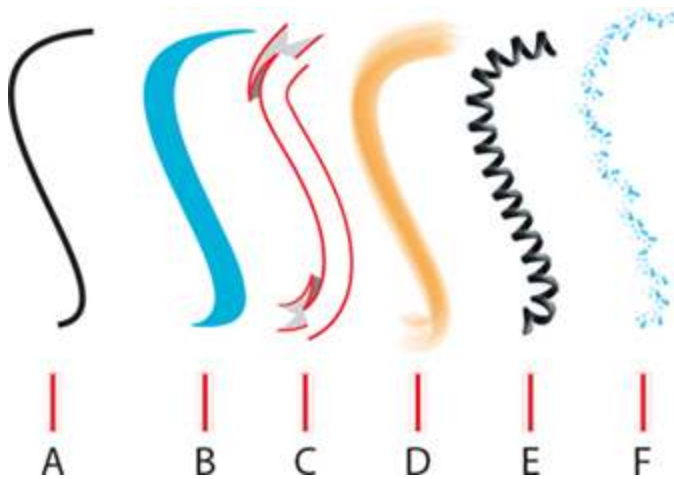
● **Note**

If you don't see Reset Getting Started in the workspace switcher menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

Understanding brushes

You can add fun styling to paths with Illustrator brushes. Check out the different types of brushes you can apply to artwork at right. With Illustrator brushes you can:

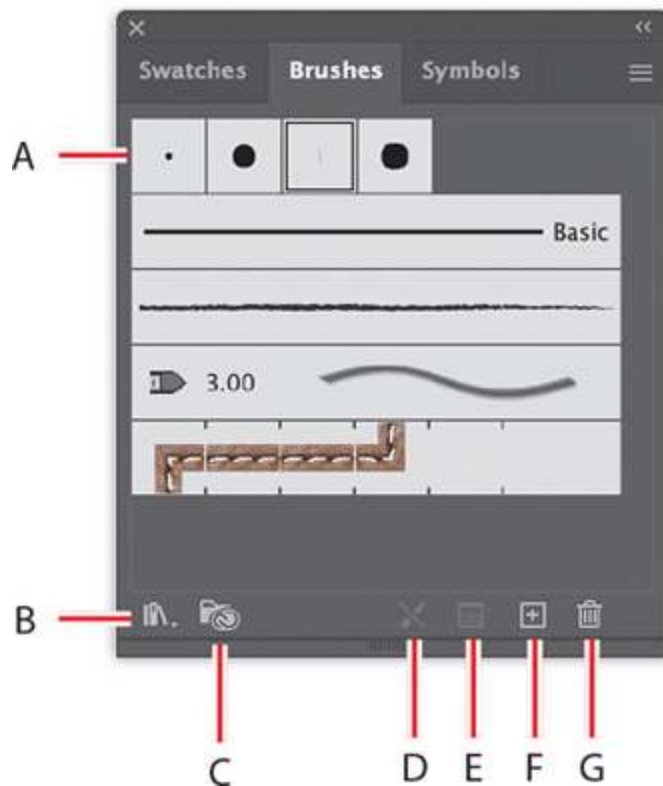
- Style existing paths with a brush, or use the Paintbrush tool to draw and apply a brush stroke in one step.
- Customize your look by adjusting brush color, size, and other settings.
- Keep things flexible—edit paths even after applying brushes, and add fills for extra impact.
- Use and modify any of the many default brushes that come with Illustrator, and create your own brushes.



Types of brushes.

- A.** Path—no brush applied
- B.** Calligraphic brush
- C.** Art brush
- D.** Bristle brush
- E.** Pattern brush
- F.** Scatter brush

There are five types of brushes that appear in the Brushes panel (Window > Brushes): Calligraphic, Art, Bristle, Pattern, and Scatter. The parts of the Brushes panel are shown here:



- A. Brushes
- B. Brush Libraries Menu
- C. Libraries panel
- D. Remove Brush Stroke
- E. Options of selected object
- F. New Brush
- G. Delete Brush

In this lesson, you will discover how to work with all except the Scatter brush.

► Tip

To learn more about Scatter brushes, search for “Scatter brushes” in Illustrator Help (Help > Illustrator Help).

Using Calligraphic brushes



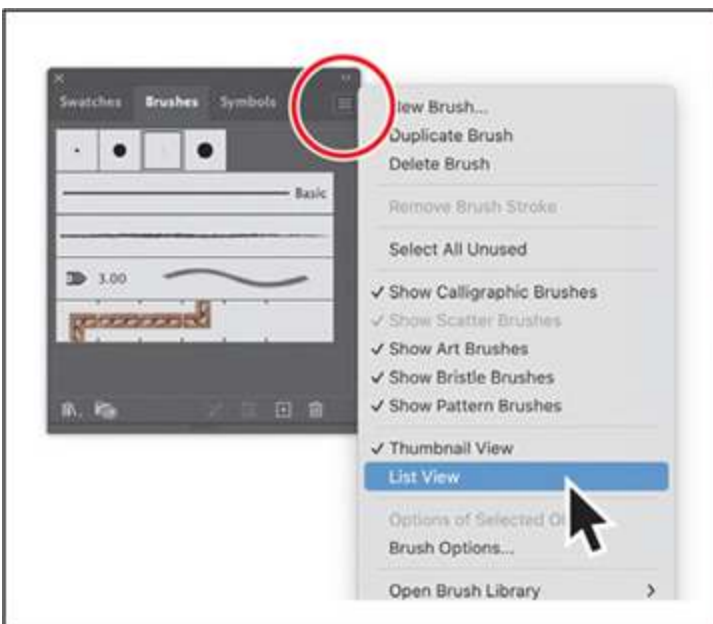
Calligraphic brush examples

The first type of brush you'll learn about is the Calligraphic brush. Calligraphic brushes resemble strokes drawn with the angled point of a calligraphic pen. Calligraphic brushes are defined by an elliptical shape whose center follows the path, and you can use these brushes to create the appearance of hand-drawn strokes made with a flat, angled pen tip.

Applying a Calligraphic brush to artwork

To get started, you'll filter the types of brushes shown in the Brushes panel so that it shows only Calligraphic brushes.

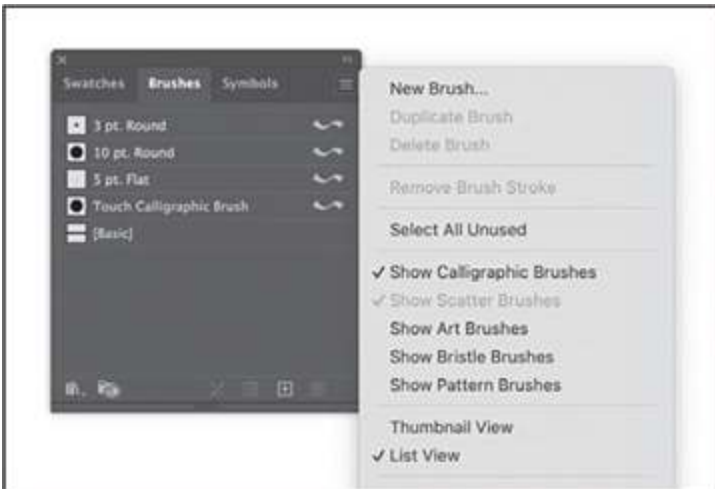
1. Choose Window > Brushes to open the Brushes panel, if you don't already have it open.



2. Click the Brushes Panel Menu icon (≡), and choose List View.

3. Click the Brushes Panel Menu icon (☰) again, and *deselect* the following, but leave Calligraphic brushes selected (visible):

- Show Art Brushes
- Show Bristle Brushes
- Show Pattern Brushes



A checkmark next to the brush type in the menu indicates that the brush type is visible in the panel. You can't deselect them all at once, so you'll have to keep clicking the icon (☰) to access the menu.

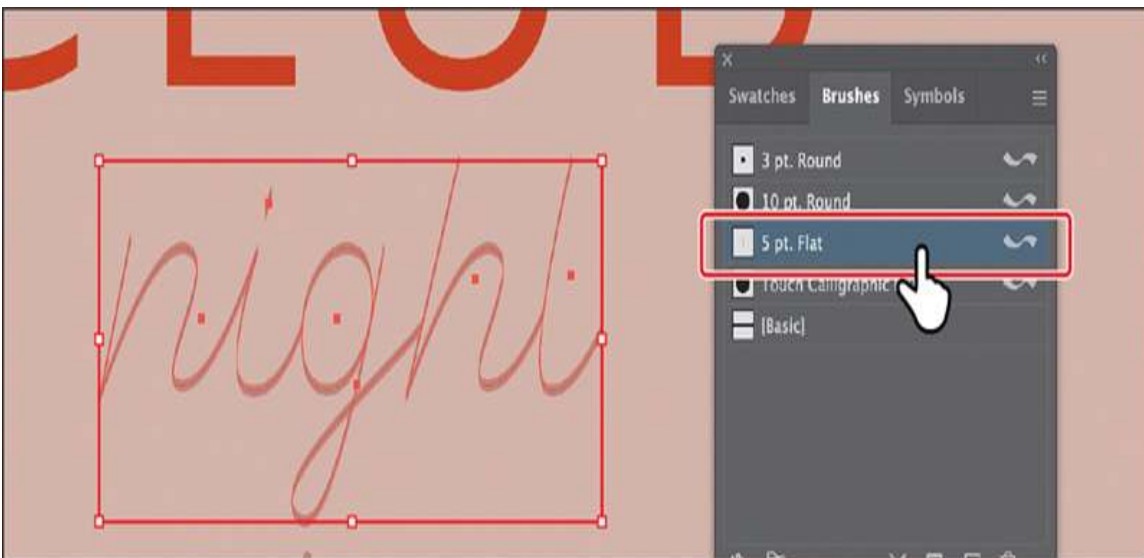
Your Brushes panel will wind up looking like the figure at right.

4. Select the Selection tool (⬵) in the toolbar, and click "night" in the artboard on the left.

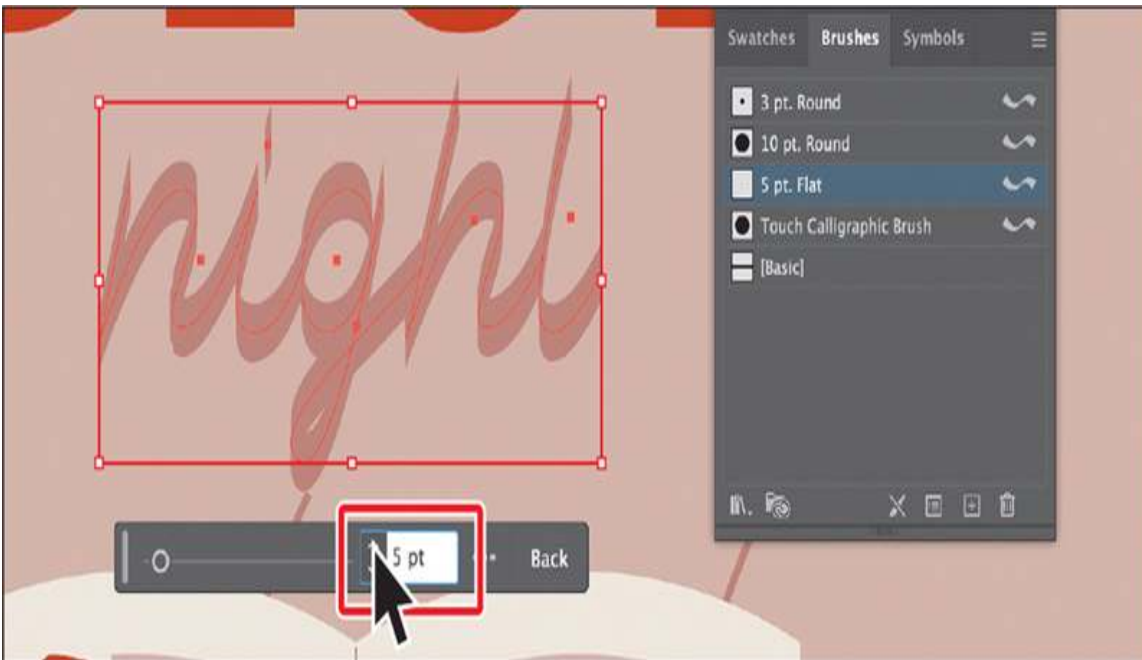
This text has been converted to shapes.



5. Press Command and + (macOS) or Ctrl and + (Windows) three or four times to zoom in.
6. Select the 5 pt. Flat brush in the Brushes panel to apply it to the night text shapes.



7. Change the Stroke weight to **5 pt** in the Contextual Task Bar or Properties panel to see the effect of the brush.



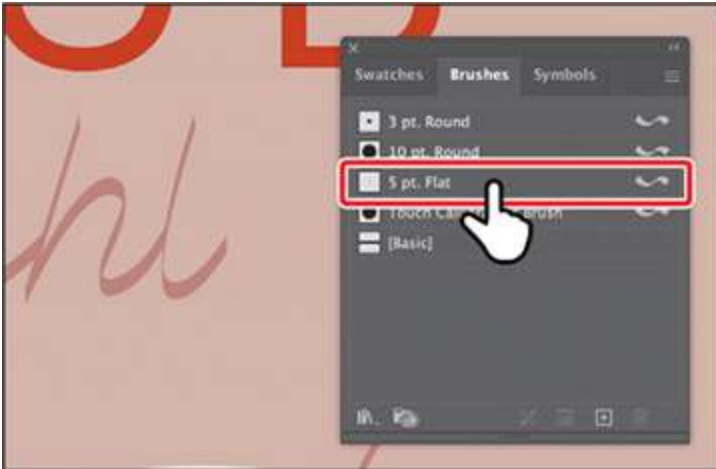
As with an actual calligraphic pen, when you apply a Calligraphic brush, such as the 5 pt. Flat brush, the more vertically you draw a path, the thinner the path's stroke appears.

8. Change the Stroke weight to **2 pt**.
9. Choose Select > Deselect, and then choose File > Save.

Editing a brush

For the most flexibility, consistency, and creative control over your artwork, you can edit brushes. When you edit a brush, you can also choose whether to change artwork that the brush has been applied to or not. Next you'll change the appearance of the 5 pt. Flat brush you applied to the text.

1. In the Brushes panel, double-click the 5 pt. Flat brush thumbnail (or to the right of its name) to open the Calligraphic Brush Options dialog box.



● **Note**

The edits you make will change the brush for this document only.

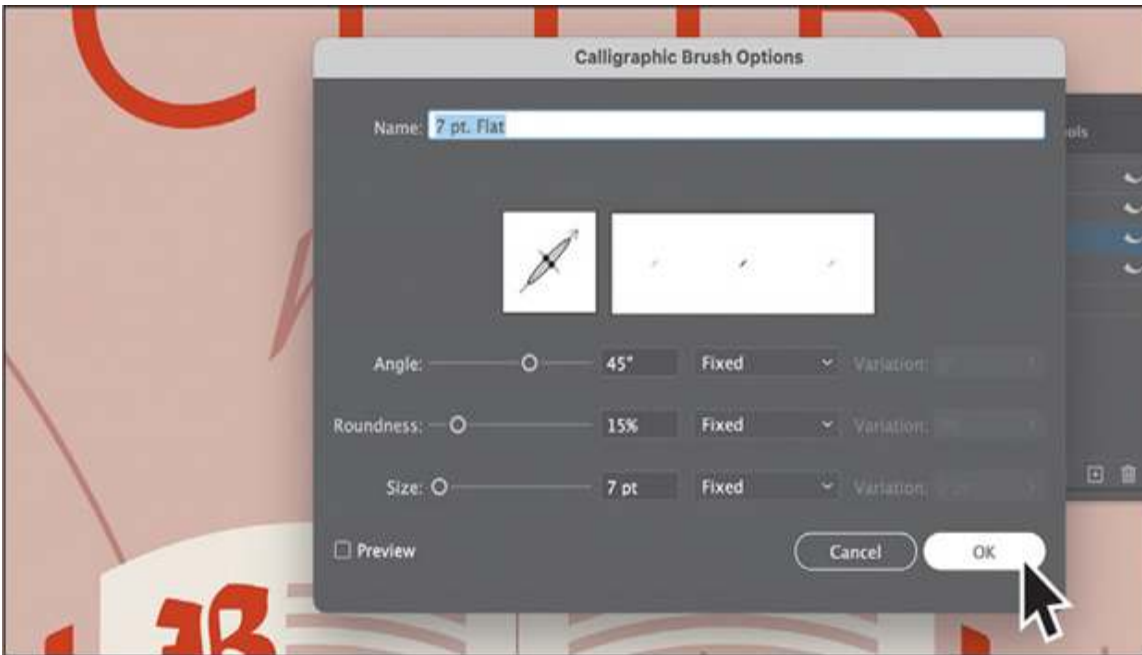
2. In the dialog box make the following changes:

- Name: **7 pt. Flat**

▶ **Tip**

The Preview window in the dialog box (below the Name field) shows the changes that you make to the brush.

- Angle: **45°**
- Choose Fixed from the menu to the right of Angle, if it isn't already. (If you choose Random, a random variation of brush angles is created every time you draw.)
- Roundness: **15%** (This setting makes the brush stroke more or less round.)
- Size: **7 pt**



3. Click OK.
4. In the dialog box that appears, click Apply To Strokes so the brush changes will affect the text shapes that have the brush applied.



5. Choose Select > Deselect, if necessary, and then save the file by choosing File > Save.

Creating with the Paintbrush tool

When you use the Paintbrush tool, it applies a brush stroke as you paint, and creates editable vector paths. These paths can be modified later with the Paintbrush tool itself or with other drawing tools. In the next step,

you'll use the Paintbrush tool to add detail to part of the letter "t" in the text, applying a Calligraphic brush selected from the brush library.

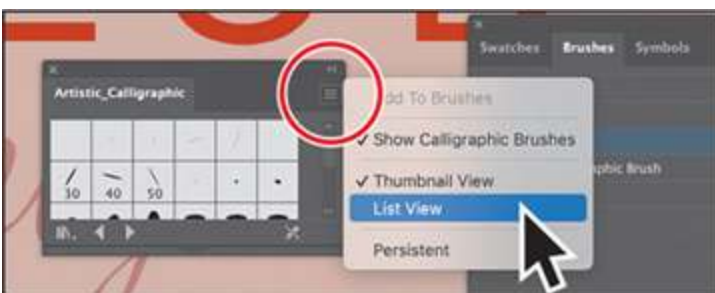
1. Select the Paintbrush tool (🖌️) in the toolbar.



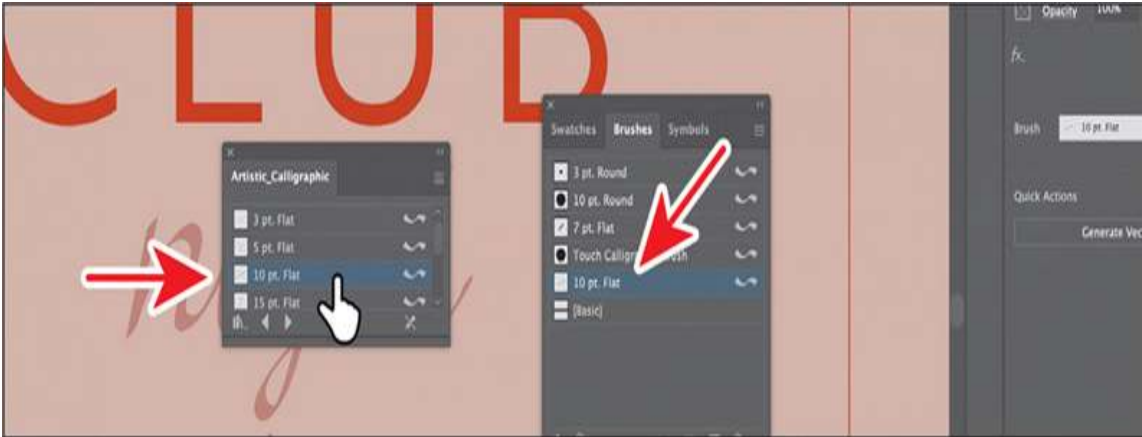
2. Click the Brush Libraries Menu button (📖) at the bottom of the Brushes panel, and choose Artistic > Artistic_Calligraphic.

A brush library panel with various brushes appears.

Illustrator comes with a host of brush libraries that you can use in your artwork. These libraries offer a range of different kinds of brushes.

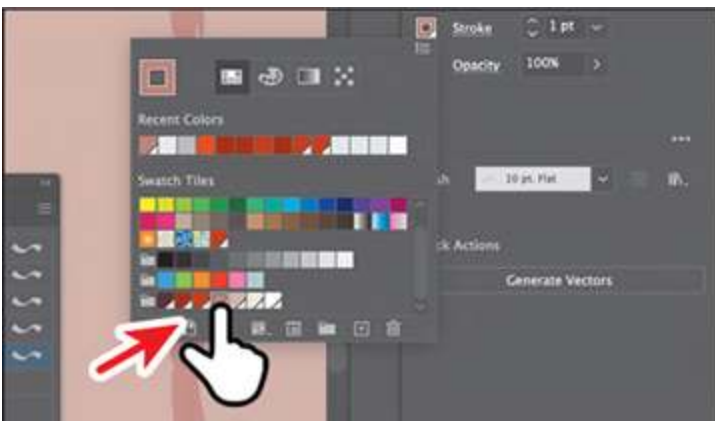



3. Click the Artistic_Calligraphic Panel Menu icon (☰), and choose List View.
4. Click the brush named 10 pt. Flat to add it to the Brushes panel.




5. Close the Artistic_Calligraphic panel.

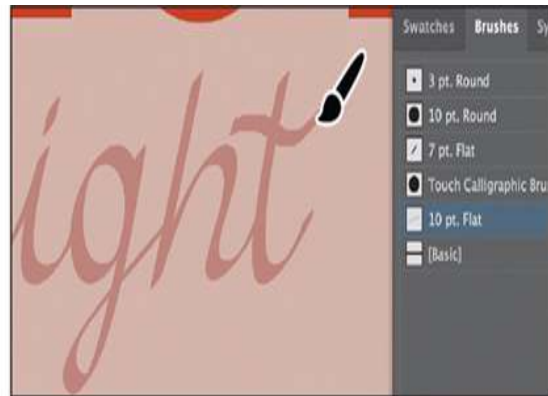
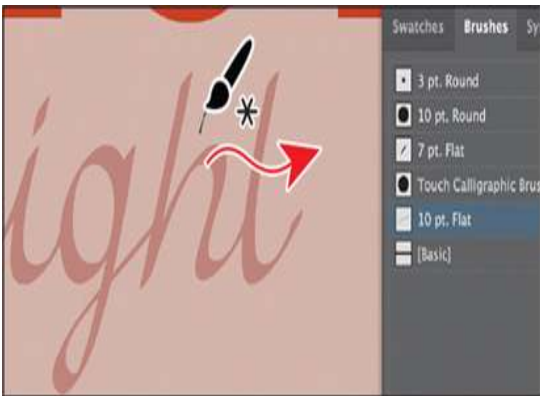
Selecting a brush from a brush library, such as the Artistic_Calligraphic library, adds that brush to the Brushes panel for the active document only.



6. Make sure the fill color is None (, the stroke color is a tan (R=194, G=139, B=123), and the stroke weight is 1 pt in the Properties panel.

With the pointer in the Document window, notice that the Paintbrush pointer has an asterisk next to it (, indicating that you are about to paint a new path.

7. Move the pointer to the left of the “t” in “night” (see the first part of the following figure). Paint a curving path from left to right.



● Note

This Calligraphic brush creates random angles on the paths, so yours may not look like what you see in the figures, and that's okay.

Editing paths with the Paintbrush tool

If your paths aren't too your liking, you can use the Paintbrush tool to edit them.

1. Select the Selection tool (☛), and click to select the “night” text shapes.
2. Select the Paintbrush tool (🖌), in the toolbar. Move the pointer over the “n” (see the figure for where). An asterisk will not appear next to the pointer when it's positioned anywhere over a selected path. Drag to redraw the end of the path. The selected path is edited from the point at which you began drawing.



Notice that the letter shapes are no longer selected after you finish drawing with the Paintbrush tool. By default, paths are deselected.



Smoothing with the Paintbrush tool

When creating with the Paintbrush tool, you can temporarily toggle to a smoothing brush to smooth paths out. Let's try that with the path you drew on the "t."



1. Press and hold the Command (macOS) or Ctrl (Windows) key and click to select the curved path you drew on the letter "t."

That key toggles to the Selection tool. Releasing the key returns to the Paintbrush tool.

You could redraw the selected path—and if you want to, go ahead. Next, you'll smooth the path with the Paintbrush tool.

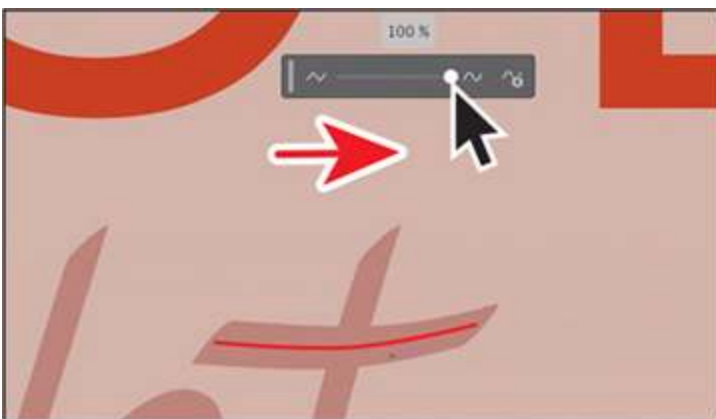


2. With the Paintbrush tool selected, press and hold the Option (macOS) or Alt (Windows) key.

► **Tip**

You can move the floating bar by the vertical line on the left end.

You should see a little floating bar appear. With this key held down, you can adjust how smooth the path is by either dragging the slider in that bar or dragging across the path.

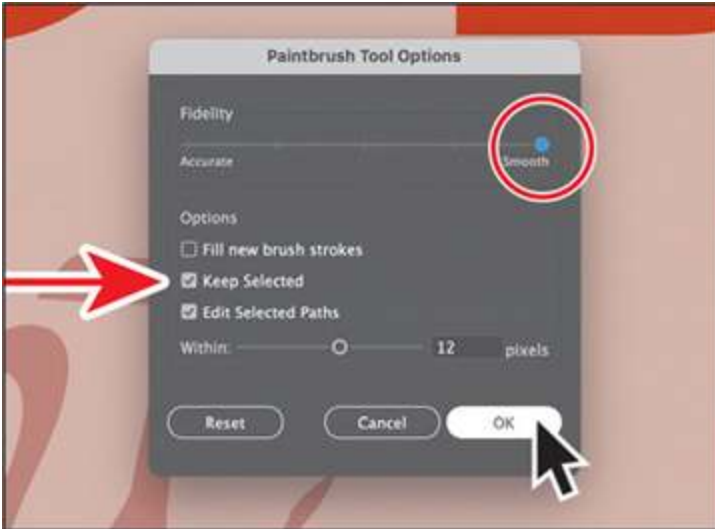


3. With the key held down—drag the slider in the floating bar to the right. Watch your path! It will become smoother the farther you drag the slider to the right. Smooth it as much as you like.
4. Release the key when finished.

Note that when you smooth a path this way, the slider resets to zero (0) when you release the key.

Editing the Paintbrush tool options

Like some of the other tools in Illustrator, you can adjust the options of the Paintbrush tool to change how it paints.



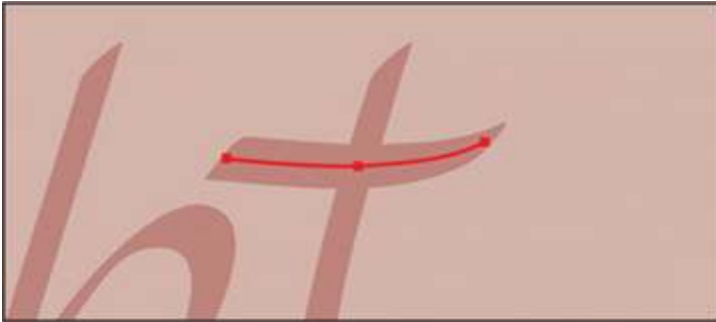
1. Double-click the Paintbrush tool (🖌️) in the toolbar to display the Paintbrush Tool Options dialog box, and make the following changes:
 - Fidelity: Drag the slider to Smooth (all the way to the right).
 - Keep Selected: Selected.
2. Click OK.

The Paintbrush Tool Options dialog box lets you adjust how the tool functions. Dragging the Fidelity slider closer to Smooth creates smoother paths with fewer points. With Keep Selected turned on, paths remain selected after drawing.

3. With the curved path you drew on the letter “t” still selected, try repainting the path.



Notice that the path is still selected after painting, so you could edit it further if you needed to. If you want to draw a series of overlapping paths with the Paintbrush tool, setting the tool option to *not* remain selected after you finish drawing paths is best. For the path, I redrew it to look more like it was before—see the figure.



4. Choose Select > Deselect, if necessary, and then choose File > Save.

Removing a brush stroke

You can easily remove a brush stroke applied to artwork where you don't want it. Give it a try by removing the brush stroke from the stroke of a path.

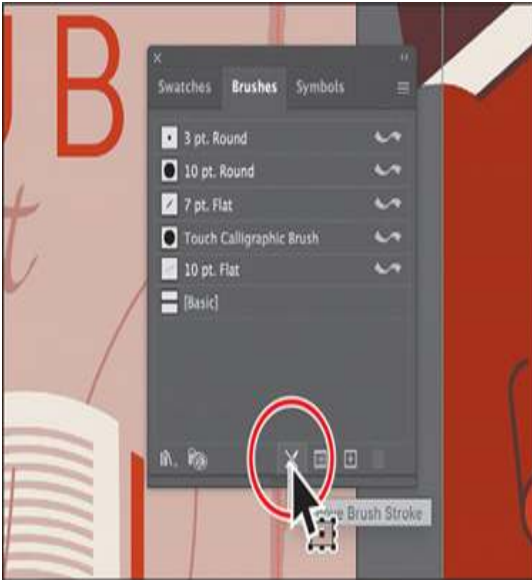
1. Choose View > Fit Artboard In Window to see everything.
2. Select the Selection tool (⬚), and click the rectangle around all the content on the artboard (see the figure).



When creating the artwork, I tried out different brushes on the border. The brush applied to the stroke of the selected path needs to

be removed.

3. In the Brushes panel, click the Remove Brush Stroke button (✕) at the bottom to remove the stroke.



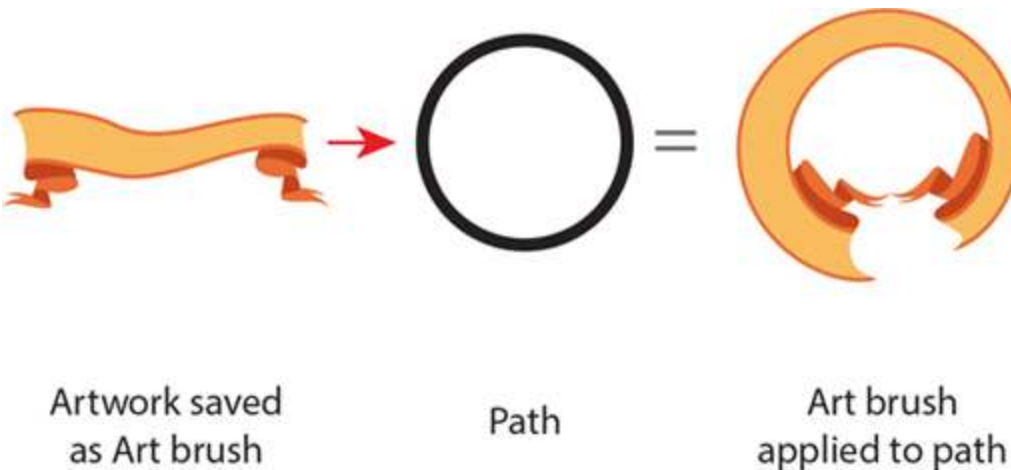
► **Tip**

You can also select the [Basic] brush in the Brushes panel to remove a brush applied to a path.

Removing a brush stroke doesn't remove the stroke color and weight; it just removes the brush applied.

4. Choose Select > Deselect, and then choose File > Save.

Using Art brushes

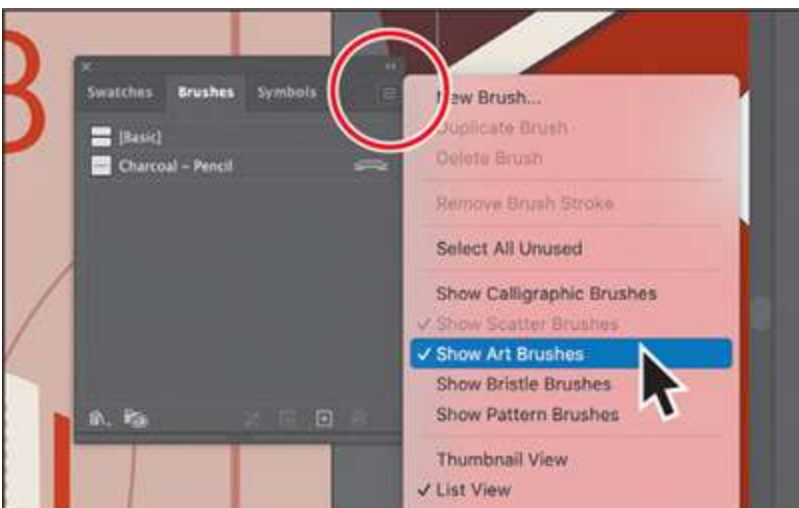


Art brushes stretch artwork or raster images evenly along the length of a path. You can see an example in the figure. As with other brushes, you can edit the brush options to affect how the brush looks and is applied to paths.

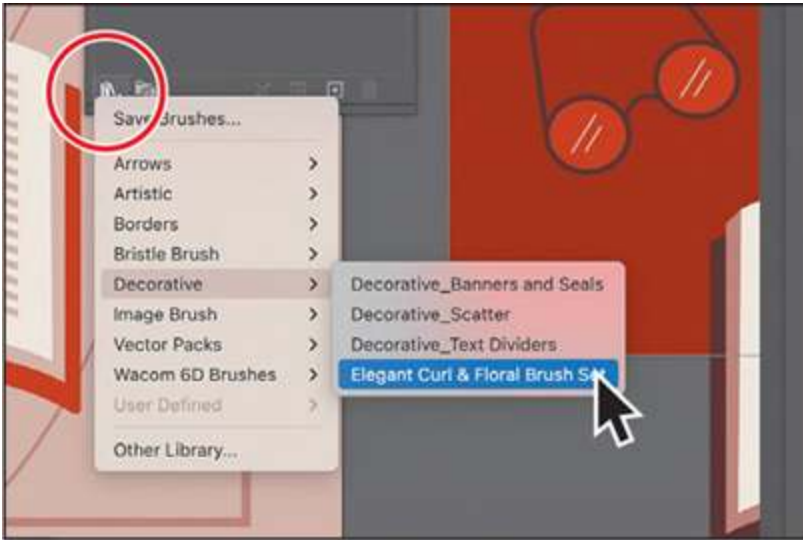
Applying an existing Art brush


Next, you'll apply an Art brush that comes with Illustrator to a path to add a flourish.

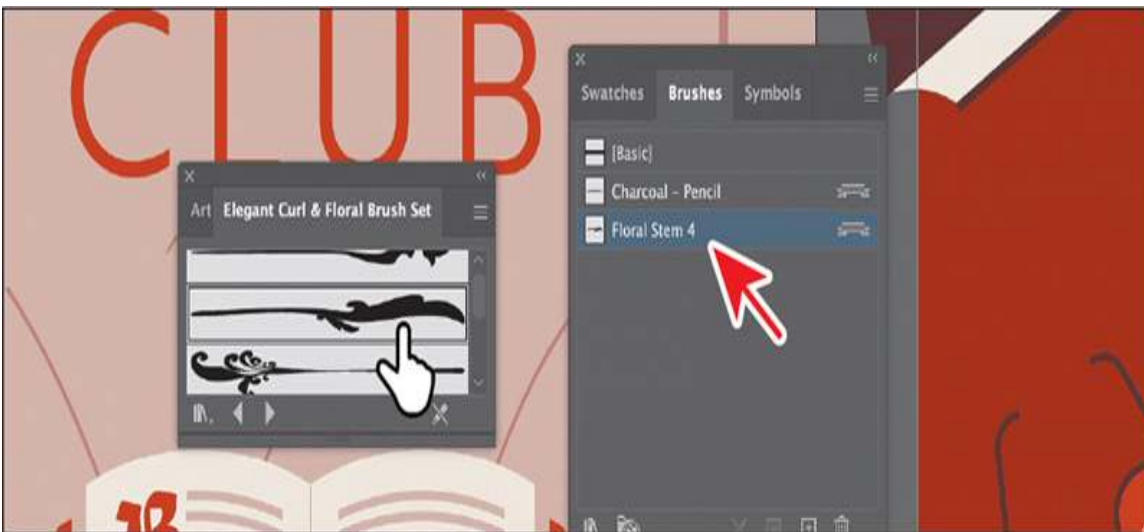
1. In the Brushes panel, click the Brushes Panel Menu icon (☰), and deselect **Show Calligraphic Brushes**. Then choose **Show Art Brushes** from the same panel menu to make the Art brushes visible in the Brushes panel.



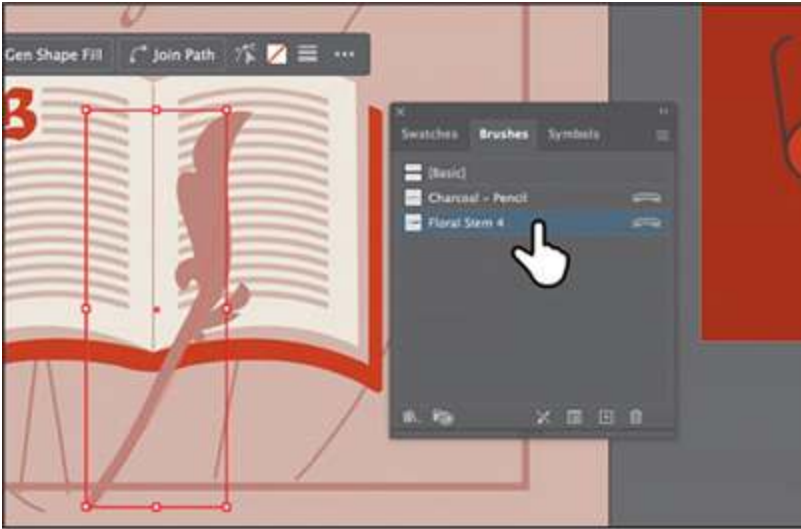
Now, you'll open a brush library that comes with Illustrator.



2. Click the Brush Libraries Menu button () at the bottom of the Brushes panel, and choose Decorative > Elegant Curl & Floral Brush Set.
3. Scroll in the Elegant Curl & Floral Brush Set panel and select a brush to add it to the Brushes panel for this document. I chose Floral Stem 4.

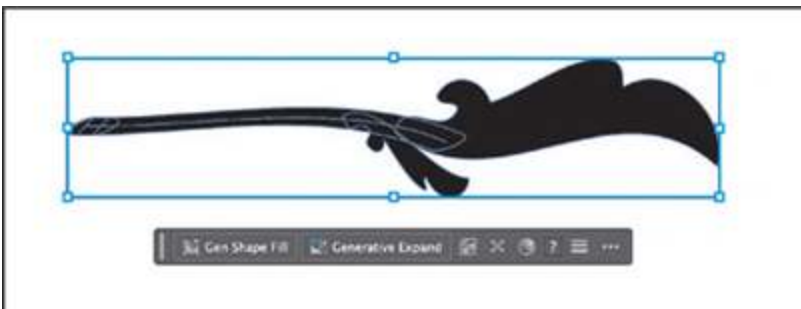


4. Close the Elegant Curl & Floral Brush Set panel group.
5. With the Selection tool, click the path that crosses in front of the book at the bottom of the artboard.



6. Click the art brush you just added to the Brushes panel to apply it to the path.

The Art brush artwork is stretched along the path. At right, you can see what the original artwork looks like to get an idea for how it was stretched. Also notice that the color of the path was preserved.



7. Choose Select > Deselect, and then choose File > Save.

Creating a custom Art brush

In this section, you'll create a new Art brush from supplied artwork. You can make Art brushes from embedded raster images or from vector artwork, but that artwork must not contain gradients, blends, other brush strokes, mesh objects, graphs, linked files, masks, or text that has not been converted to outlines.

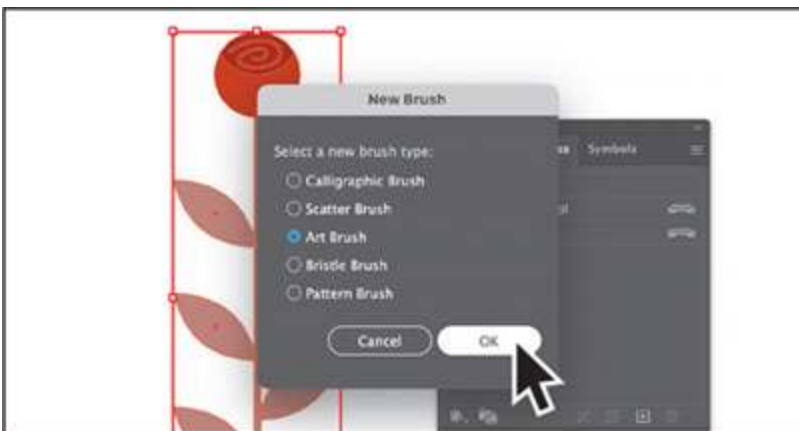
1. Choose artboard 3 from the Artboard Navigation menu in the Properties panel to navigate to the artboard with the rose artwork on it.

2. With the Selection tool (⌘), click the rose to select it (see the following figure).



3. In the Brushes panel, with the rose selected, click the New Brush button (⌘) at the bottom of the Brushes panel.

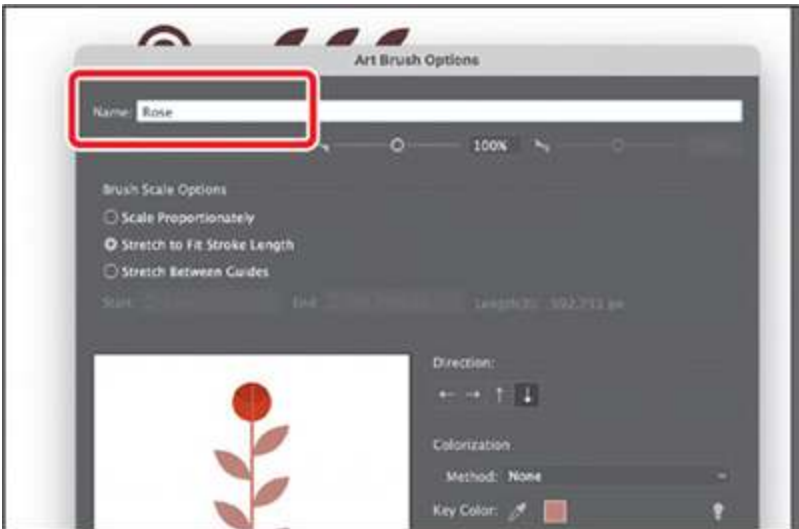
This begins the process of creating a new brush from the selected artwork.



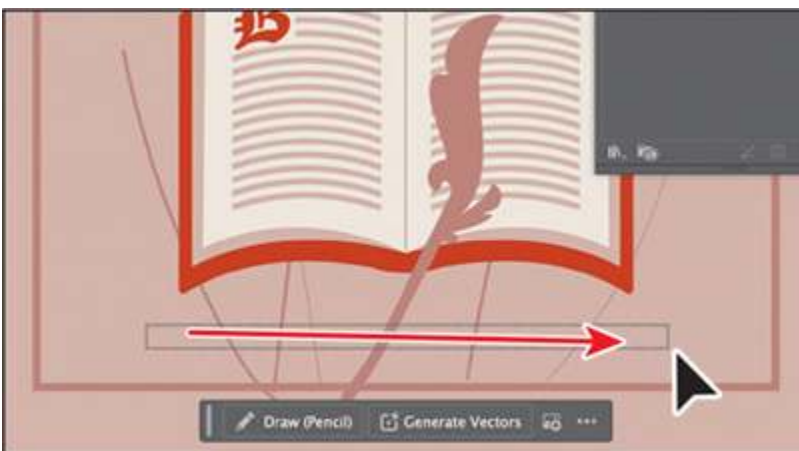
4. In the New Brush dialog box, select Art Brush, and then click OK.

► **Tip**

You can also create an Art brush by dragging artwork into the Brushes panel and choosing Art Brush in the New Brush dialog box that appears.



5. In the Art Brush Options dialog box that appears, change the name to **Rose**. Click OK.
6. Choose Select > Deselect.
7. Choose 1 from the Artboard Navigation menu in the Properties panel to navigate back to the first artboard.
8. With the Selection tool selected, drag across all of the paths that cross over and under the book to select them.



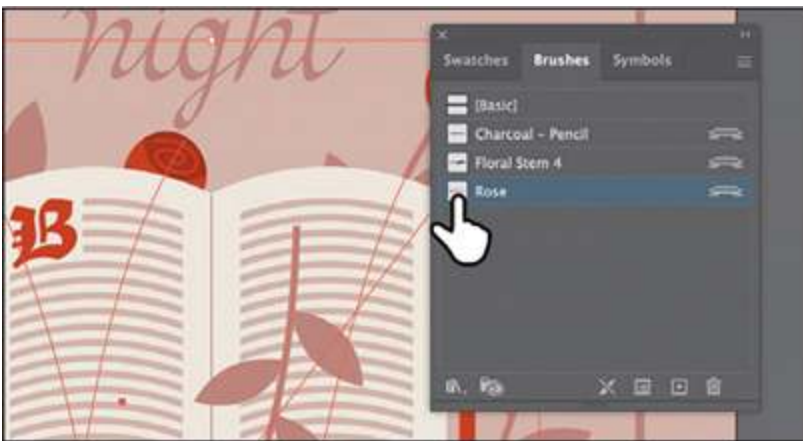
9. Click the brush named Rose in the Brushes panel to apply it.

Notice that the original rose artwork is stretched along each path. This is the default behavior of an Art brush and Scatter brushes. Unfortunately, for at least one of the paths, the rose is upside-down from how it should be. You'll fix that next.



Editing an Art brush

Next, you'll edit the Rose brush you applied to the path and update the appearance of the paths on the artboard.



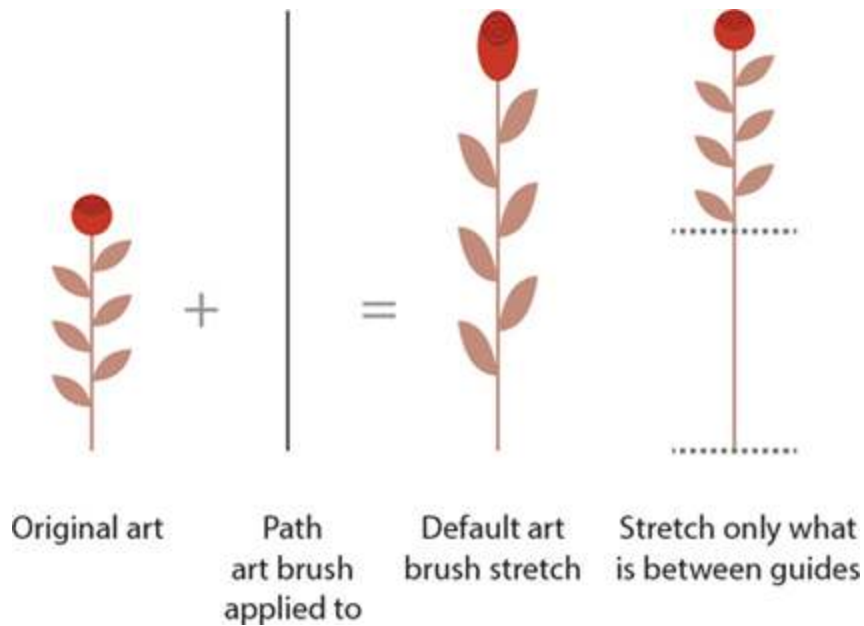
1. With the paths still selected, in the Brushes panel, double-click the Rose brush thumbnail (or to the right of its name) to open the Art

Brush Options dialog box.

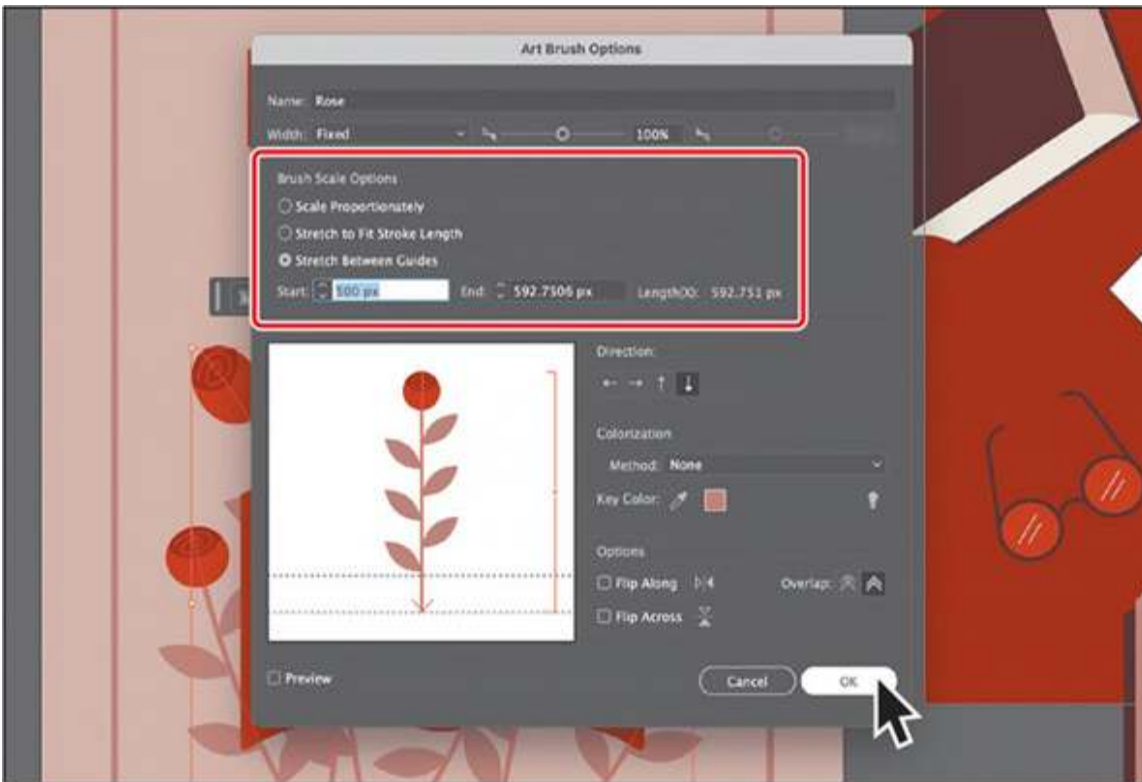
2. In the Art Brush Options dialog box, select Preview to see the changes on the artboard as you make them, and move the dialog box so you can see the lines with the brush applied. Make the following changes:

- Stretch Between Guides: Selected.

These guides are not standard Illustrator guides on the artboard. They are used to indicate the part of the art that stretches or contracts to make the Art brush fit the path length. Any part of the art that is not within the guides will be able to stretch or contract.



- Start: **500 px** (just below where the leaves start)
- End: **592.7506 px** (default setting)



► **Tip**

You can drag the dashed guides in the preview area of the dialog box!

3. Click OK.
4. In the dialog box that appears, click Apply To Strokes to apply the change to the paths that have the Rose brush applied.



The change is subtle, but now, the rose buds and leaves are no longer stretched. The only part of the original artwork that is stretched is the part you set within the guides when you edited the brush.

Now you'll flip the rose artwork for any that need it.

5. Choose Select > Deselect.

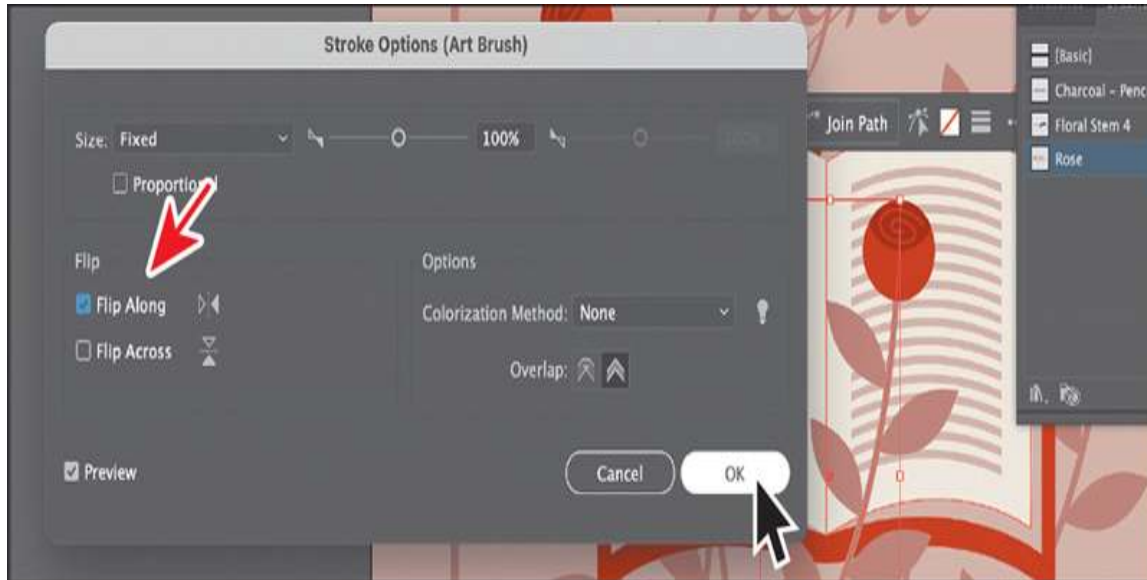
6. Select the path with the rose that is upside-down (see the next figure).



7. In the Brushes panel, click the Options Of Selected Object button (■).

You can edit some of the brush options for selected artwork if you want the brush to look different for that particular content.

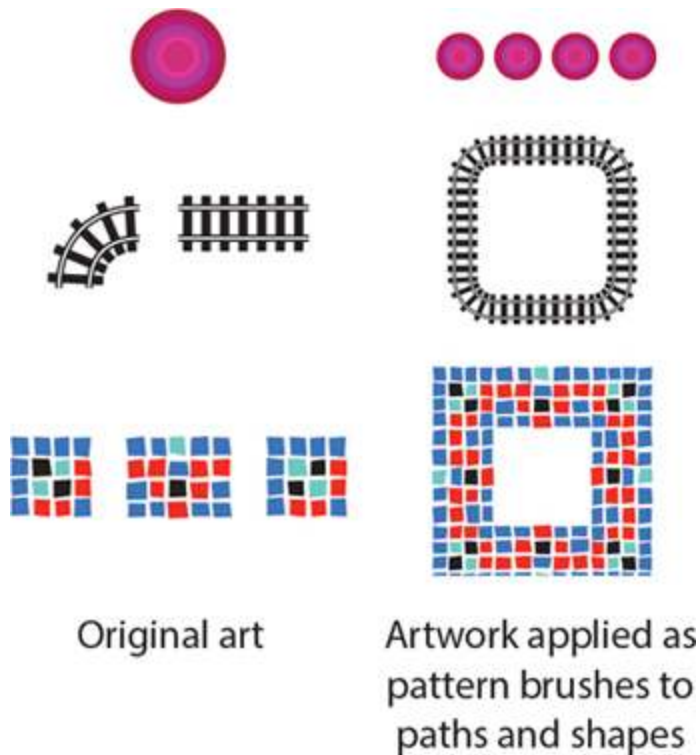
8. Select Preview in the Stroke Options (Art Brush) dialog box. Select Flip Along, then click OK.



When you edit the brush options of the selected object, you see only some of the brush options. The Stroke Options (Art Brush) dialog box is used to edit the properties of the path with the brush applied without updating the corresponding brush.

9. Choose Select > Deselect.



Using Pattern brushes



Pattern brushes paint a pattern made up of separate sections or tiles. When you apply a Pattern brush to artwork, different tiles of the pattern are applied to different path sections, depending on where the section falls on the path—the end, middle, or corner.

There are hundreds of interesting Pattern brushes that you can choose from when creating your projects, from grass to cityscapes. Next, you'll apply an existing Pattern brush to a border rectangle.

Applying an existing Pattern brush

1. In the Brushes panel, click the panel menu icon () , choose Show Pattern Brushes, and then deselect Show Art Brushes.
2. With the Selection tool () , click the rectangle running around the artwork.

You removed the brush from it earlier.



3. Click the Brush Libraries Menu button (📖) at the bottom of the Brushes panel, and choose Borders > Borders_Decorative.



4. Click the Celtic brush to apply it to the shape.

► **Tip**

You can hover over a brush and the name will appear in a tool tip.

You should see the brush in the Brushes panel for this document.

5. Close the Borders_Decorative panel group.




6. Change the stroke weight to **4 pt**.
7. Choose **Select > Deselect**, and then choose **File > Save**.

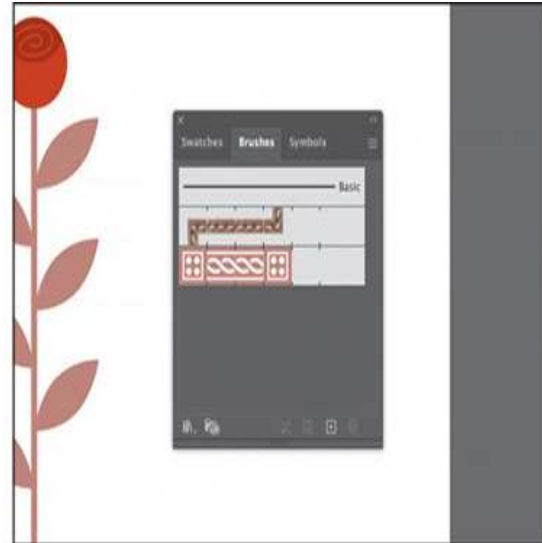
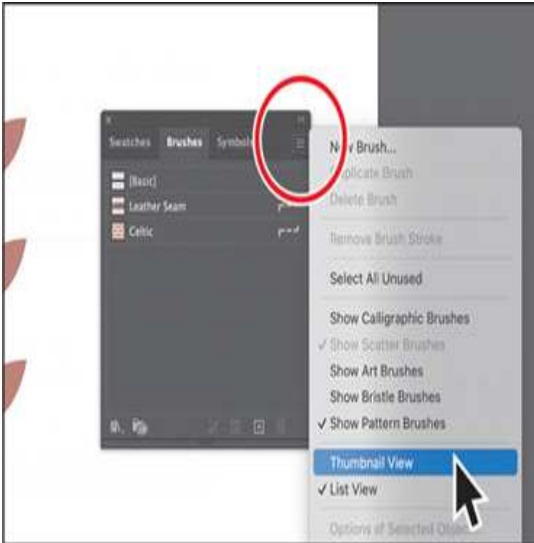
Creating a custom Pattern brush



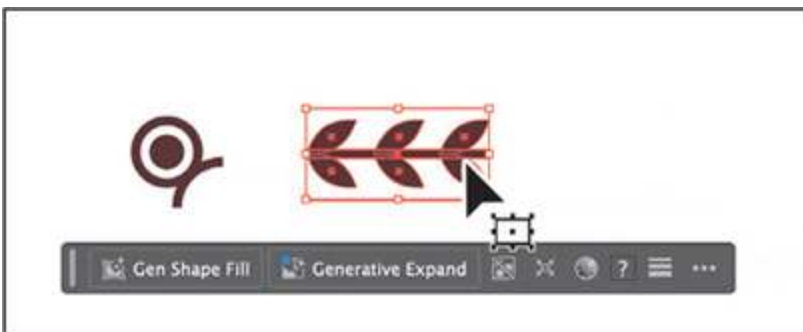
The pattern you will create

Pattern brushes take artwork and repeat it along a path. They can be simple or complex and you can make them in several ways. Next, you'll create a Pattern brush from artwork to decorate a diamond shape on the second artboard.

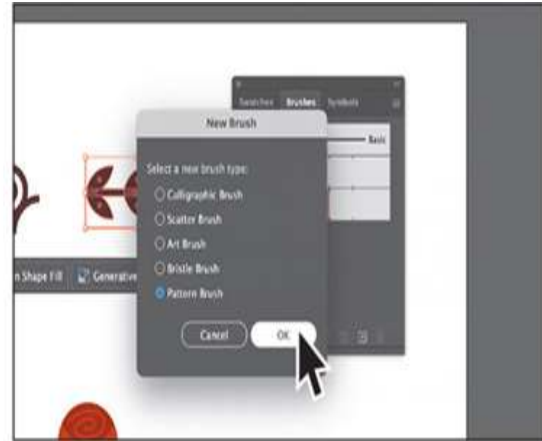
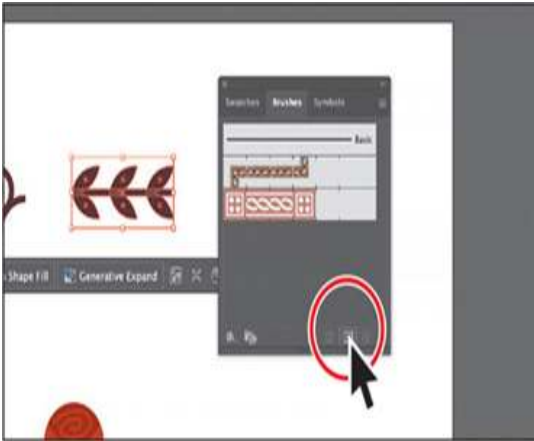
1. With nothing selected, choose **3** from the Artboard Navigation menu in the Properties panel to navigate to the artboard with the rose on it again.
2. Click the Brushes Panel Menu icon () and choose **Thumbnail View**.



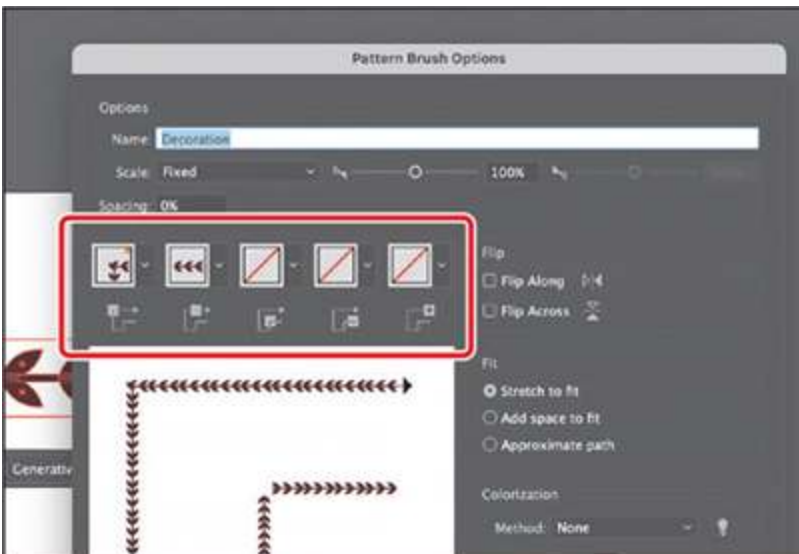
Notice that Pattern brushes in the Brushes panel are segmented in Thumbnail view. Each segment corresponds to a pattern tile (more on these shortly).



3. With the Selection tool (▸), click to select the leaf artwork at the top of the artboard (see the figure).
4. In the Brushes panel, click the New Brush button (⊞) to create a pattern out of the artwork.
5. In the New Brush dialog box, select Pattern Brush. Click OK.



A new Pattern brush can be made regardless of whether artwork is selected. If you create a Pattern brush without artwork selected, it is assumed that you will add artwork by dragging it into the Brushes panel later or by selecting the artwork from a pattern swatch you create as you edit the brush.

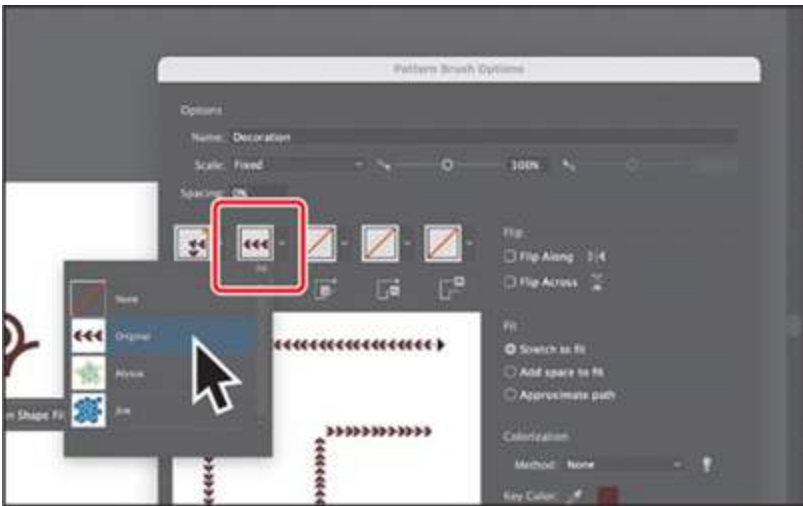


6. In the Pattern Brush Options dialog box, name the brush **Decoration**.

Pattern brushes can have up to five tiles—the side, start, and end tiles, plus an outer-corner tile and an inner-corner tile to paint sharp corners on a path.

You can see all five tiles as buttons below the Spacing option in the dialog box. The tile buttons let you apply different artwork to different parts of the path. You can click a tile button for the tile you

want to define, and then you select an autogenerated selection (if available) or a pattern swatch.



► **Tip**

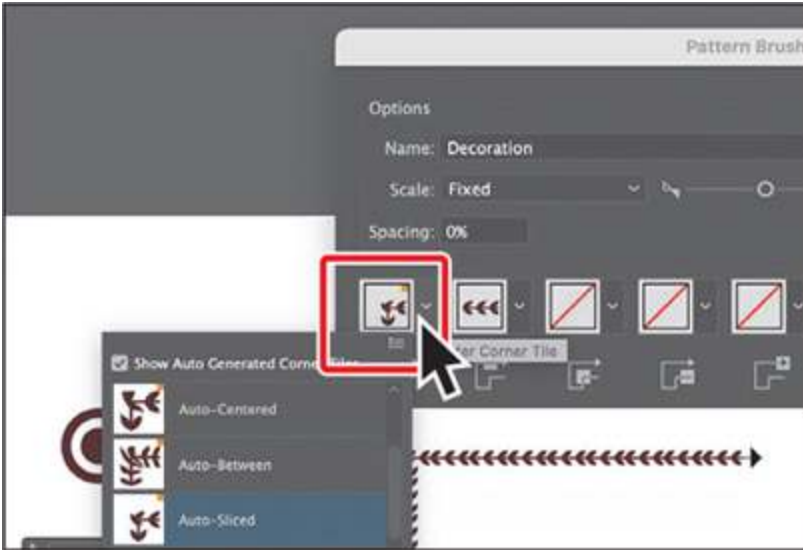
Move the pointer over the tile squares in the Pattern Brush Options dialog box to see a tool tip indicating which tile it is.

► **Tip**

Selected artwork becomes the side tile, by default, when creating a Pattern brush.

7. Under the Spacing option, click the Side Tile box (the second tile from the left).

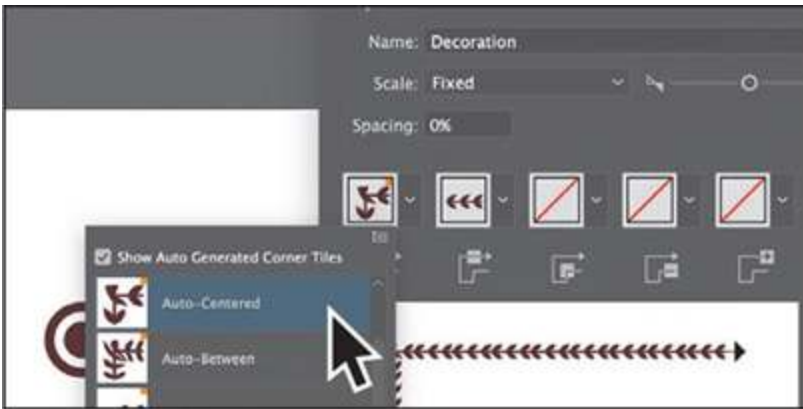
The decorative artwork that was originally selected is in the menu that appears, along with None and any pattern swatches found in the Swatches panel.



8. Click the Outer Corner Tile box to reveal the menu. You may need to click twice, once to close the previous menu and another click to open this new one.

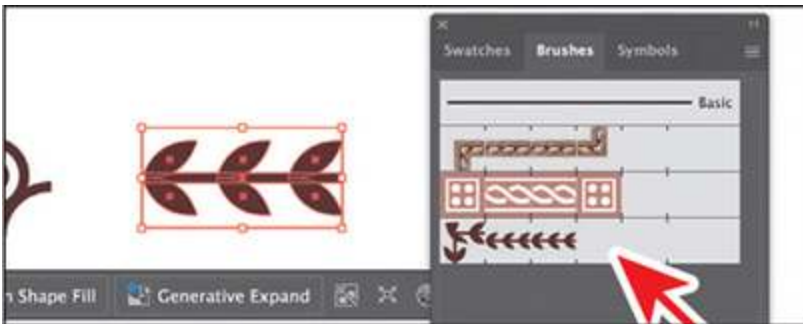
The outer-corner tile has been generated automatically, based on the original artwork. In the menu, you can choose from four types of corners that are autogenerated:

- **Auto-Centered:** The side tile is stretched around the corner and centered on it.
- **Auto-Between:** Copies of the side tile extend all the way into the corner, with one copy on each side. They are then stretched into shape.
- **Auto-Sliced:** The side tile is sliced diagonally, and the pieces come together, similar to the miter joint at each corner of a wooden picture frame.
- **Auto-Overlap:** Copies of the tiles overlap at the corner.



9. Choose Auto-Centered from the Outer Corner Tile box menu.

This generates the outer corner of any path that the Pattern brush will be applied to from the selected decorative artwork.



10. Click OK.

The Decoration brush appears in the Brushes panel.

11. Choose Select > Deselect.

Applying the Pattern brush

In this section, you'll apply the Decoration Pattern brush to the rectangle on the second (middle) artboard.

1. Choose 2 from the Artboard Navigation menu in the Properties panel to navigate to the middle artboard.
2. With the Selection tool (▀), click the white diamond shape surrounding the "BOOK CLUB" text.



3. With the shape selected, click the Decoration brush in the Brushes panel to apply it.
4. Choose Select > Deselect.

The path is painted with the Decoration brush. The corners could look a little better. Next, you'll add artwork created specifically for the corners.

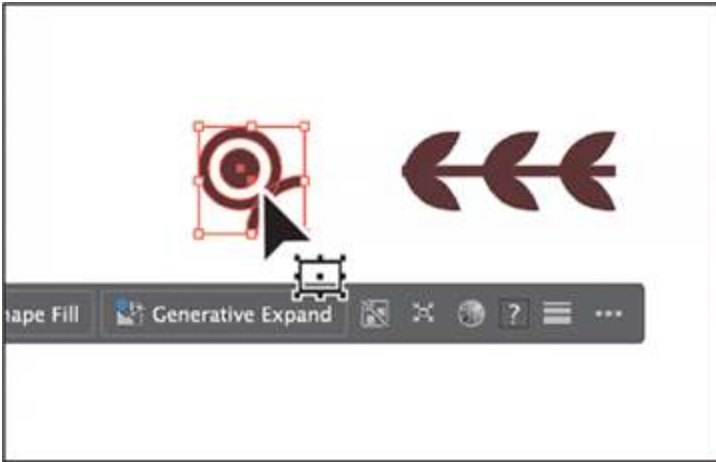
Editing a Pattern brush

► Tip

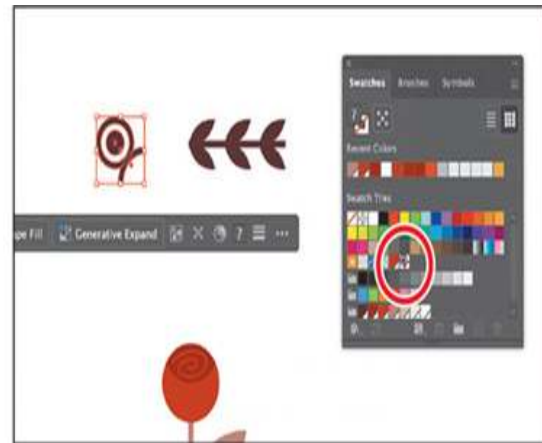
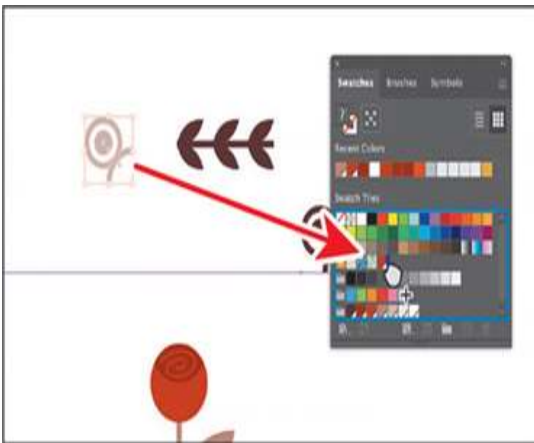
For more information on creating pattern swatches, see [Lesson 11](#), “[Gradients, Blends, and Patterns](#).”

Now you'll edit the Decoration Pattern brush using a pattern swatch that you create.

1. Choose 3 from the Artboard Navigation menu in the Properties panel to navigate to the third artboard.



2. With the Selection tool (▢), click the small artwork at the top of the artboard. See the figure for which.
3. Click the Swatches panel tab in the Brushes panel group to show the Swatches panel.
4. Drag the decoration artwork into the Swatches panel.

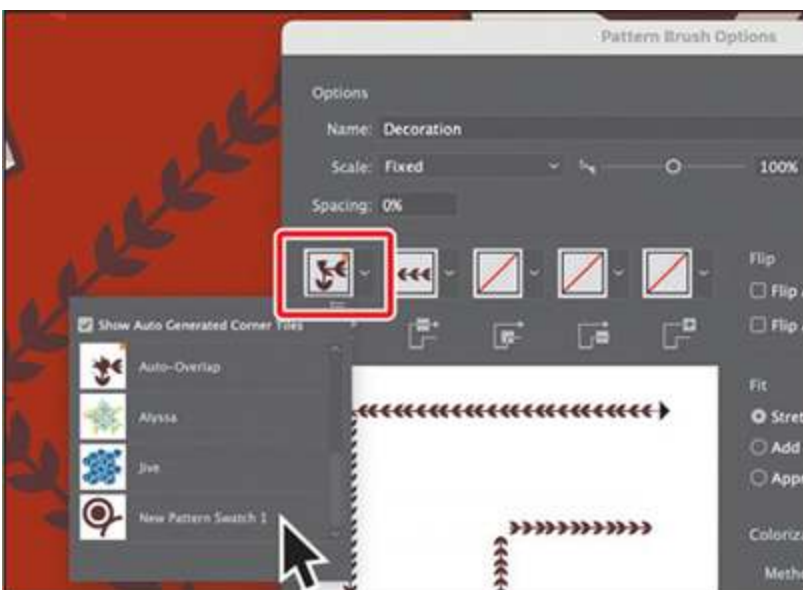


Illustrator saves the artwork as a new pattern swatch in the Swatches panel.

5. Choose Select > Deselect.
6. Choose 2 from the Artboard Navigation menu in the Properties panel to navigate to the middle artboard.
7. Click the Brushes panel tab to show the panel.



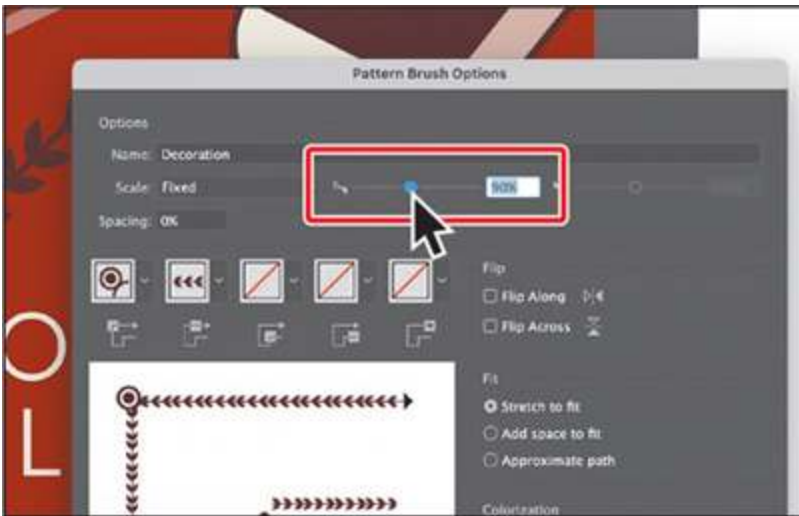
8. Double-click the Decoration Pattern brush to open the Pattern Brush Options dialog box.



9. Click the Outer Corner Tile box, and choose the pattern swatch named New Pattern Swatch 1, which you just created, from the menu that appears.

► **Tip**

You can also change the pattern tiles in a Pattern brush by pressing the Option (macOS) or Alt (Windows) key and dragging artwork from the artboard onto the tile of the Pattern brush you want to change in the Brushes panel.



10. Change Scale to **90%** so the pattern artwork is just a little smaller.

11. Click OK.



12. In the dialog box that appears, click Apply To Strokes to update the Decoration brush and the brush applied to the shape.

13. Choose Select > Deselect, if necessary, and then choose File > Save.

Using Bristle brushes



Bristle brush examples

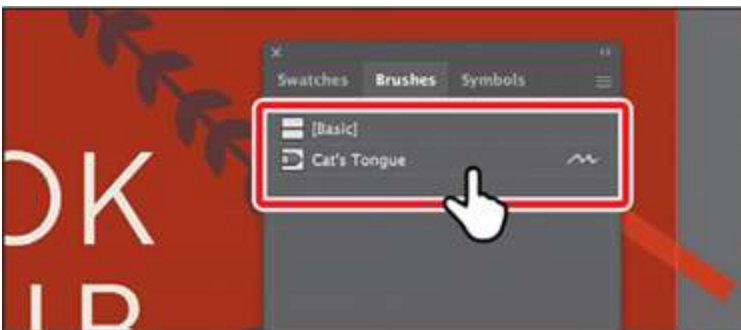
Bristle brushes allow you to create strokes with the appearance of a natural brush with bristles. Painting with a Bristle brush using the Paintbrush tool creates vector paths with the Bristle brush applied.

In this section, you'll adjust options for the default bristle brush and then paint with it using the Paintbrush tool.

Changing Bristle brush options

As you've seen, you can change the appearance of a brush by adjusting its settings in the Brush Options dialog box, either before or after brushes have been applied to artwork. In the case of Bristle brushes, it's usually best to adjust the brush settings before painting, because it can take some time to update the brush strokes.

1. In the Brushes panel, click the panel menu icon (☰), choose Show Bristle Brushes, deselect Show Pattern Brushes, and choose List View.

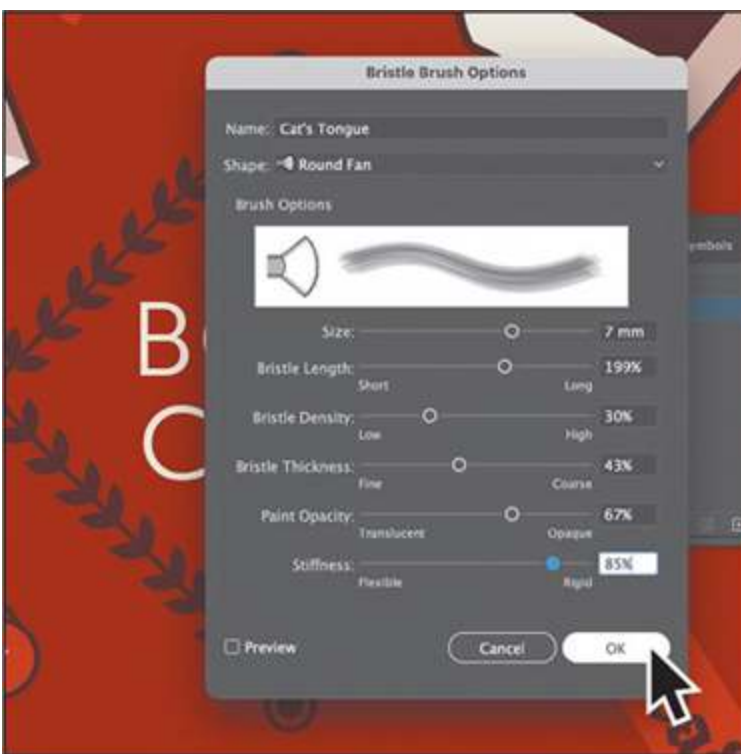


2. Double-click the Cat's Tongue brush to change the options for that brush.

► **Tip**

Illustrator comes with a series of default Bristle brushes. Click the Brush Libraries Menu button (🔍) at the bottom of the Brushes panel, and choose Bristle Brush > Bristle Brush Library.

3. In the Bristle Brush Options dialog box, make the following changes:



- Shape: **Round Fan**
- Size: **7 mm** (The brush size is the diameter of the brush.)
- Bristle Length: **199%** (The bristle length starts from the point where the bristles meet the handle of the bristle tip.)
- Bristle Density: **30%** (The bristle density is the number of bristles in a specified area of the brush neck.)
- Bristle Thickness: **43%** (The bristle thickness can vary from fine to coarse [from 1% to 100%].)

- Paint Opacity: **67%** (This option lets you set the opacity of the paint being used.)
- Stiffness: **85%** (Stiffness refers to the rigidness of the bristles.)

4. Click OK.

Painting with a Bristle brush

Now you'll use the Cat's Tongue brush to add some texture behind the artwork. Painting with a Bristle brush can create an organic, fluid path.

1. With the Selection tool (▢), click to select the red background shape.

This makes it so that whatever you create will be on top of the background shape.

2. Choose Select > Deselect.



3. Select the Paintbrush tool (🖌) in the toolbar. Choose the Cat's Tongue brush from the Brushes panel or from the Brush menu in the Properties panel, if it's not already chosen.

4. Make sure that the fill color is None (☐) and the stroke color is a lighter shade of red than the background shape.

5. Change the stroke weight to **7 pt** in the Properties panel.

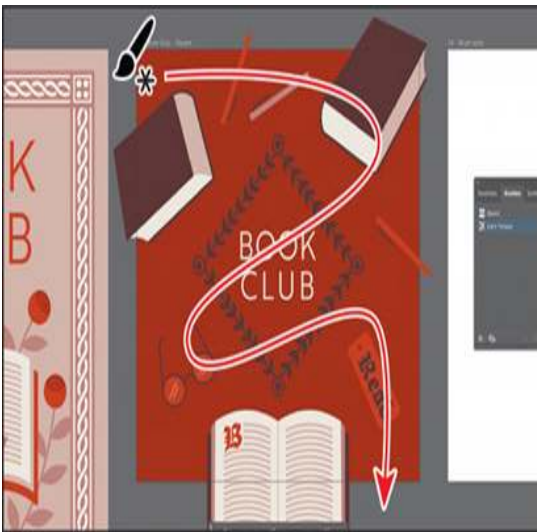
The idea is to paint some texture into the background. With the Paintbrush tool, you will create a path as you paint a serpentine

shape with it.

6. Starting at the top, left of the artboard, drag slightly down and to the right, across the artboard, and then back again to the left, then back to the right, and so on down the artboard. Release the drag when you reach the end of the path you want to draw.

Note

If the stroke weight of the path you draw changes to 1 pt, change it back to 7pt.



7. With the path selected, to send it behind the other artwork, select the Selection tool and Shift-click the red rectangle to select both objects.
8. Choose Object > Arrange > Send To Back.

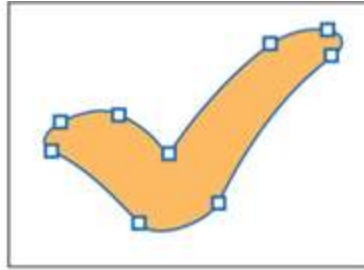
9. Choose Object > Lock > Selection to lock the content.

10. Choose File > Save.


Working with the Blob Brush tool



Path created with
the Paintbrush tool



Shape created with
the Blob Brush tool

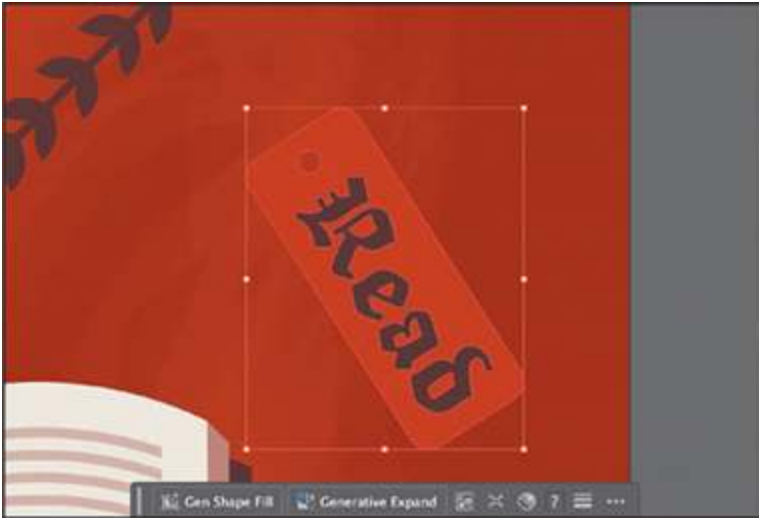
You can use the Blob Brush tool () to draw filled shapes that merge with other shapes of the same color. With the Blob Brush tool, you can draw with Paintbrush tool artistry.

Unlike the Paintbrush tool, which lets you create open paths, the Blob Brush tool lets you create a closed shape with only a fill (no stroke) that you can then easily edit with the Eraser or Blob Brush tool. Shapes that have a stroke cannot be edited with the Blob Brush tool.

Drawing with the Blob Brush tool

Next, you'll use the Blob Brush tool to add color to one of the leaf shapes.

1. With the Selection tool selected () , click the “Read” bookmark.



2. Press Command and + (macOS) or Ctrl and + (Windows) a few times.
3. Deselect the bookmark by clicking in an empty area of the artboard.
4. Press and hold on the Paintbrush tool (🖌) in the toolbar, and select the Blob Brush tool (🖍).



5. Click the Swatches panel tab in the Brushes panel group to show the Swatches panel. Select the Fill box to edit the fill color, and then select a lighter rose color swatch.



6. Select the Stroke color box, and select None () to remove the stroke.

When drawing with the Blob Brush tool, if a fill and stroke are set before drawing, the stroke color becomes the fill color of the shape made by the Blob Brush tool. If only a fill is set before drawing, it ultimately becomes the fill of the shape created.

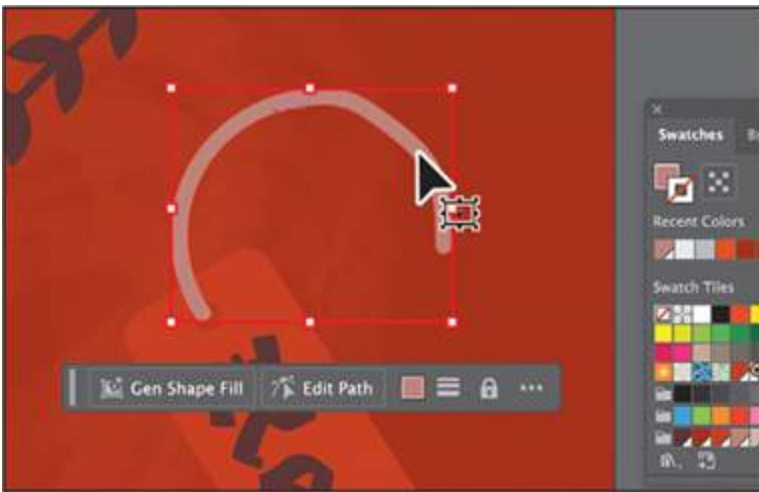
It's time to draw a bookmark tassel!

7. Starting on the top of the bookmark, draw a curved line like you see in the figure.



Notice that the Blob Brush pointer has a circle around it? That circle indicates the size of the brush. Pressing the Left Bracket key ([) will make the brush size smaller. Pressing the Right Bracket key (]) will make the brush size larger.

When you draw with the Blob Brush tool, you create filled, closed shapes that can contain any type of fill.



8. Select the Selection tool, and click the artwork you just made.

Notice that it's a filled shape, not a path with a stroke.

9. Click an empty area of the artboard to deselect.

10. Select the Blob Brush tool in the toolbar again.



11. Drag to fill in the shape and maybe add a bit more to it.

As long as the new artwork is overlapping the existing artwork and it has the same stroke and fill, it will merge into one shape.

Editing with the Eraser tool

► Tip

As you draw with the Blob Brush and Eraser tools, it is recommended that you use shorter strokes and release your drag often. You can undo the edits that you make, but if you draw in one long stroke undoing removes the entire stroke rather than just the part you want to fix.

As you draw and merge shapes with the Blob Brush tool, you may draw too much and want to edit what you've done. You can use the Eraser tool (◆) in combination with the Blob Brush tool to mold the shape and to correct any changes you don't like.

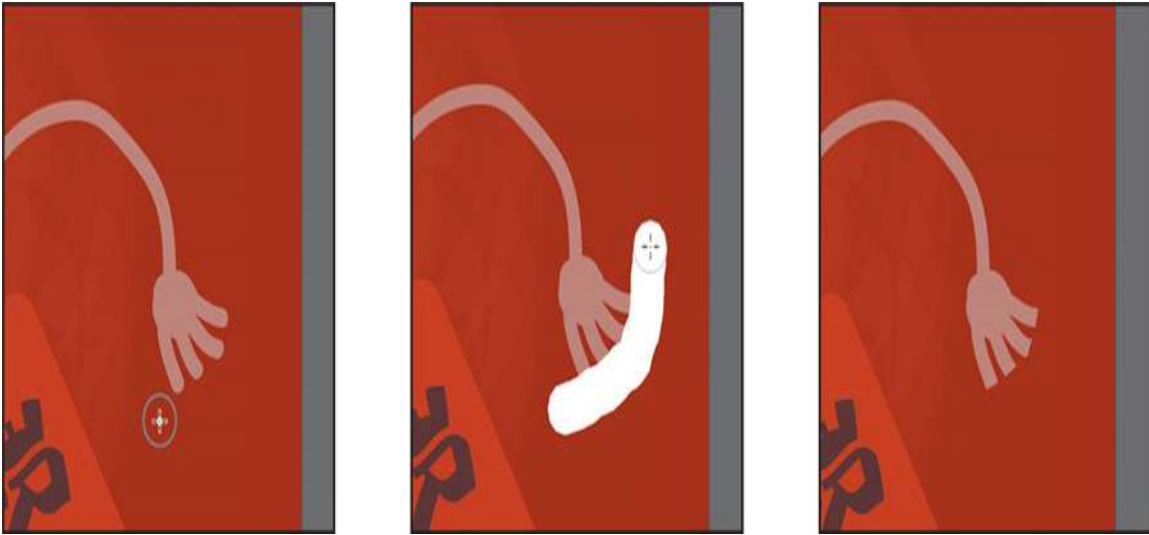
1. With the Selection tool (►), click to select the bookmark tassel you just made.

Selecting the shape(s) before erasing also limits the Eraser tool to erasing only the selected shape(s). As with the Paintbrush or Blob Brush tools, you can also double-click to set options for the Eraser tool. In this case, you'll use it as is and simply adjust the brush size.

2. Select the Eraser tool (◆) in the toolbar. Move the pointer near the tassel you made. To change the eraser size, press the Right Bracket key (]) or Left Bracket key ([) several times to change the size of the brush.

The Blob Brush and Eraser tools both have pointers that include a circle that indicates the diameter of the brush.

3. Move the pointer just off the tassel shape and try dragging along an edge to remove some of it. Try switching between the Blob Brush tool and the Eraser tool to edit the shape.



4. Choose Select > Deselect.
5. Choose View > Fit All In Window.





6. Choose File > Save, and close all open files.



Review questions

- 1 What is the difference between applying a brush to artwork using the Paintbrush tool (🖌️) and applying a brush to artwork that you made using one of the drawing tools?

- 2 Describe how artwork in an Art brush is applied to content.
- 3 Describe how to edit paths with the Paintbrush tool as you draw. How does the Keep Selected option affect the Paintbrush tool?
- 4 For which brush types must you have artwork selected on the artboard before you can create a brush?
- 5 What does the Blob Brush tool allow you to create?
- 6 How do you ensure that only certain artwork is erased when using the Eraser tool?

Review answers

- 1 When painting with the Paintbrush tool () , if a brush is chosen in the Brushes panel and you draw on the artboard, the brush is applied directly to the paths as you draw. To apply brushes using a drawing tool, you select the tool and draw in the artwork. Then you select the path in the artwork and choose a brush in the Brushes panel. The brush is applied to the selected path.
- 2 An Art brush is made from artwork (vector or embedded raster). When you apply an Art brush to the stroke of an object, the artwork in the Art brush, by default, is stretched along the selected object stroke.
- 3 To edit a path with the Paintbrush tool, drag over a selected path to redraw it. The Keep Selected option keeps the last path selected as you draw with the Paintbrush tool. Leave the Keep Selected option selected when you want to easily edit the previous path as you draw. Deselect the Keep Selected option when you want to draw layered paths with the paintbrush without altering previous paths. When Keep Selected is unselected, you can use the Selection tool () to select a path and then edit it.

- 4 For Art (and Scatter) brushes, you need to have artwork selected to create a brush using the New Brush button () in the Brushes panel.
- 5 Use the Blob Brush tool () to create and edit filled shapes that you can intersect and merge with other shapes of the same color or to create artwork from scratch.
- 6 To ensure that only certain artwork is erased, select the artwork.

13 Exploring Creative Uses of Effects and Graphic Styles

Lesson overview

In this lesson, you'll learn how to do the following:

- Work with the Appearance panel.
- Edit and apply appearance attributes.
- Duplicate, enable, disable, and remove appearance attributes.
- Reorder appearance attributes.
- Apply and edit a variety of effects.
- Add Photoshop effects.
- Work with 3D effects.
- Save and apply an appearance as a graphic style.
- Apply a graphic style to a layer.
- Scale strokes and effects.



This lesson will take about 60 minutes to complete. To get the lesson files used in this lesson refer to the instructions in [“Accessing the lesson files and Web Edition”](#) in the [“Getting Started”](#) section at the beginning of this book.




30

BIRTHDAY
PARTY



6/18/22 • 6pm

123 88th St.



You can change the look of an object without changing its structure simply by applying attributes, such as fills, strokes, and effects, from the Appearance panel. Because the effects are live, they can be modified or removed at any time. This allows you to save the appearance attributes as graphic styles and apply them to another object.

Starting the lesson

In this lesson, you'll change the appearance of artwork for a birthday invitation using the Appearance panel, various effects, and graphic styles. Before you begin, you'll need to restore the default preferences for Adobe Illustrator. Then you'll open a file containing the final artwork to see what you'll create.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. With Illustrator open, choose File > Open, and open the L13_end.ai file in the Lessons > Lesson13 folder on your computer.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

This file displays a completed illustration for a birthday card.

4. In the Missing Fonts dialog box that most likely will appear, click Add Fonts to add all of the missing fonts. After they are added and you see the message stating that there are no more missing fonts, click Close.



If you can't get the fonts to add, go to the Creative Cloud desktop application and click the Fonts icon (*f*) in the upper right to see what the issue may be (refer to the section “[Changing font family and font style](#)” in [Lesson 9](#), “[Adding Type to a Project](#),” for more information on how to resolve it).

You can also just click Close in the Missing Fonts dialog box and ignore the missing fonts as you proceed. A third method is to click the Find Fonts button in the Missing Fonts dialog box and replace the fonts with a local font on your machine. You can also go to Help (Help > Illustrator Help) and search for “Find missing fonts.”

5. If a dialog box appears referring to font auto-activation, click Skip.
6. Choose View > Fit Artboard In Window. Leave the file open as a reference or choose File > Close to close it.

To begin working, you'll open a starter file.

7. Choose File > Open. Open L13_start.ai in the Lessons > Lesson13 folder you copied onto your computer.



The L13_start.ai file uses the same fonts as the L13_end.ai file. If you've added the fonts already, you don't need to do it again. If you didn't open the L13_end.ai file, then the Missing Fonts dialog box will most likely appear for this step. Click Add Fonts to add all of the missing fonts. After they are added and you see the message stating that there are no more missing fonts, click Close.

8. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer; otherwise, continue.
9. In the Save As dialog box, name the file **BirthdayInvite.ai**, and select the Lesson13 folder. Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and then click Save.
10. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and then click OK.
11. Choose Reset Getting Started from the workspace switcher in the Application bar to reset the workspace.

● Note

If you don't see Reset Getting Started in the workspace switcher menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

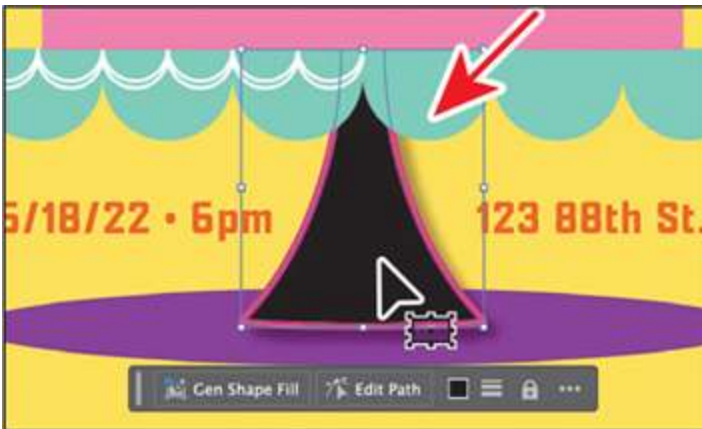
12. Choose View > Fit Artboard In Window.

Using the Appearance panel

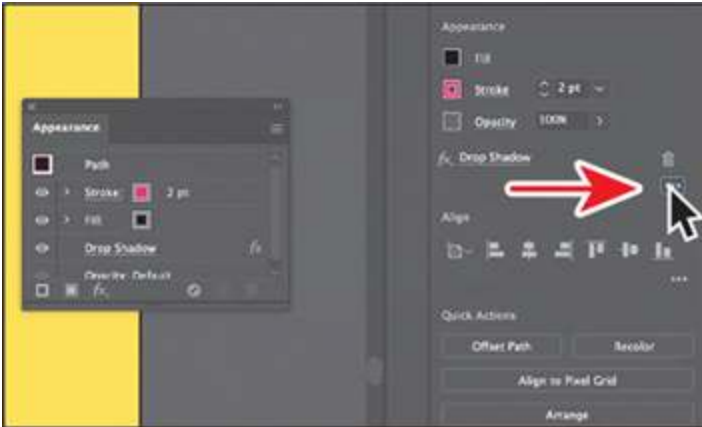
An *appearance attribute* is what gives an object its visual magic—whether it's the vibrant fill, bold stroke, sleek transparency, or a dazzling effect. These attributes transform how an object looks and feels on the canvas, while leaving its underlying structure untouched.


Up to this point, you've been changing appearance attributes like fill and stroke in the Contextual Task Bar, Properties panel, Swatches panel, and more. Appearance attributes can also be found in the Appearance panel for selected artwork. In this lesson, you'll focus on using the Appearance panel to apply and edit appearance attributes.

To begin exploring appearance options, you'll see how to edit the color fill of the cake stand and then add another fill on top to give it more dimension.



- 1.** Select the Selection tool (▢), and click to select the black base of the cake stand.



2. Click More Options () in the Appearance section of the Properties panel to open the Appearance panel (an arrow is pointing to it in the figure). The Appearance panel opens.

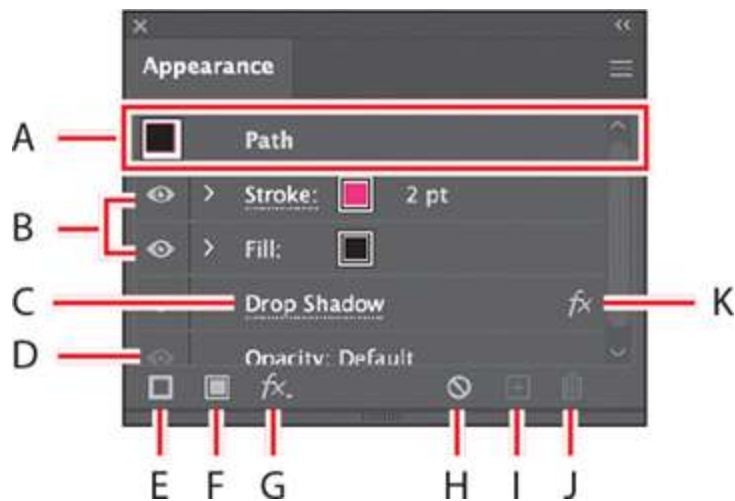
► **Tip**

You can also choose Window > Appearance to open the Appearance panel.

► **Tip**

You may want to drag the bottom of the Appearance panel down to make it taller.

The Appearance panel shows what the selected content is (a path, in this case) and the appearance attributes applied to it (stroke, fill, and so on). The options available in the Appearance panel are shown here:



A. Appearance thumbnail and type of artwork selected

B. Attribute rows (Stroke, Fill, etc.)

C. Link to edit an effect

D. Visibility column

E. Add New Stroke

F. Add New Fill

G. Add New Effect

H. Clear Appearance

I. Duplicate Selected Item

J. Delete Selected Item

K. Indicates that an effect is applied

You can view and adjust the appearance attributes for a selected object, group, or layer in the Appearance panel. Fills and strokes are listed in order from top to bottom in the panel, which correlates to front to back in the artwork.

Effects applied to artwork are listed from top to bottom in the order they are applied to the artwork. An advantage of using appearance attributes is that you can change or remove them without affecting the underlying artwork or any other attributes applied to the object in the Appearance panel.

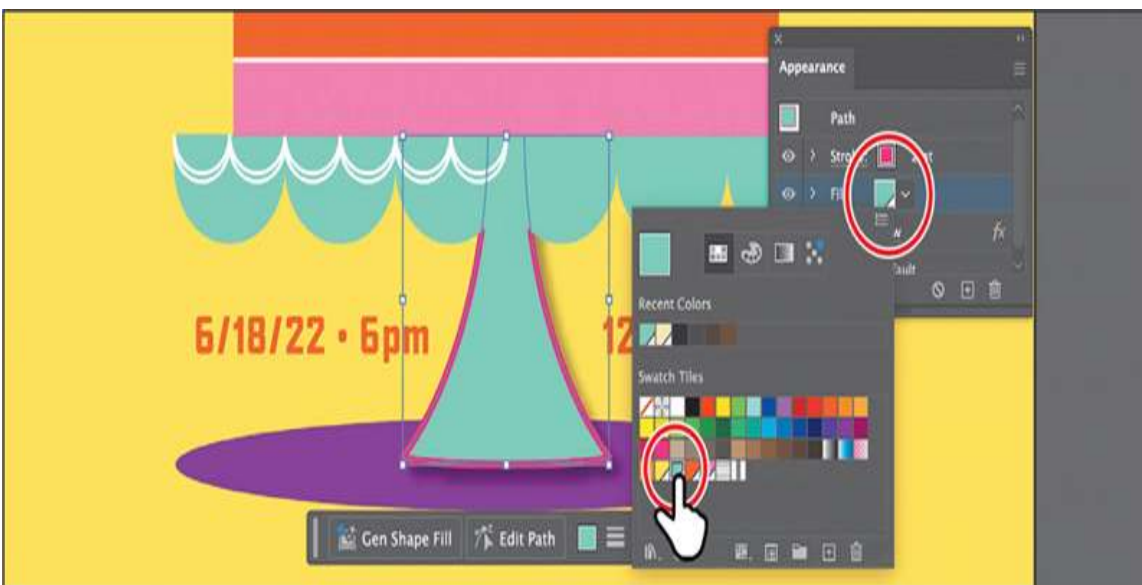
Editing appearance attributes

Now let's change the appearance of the cake stand using the Appearance panel.

1. With the cake stand selected, in the Appearance panel, click the black Fill box in the Fill attribute row as many times as needed until the Swatches panel appears. Select the swatch named Aqua to apply it to the fill.

● Note

You may need to click the Fill box more than once to open the Swatches panel. The first click of the Fill box selects the Fill row in the panel, and the next click shows the Swatches panel.



2. Click the words "2 pt" in the pink Stroke row to show the Stroke Weight option.
3. Change the stroke weight to **0** to remove it (the Stroke Weight field will be blank).



Appearance attributes can be temporarily hidden or deleted so that they are no longer applied to the selected artwork.

So far, everything you've changed could have been done in the Properties panel. Now you'll explore something unique to the Appearance panel: hiding an effect (not deleting it).

4. Click the Visibility icon (👁) to the left of the Drop Shadow attribute name in the Appearance panel so the cake stand no longer shows a drop shadow.

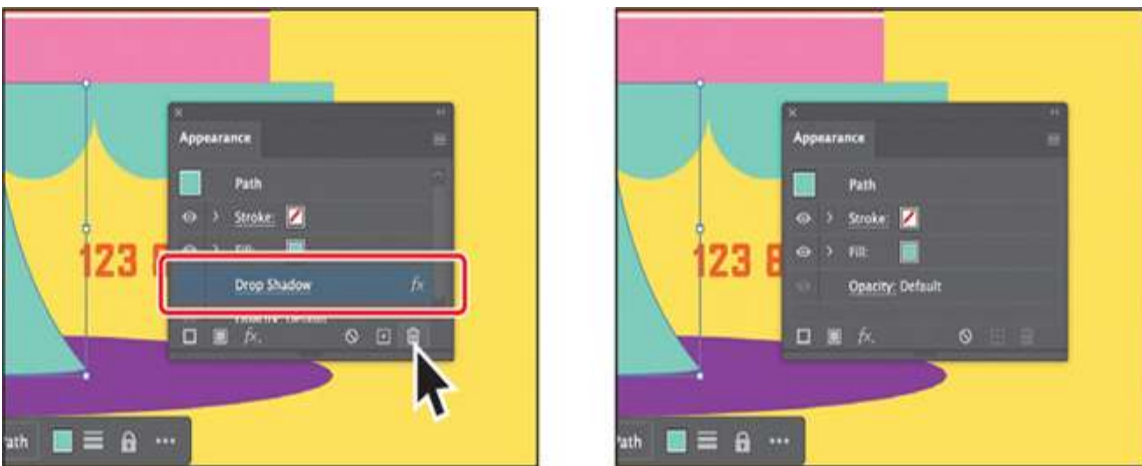


Instead of hiding the drop shadow, let's just remove it.

5. With the Drop Shadow row selected (click to the right of the words “Drop Shadow” if it isn’t selected), click the Delete Selected Item button (🗑️) at the bottom of the panel to completely remove the shadow, rather than just turning off the visibility. Leave the shape selected.

► **Tip**

In the Appearance panel, you can also *drag* an attribute row, such as Drop Shadow, to the Delete Selected Item button (🗑️) to delete it.

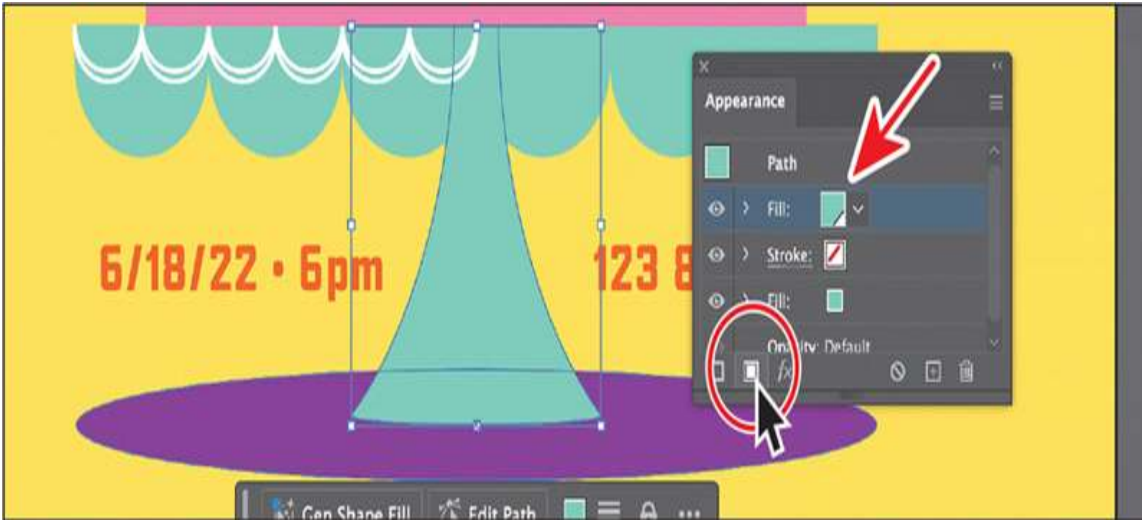


Adding another fill to content

Artwork and text in Illustrator can have more than one stroke and fill applied. This can be a great way to add interest to design elements like shapes and paths, and adding multiple strokes and fills to text can be a great way to make your text pop.

Next, you’ll add another fill to the cake stand to add texture over the color fill.

1. With the cake stand shape still selected, in the Appearance panel, click the Add New Fill button (📁) at the bottom of the panel.

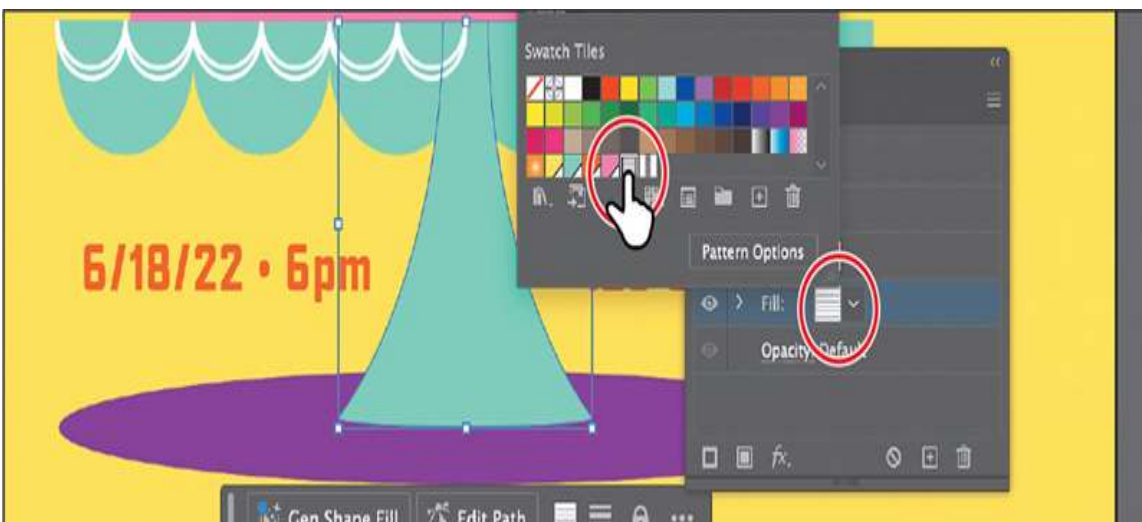


A second Fill row is added to the Appearance panel. By default, new fill or stroke attribute rows are added directly above a selected attribute row or, if no attribute rows are selected, at the top of the Appearance panel list.

2. Click the *bottom* (original) aqua Fill box in the Fill attribute row a few times until the Swatches panel appears. Click the pattern swatch named 6 lpi 10% to change the fill.

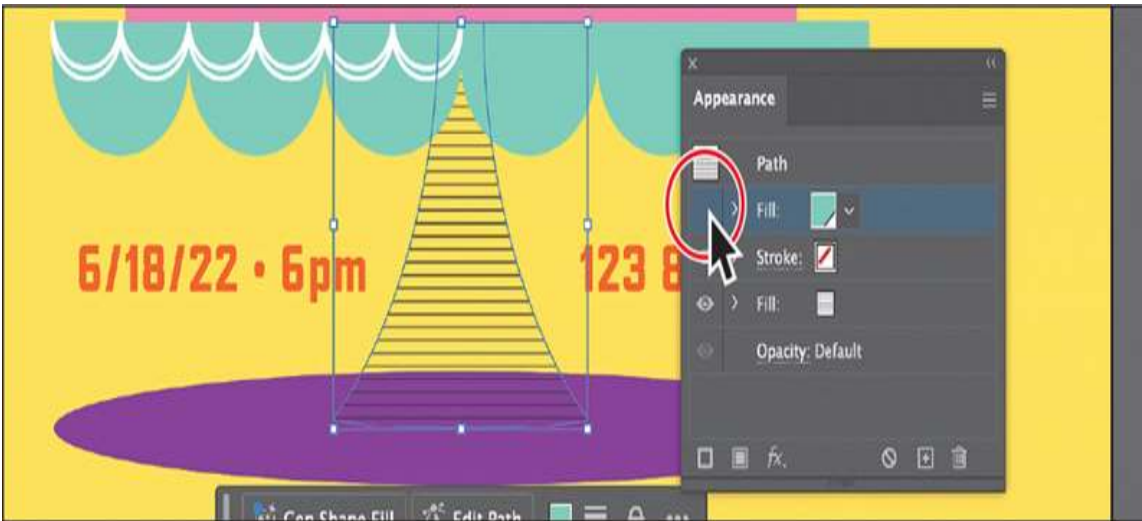
● **Note**

I made the Appearance panel a little taller by dragging the bottom edge down.



The pattern doesn't show in the cake stand because the second fill you added in the first step is covering the 6 lpi 10% fill. The two fills are stacked on top of each other.

3. Click the Visibility icon (👁) to the left of the aqua Fill box to hide it.



You should now see the pattern fill in the shape. In the next section, you'll reorder the attribute rows in the Appearance panel so the pattern is on top of the color fill.

4. Click where the Visibility icon was to the left of the top Fill attribute row to make it visible again.
5. Choose Select > Deselect, and then choose File > Save.

Adding multiple strokes and fills to text

Aside from adding multiple strokes and fills to artwork, you can also do the same for text. The text remains editable, and you can use a number of effects to achieve the look that you want. Now you'll make the "BIRTHDAY BASH!" text pop with a few strokes and fills.

1. Select the Type tool (**T**), and select the text "BIRTHDAY BASH!"



At the top of the Appearance panel, notice that Type is set to No Appearance. This means there are no *additional* appearance properties added to the text beyond the typical stroke and fill. In the Characters section, the default formatting for the text, stroke, and fill are listed. You should see the stroke (none) and the fill (pink).

Also notice that you cannot add another stroke or fill to the text, because the Add New Stroke and Add New Fill buttons are dimmed at the bottom of the panel. To add new strokes or fills to text, you need to select the type *object* (also referred to as a text box), not the text within.

2. Select the Selection tool (🖱️). The type object will now be selected (not the text).

► **Tip**

You can also click Type: No Appearance at the top of the Appearance panel to select the type object (not the text within).

With the type object selected, *now* you can add a new stroke and fill.

3. Click the Add New Fill button (👤) at the bottom of the Appearance panel to add a fill and a stroke above the Characters section.



You might be wondering why adding a new fill *also* added a new stroke. That's because neither was there for the type object, and if you have a fill, you have to have a stroke, and vice versa. You don't have to use the stroke.

The new black fill is covering the original pink fill of the text.

4. Click the black Fill box (maybe a few times) to see the Swatches panel, and select the pattern swatch named 0 to 50% Dot Gradation.

► **Tip**

The 0 to 50% Dot Gradation swatch can be found in Illustrator by default (Window > Swatch Libraries > Patterns > Basic Graphics > Basic Graphics_Dots).




5. If necessary, click the triangle (▸) to the left of the Fill row to show other properties, like Opacity. Click the word “Opacity,” which is indented below the fill row, to show the Transparency panel, and change Opacity to **40%**.



Each appearance row (Stroke, Fill) has its own opacity that you can adjust. The bottom Opacity appearance row in the panel affects the transparency for the *entire* selected object.

Next, you'll add two strokes to the text using the Appearance panel. This is another great way to achieve unique design effects with a single object.

6. Click the Stroke box () a few times in the Appearance panel to show the swatches. Select the white swatch.
7. Ensure that Stroke Weight is **1 pt**.




8. Click the Add New Stroke button (□) at the bottom of the Appearance panel.



A second stroke, which is a copy of the original, is now added to the text. This is a great way to add interest to your designs without having to make copies of shapes and put them on top of each other to add multiple strokes and fills.

9. With the new (top) Stroke attribute row selected, click the Stroke box to show the swatches. Select the swatch named Orange to apply it.



10. Ensure that Stroke Weight is **1 pt**.
11. Click the word “Stroke” in the orange Stroke row to open the Stroke panel.
12. Click the Round Join option () in the Corner section of the panel to *slightly* round the corners of the stroke. Press the Escape key to hide the Stroke panel. Leave the type object selected.



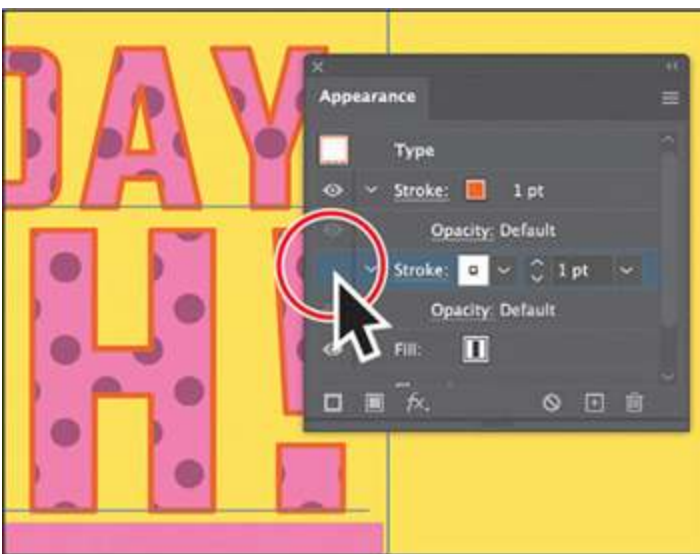
Clicking underlined words in the Appearance panel, as in the Properties panel, shows more formatting options—usually a panel such as the Swatches or Stroke panel. Appearance attributes, such as Fill or Stroke, can have other options, such as Opacity or an effect applied to only that attribute. These additional options are listed as a subset under the attribute row and can be shown or hidden by clicking the triangle (▾) on the left end of the attribute row.

Reordering appearance attributes

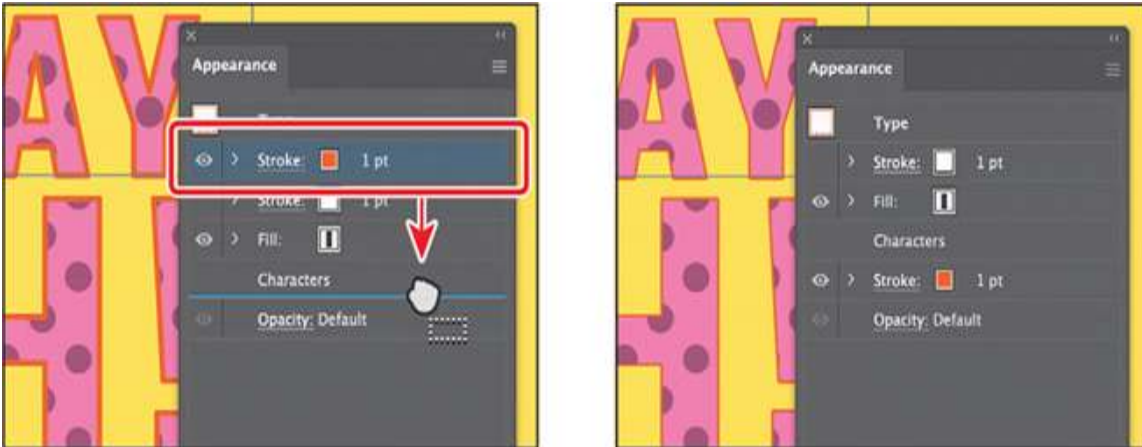
The ordering of the appearance attribute rows can greatly change how your artwork looks. In the Appearance panel, fills and strokes are listed in stacking order—top to bottom in the panel correlates to front to back in the artwork. You can reorder attribute rows in a way similar to dragging layers in the Layers panel to rearrange the stacking order. Next you'll change the appearance of artwork by reordering attributes in the Appearance panel.

1. With the text still selected, press Command and + (macOS) or Ctrl and + (Windows) to zoom in.
2. In the Appearance panel, click the Visibility icon to the left of the white Stroke row to hide it temporarily.

You may want to make the Appearance panel taller by dragging the bottom down.



3. Click the arrows to the left of all Stroke and Fill rows to hide the Opacity for each.
4. In the Appearance panel, drag the orange Stroke row down below the Characters item. When a line appears below Characters, release the drag to see the result.



The orange stroke is now behind all fills and the white stroke. The position of the Characters item represents where the original stroke and fill (the pink color) of the text sit in the stacking order.

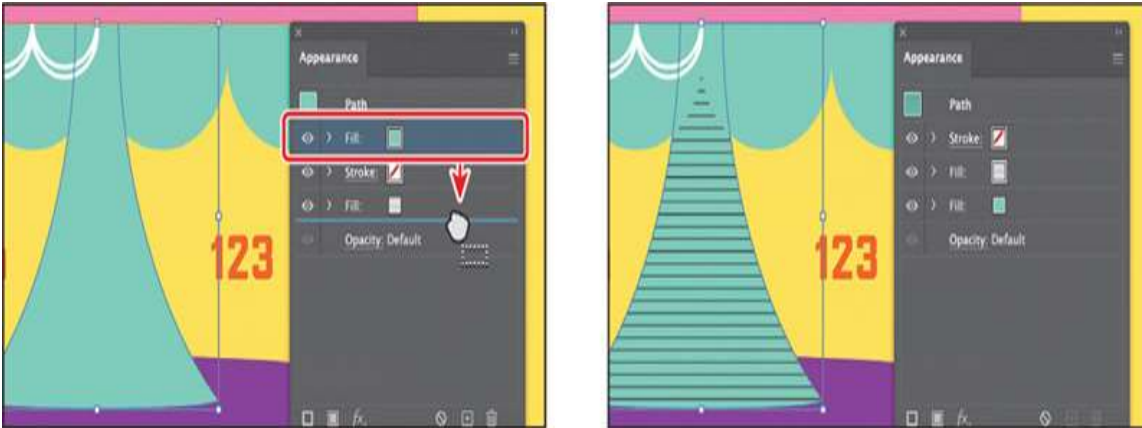
5. Click where the Visibility icon (👁) was for the white Stroke row to show it again.



6. With the Selection tool (🔍) selected, click to select the cake stand you changed earlier.

You might need to select the Hand tool and drag in the window to see it.

7. In the Appearance panel, drag the aqua Fill row down below the pattern Fill row, and release.



Moving the aqua fill attribute below the pattern fill attribute definitely changes the look of the artwork. The pattern fill is now on top of the solid color fill.

8. Choose Select > Deselect, and then choose File > Save.

Using live effects



Artwork with a drop shadow effect applied

● Note

When you apply a raster effect, the original vector data is rasterized using the document's raster effects settings, which determine the resolution of the resulting image. To learn about document raster effects settings, search for “Document raster effects settings” in Illustrator Help.

● Note

The following vector effects can be applied to both vector and bitmap objects: 3D effects, SVG filters, Warp effects, Transform effects, Drop Shadow, Feather, Inner Glow, and Outer Glow.

Effects are how you apply the cool stuff to your artwork. Ever heard of a drop shadow (or just a shadow)? That's an effect. There are tons of effects, and they open up worlds of creative possibilities.

In most instances, effects alter the appearance of an object without changing the underlying artwork. They're added to the object's appearance attribute, which you can edit, move, hide, delete, or duplicate at any time, in the Appearance panel.

There are two types of effects in Illustrator: *vector effects* and *raster effects*.

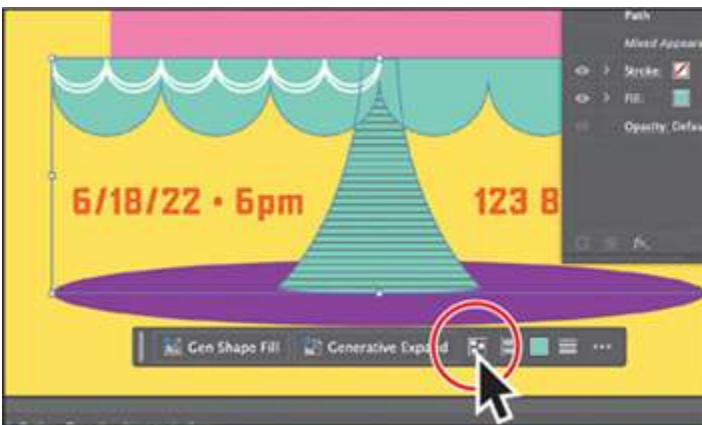
- **Illustrator effects (vector):** The top half of the Effect menu contains vector effects. You can apply most of these effects only to vector objects or to the fill or stroke of a vector object in the Appearance panel.
- **Photoshop effects (raster):** The bottom half of the Effect menu contains raster effects. You can apply them to either vector or bitmap objects.

In this section, you will first explore how to apply and edit effects. You will then explore a few of the more widely used effects in Illustrator to get an idea of the range of effects available.

Applying an effect

Effects are applied using the Properties panel, the Effect menu, and the Appearance panel, and you can apply them to objects, groups, or layers. In this section, you'll apply a drop shadow to the cake stand to make it “stand” out.

1. Choose View > Fit Artboard In Window.
2. With the Selection tool (▀) selected, click the big aqua scalloped shape (*not* the white path!) above the cake stand. Shift-click the aqua cake stand to select it as well.

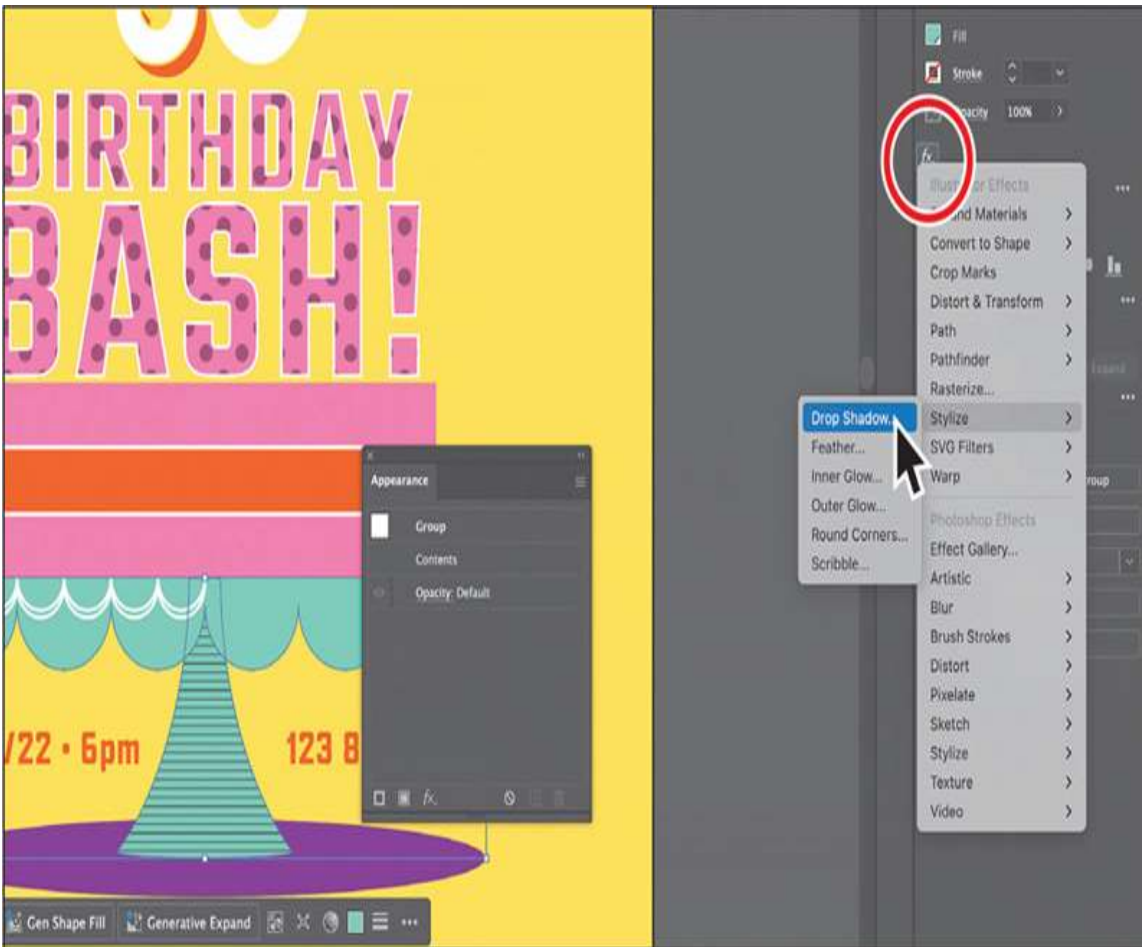


3. Click the Group button in the Contextual Task Bar near the selected artwork (or in the Properties panel) to group the objects.
4. Click the Choose An Effect button (**fx.**) in the Appearance section of the Properties panel to apply effects.

► Tip

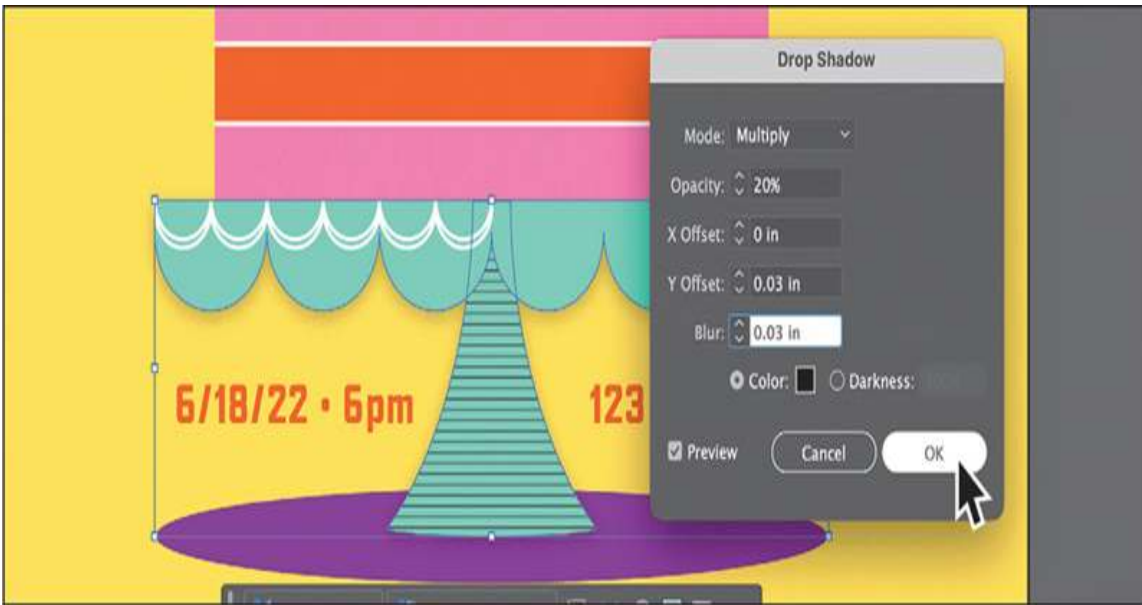
You can also click the Add New Effect button (**fx.**) at the bottom of the Appearance panel.

5. Choose Stylize > Drop Shadow from the Illustrator Effects section of the menu that appears.



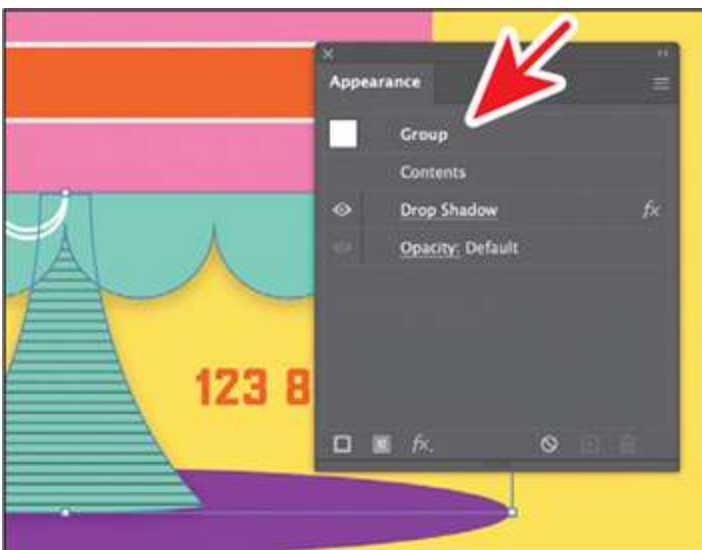
6. In the Drop Shadow dialog box that opens, select Preview and change the following options:

- Mode: Multiply (the default setting)
- Opacity: **20%**
- X Offset: **0 in**
- Y Offset: **0.03 in** (you'll need to type this value in)
- Blur: **0.03 in** (you'll need to type this value in)
- Color: Selected



7. Click OK.

Because you applied the drop shadow to the group, it appears around the perimeter of the group, not on each object independently. If you look in the Appearance panel right now, you'll see a Group item at the top and the Drop Shadow effect applied.



Contents refers to the content within the group. Each object in a group can have its own appearance properties.

8. Choose File > Save.

Editing an effect

● Note

If you attempt to apply an effect to artwork that already has the same effect applied, Illustrator will warn you that the same effect is already applied.

Effects are *live* and can be edited after being applied to an object. You can edit an effect in the Properties panel or Appearance panel by selecting the object with the effect applied and then clicking the effect's name, or in the Appearance panel by double-clicking the attribute's row. This displays the dialog box for that effect. Changes you make to the effect update in the artwork.

In this section, you will apply a shadow to the “BIRTHDAY BASH!” text, but with a twist. You'll apply it to one of the strokes, not to the whole object. It will add a nice bit of depth to the text and make it visually more interesting.

1. With the *Selection* tool, select the “BIRTHDAY BASH!” text.
2. In the Appearance panel, select the white Stroke row.

▶ Tip

If you were to choose Effect > Drop Shadow, the Drop Shadow dialog box would appear, allowing you to make changes before applying the effect.

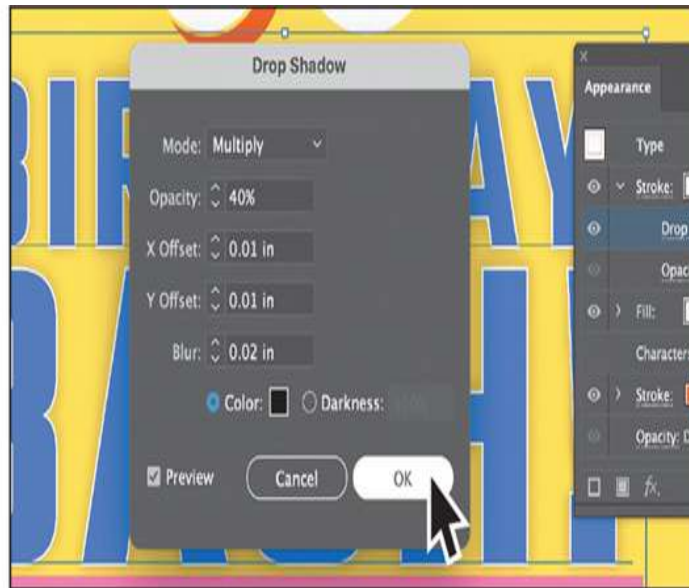
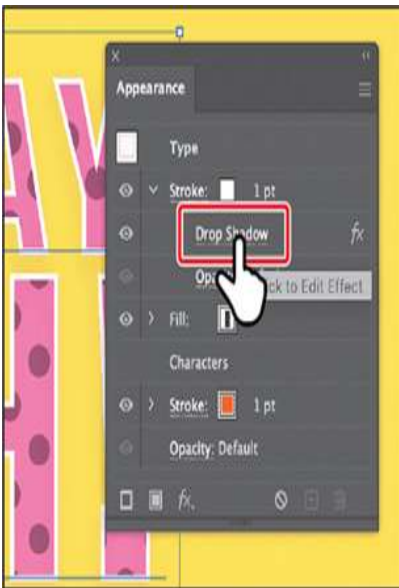
This way, the effect you apply will be applied only to the stroke.

3. Choose Effect > Apply Drop Shadow. If you need to, click the triangle in the white Stroke row to see the drop shadow.



The first item in the Effect menu will always be Apply [most recently used effect], which applies the last used effect with the same options set.

4. Zoom in to the selected text.
5. In the Appearance panel, click the words Drop Shadow beneath the white Stroke row to edit the effect options.
6. In the Drop Shadow dialog box, select Preview to see the changes. Change the following options:
 - Opacity: **40%**
 - X Offset and Y Offset: **0.01**
 - Blur: **0.02 in**



7. Click OK. Leave the text object selected.



Styling text with a Warp effect

Text can have all sorts of effects applied, including warp, as you saw in [Lesson 9](#). The difference between the warp you applied in [Lesson 9](#) and the Warp effect you are about to apply is that this one is an effect and can be turned on and off, edited, or removed easily. You will use the Warp effect to warp the “BIRTHDAY BASH!” text.



1. In the Appearance panel, click Type at the top of the panel. It's highlighted in the figure.

Clicking Type targets the text, not just the stroke or the fill. The more you apply effects, the more you realize how much flexibility you have when applying them.



2. With the text selected, click the Add New Effect button (fx) at the bottom of the Appearance panel.
3. Choose Warp > Rise from the menu.

This is another way to apply an effect to content and will be handy if you have the Appearance panel open.



4. In the Warp Options dialog box, select Preview to see the changes. Try choosing styles from the Style menu and then choose Arc Upper. Set Bend to **15%**.
5. Try adjusting the Horizontal and Vertical Distortion sliders to see the effect. Make sure that the Distortion values are returned to **0** and then click OK. Leave the text selected.



Temporarily disabling effects to make edits

You can edit text with a Warp effect applied, but sometimes it's easier to turn off the effect, make the change to the text, and then turn the effect back on.

1. With the text object still selected, click the Visibility icon (👁) to the left of Warp: Arc Upper in the Appearance panel to temporarily turn off the effect.



Notice that the text is no longer warped on the artboard.

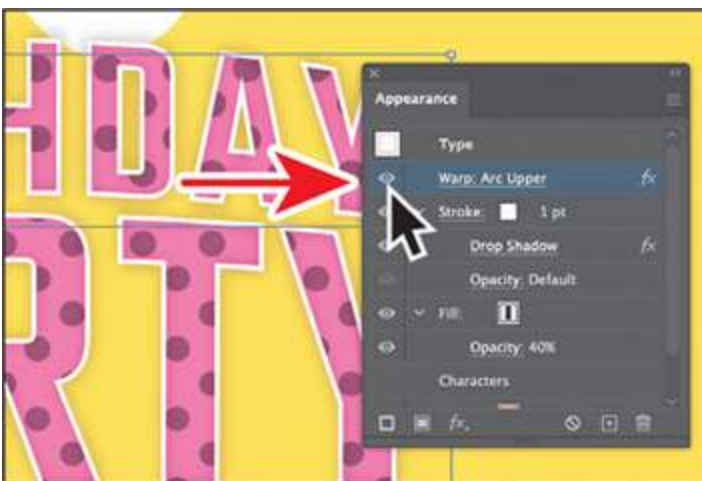
2. With the Type tool (**T**), select the word “BASH!” Change it to **PARTY** (without the exclamation point). The text should now read “BIRTHDAY PARTY.”

► **Tip**

If your text is too wide, you can select it and change the font size, making it a bit smaller.



3. Select the Selection tool (**⬚**) in the toolbar. This selects the text object, not the text.



4. Click the Visibility icon to the left of Warp: Arc Upper in the Appearance panel so you can see the effect applied to the text again.

The text is once again warped, but because the text changed, the amount of warp may need to be different due to the overall size of the text.



5. In the Appearance panel, click Warp: Arc Upper to edit the effect.
6. In the Warp Options dialog box, change Bend to **30%**. Click OK.



The text may have moved up after you clicked OK. If that is the case, you can drag the text down on top of the cake.

7. Close the Appearance panel for now.
8. Choose Select > Deselect, and then choose File > Save.

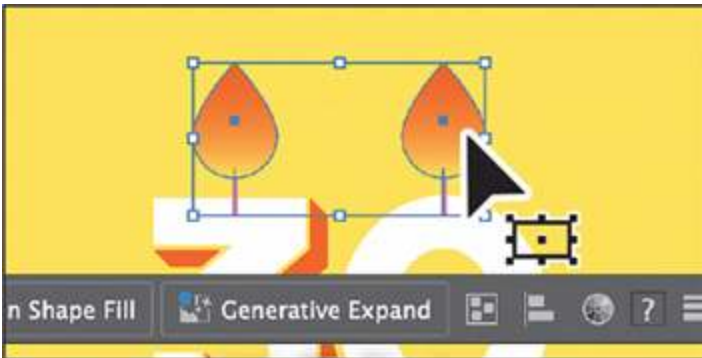
Applying a Photoshop effect

● Note

The Photoshop effect will essentially rasterize your beautiful vector flame when you print or output the file. In the Tip on the next page, I discuss setting it to display, print, and output at a higher resolution.

As described earlier in the lesson, raster effects generate pixels rather than vector data. So when you apply a raster effect to artwork, it will be rasterized. Raster effects include SVG filters, all of the effects in the bottom portion of the Effect menu, and the Drop Shadow, Inner Glow, Outer Glow, and Feather commands in the Effect > Stylize submenu. You can apply them to either vector or bitmap objects. Next, you'll apply a Photoshop effect (raster) to the candle flames on top of the cake.


1. Choose View > Fit Artboard In Window.

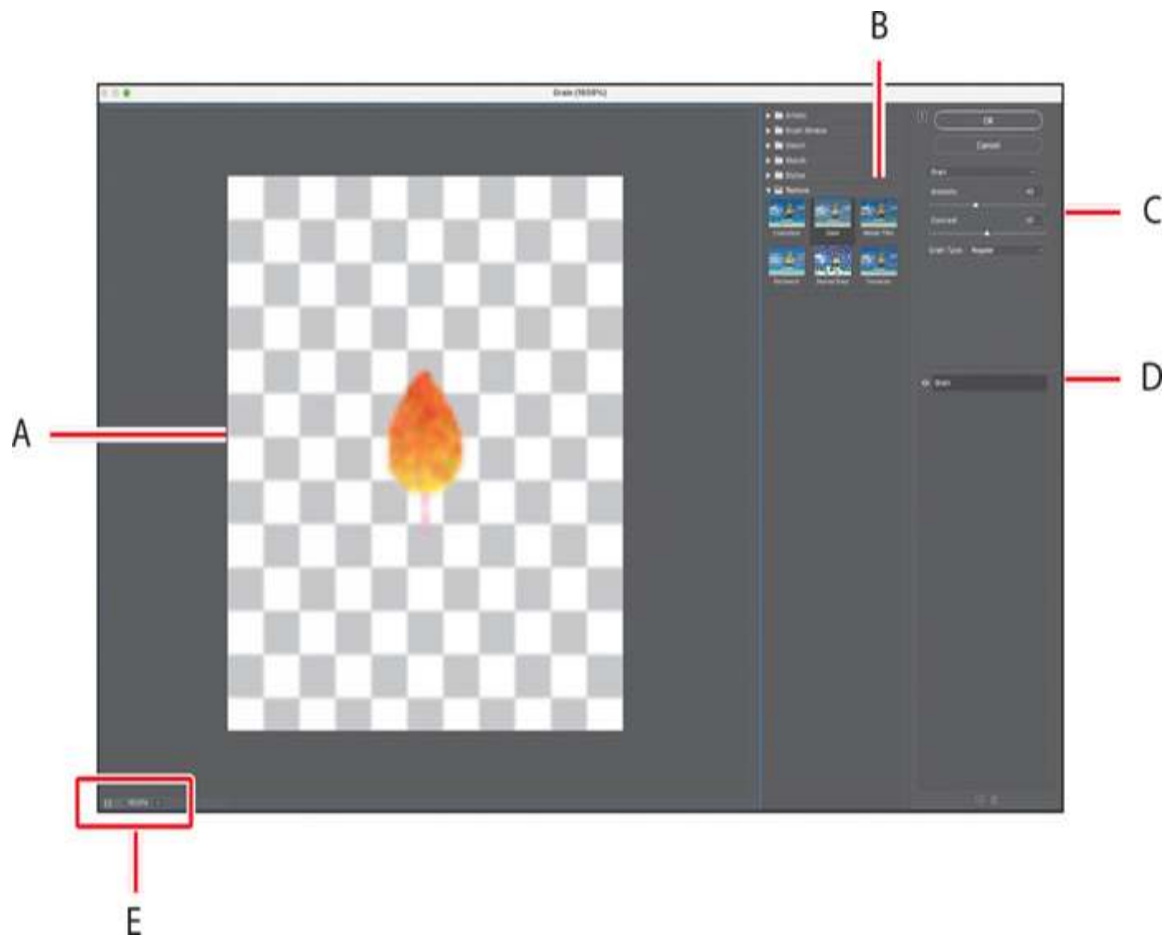


2. Click the flame above the 3 candle and Shift-click the other flame, above the 0 (zero) candle, to select both.
3. Choose Effect > Texture > Grain.

When you choose a raster (Photoshop) effect, the Filter Gallery dialog box opens for most, but not all, effects. Similarly to working with filters in Adobe Photoshop, where you can also access a Filter Gallery, in the Illustrator Filter Gallery you can try different raster effects to see how they affect your artwork.

4. With the Filter Gallery dialog box open, you can see the type of filter (Grain) displayed at the top. In the lower-left corner of the dialog box, click the plus sign (+) to zoom in to the art. I had to zoom in a lot.

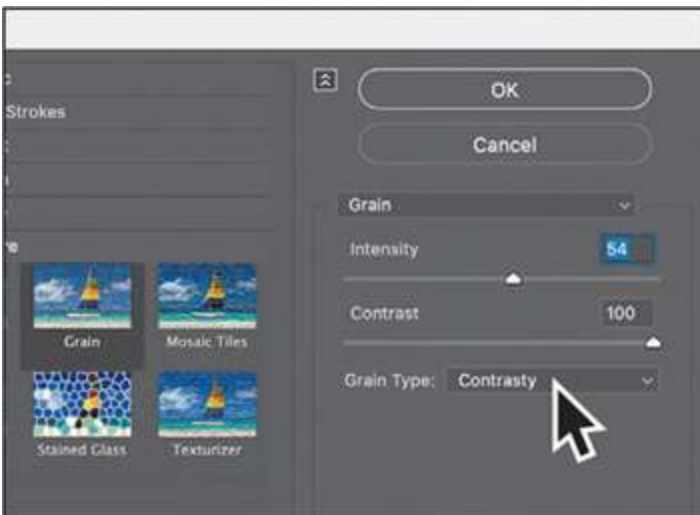
In the list of applied effects (D), you can click the Visibility icon () to turn off/on an effect. If you want to apply a different effect, expand a category in the middle panel of the dialog box and click an effect thumbnail (B).



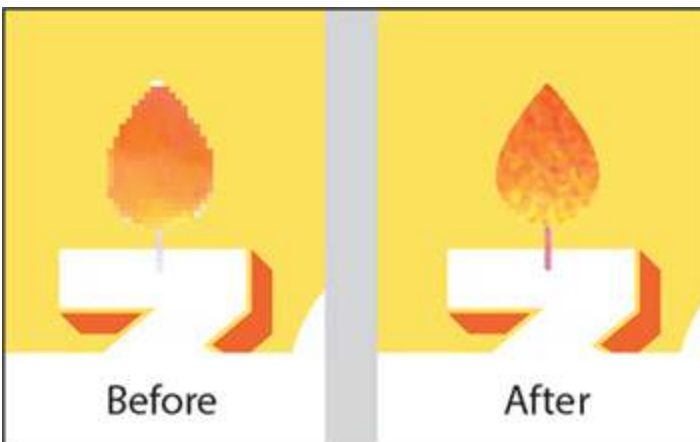
- A. Preview area
- B. Thumbnails of effects that you can click to apply
- C. Settings for the currently selected effect
- D. List of effects applied
- E. Zoom level

5. Change the Grain settings in the upper-right corner of the dialog box as follows (if necessary):

- Intensity: **54**
- Contrast: **100**
- Grain Type: **Contrasty**



6. Click OK to apply the raster effect to the flames.
7. Choose Select > Deselect, and then choose File > Save.



► Tip

Does the flame art look pixelated after applying the effect? Choose Effect > Document Raster Effects Settings. In the dialog box that opens, choose High (300 ppi) from the Resolution menu, and click OK. Better? The resolution of all raster effects when you output (and preview) is controlled by the settings in that dialog box. While you're working, make sure to change the Resolution setting back to Screen (72 ppi) if Illustrator becomes slower and less responsive.

Applying 3D effects

You can apply powerful 3D effects to vector artwork to make objects look like realistic 3D graphics. After adjusting the lighting and applying materials like realistic textures, you can then render the artwork with ray tracing and export in a format that suits your needs. Next, you'll turn the purple shape below the aqua cake stand into a wood platter.



1. With the Selection tool (🖱️), click to select the purple ellipse below the cake stand (see the figure).
2. Choose Effect > 3D And Materials > Extrude & Bevel.

The Extrude & Bevel effect is applied with default settings. Also, the 3D And Materials panel opens, where you will set the options for your 3D artwork. 3D effects are like other effects—they can be turned off, deleted, and edited later.



In the 3D And Materials panel, there are three main groups of settings:

- **Object**—Here you can set the options for the basic shape and position of your object, like view angle (rotation), depth, bevel, and more.
- **Materials**—You can apply default or custom materials and graphics to the surface of the 3D object.
- **Lighting**—You can apply lighting options, such as shadows, intensity, direction, and height.



● **Note**

You will have to do a lot of scrolling in the panel to see all the options you need to set.

3. In the 3D And Materials panel, with Object selected at the top, set the following:

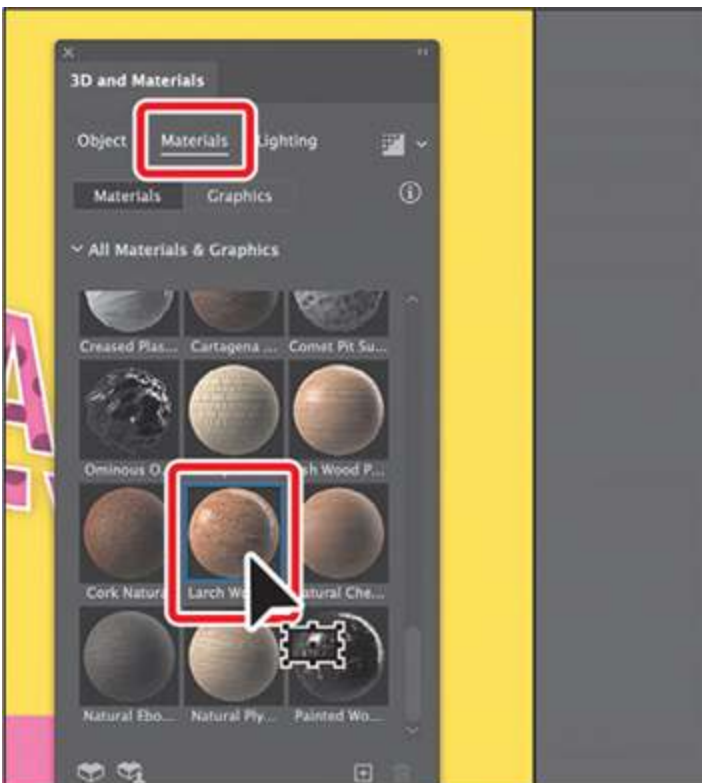
- Depth: **15 pt**
- Bevel: **On** (*turn it on*)
- Bevel Shape: **Step**
- Width: **40%**
- Height: **30%**
- Repeat: **1** (the default setting)
- Rotation: X=**50°**, Y=**0**, and Z=**0**
- Perspective: **160°**



With the main object settings finished, experiment to see what you can come up with! Next, you'll explore materials and see what they're about.

4. In the 3D And Materials panel, click Materials at the top. It's circled in the following figure.

You can apply materials like fabrics or concrete or wood. You can also map your own vector artwork to the surface of the artwork.



5. Scroll in the All Materials & Graphics section of the panel to see all of the default materials you can apply. Select the material called Larch Wood Varnished.

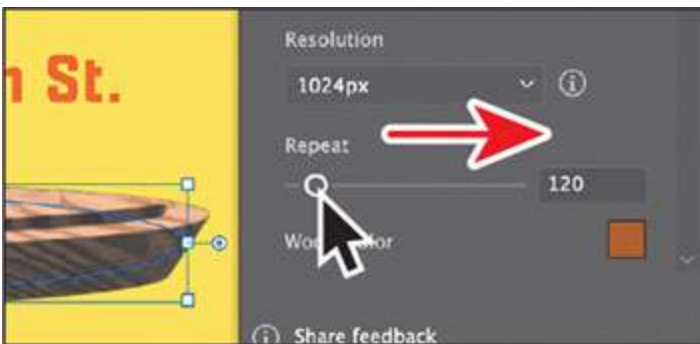
► **Tip**

You can find a lot more materials on sites like substance3d.adobe.com/community-assets.

The platter now looks like it's made of wood. Try other materials to see what they look like.



6. In the Properties section of the panel, below the materials list, change Repeat to **120**. You may need to scroll in the bottom half of the panel.



7. Beneath the Repeat value, click the Wood Color box (the brown square), and select a color in the Color Picker. I chose a purple. Click OK.



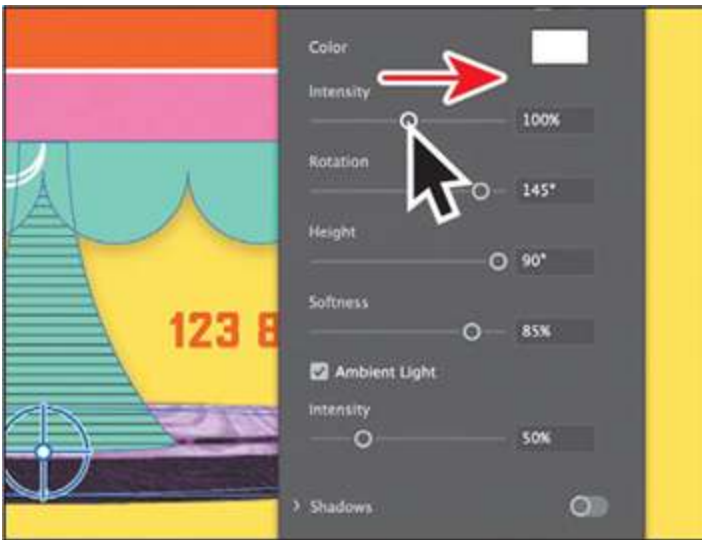
Next, you'll adjust the lighting.


8. In the 3D And Materials panel, click Lighting at the top.

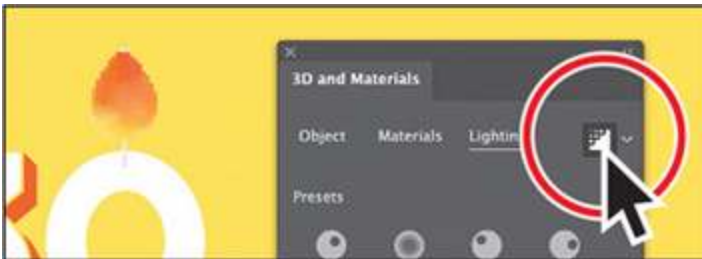


9. Select the Diffuse preset.

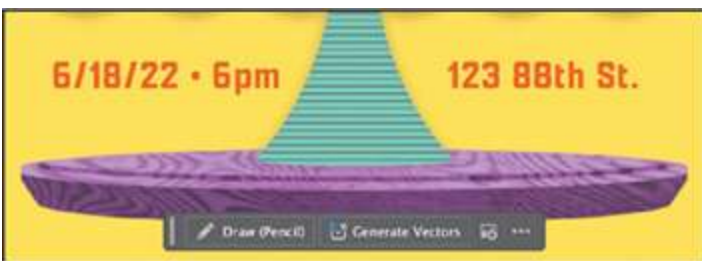
This sets the lighting to be less harsh. You can now adjust the individual settings, like Height or Rotation.



10. Set Intensity to **100** to make it lighter overall.
11. To see the 3D artwork with realistic shading and lighting, click the Render With Ray Tracing button () in the upper-right corner of the panel.



It's best not to work with Ray Tracing on, because it may slow things down. But it's a great way to see what the artwork will look like when exported or for showing off your artwork!



12. Close the 3D And Materials panel and drag the shape down a bit so the cake stand looks like it's in the middle.

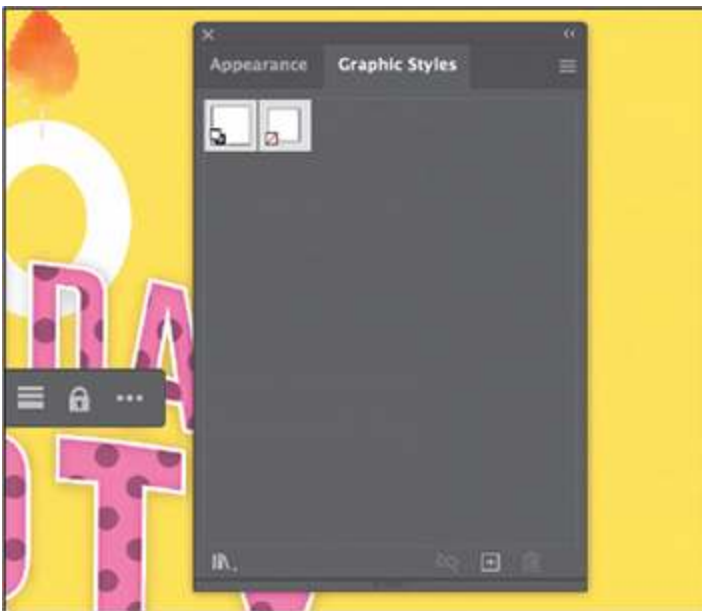
► Tip

You can export the 3D artwork for use in a 3D application like Substance if you choose File > Export Selection and choose the format you need, like OBJ, USDA, or GLTF.

Using graphic styles

A *graphic style* is a saved set of appearance attributes that you can reuse. By applying graphic styles, you can quickly change the appearance of objects and text globally.

The Graphic Styles panel (Window > Graphic Styles) lets you create, name, save, apply, and remove effects and attributes for objects, layers, and groups. You can also break the link between an object and an applied graphic style to edit that object's attributes without affecting other objects that use the same graphic style.



For example, if you have a map that uses a shape to represent a city, you can create a graphic style that paints the shape green and adds a drop shadow. You can then use that graphic style to paint all the city shapes on the map. If you decide to use a different color, you can change the fill color of the graphic style to blue. All the objects that use that graphic style are then updated to blue.

You can also apply graphic styles to your artwork from graphic style libraries that come with Illustrator by choosing Window > Graphic Style Libraries.

Creating and applying a graphic style

You'll create a new graphic style from the 3 candle and apply that graphic style to the 0 candle.

1. With the Selection tool (▸) selected, click the number 3 candle on top of the cake.
2. Choose Window > Graphic Styles to open the Graphic Styles panel.

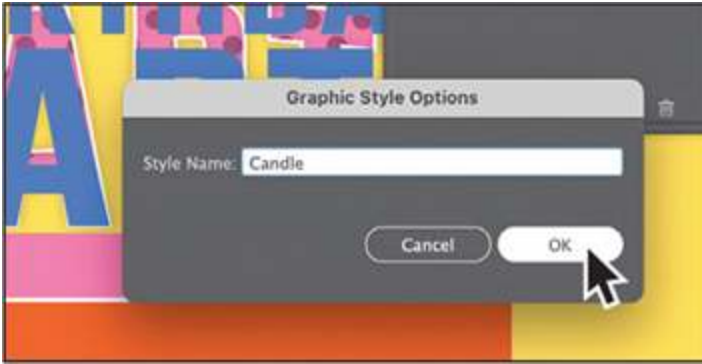


3. Click the New Graphic Style button (◻+) at the bottom of the Graphic Styles panel.

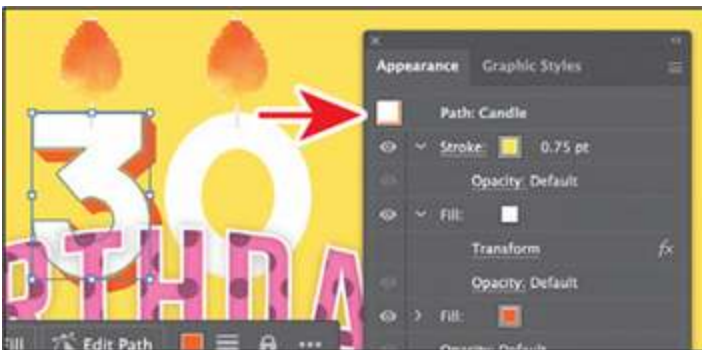
► Tip

When you make a graphic style by selecting an object, you can then either drag the object directly into the Graphic Styles panel or, in the Appearance panel, drag the appearance thumbnail at the top of the listing into the Graphic Styles panel.

The appearance attributes from the selected candle are saved as a graphic style.



4. In the Graphic Styles panel, double-click the new graphic style thumbnail. In the Graphic Style Options dialog box, name the new style **Candle**. Click OK.
5. Click the Appearance panel tab, and at the top of the Appearance panel you'll see a Path: Candle item.



This indicates that a graphic style named Candle is applied to the selected artwork.

6. With the Selection tool, select the 0 candle.

● Note

You could also have grouped the candles together and applied the graphic style to the group. If you were ever to ungroup the candles, the graphic style would be removed because it was applied to the group.

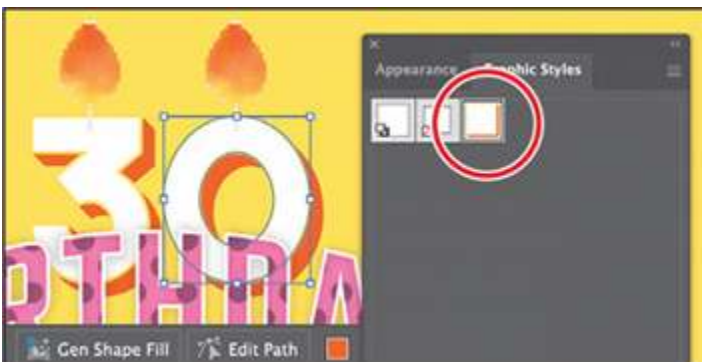


7. In the Graphic Styles panel, click the graphic style named Candle to apply the styling.

Leave the candle selected.

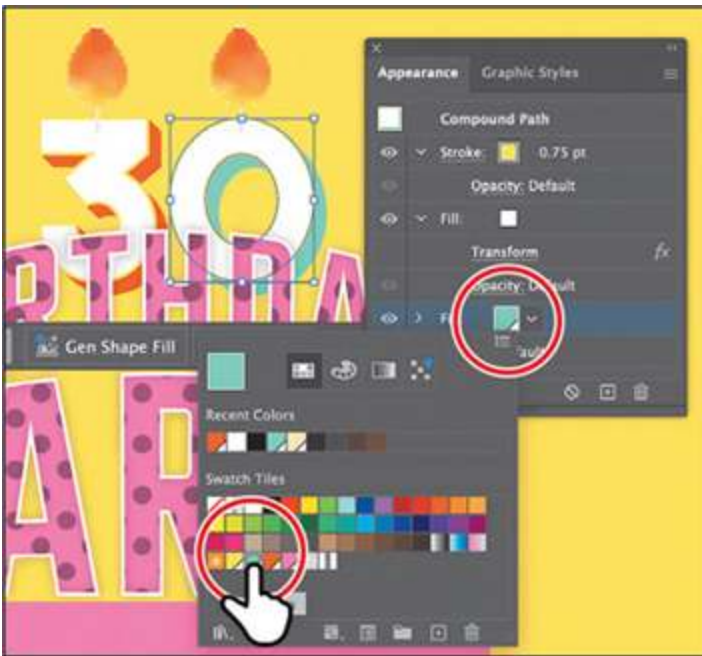
Updating a graphic style

You can also update a graphic style, and all artwork with that style applied will update as well. If you edit the appearance of artwork that a graphic style is applied to, the graphic style is overridden, and the artwork will not update when the graphic style is updated.



1. With the 0 candle still selected, look in the Graphic Styles panel; you will see that the Candle graphic style thumbnail is highlighted (it has a subtle border around it), indicating that it's applied.

2. Click the Appearance panel tab.



3. With the candle selected, click the orange Fill box a few times in the Appearance panel, to open the Swatches panel. Select the swatch named Aqua.

Notice that text at the top of the Appearance panel is just “Compound Path,” telling you that the graphic style is not applied to the selected artwork.



4. Click the Graphic Styles panel tab.

Notice that the Candle graphic style no longer has a highlight (border) around it, which means that the graphic style is no longer

applied.

5. Press Option (macOS) or Alt (Windows), and drag the selected shape on top of the Candle graphic style thumbnail in the Graphic Styles panel. Release the drag when the thumbnail is highlighted, and then release the key.



► **Tip**

You can also update a graphic style by selecting the graphic style you want to replace. Then you select artwork (or target an item in the Layers panel) that has the attributes you want to use and choose Redefine Graphic Style “Style name” from the Appearance panel menu.



Dragging the 0 (zero) candle onto the Candle Graphic Style thumbnail redefines the Candle style from the 0 candle. Both candles now look the same, since the Candle graphic style was applied to both objects.

6. Choose Select > Deselect, and then choose File > Save.



7. Click the Appearance panel tab. You should see No Selection: Candle at the top of the panel (you may need to scroll up).

Applying a graphic style to a layer

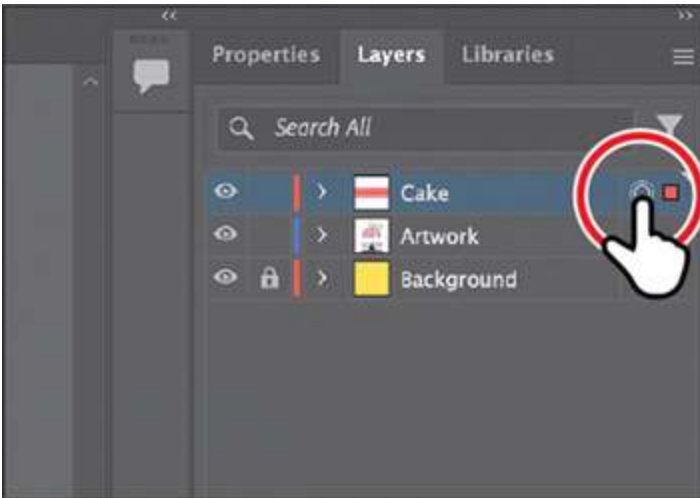
You can also apply a graphic style to a layer. When a graphic style is applied to a layer, everything on that layer has that same style applied.

To demonstrate, you'll apply a drop shadow graphic style to the layer named Cake, which will apply the style to every object currently on that layer and anything you add later. Instead of applying the graphic style to each part of the cake, you are applying a graphic style this way to save time and effort.

1. Choose View > Fit Artboard In Window, if necessary.
2. Open the Layers panel (Window > Layers).
3. Click the target icon (🎯) for the Cake layer.

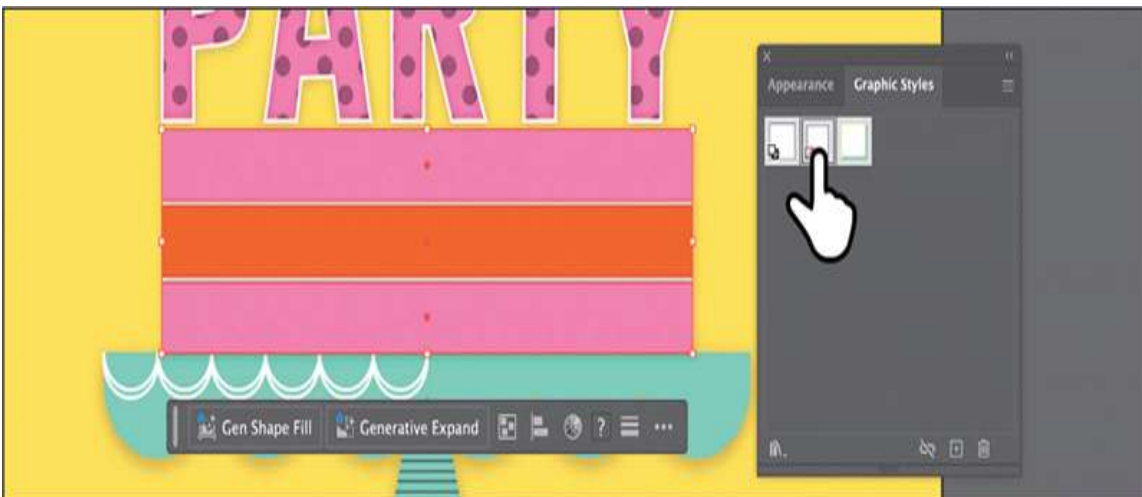
► **Tip**

In the Layers panel, you can drag a target icon to the Delete Selection icon (🗑️) at the bottom of the Layers panel to remove the appearance attributes.

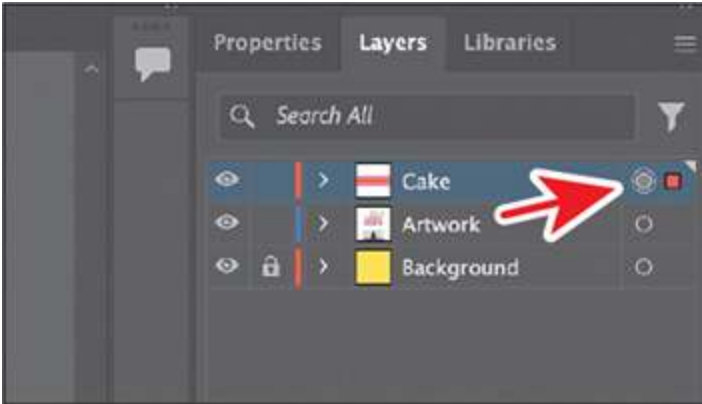


This selects the layer content—the pink and orange rectangles that make up the cake—and “targets” the layer for any appearance attributes.

4. Click the Graphic Styles panel tab, and then click the graphic style named Drop Shadow to apply the style to the layer and all its contents.



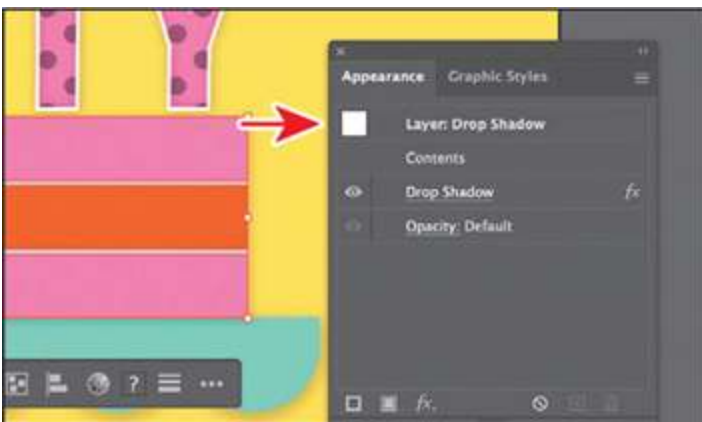
Look in the Layers panel. The target icon for the Cake layer (🎯) is now shaded.



Also, in the Graphic Styles panel, graphic style thumbnails that show a small box with a red slash (☒) indicate that the graphic style does not contain a stroke or fill. It may just be a drop shadow or outer glow, for instance.

● Note

If you apply a graphic style to artwork and then apply a graphic style to the layer (or sublayer) that it's on, the graphic style formatting is added to the appearance of the artwork—it's cumulative. This can change the artwork in ways you don't expect, because applying a graphic style to the layer adds to the formatting of the artwork.



5. Click the Appearance panel tab, and you should see, with all of the artwork on the Cake layer still selected, the words “Layer: Drop Shadow.”

This is telling you that the layer target icon is selected in the Layers panel and that the Drop Shadow graphic style is applied to that layer.

6. Close the Appearance panel group.
7. With the Selection tool, drag across the flames and the candles to select them. Drag them up if necessary.

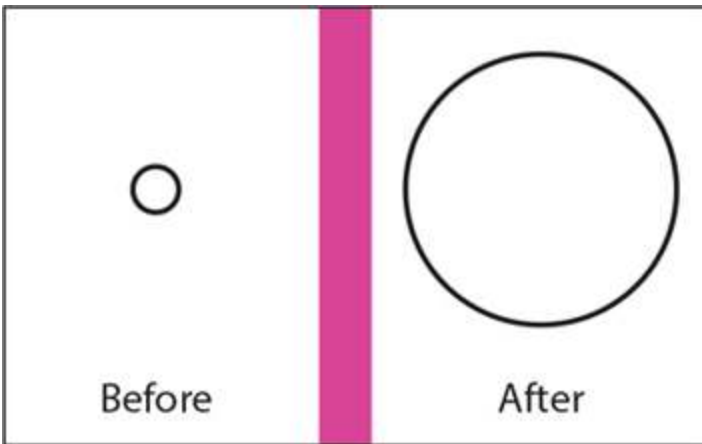


Applying multiple graphic styles

You can apply a graphic style to an object that already has a graphic style applied. This can be useful if you want to add properties to an object from another graphic style. After you apply a graphic style to selected artwork, you can then Option-click (macOS) or Alt-click (Windows) another graphic style thumbnail to add the graphic style formatting to the existing formatting, rather than replacing it.

Scaling strokes and effects

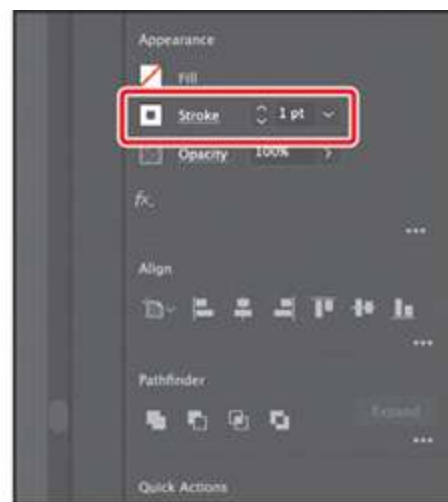
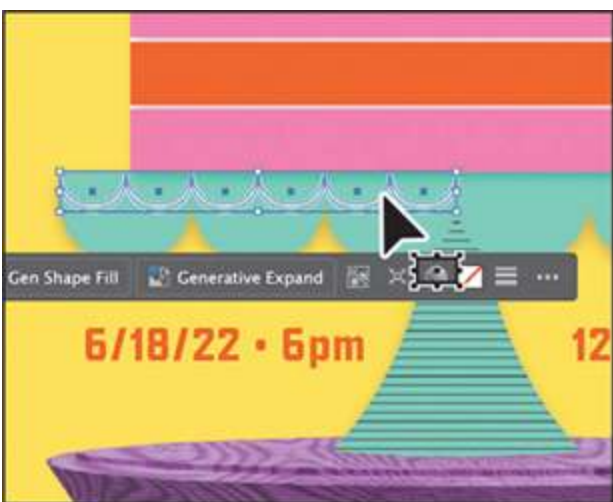
In Illustrator, by default, when you scale (resize) content, any strokes and effects that you applied do not change.




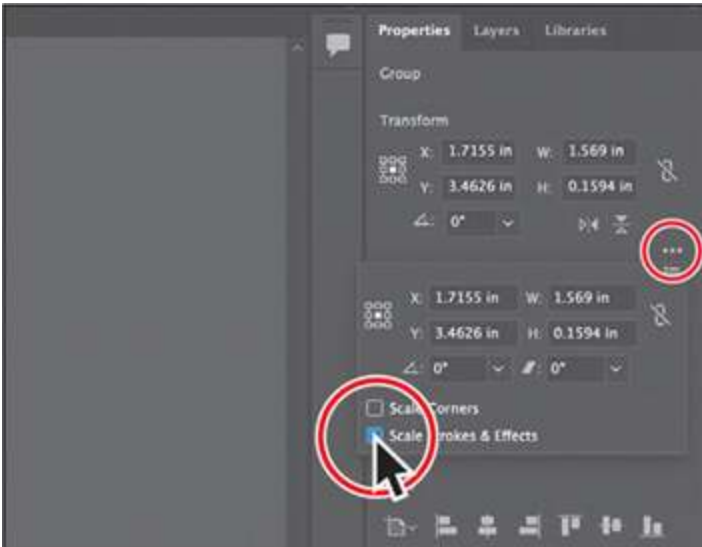
For instance, suppose you make a small circle with a 1-pt stroke much larger. The shape may change size, but the stroke will remain 1 point by default. That can change the appearance of scaled artwork in a way that you didn't intend, so you'll need to watch out for that when transforming artwork.

You can practice by making the white path on the cake larger.

1. Choose Select > Deselect, if necessary.
2. Click the white curvy lines on the aqua cake base (the scalloped shape).
3. In the Properties panel (Window > Properties), notice the stroke weight of 1 pt.

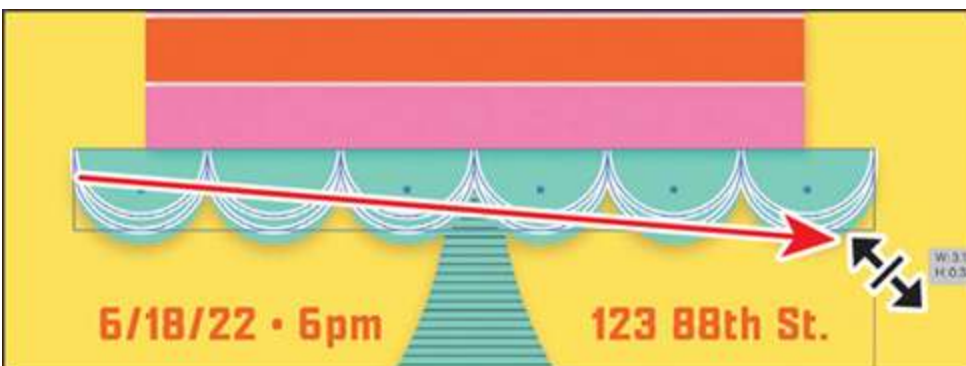


4. Click More Options () in the Transform section of the Properties panel, and select Scale Strokes & Effects at the bottom of the panel that appears. Press the Escape key to hide the options.

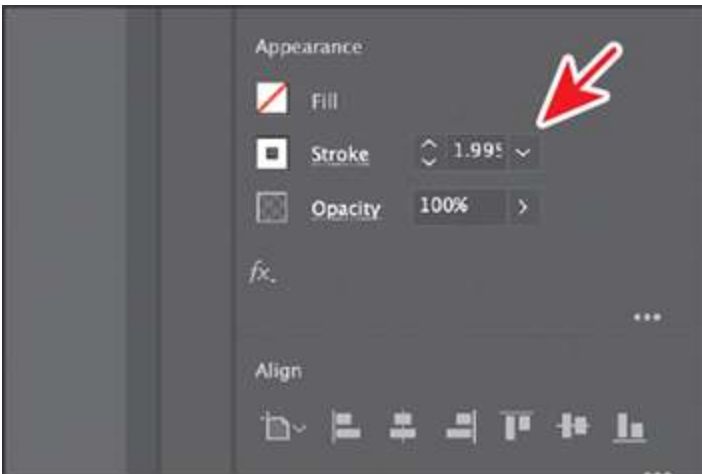


With this option turned off (not selected), scaling the artwork will not affect the stroke weights or effects when it is scaled. Because you turned on (selected) this option, the artwork will scale larger and not remain the same stroke weight.

5. Pressing the Shift key, drag the lower-right corner of the path to make it larger. Drag until it's the width of the green scalloped shape it's on. Release the drag and then the key.



After scaling the artwork, if you look in the Properties panel, you'll see that the stroke weight has gotten bigger.



6. Choose Select > Deselect.







7. Choose File > Save, and then choose File > Close.

Review questions

- 1 How do you add a second fill or stroke to artwork?
- 2 Name two ways to apply an effect to an object.
- 3 When you apply a Photoshop (raster) effect to vector artwork, what happens to the artwork?

- 4 Where can you access the options for effects applied to an object?
- 5 What's the difference between applying a graphic style to a *layer* versus applying it to *individual artwork*?


Review answers

- 1 To add a second fill or stroke to artwork, click the Add New Stroke button () or Add New Fill button () at the bottom of the Appearance panel. We didn't cover this in the lesson, but you can also choose Add New Stroke/Add New Fill from the Appearance panel menu.
- 2 You can apply an effect to an object by selecting the object and then choosing the effect from the Effect menu. You can also apply an effect by selecting the object, clicking the Choose An Effect button () in the Properties panel or the Add New Effect button () at the bottom of the Appearance panel, and then choosing the effect from the menu that appears.
- 3 Applying a Photoshop effect to artwork generates pixels rather than vector data. Photoshop effects include all of the effects in the bottom portion of the Effect menu and the Drop Shadow, Inner Glow, Outer Glow, and Feather commands in the Effect > Stylize submenu. You can apply them to either vector or bitmap objects.
- 4 You can edit effects applied to selected artwork by clicking the effect link in the Properties panel or Appearance panel to access the effect options.
- 5 When a graphic style is applied to individual artwork, other objects on the same layer are not affected. For example, if a triangle object has a Roughen effect applied to its path and you move it to another layer, it retains the Roughen effect.

14 Exploring Time-Saving Techniques

Lesson overview

In this lesson, you'll learn how to do the following:

- Work with existing symbols.
- Create and modify symbols.
- Work with the Symbol Sprayer tool. 
- Understand Creative Cloud Libraries.
- Work with Creative Cloud Libraries.
- Explore Mockup.
- Work with global editing.



This lesson will take about 45 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.



MOUNTAIN

• EXPLORER •

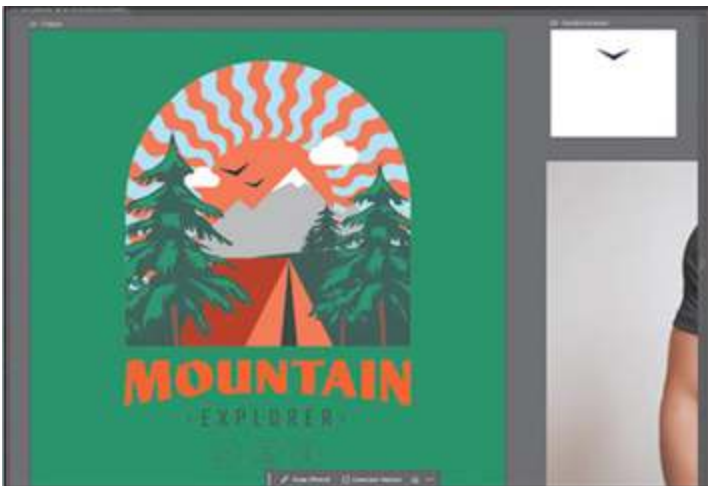


In this lesson, you'll explore various valuable concepts for working smarter and faster in Illustrator: using symbols, working with Creative Cloud Libraries to make your design assets available anywhere, and editing content using global editing.

Starting the lesson

In this lesson, you'll explore features such as symbols and Creative Cloud Libraries to create artwork for a T-shirt mockup. Before you begin, you'll restore the default preferences for Adobe Illustrator. Then, you'll open the finished art file for this lesson to see what you'll create.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.



3. Choose File > Open. Open L14_end1.ai in the Lessons > Lesson14 folder on your computer.

● Note

If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

4. The Missing Fonts dialog box may appear. Click Add Fonts to add all the missing fonts.
5. If you see a dialog box about font auto-activation, click Skip.

You’re going to create artwork for a T-shirt design using some features in Illustrator meant to help you work smarter.

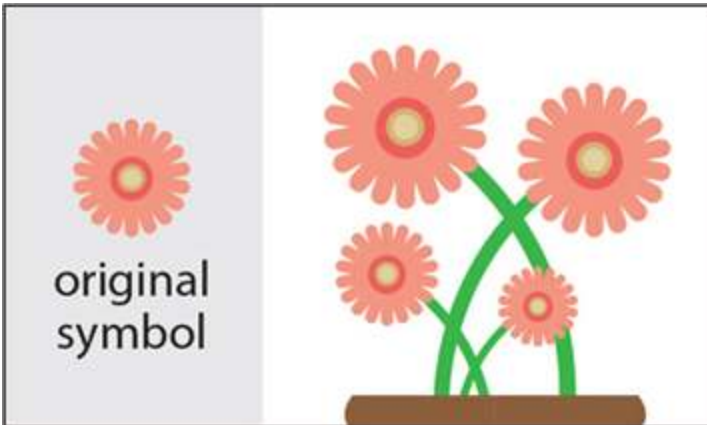
6. Choose View > Fit All In Window. Leave the file open, or choose File > Close.



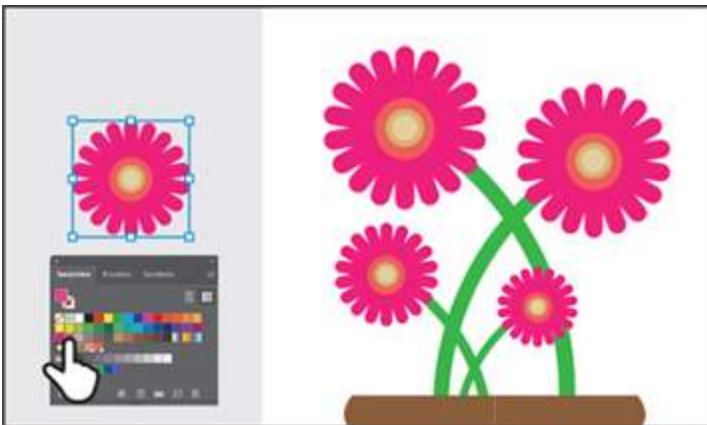
7. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson14 folder, and select the L14_start1.ai file on your computer. Click Open.
8. Choose View > Fit All In Window.
9. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer.
10. In the Save As dialog box, navigate to the Lesson14 folder and name the file **TShirt.ai**. Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and click Save.

11. In the Illustrator Options dialog box, leave the Illustrator options at their default settings, and then click OK.
12. Choose Reset Getting Started from the workspace switcher in the Application bar.

Working with symbols



A *symbol* is a piece of reusable art stored in the Symbols panel (Window > Symbols). Illustrator comes with symbols, or you can make your own. For example, if you create a symbol from a flower you drew, you can quickly add multiple *instances* of that flower symbol to your project, saving you from having to draw each flower.

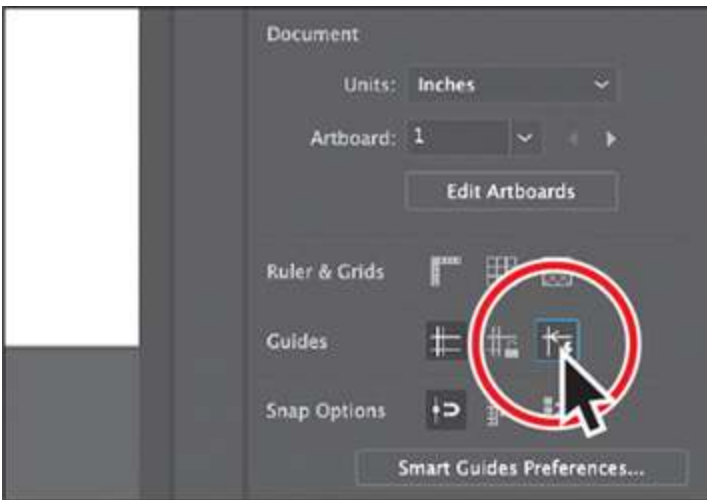


All instances in the document are linked to the original symbol in the Symbols panel. When you edit the original symbol, Illustrator automatically updates all instances of that symbol. With just two clicks, for example, you can change the color of all the flowers!

Using default Illustrator symbol libraries

You'll start by adding a symbol to your project from one of the many symbol libraries that come with Illustrator.

1. Select the Selection tool (🖱️), and click in the green artboard background to make it the active artboard.
2. Choose View > Fit Artboard In Window to fit the active artboard in the window.

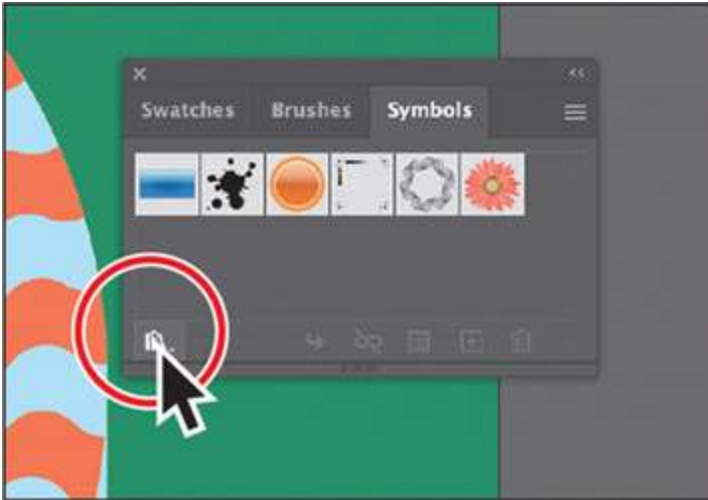


3. Click the Hide Smart Guides button in the Properties panel to turn the Smart Guides off temporarily.

► Tip

You can also choose View > Smart Guides to turn them off.

4. Choose Window > Symbols to open the Symbols panel.



5. Click the Symbol Libraries Menu button (📖) at the bottom of the Symbols panel, and choose Nature from the menu.

The Nature library opens as a free-floating panel. The symbols in this library are not part of the file you are working on, but you can import any symbols into the document and use them in your project.

6. Move the pointer over the symbols in the Nature panel to see their names as tool tips. Scroll down in the panel, if necessary, and click the symbol named Trees 1 to add it to the Symbols panel.

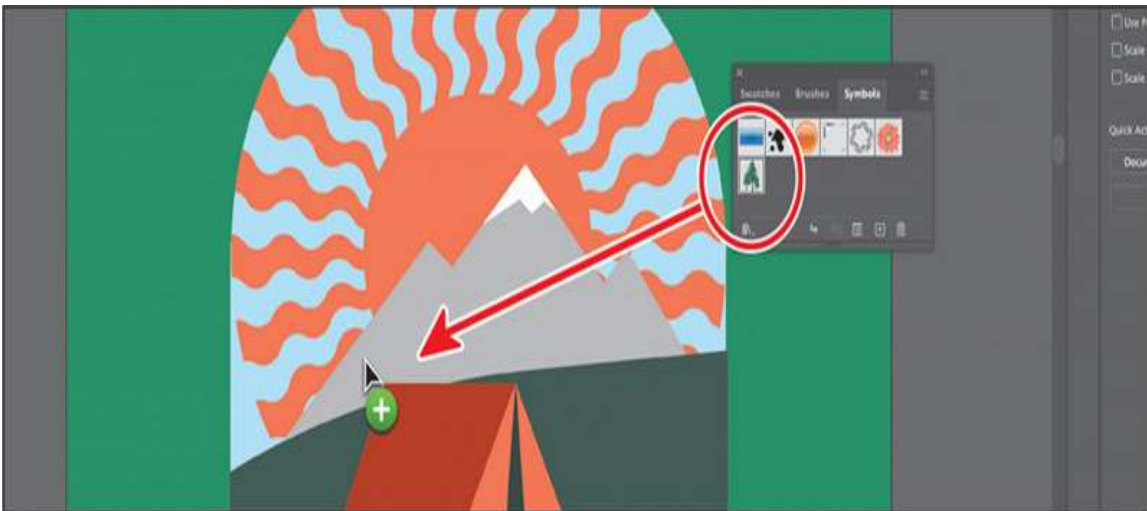
► Tip

If you want to see the symbol names along with the symbol pictures, click the Symbols panel menu (☰) and then choose Small List View or Large List View.



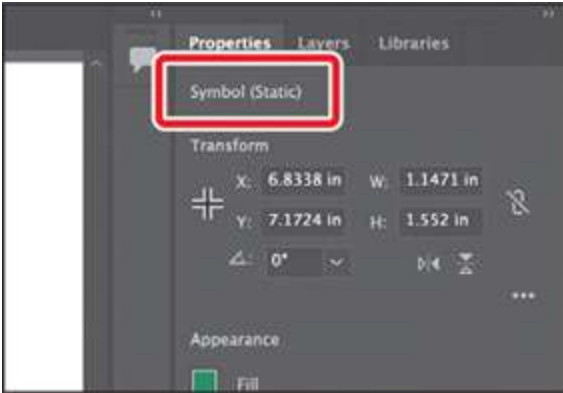
Symbols added to the Symbols panel in this way are saved only with the document you are working on.

7. Close the Nature panel.
8. With the Selection tool (▀) selected, drag the Trees 1 symbol from the Symbols panel onto the artboard.



9. Drag the same symbol out once more so there are two sets of trees on the artboard.





Each time you drag a symbol like the trees onto the artboard, an *instance* of the original symbol is created. With the symbol instance still selected on the artboard, notice that, in the Properties panel, you see “Symbol (Static)” and symbol-related options.

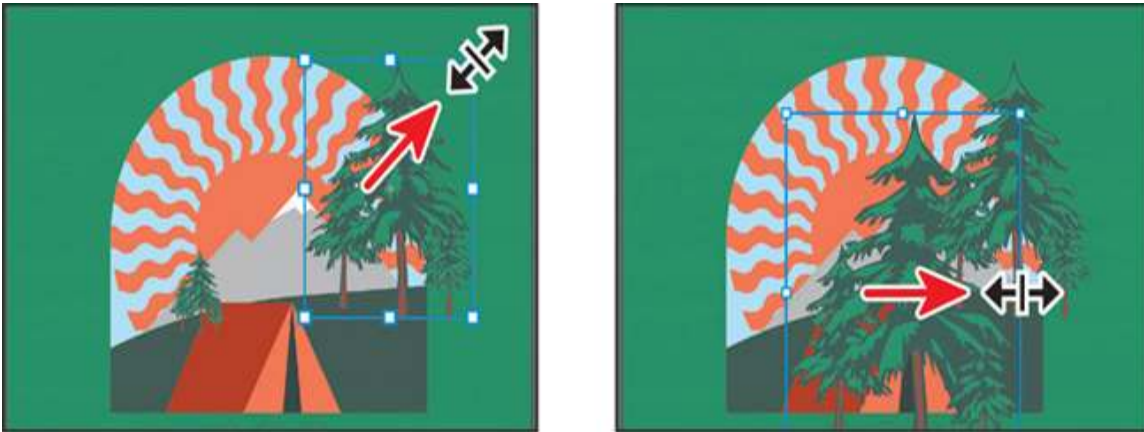
Transforming symbol instances

A symbol instance is treated like a group of objects. You can change only certain transformation and appearance properties for them (scale, rotate, move, transparency, and more). You cannot edit instance artwork, because it's linked to the original symbol. Next, you'll resize the symbol instances and make a copy.

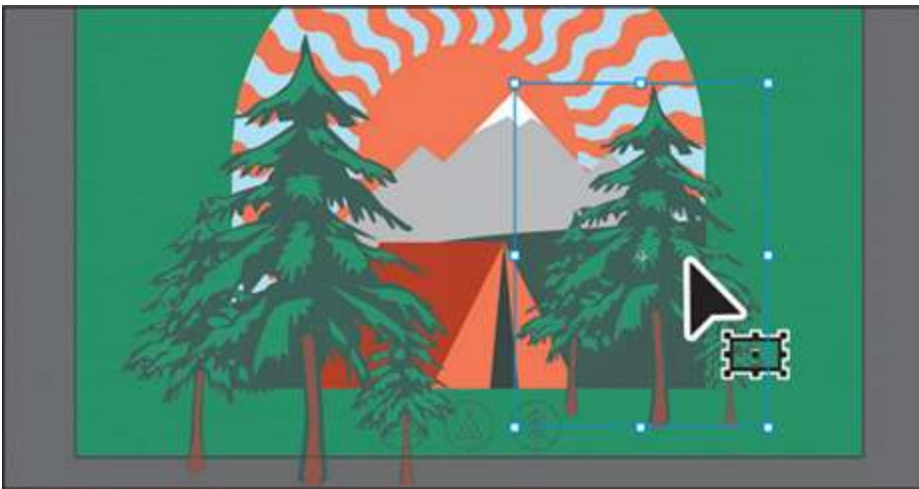
1. With one of the tree instances selected, Shift-drag a bounding point away from the center to make it bigger while also constraining its proportions. Release the drag and then the key.
2. Resize the other tree instance to make it much larger as well.

● **Note**

Are you finding it challenging to select and move the trees without selecting the background art? If you are, maybe you could practice things you learned in earlier lessons, like temporarily hiding or locking art!



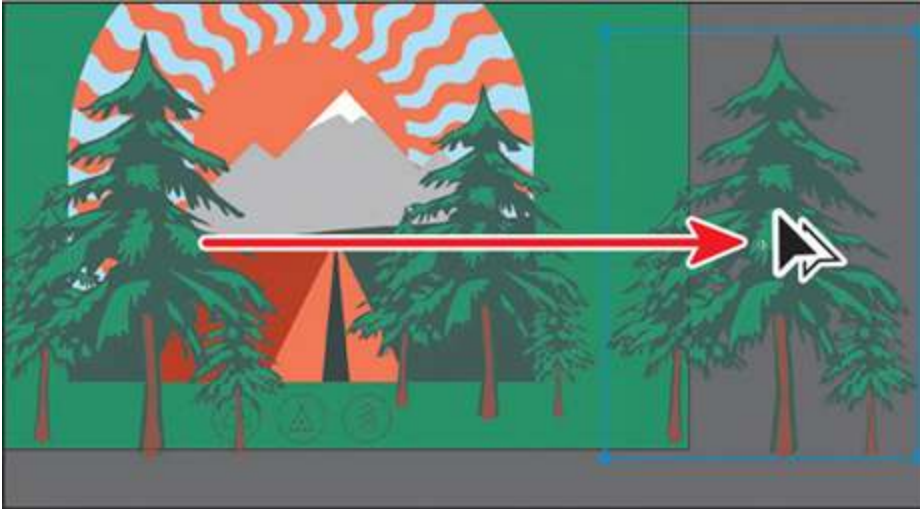
3. Drag the two tree instances into position, as in the following figure.



4. Choose Select > Deselect.

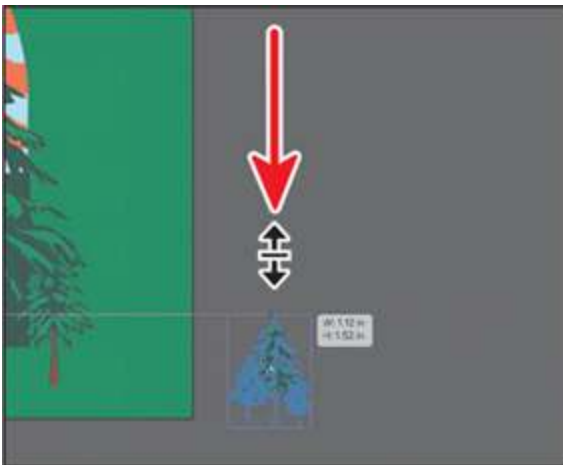
5. Choose View > Zoom Out so you can see more of the gray canvas area.

6. Make a copy of either tree instance by pressing Option (macOS) or Alt (Windows) and dragging it to the right of the artwork, off to the side. Release the drag and then the key.



Creating a copy of an instance is the same thing as dragging an instance of a symbol from the Symbols panel.

7. Turn on the Smart Guides by choosing View > Smart Guides.



8. To resize the new tree instance, Shift-drag a bounding point to make it much smaller. Release the drag and then the key.

You'll move it onto the main artwork shortly.

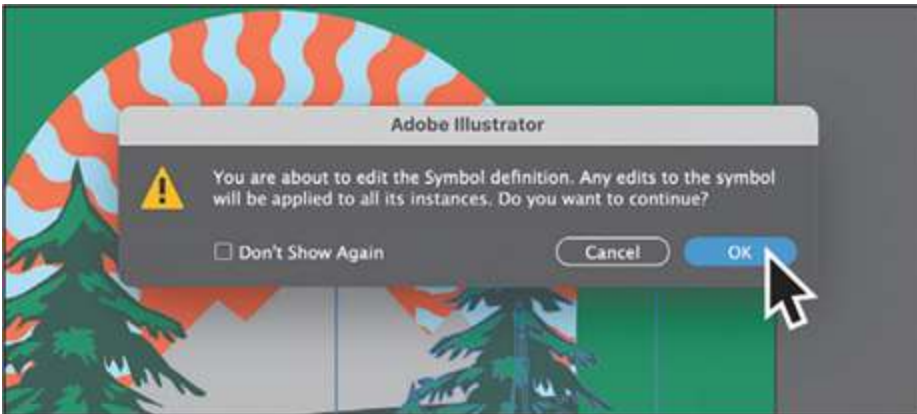
9. Choose Select > Deselect and then File > Save.

Editing a symbol

The Trees 1 symbol has three trees in it. It would look less crowded if there were only two trees. To change all instances at once, you can edit the

original symbol. In this next section, you'll remove a tree from the original Trees 1 symbol, and all instances in the document will be updated.

1. With the Selection tool (◻), double-click one of the larger tree instances on the artboard. A warning dialog box appears, stating that you are about to edit the original symbol and that all instances will update. Click OK.

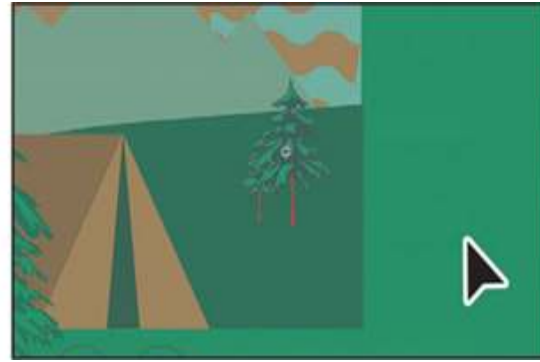
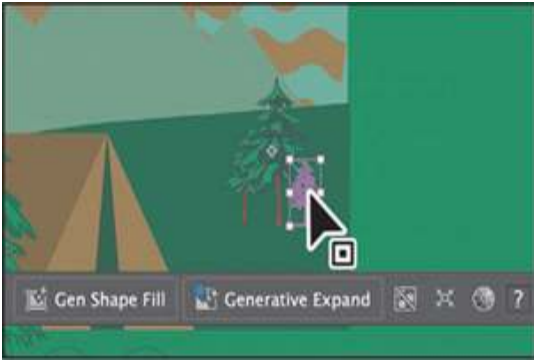


► **Tip**

There are lots of ways to edit a symbol. You can select the symbol instance on the artboard and then click the Edit Symbol button in the Properties panel, or you can double-click a symbol thumbnail in the Symbols panel.

This takes you into Symbol Editing mode, so you can't edit any other objects on the page. The Trees 1 symbol instance you double-clicked will show as the size of the original symbol artwork. That's because in Symbol Editing mode, you are looking at the *original* symbol artwork rather than the transformed instance (if you double-clicked one that was resized). You can now edit the artwork that makes up the symbol.

2. Double-click the trees a few times to isolate the groups. When you can, select the smallest tree in the group. See the first part of the following figure.
3. Press Delete (macOS) or Backspace (Windows) to remove it.



4. Double-click away from the symbol content, or click the Exit Symbol Editing Mode button (↩) in the upper-left corner of the Document window, until you exit Symbol Editing mode so that you can edit the rest of the content.



Notice that all of the Trees 1 symbol instances in the document have been changed.

Working with dynamic symbols

As you just saw, editing a symbol updates all of the instances in your document. Symbols can also be *dynamic*, which means you can change specific appearance properties of individual instances using the Direct Selection tool without editing the original symbol. In this section, you'll make the Trees 1 symbol dynamic and edit one instance separately.



1. In the Symbols panel, select the Trees 1 symbol thumbnail, if it's not already selected. Click the Symbol Options button (📄) at the bottom of the Symbols panel.

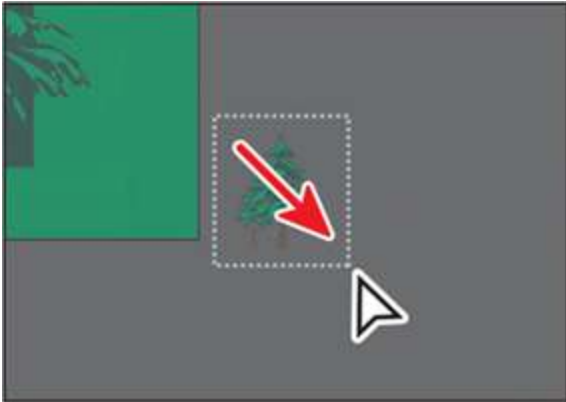



2. In the Symbol Options dialog box, select Dynamic Symbol, and click OK.

The symbol and its instances are now dynamic.





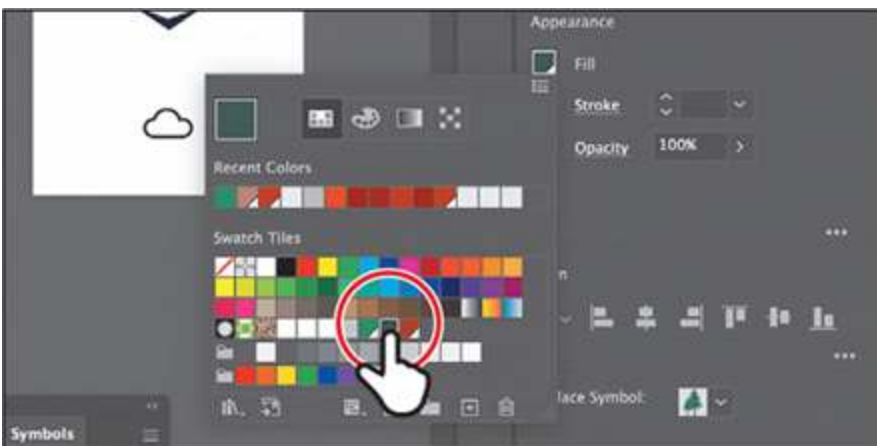
You can tell if a symbol is dynamic by looking at the thumbnail in the Symbols panel. If there is a small plus sign (+) in the lower-right corner of the thumbnail, it is a dynamic symbol. You can also see the words “Symbol (Dynamic)” at the top of the Properties panel when a symbol instance is selected, telling you it’s a dynamic symbol.



3. With the Direct Selection tool () , drag across the smaller trees on the right.

To select individual parts of a dynamic symbol and not the whole symbol instance, you need to use the Direct Selection tool.

4. Click the Fill box () in the Properties panel. With the Swatches option () selected, change the fill color to a darker green color in the Swatches panel.



5. Choose Select > Deselect so you can see the color of those trees.



One set of trees now looks different from the others. Know that if you were to edit the original Trees 1 symbol, like you did previously, all symbol instances would update, but the smaller trees you just changed would keep the fill color change you just made.

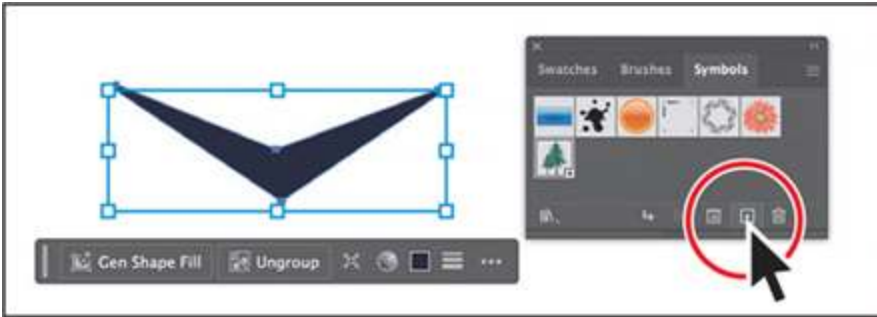
6. Select the Selection tool, and drag the selected trees onto the art in the middle of the artboard.



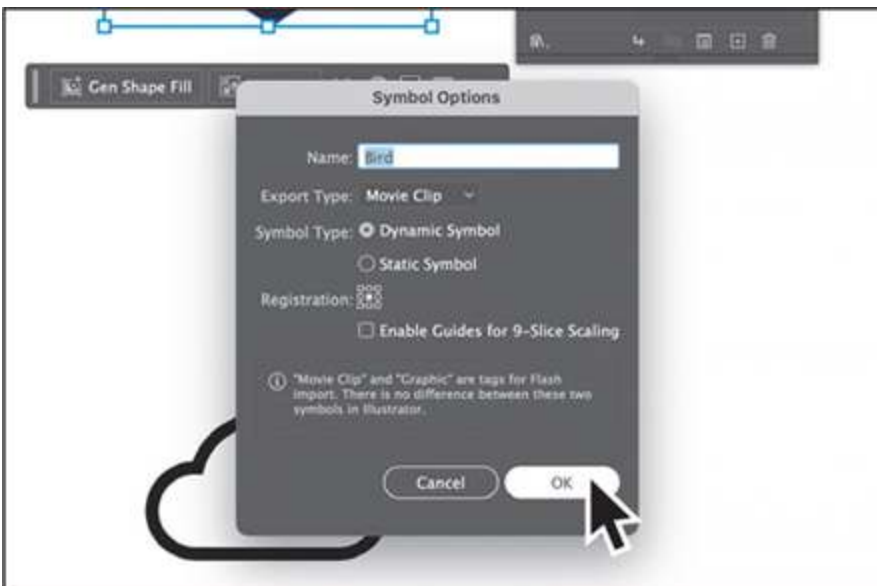
Creating a symbol

Illustrator also lets you create and save your own symbols. You can make symbols from objects, including paths, compound paths, text, embedded (not linked) raster images, mesh objects, and groups of objects. Symbols can even include active objects, such as brush strokes, blends, effects, or other symbol instances. Next, you'll create a symbol from existing artwork.

1. Navigate to the smaller white artboard to the right of the current one.
2. With the Selection tool (▀), click the bird on the artboard to select it.
3. Click the New Symbol button (📁) at the bottom of the Symbols panel to make a symbol from the selected artwork.



4. In the Symbol Options dialog box that opens, change the name to **Bird**. Ensure that Dynamic Symbol is selected, just in case you want to edit the appearance of one of the instances later. Click OK to create the symbol.



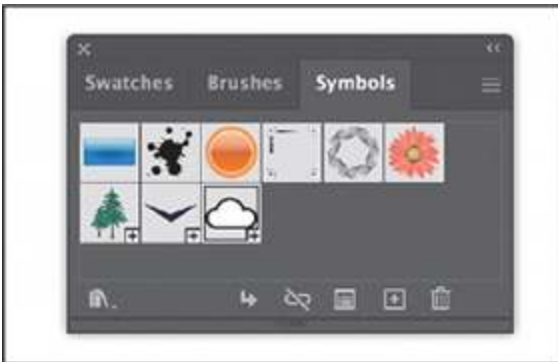
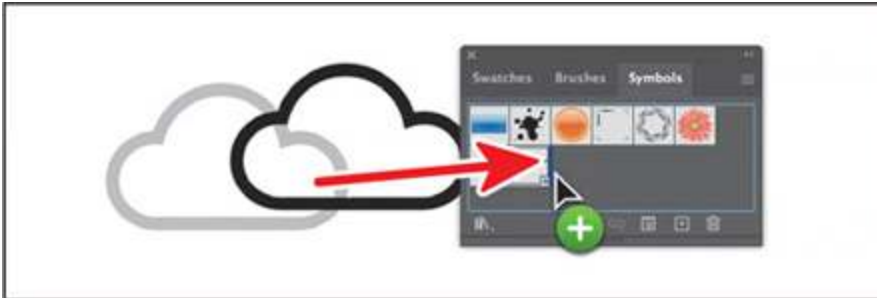
► Tip

You can drag the symbol thumbnails in the Symbols panel to change their order. Reordering symbols in the Symbols panel has no effect on the artwork. It is simply a way to organize your symbols.

In the Symbol Options dialog box is a note that Illustrator makes no distinction between movie clip and graphic export types. Unless you plan to export to Adobe Animate, you don't need to worry about the export type. After creating the symbol, the bird artwork becomes an instance of the Bird symbol on the artboard, and the symbol appears

in the Symbols panel. You'll then create another symbol by dragging artwork into the panel.

5. Drag the cloud artwork into a blank area of the Symbols panel.



6. In the Symbol Options dialog box, change the name to **Cloud** and click OK.
7. Navigate back to the larger green artboard with the trees on it.
8. Drag the Bird symbol from the Symbols panel onto the artboard twice, and position the instances in the sky above the mountains.



9. Resize and rotate each of the bird instances on the artboard using the Selection tool, making them different sizes. Make sure to press the

Shift key to constrain the proportions as you scale.

10. Choose Select > Deselect and then File > Save.



Practice editing a symbol

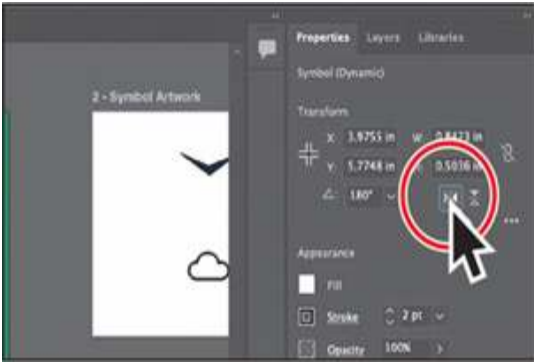
Time to practice editing a symbol! You'll remove the stroke from the Cloud symbol.

1. With the Selection tool (▸), drag a few copies of the Cloud symbol into the sky.

▶ Tip

If you wanted to easily select all symbol instances from the same symbol, you could choose Select > Same > Symbol Instance. This could be useful if you put a whole bunch of trees in your project and wanted to group them together to be able to select them more easily or move them as a group.

2. Select each Cloud symbol instance and resize it. Don't forget to Shift-drag a corner to resize proportionally!
3. Select one of the cloud instances, and click the Flip Horizontally button (↔) in the Properties panel to flip it.



4. Double-click one of the cloud instances.
5. Click OK to edit the Cloud symbol artwork.
6. When in Isolation mode, select the cloud shape.
7. In the Contextual Task Bar, change the Stroke Weight to 0 (zero).



8. Click where there is nothing, then press the Esc key to exit Isolation mode.

None of your clouds should have a stroke applied.

9. Choose File > Save.

Breaking a link to a symbol

Sometimes you'll need to break the link between a symbol and its instance to edit that artwork independently. While you can adjust attributes like scale, opacity, and flipping—or use dynamic symbols to edit appearance with the Direct Selection tool—breaking the link means the instance won't update if the symbol changes. Next, you'll learn how to do this.

1. Select the large tree symbol instance you see in the following figure.

► **Tip**

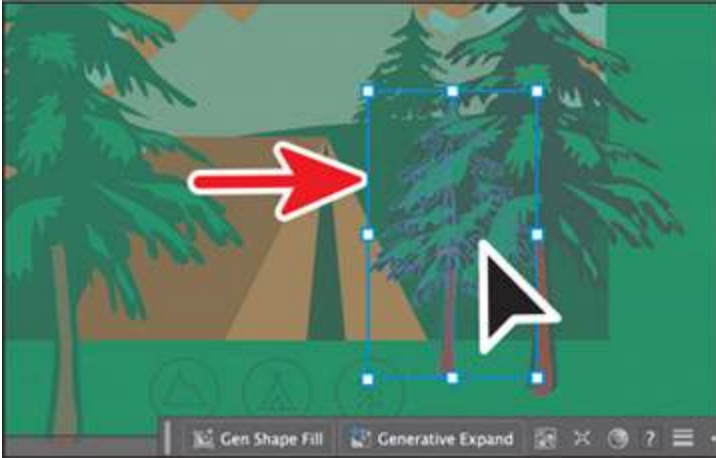
You can also break the link to a symbol instance by selecting the symbol instance on the artboard and then clicking the Break Link To Symbol button (🔗) at the bottom of the Symbols panel.

2. In the Properties panel, click the Break Link button.



That symbol instance is now a group of paths, and you'll see "Group" at the top of the Properties panel. You should be able to edit the artwork directly now. This content will no longer update if the Trees 1 symbol is edited.

3. Choose Select > Deselect.
4. With the Selection tool, double-click the trees to enter Isolation mode.
5. To select the smaller tree, double-click several more times, and then click to select it. The trees have been grouped several times.



6. Drag the smaller tree to the right so it doesn't interfere as much with the tent.
7. Press the Esc key to exit Isolation mode.
8. Choose Select > Deselect.

Working with the Symbol Sprayer tool

Instead of dragging a lot of trees from the Symbols panel, you could spray them onto the artboard using the Symbol Sprayer tool. To learn how to work with the Symbol Sprayer tool, check out the video *Working with the Symbol Sprayer tool*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Replacing symbols

You can quickly swap one symbol instance with another. Or, if you edit a dynamic symbol instance on the artboard, like a bird or a cloud, you can restore it to the original artwork. Next, you'll modify a Cloud symbol instance, then replace it so it again matches the others.

1. With the Direct Selection tool () , select one of the cloud instances.

Because the Cloud symbol is dynamic, you can select one of the cloud shapes with the Direct Selection tool to change its appearance.

2. Click the Fill box in the Properties panel. With the Swatches option () selected, change the fill color to something else, like a blue.

● **Note**

After making edits to a dynamic symbol instance with the Direct Selection tool, you can reselect the entire instance with the Selection tool and click the Reset button in the Properties panel to reset the appearance to the same as the original symbol.

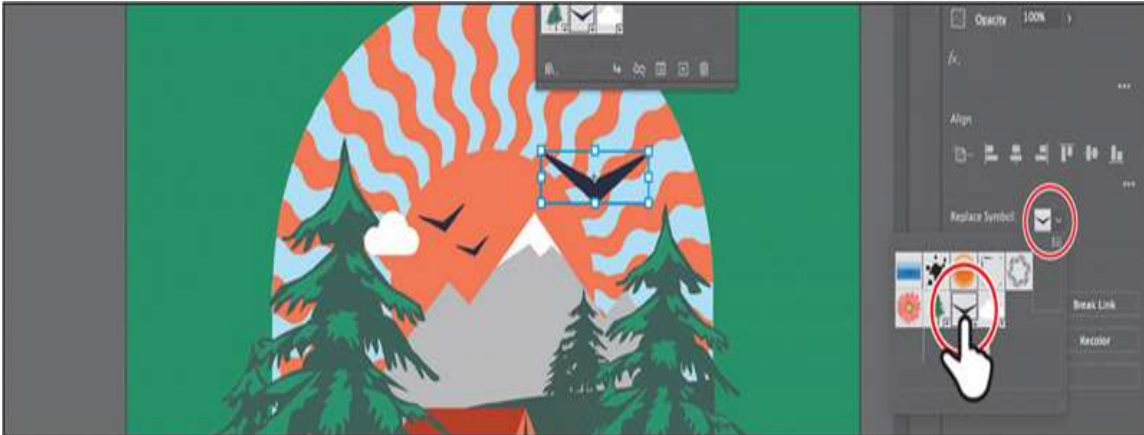


Now suppose you want to go back to the original Cloud symbol, or maybe instead of a cloud, you want a bird in its place. You could replace the symbol instance.

3. Select the Selection tool, and click away from the cloud instance to deselect it. Then click to select it again. That way, the instance and not just the cloud shape within is selected.
4. In the Properties panel, click the arrow to the right of the Replace Symbol field to open a panel showing the symbols in the Symbols panel. Click the Bird symbol in the panel.

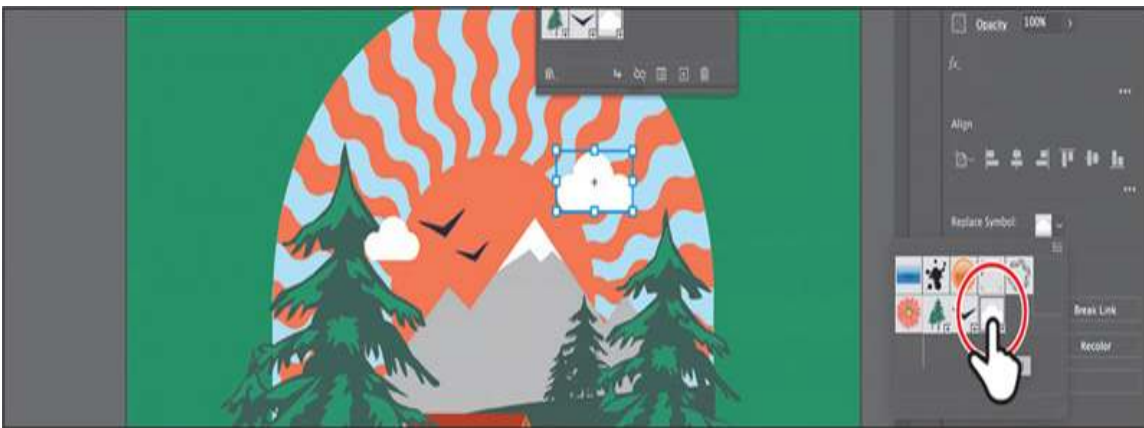
● Note

If the original symbol instance you are replacing had a transformation applied, such as a rotation, the symbol instance replacing it would have the same transformation applied.



The cloud instance has been replaced by the Bird symbol.

5. With the bird instance still selected on the artboard, in the Properties panel click the arrow to the right of the Replace Symbol field and select the Cloud symbol in the panel.



6. Choose Select > Deselect, and close the Symbols panel group.

Working with Creative Cloud Libraries

Adobe Creative Cloud Libraries are an easy way to gather project elements that you can use—such as images, colors, text styles, Adobe Stock assets,

and more—between applications like Adobe Photoshop, Adobe Illustrator, Adobe InDesign, and Adobe mobile apps.

● **Note**

To use Creative Cloud Libraries, you will need to be signed in with your Adobe ID and have an internet connection.

Creative Cloud Libraries connect to your Adobe profile, giving you instant access to your saved assets in Illustrator. When you create content in Illustrator and save it to a Creative Cloud Library, it's available to use in all your Illustrator files. Library assets sync automatically and can be shared with Creative Cloud account users. Your shared library assets stay current and are accessible across Adobe desktop and mobile apps, ready for use in your projects.

Adding assets to a Creative Cloud Library

The first thing you'll learn about is how to work with the Libraries panel (Window > Libraries) in Illustrator, and then you'll add assets to a Creative Cloud Library from another document you will open.

1. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson14 folder, and select the Sample.ai file. Click Open.

● **Note**

The Missing Fonts dialog box may appear. Click Add Fonts to add all the missing fonts. After they are added and you see the message stating that there are no more missing fonts, click Close. If you see a dialog box about font auto-activation, click Skip.

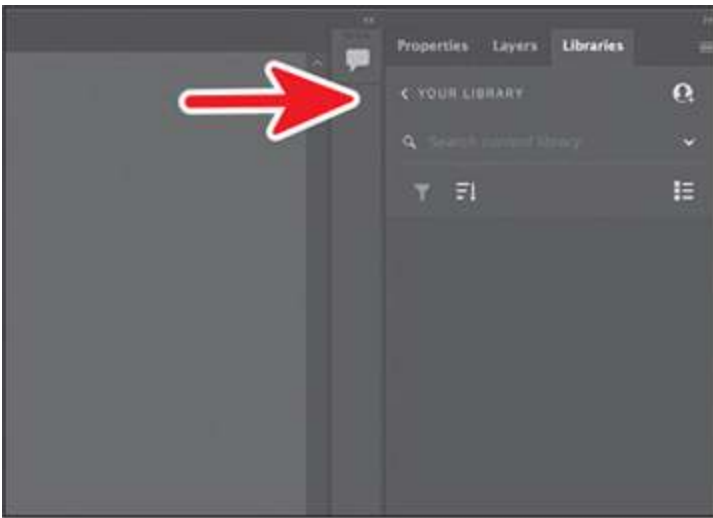
2. Choose View > Fit Artboard In Window.

From this document, you'll capture artwork and colors to be used in the TShirt.ai document.

3. Choose Window > Libraries, or click the Libraries panel tab to open the Libraries panel.

● Note

In earlier versions of Illustrator, the default library was named My Library. If you don't see a library named Your Library, feel free to use another library or create a new library by clicking + Create New Library and naming it.



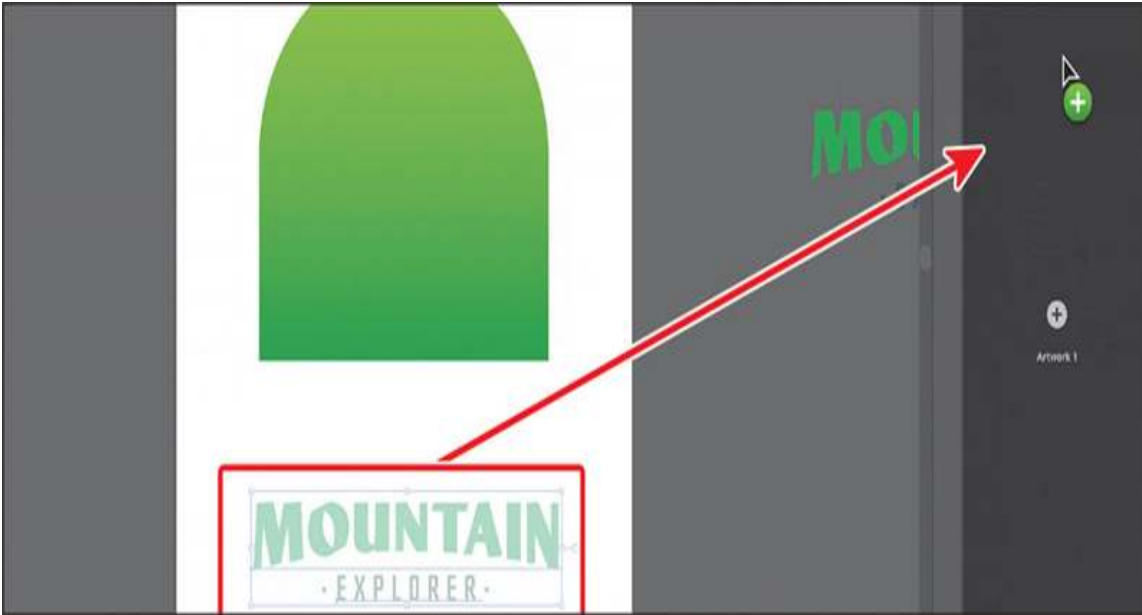
4. In the Libraries panel, click Your Library (or “My Library” if you see it) to open the default library, if it isn’t already open.

If it’s open, you’ll see “Your Library” at the top of the Libraries panel with an arrow pointing to the left. You can add your design assets to this default library and even create more libraries—maybe to save assets for specific clients or projects.

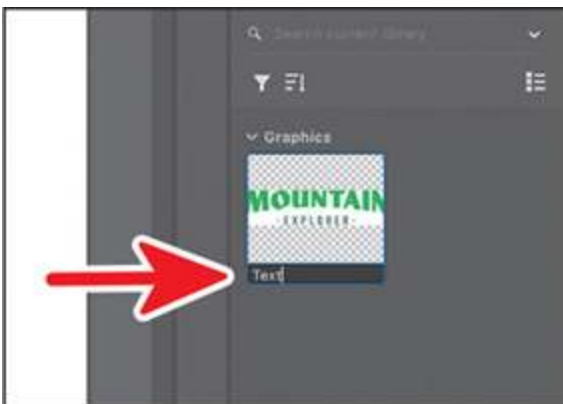
5. Choose Select > Deselect, if anything is selected.
6. Select the Selection tool (▀), and click the group that contains the text “MOUNTAIN EXPLORER.”

The group is made of two text objects—one of which is warped.

7. Drag the group into the Libraries panel to save it in the library.



The text is still editable as text—retaining the text formatting as well. As you’ll see, when you save assets and formatting in the Libraries panel, the content is organized by asset type (Graphics, Text, Color, and so on). The new library item you just saved is considered a graphic because it is a group of content.



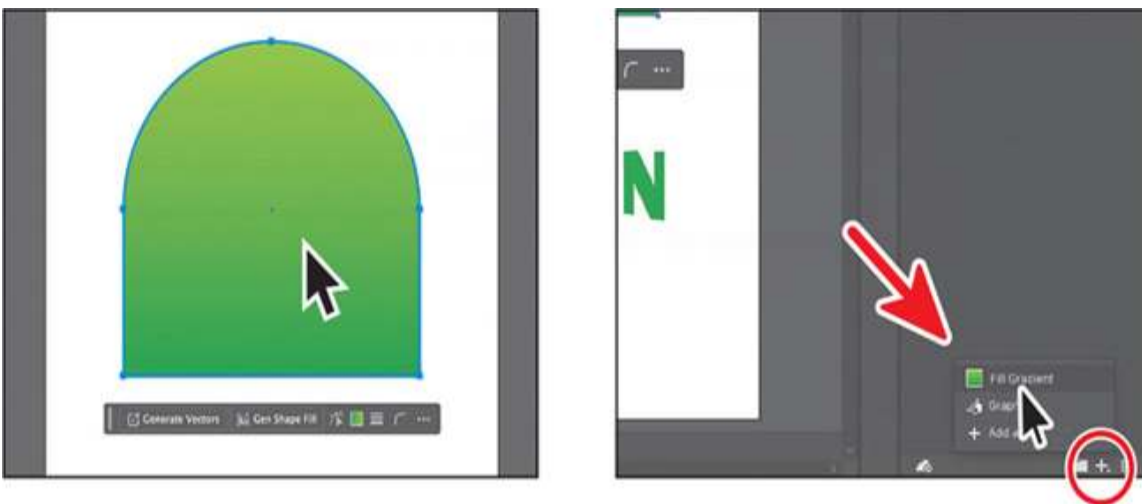
8. To change the name of the saved group, double-click the name Artwork 1 in the Libraries panel and change it to **Text**. Press Return (macOS) or Enter (Windows) to accept the name change.

You can change the names of other assets, like graphics, colors, character styles, and paragraph styles, saved in the Libraries panel as well. For saved character and paragraph styles, you can also move

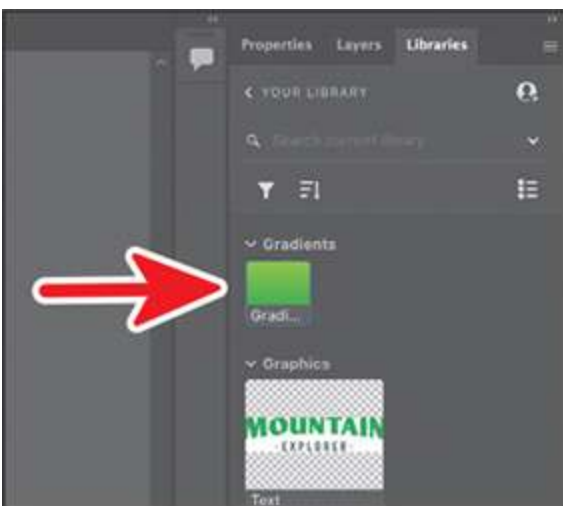
the pointer over the asset and see a tool tip that shows the saved formatting.

Next you'll save the gradient used to fill the shape displayed above the "MOUNTAIN" text.

9. Select the green gradient shape on the artboard, above the "MOUNTAIN" text.
10. Click the plus sign (+) at the bottom of the Libraries panel, and choose Fill Gradient from the menu to save the green gradient color.



You should now see the gradient color saved in the Libraries panel. Next, you'll simply copy the selected green gradient shape, because you will use it to mask or hide parts of the artwork.



11. Choose Edit > Copy.
12. Choose File > Close to close the Sample.ai file and return to the TShirt.ai file. Don't save the file if asked.

Notice that even with a different document open, the Libraries panel still shows those assets in the library. The libraries and their assets are available no matter which document is open in Illustrator.

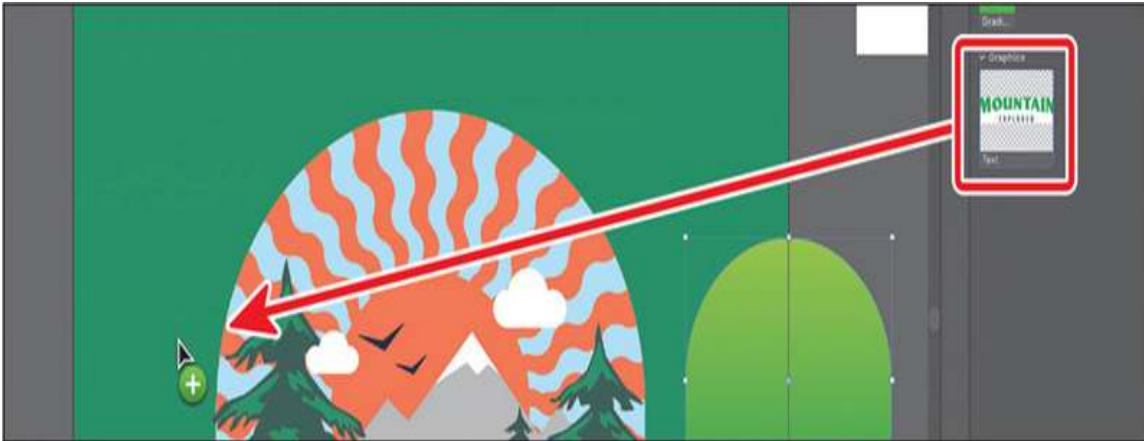
13. Choose Edit > Paste to paste the shape. Drag it to the right of the artwork.



Using library assets

Now that you have some assets in the Libraries panel, once they sync with your Creative Cloud account, they will be available to other applications and apps that support libraries as long as you are signed in with the same Creative Cloud account. Next, you'll add the MOUNTAIN text library asset to the TShirt.ai file.

1. While still on the 1 T-Shirt artboard, choose View > Fit Artboard In Window.
2. Drag the Text asset from the Libraries panel onto the artboard.

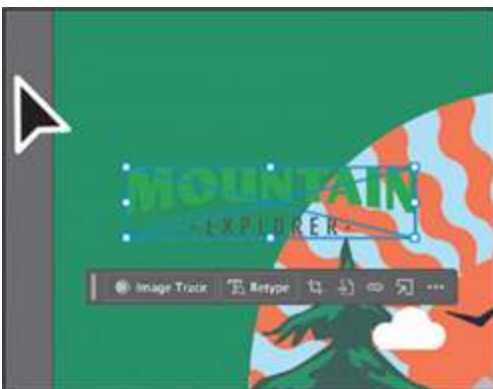


3. Click to place the group.

● Note

To see the blue X, you will need to see the artwork edges (View > Show Edges).

Notice the blue X in the middle of the placed MOUNTAIN EXPLORER group? That means it is linked to the original library item. If you were to edit the item in the Libraries panel, as you'll see in the next exercise, the artwork you dragged out from the panel would update as well.



4. Choose Select > Deselect.

Updating a library asset

When you drag a graphic from your Creative Cloud Library to an Illustrator project, it is placed as a linked asset, by default. You can tell that

an asset you dragged from a library is linked by the X that appears on the object bounding box when it's selected in the document. If you change a library asset, the linked instances will update in your projects. Next, you'll see how to update an asset.



1. In the Libraries panel, double-click the Text asset thumbnail.

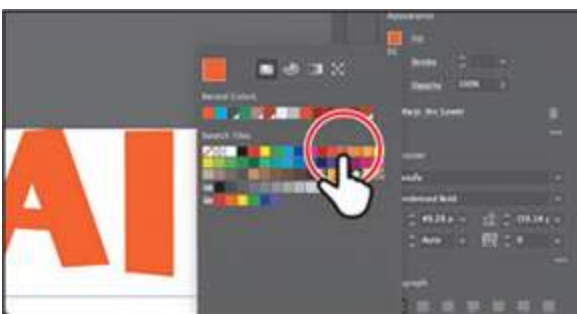
► **Tip**

You can also edit a linked library asset by clicking Edit Original (🔗) at the bottom of the Links panel (Window > Links).

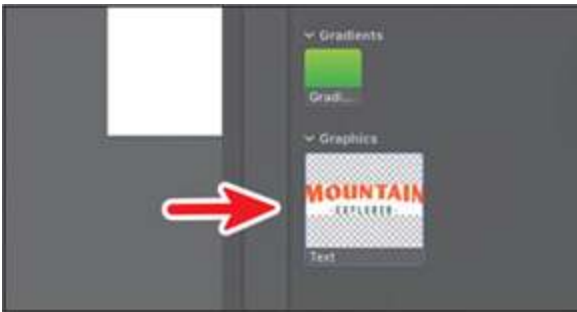
The artwork will open in a new, temporary Illustrator document.

2. Select the Direct Selection tool (⬮), and click to select the green text.

Because the text is part of a group, you need to use the Direct Selection tool.



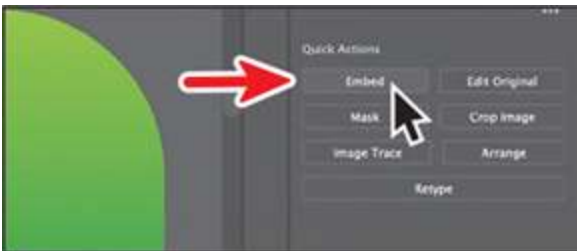
3. In the Properties panel, change the fill to an orange.
4. Choose File > Save, and then choose File > Close.



● Note

If the graphic hasn't updated, with the Text graphic still selected on the artboard, click the text "Linked File" at the top of the Properties panel. In the Links panel that shows, with the Text graphic row selected, click the Update Link button (🔄) at the bottom of the panel.

In the Libraries panel, the graphic thumbnail should reflect the appearance change you made. Back in the TShirt.ai document, the Text graphic on the artboard should also have changed to orange.



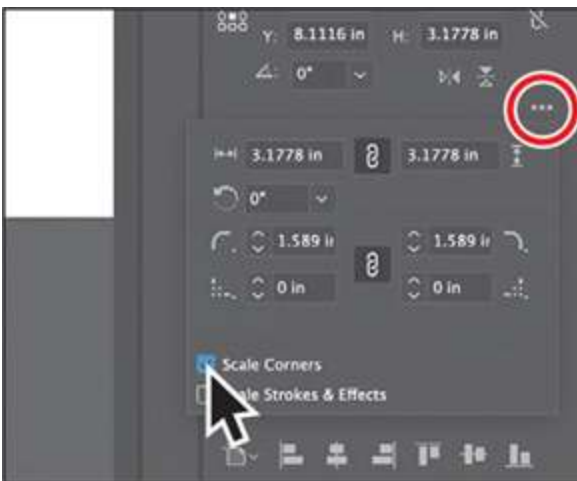
5. With the now orange "MOUNTAIN EXPLORER" text selected on the artboard, embed it by clicking the Properties panel tab to see the panel again. Click the Embed button in the Quick Actions section of the panel.

The asset is no longer linked to the library item and will not update if the library item is updated. That also means the artwork is now editable in the TShirt.ai document. Also notice that the X is gone from the artwork on the artboard.

6. Select the Selection tool (⌘), and drag the green gradient shape you pasted, on top of the artwork. Align its lower-left corner with the lower-left corner of the scene in the middle of the artboard.



7. In the Properties panel, click More Options (⋮) in the Transform section. Select Scale Corners so the radius of the corners of the shape will scale as you make it bigger.



8. Shift-drag the upper-right corner to make it bigger; release the drag then the key when finished. The shape should be covering the artwork underneath it, except for parts of the trees.

The shape will hide what's behind it.



9. Drag across the trees, clouds, bird, and white shape artwork to select them. *Make sure not to select the three little icons lower on the artboard.* If you do select any of them, Shift-click to deselect.
10. If your “MOUNTAIN” text is selected, Shift-click to deselect it.



11. Choose Object > Clipping Mask > Make.

● Note

If the clouds or birds disappear after choosing the Clipping Mask command, that means they were not selected. Choose Edit > Undo Make Clipping Mask and try selecting all of it again.

The artwork that’s outside the shape is now hidden.



12. Choose Select > Deselect.

Creating a mockup

With Mockup, you can create high-quality mockups of vector artwork on raster images of mugs, totes, T-shirts—whatever you can think of. When you apply vector art on a raster image using Mockup, Illustrator respects the object's curves and edges, and the vector art auto-adjusts onto the object nondestructively.

You can edit the mockup further or release the art from the object if you want to rework it. Let's create a mockup by putting the logo on a T-shirt.

- 1.** Drag the masked artwork, “MOUNTAIN EXPLORER” text, and icons like you see in the figure.



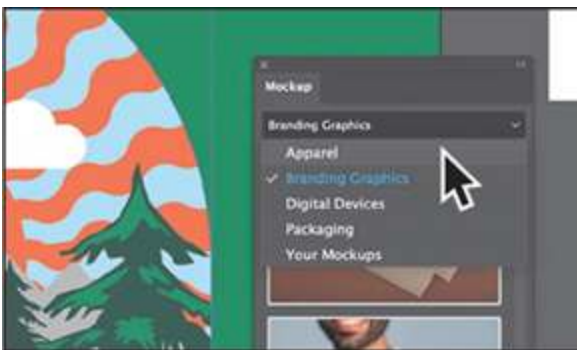
You will need to resize the text by Shift-dragging. With the artwork ready, you will now add it to a raster image to see what it looks like on a photo of someone wearing a T-shirt.

2. Choose Select > All On Active Artboard to select all of the artwork.
3. Choose Window > Mockup.

You can create a mockup with this feature in two main ways: Use your artwork and a placeholder image from Adobe Stock that comes with the panel, or use your artwork and an image you supply. Next, try using one of the supplied placeholder images from Adobe Stock to see how it works.

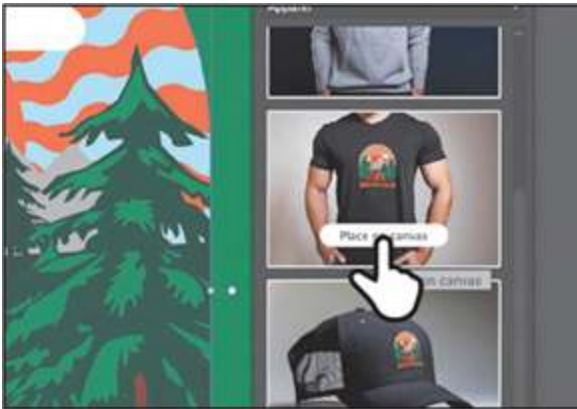


4. With the artwork still selected on the artboard, click the Preview Mockup button in the panel.

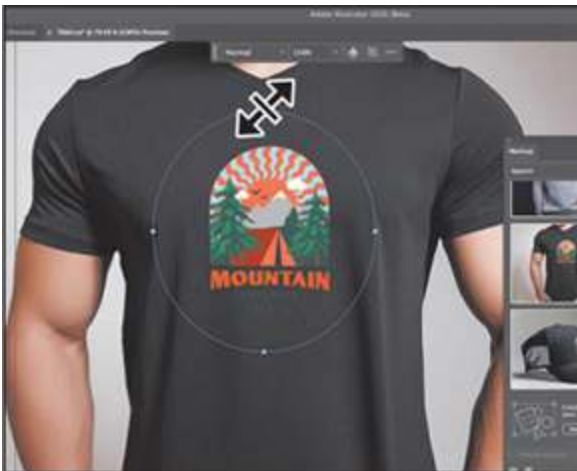


You should now see the MOUNTAIN artwork on the images in the panel. You can select from a range of supplied product images for your mockup.

5. Choose Apparel from the Category menu at the top.



6. To access the mockup, move the cursor over a thumbnail in the Mockup panel. Find the man in the black T-shirt (or something else, if you don't see that one). Click the Place On Canvas button that appears.
7. Drag the MOUNTAIN artwork around, and Shift-drag a handle to resize it proportionally.



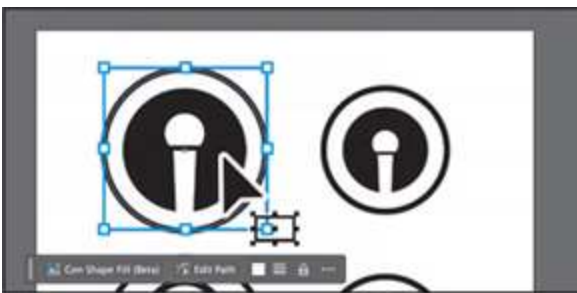
The artwork and the image are now grouped as a mockup. Later, if you want to edit the artwork, you can double-click the image to access the artwork.

8. Close the Mockup panel.

Working with global editing

Sometimes, you create multiple copies of artwork and use it across multiple artboards within a single document. If you need to change an object everywhere it's used, you can use global editing to edit all similar objects. In this section, you'll edit icons in a document you open.

1. Choose File > Open, and open the L14_start2.ai file in the Lessons > Lesson14 folder on your hard disk.
2. Choose View > Fit All In Window.



3. With the Selection tool, click the black circle behind the larger microphone icon.

► Tip

You can also start global editing by choosing Select > Start Global Edit.

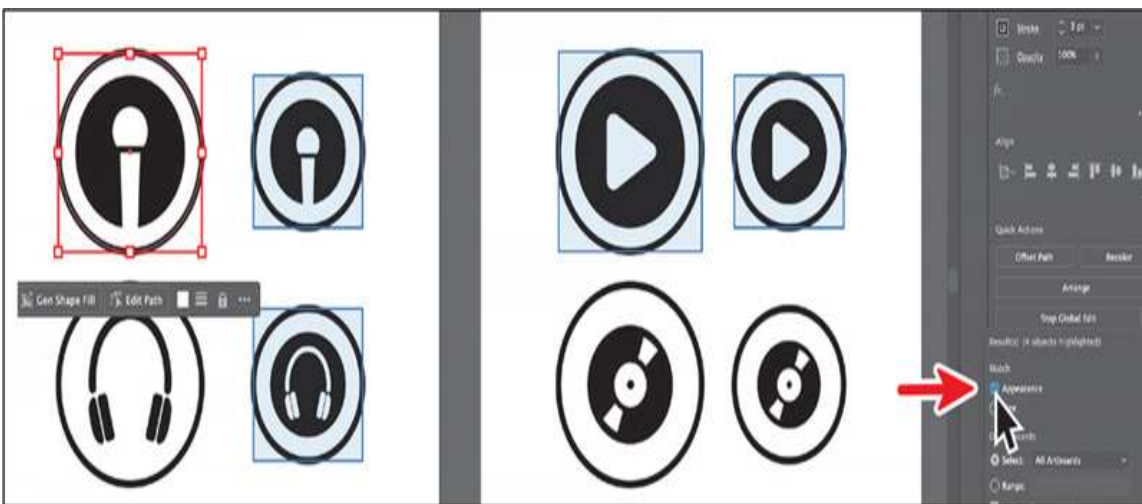
Suppose you need to edit all of the circles behind each icon. In that case, you can select them using several methods, including the Select > Similar commands, assuming they all share similar appearance attributes. You can also use global editing, which selects objects that share attributes, such as stroke, fill, or size, on the same or all artboards.



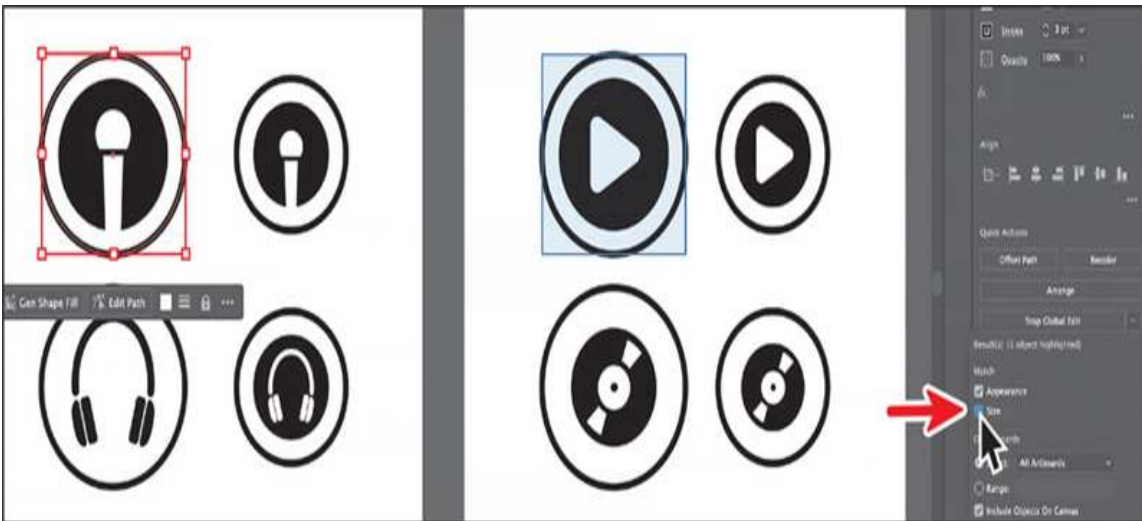
4. Click Start Global Edit in the Quick Actions section of the Properties panel.

All circles (in this case) are now selected, and you can edit them. The object you originally selected has a red highlight, and the similar objects have a blue highlight. You can also use the Global Edit options to further narrow down the objects that will be selected, which is what you'll do next.

5. Click the arrow to the right of the Stop Global Edit button to open a menu. Select Appearance in the Match section to select all of the circles with the same appearance attributes as the selected circle. Leave the menu showing.



6. Choose Match > Size from the Global Edit menu to further refine the search to include objects that have the same shape, appearance properties, and size. There should now be only two circles selected.

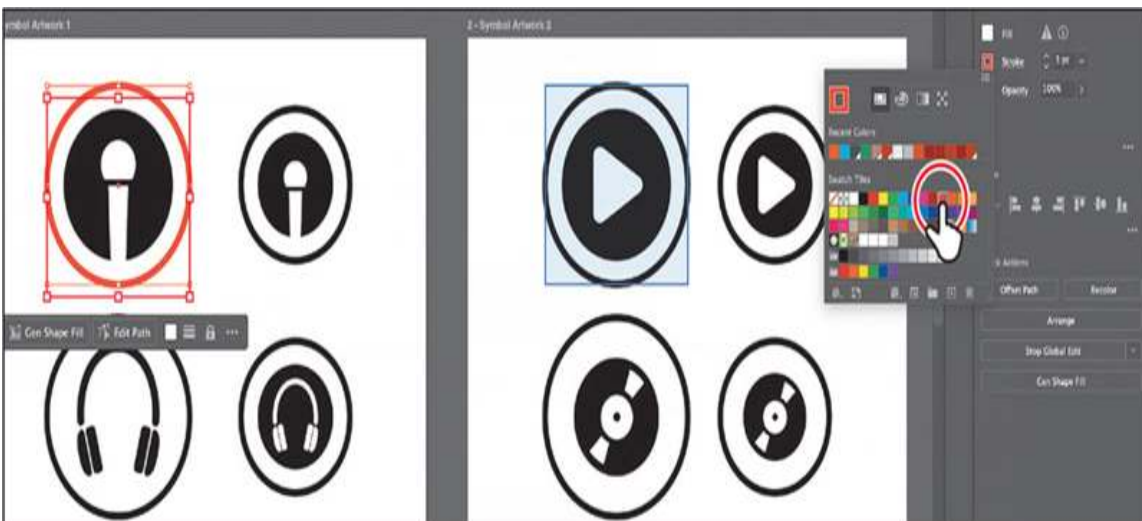


You can further refine your selection by choosing to search for similar objects on certain artboards.

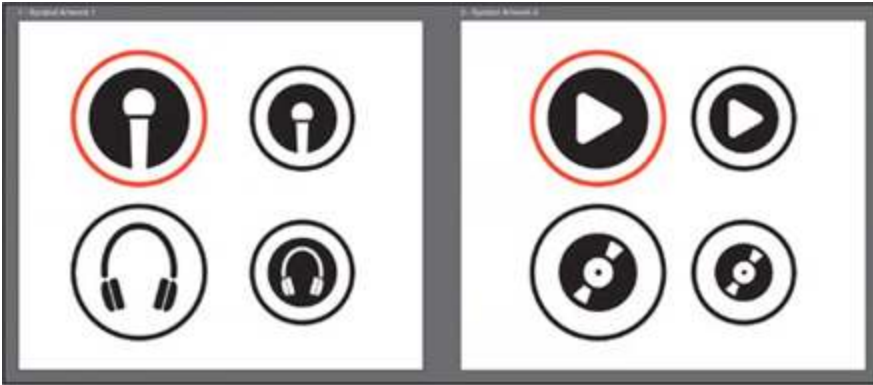
7. Click the Stroke color in the Properties panel, make sure the Swatches option is selected, and apply a color to the stroke.

Note

If you see a warning dialog box, click OK.



8. Click away from the panel to hide it, and both of the selected objects should change appearance.
9. Choose Select > Deselect, and then choose File > Save.



10. Choose File > Close.


Review questions

- 1 What are three benefits of using symbols?
- 2 How do you edit an existing symbol?
- 3 What is a dynamic symbol?
- 4 In Illustrator, what type of content can you save in a library?
- 5 Explain how to embed a linked library graphic asset.

Review answers

- 1 Three benefits of using symbols are:
 - You can edit one symbol to update all instances.
 - Using symbols reduces file size.
 - It is much faster to apply symbol instances.
- 2 To update an existing symbol, double-click the symbol icon in the Symbols panel, double-click an instance of the symbol on the artboard, or select the instance on the artboard, and then




click the Edit Symbol button in the Properties panel. Then you can make edits in Isolation mode.

- 3** When a symbol is saved as dynamic, you can change certain appearance properties of instances using the Direct Selection tool () without editing the original symbol.
- 4** Currently in Illustrator, you can save colors (fill and stroke), gradients, patterns, type objects, graphic assets, and type formatting.
- 5** By default, when a graphic asset is dragged from the Libraries panel into a document, a link is created to the original library asset. To embed a graphic asset, select the asset in the document and click Embed in the Properties panel. Once embedded, the graphic will no longer update if the original library asset is edited.

15 Placing and Working with Images

Lesson overview

In this lesson, you'll learn how to do the following:

- Place linked and embedded graphics in an Illustrator file.
- Transform and crop images.
- Place multiple images.
- Place Creative Cloud files. 
- Create and edit clipping masks.
- Mask with text. 
- Make and edit an opacity mask.
- Work with the Links panel.
- Embed and unembed images.
- Replace images. 



This lesson will take about 45 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.



Aside from creating vector art, you can also easily add images like JPEGs or PSDs (Photoshop documents) to an Adobe Illustrator file. Incorporating raster images into your vector artwork opens up a lot more creative potential!

Starting the lesson

Before you begin, you'll need to restore the default preferences for Adobe Illustrator. Then you'll open the finished art file for this lesson to see what you'll create.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.



3. Choose File > Open, and open the L15_end.ai file in the Lessons > Lesson15 folder that you copied on your computer.

- **Note**

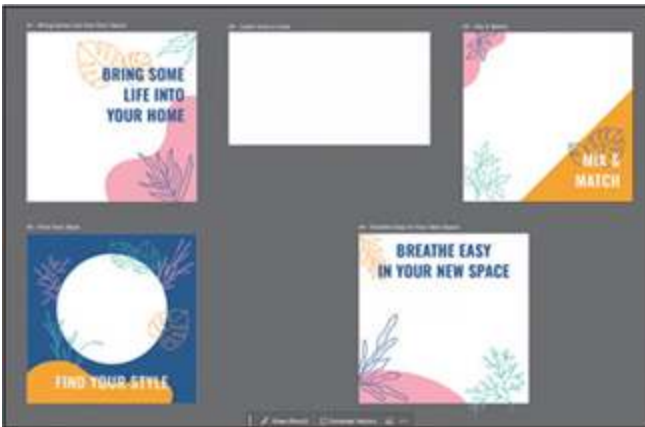
If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.

This file contains social media images for a fictitious nursery company.

- **Note**

The fonts in the L15_end.ai file have been converted to outlines, and the images are embedded.

4. Choose View > Fit All In Window and leave it open for reference, or choose File > Close.



5. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson15 folder, and select the L15_start.ai file. Click Open to open the file.

This is an unfinished version of the social media ads for a nursery company. You will add and edit graphics in this lesson.



6. The Missing Fonts dialog box *may* appear. Click Add Fonts to add all the missing fonts.

● **Note**

You need an internet connection to activate fonts. The process may take a few minutes.

7. After they are added and you see the message stating that there are no more missing fonts in the same dialog box, click Close. If you see another dialog box asking about font auto-activation, click Skip.
8. Choose File > Save As. If the Cloud Document dialog box opens, click Save On Your Computer.
9. In the Save As dialog box, navigate to the Lesson15 folder and open it. Name the file **Nursery_social_posts.ai**. Leave Adobe Illustrator (.ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and then click Save.
10. In the Illustrator Options dialog box, leave the Illustrator options at their default settings. Click OK.
11. Choose Window > Workspace > Reset Getting Started to reset the Getting Started workspace.

Placing image files



You can combine Illustrator artwork with images from other graphics applications in many ways to achieve a wide range of creative results. This lesson walks you through finishing social media designs for a nursery by combining bitmap images with vector art.

You can import raster images—JPEG, PNG, PSD, and more—into Illustrator using the Open, Place, or Paste commands, via dragging, or through the Libraries panel. When you import Photoshop (PSD) files, Illustrator preserves most Photoshop data, including layer comps, layers, editable text, and paths. As a result, you can move files between Photoshop and Illustrator while keeping the artwork editable.

Placing an image

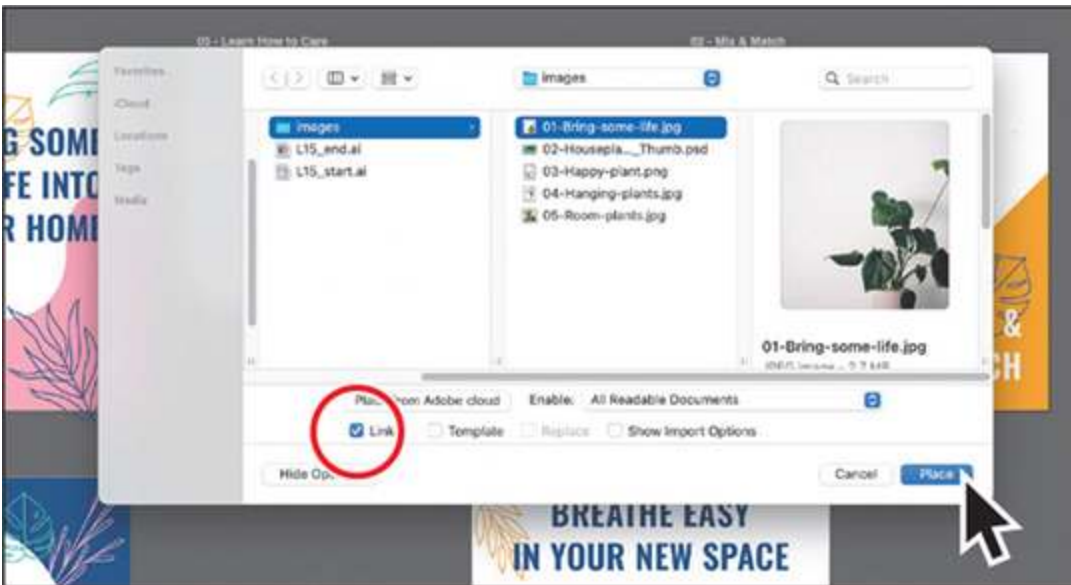
First, you'll place a JPEG (.jpg) image in your document.

1. Choose View > Fit All In Window.
2. If anything is selected, choose Select > Deselect.
3. Choose File > Place.
4. Navigate to the Lessons > Lesson15 > images folder, and select the 01-Bring-some-life.jpg file. Make sure that the Link option is selected in

the Place dialog box.

● **Note**

On macOS, you may need to click the Show Options button in the Place dialog box to reveal the Link option.



► **Tip**

Images you paste into Illustrator are automatically embedded.

When you place a file (File > Place), you can embed it or link it, regardless of format (JPEG, GIF, HEIC, PSD, AI, and so on). *Embedding* stores a copy of the image inside the Illustrator document, which typically increases the document's file size. *Linking* creates a reference to an external file, so the Illustrator document does not grow significantly.

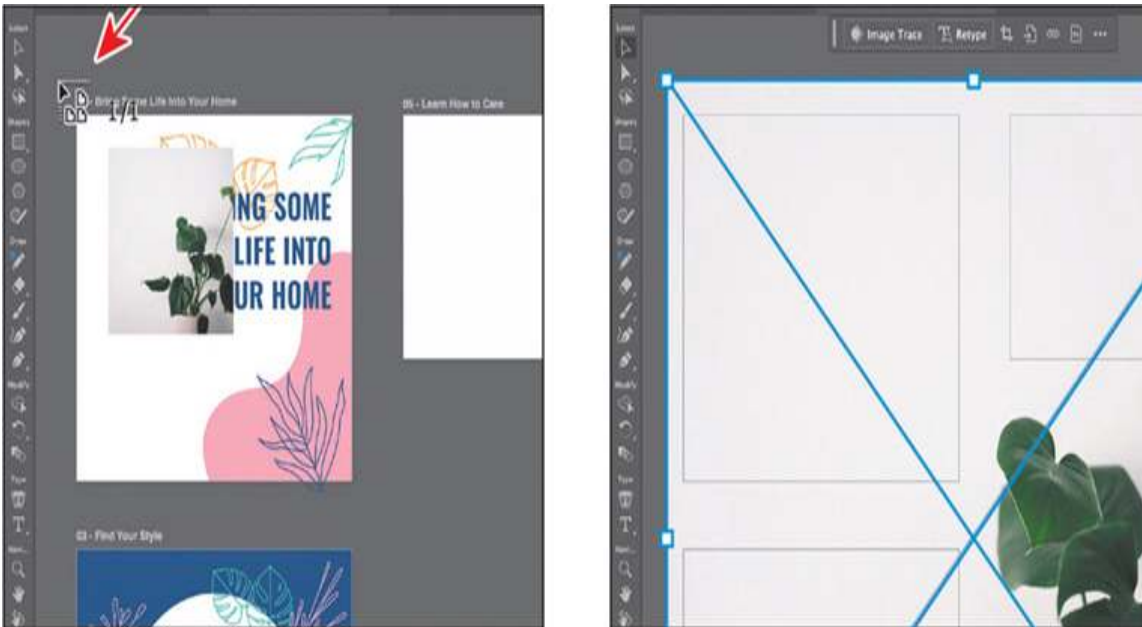
Why would you link images? Link images if you want smaller files, faster performance, and the ability to update images externally and for that update to be reflected in Illustrator. The linked file must always accompany the Illustrator document; otherwise, the link will break and the artwork will appear missing.

5. Click Place.

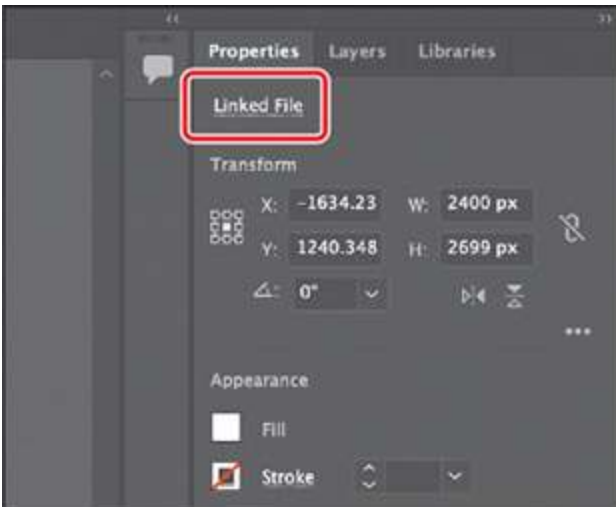
The pointer should now show the loaded graphics pointer. You can see “1/1” next to the pointer, indicating how many images are being placed (1 of 1), and a thumbnail so you can see what image you are placing.

6. Find the artboard with the text “BRING SOME LIFE INTO YOUR HOME.”

7. Click to place the image to the left of that artboard. See the following figure. Leave the image selected.



The image is 100% of its original size, with the upper-left corner placed where you clicked. The crossed blue lines on the image mean that the image is linked (if you don't see them, make sure the edges are on—View > Show Edges).



Look in the Properties panel (Window > Properties). With the image selected, you see the words “Linked File” at the top, indicating that the image is linked to its source file.

By default, a placed image is linked to the source file, so if the source file is edited in a program like Photoshop, the placed image in Illustrator is also updated.

Transforming a placed image

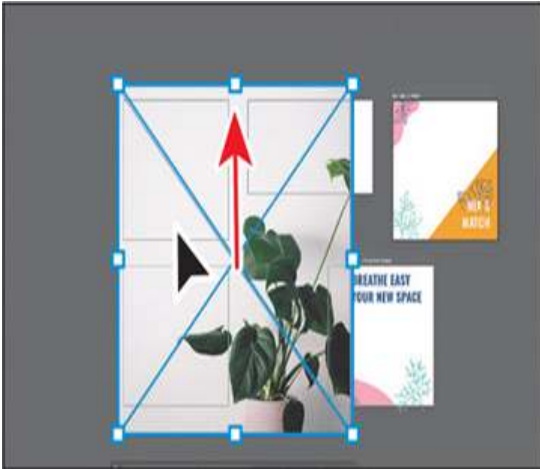
You can transform placed raster images just like any other object in Illustrator. Just keep resolution in mind—unlike vector art, raster images can look pixelated (bad) when printed or onscreen if the resolution is too low. For a quick refresher, see “[Welcome to Adobe Illustrator!](#)” at the start of [Lesson 1](#), “[Getting to Know the Work Area](#).”

The image you’re using is pretty big in scale, so in this section you’ll resize it and move it into place.

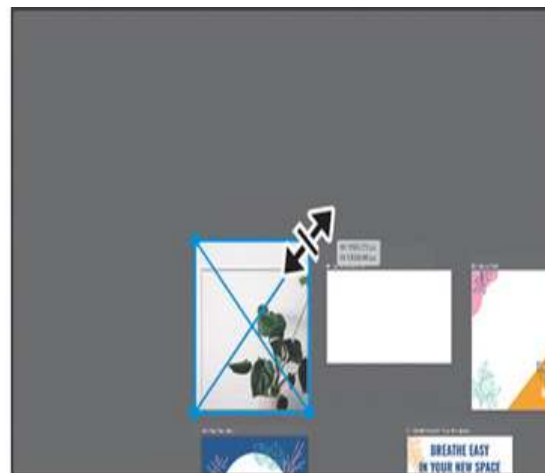
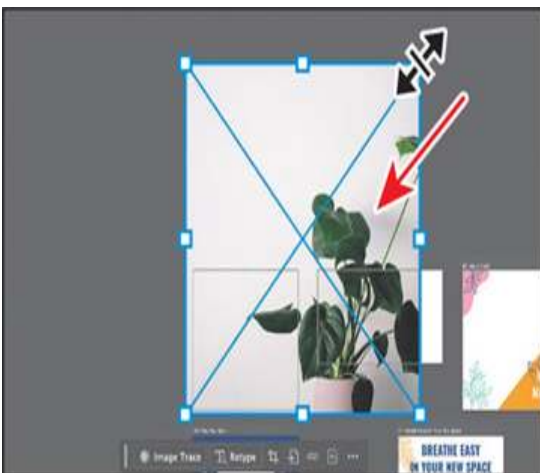
1. With the image selected, choose View > Zoom Out three times or so.

Since the image is selected, it is centered in the Document window when you zoom out, giving you better access to the bounding box handles.

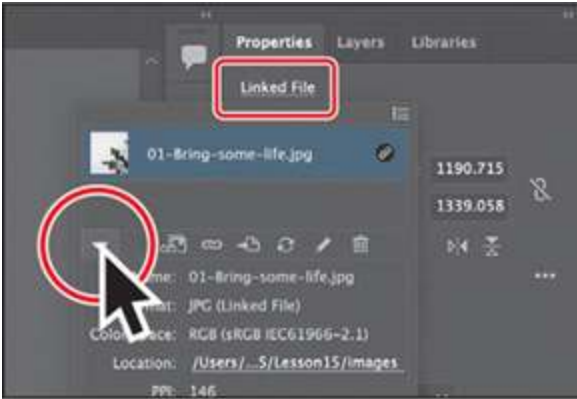
2. With the Selection tool (⌘), drag the image so its lower-left corner is loosely in the lower-left corner of the artboard. Make sure the image covers the artboard. See the figure for how I placed it.



3. Shift-drag the upper-right bounding point of the image toward its center until it is just wider than the artboard. Release the drag and then the key.




4. With the image still selected, at the top of the Properties panel click Linked File to show the Links panel. See the following figure.

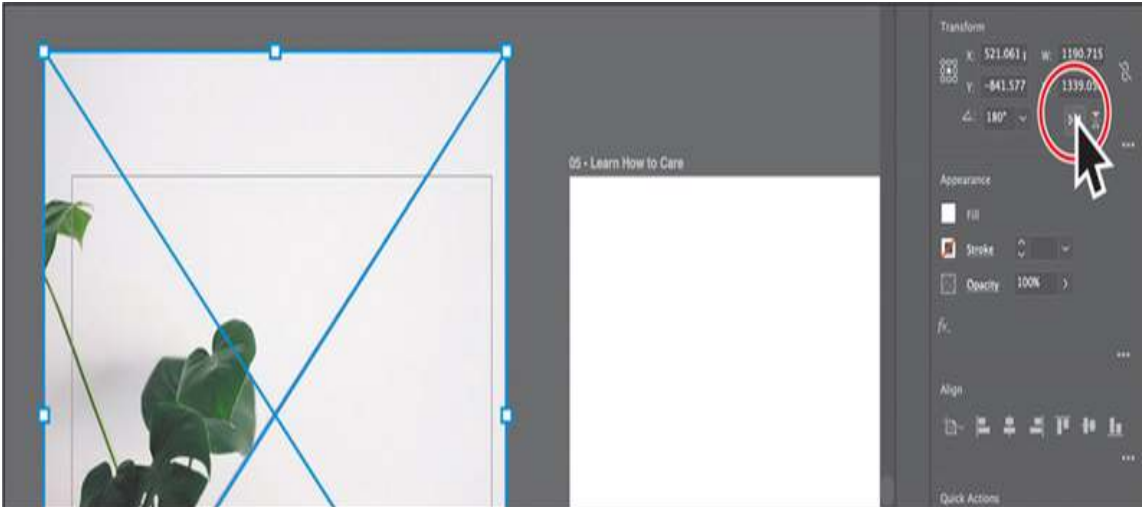


5. With the 01-Bring-some-life.jpg file selected in the Links panel, click the Show Link Info arrow in the lower-left corner of the panel to see information about the image.

You can see the scale percentage as well as rotation information, size, and much more. Specifically, notice that the PPI (*pixels per inch*) value is approximately 150.

The PPI setting refers to the current resolution of the image in Illustrator—how many color pixels fit horizontally (or vertically) in an inch. If you scale a placed raster image, like you just did, the resolution of the image in Illustrator will change. The resolution of the image outside of Illustrator is 72 ppi. Since you made the image smaller, the resolution in Illustrator is now higher (around 150 ppi). Illustrator makes the pixels smaller if you make the image smaller or bigger if you make the image bigger—so more or fewer pixels fit in an inch (ppi).

6. Press the Escape key to hide the panel.
7. Choose View > Zoom In a few times. (I zoomed three times.)
8. Click the Flip Horizontally button () in the Properties panel to flip the image horizontally, across the center.



Cropping an image

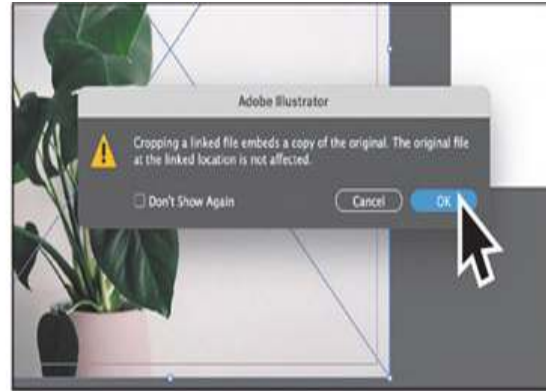
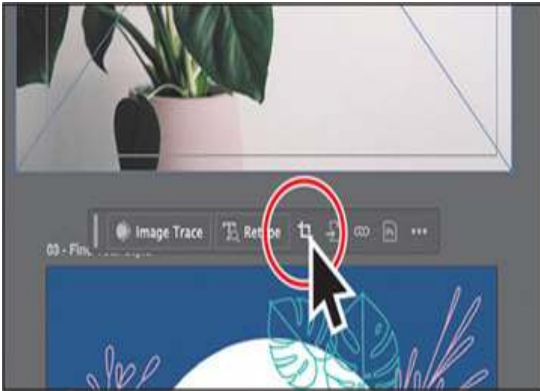
► Tip

You can turn off the Content Aware feature by choosing **Illustrator > Settings > General (macOS)** or **Edit > Preferences > General (Windows)** and deselecting **Enable Content Aware Defaults**.

In Illustrator, you can mask part of an image to hide it temporarily, or crop it to remove pixels permanently. When you crop an image using 64-bit Windows or macOS, you can use Content-Aware cropping, in which Illustrator automatically identifies the visually significant portions of the selected image and uses that as the starting point for the crop.

Next, you'll crop part of the image so it fits better on the artboard.

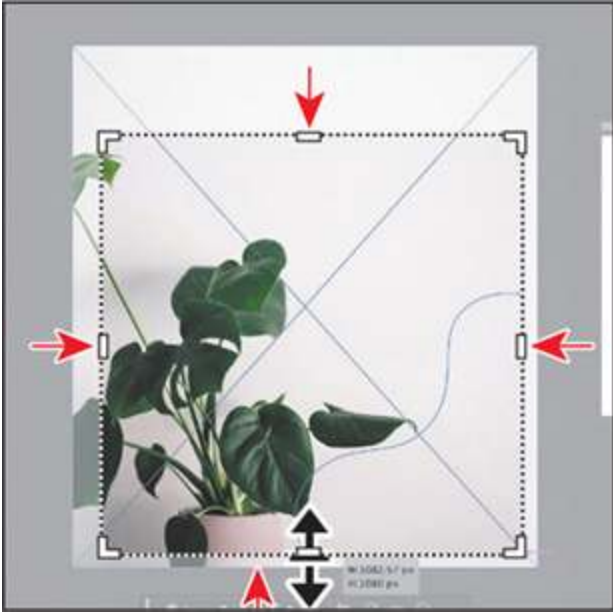
1. With the image selected, click the Crop Image button (📏) in the Contextual Task Bar or in the Properties panel.
2. Click OK in the warning dialog box that appears.



► Tip

To crop a selected image, you can also choose **Object > Crop Image** or right-click the image and choose **Crop Image** from the context menu.

Linked images, like this plant image, become embedded after you crop them—that's what that dialog box told you. Illustrator shows a default cropping box with handles on the image that you can adjust if needed. The rest of the artwork is dimmed, and you cannot select it until you are finished cropping. The crop you see initially is what Illustrator thinks are the visually significant portions.



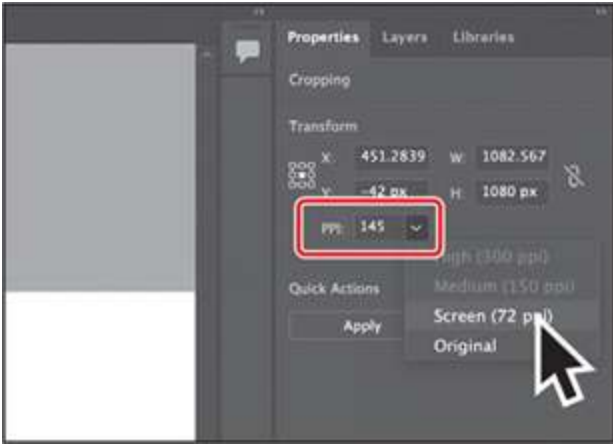
3. Drag the crop handles so the crop boundary stops at the edges of the artboard.

When you drag a handle close to an artboard edge, you will feel it lightly snap or pull to it.

► **Tip**

You can also define a size (width and height) to crop to in the Properties panel.

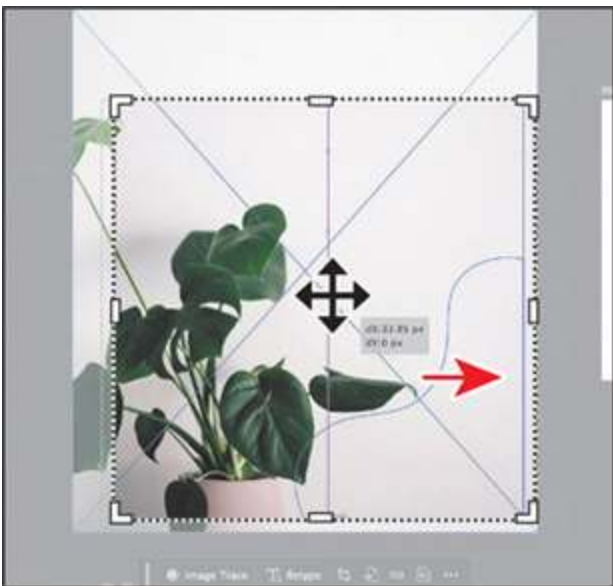
While cropping an image, you can also lower the resolution, which would reduce file size and improve performance, which is what you'll do next.



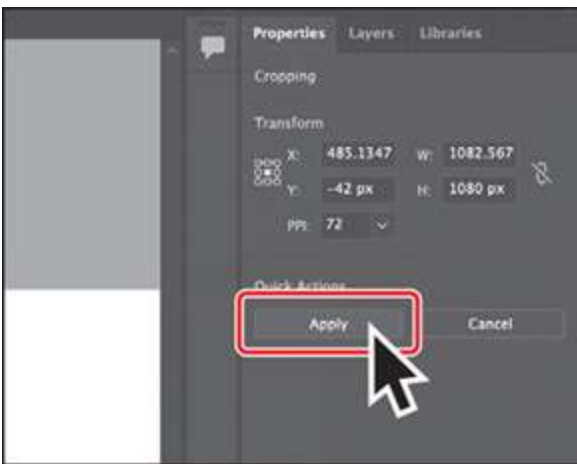
4. Click the PPI (resolution) menu in the Properties panel and choose Screen (72 ppi).

As mentioned, the ppi is the resolution of the image. Any options in the PPI menu that are higher than the original resolution of the image are disabled (dimmed). You cannot *raise* the resolution with the PPI menu. You lowered the resolution because this is a social media graphic and those types of graphics are typically web resolution (72 ppi).

Choosing a lower resolution than the original can be useful if you want to save file size but may result in an image that is not suitable for printing.



5. Move the pointer over the center of the image, and drag the crop area to the right to cut off more of the plants on the left.



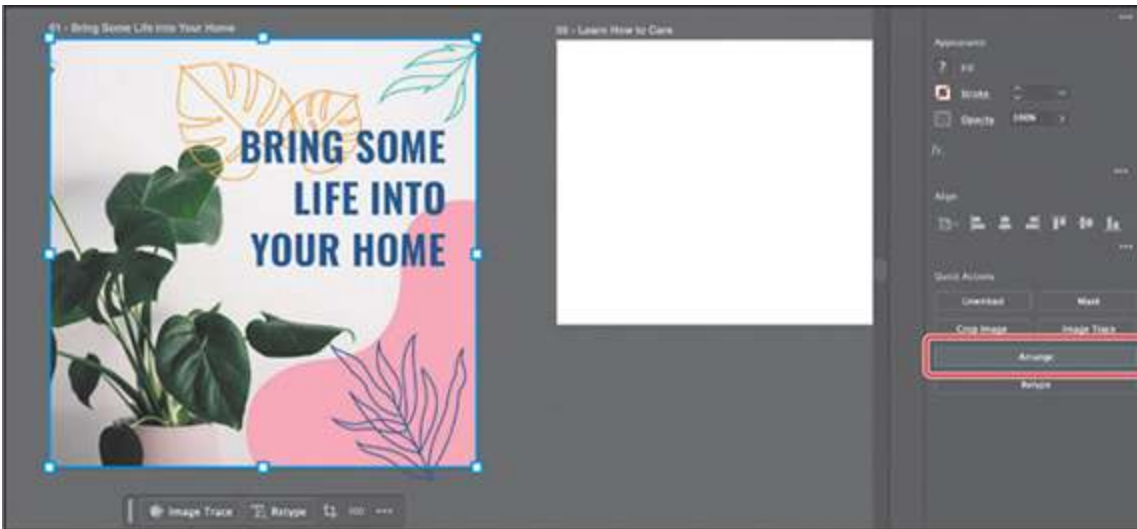
6. Click Apply in the Properties panel or press Return or Enter to *permanently* crop the image.

► **Tip**

You can press Return (macOS) or Enter (Windows) to apply the cropping or press the Escape key to cancel the cropping process.

Because the image is embedded when cropping, the crop does not affect the original image file you placed.

7. Drag the image into the center of the artboard, as in the following figure.
8. To send the image behind the other content on the artboard, click the Arrange button in the Properties panel and choose Send To Back.

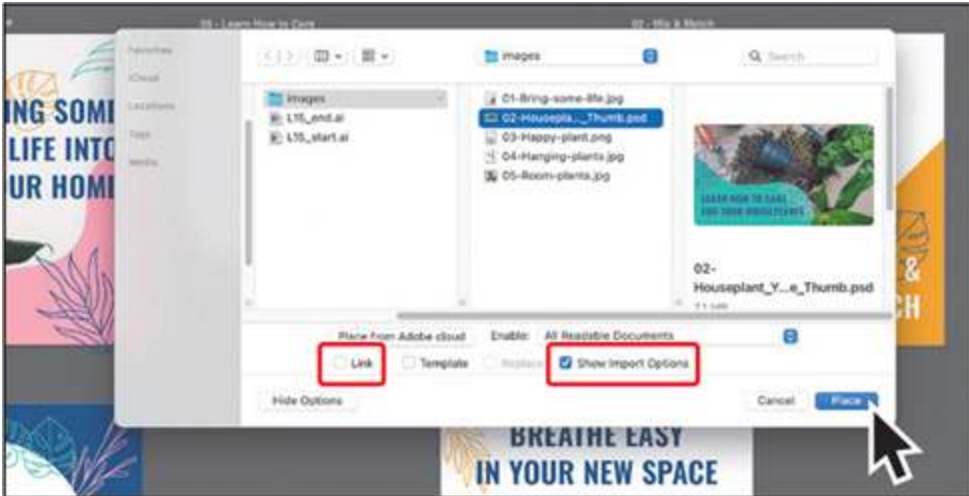


9. Choose Select > Deselect, and then choose File > Save.

Placing a Photoshop document

You can place Photoshop files as either a local document (PSD) or a cloud document (PSDC) with multiple layers in Illustrator. If you place a Photoshop file, you can choose to flatten the images layers or even to preserve the original Photoshop layers in the file. Next, you'll place a Photoshop file, set import options, and embed it in the Illustrator file.

1. Choose View > Fit All In Window.
2. Choose File > Place.
3. In the Place dialog box, navigate to the Lessons > Lesson15 > images folder, and select the 02-Houseplant_Youtube_Thumb.psd file.
4. In the Place dialog box, set the following options (on macOS, if you don't see the options, click the Show Options button):
 - Link: **Deselected** (Deselecting the Link option embeds an image file in the Illustrator file. Embedding a Photoshop file allows for more options when it is placed, as you'll see.)
 - Show Import Options: **Selected** (Selecting this option will open an Import Options dialog box where you can set import parameters before placing.)
5. Click Place.



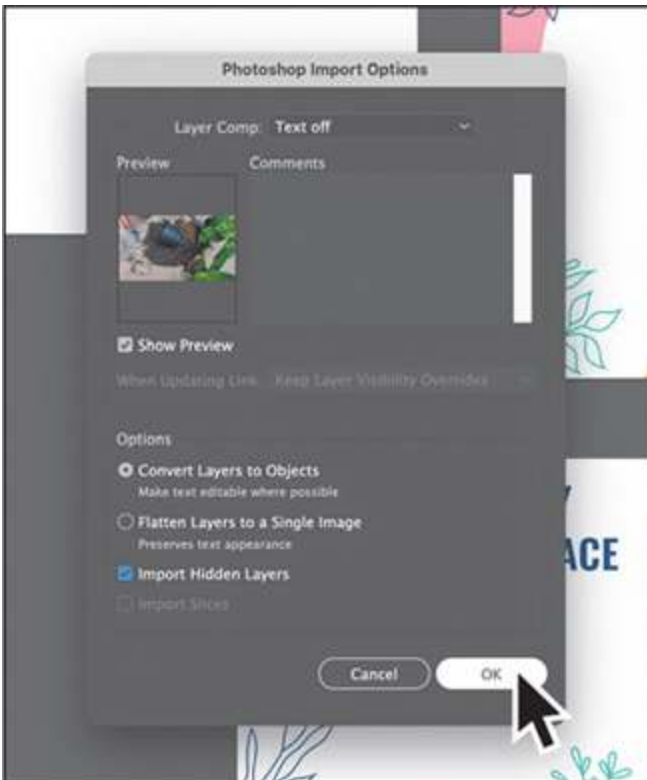
● **Note**

The Import Options dialog box will not appear if the image contains only a locked Background layer, even though you select Show Import Options in the Place dialog box.

The Photoshop Import Options dialog box appears because you selected Show Import Options in the Place dialog box and because the file has multiple layers.

● **Note**

When placing a Photoshop file in particular, if you had left the Link option selected (to link to the original PSD file), the only option in the Options section of the Photoshop Import Options dialog box would have been to flatten the content.



6. In the Photoshop Import Options dialog box, set the following options:

- Show Preview: **Selected**

► **Tip**

To learn more about layer comps, check out *Adobe Photoshop Classroom in a Book!*

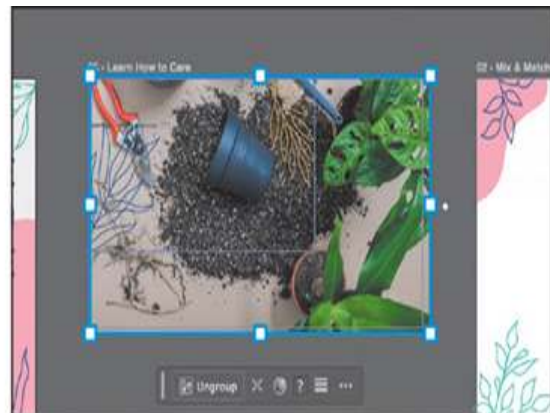
● **Note**

You may not see a preview in the dialog box, even after turning it on, and that's okay.

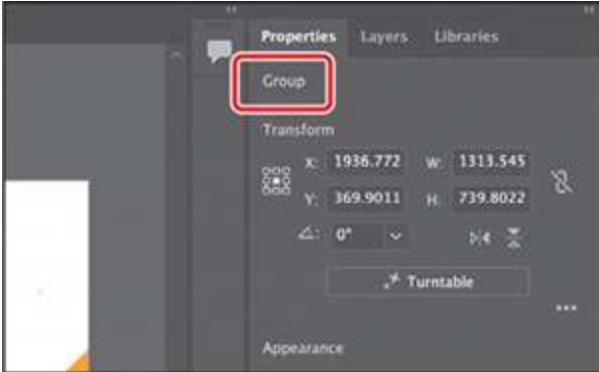
- Layer Comp: **Text off** (In Photoshop, I hid the text and saved a layer comp that I named Text off. A layer comp is a snapshot of a state of the Layers panel that you create in Photoshop. In Photoshop, you can create, manage, and view multiple versions of a layout in a single Photoshop file. Any comments associated with the layer comp in Photoshop will appear in the Comments area.)
- Convert Layers To Objects: **Selected** (This option and the next one are available only because you deselected the Link option and chose to embed the Photoshop image.)
- Import Hidden Layers: **Selected** (to import layers hidden in Photoshop).

7. Click OK.

8. Move the loaded graphics pointer into the upper-left corner of the blank artboard. Drag down to just past the lower-right corner of the artboard to place and size the image. Make sure it covers the artboard.



Dragging to place an image allows you to size it as you place it. Also, rather than flatten the file, you converted the Photoshop layers into Illustrator layers and sublayers.



Notice that, with the image still selected on the page, the Properties panel shows the word “Group” at the top. The Photoshop layers, now Illustrator layers, are grouped when preserved and placed.

9. Open the Layers panel (Window > Layers). Drag the left edge of the Layers panel to the left to make it wider so you can read the names.



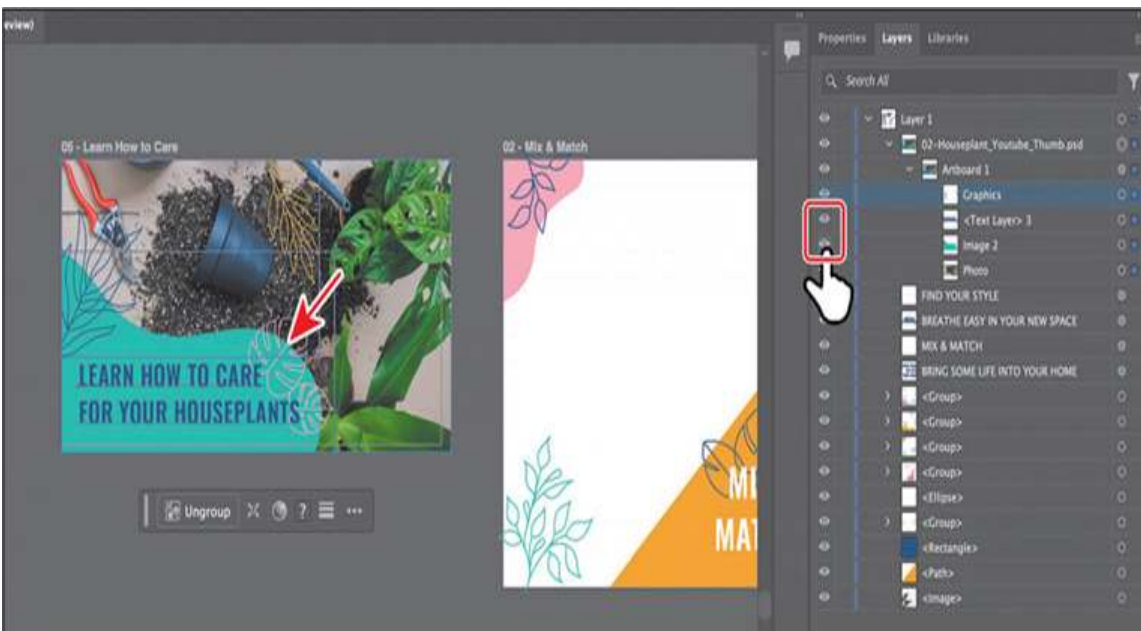
10. To reveal the image content in the Layers panel, click the Locate Object button (🔍) at the bottom of the panel.

Notice the sublayers of 02-Houseplant_Youtube_Thumb.psd. These sublayers were the layers in Photoshop.

When you place a Photoshop file with layers and you choose to convert the layers to objects in the Photoshop Import Options dialog box, Illustrator treats the layers as separate sublayers in a group. The Photoshop image had some text in it, but we chose to place the layer comp in which the text was hidden.

Now let's show the text that came with the Photoshop file along with one of the images.

11. In the Layers panel, click the Visibility column to the left of the <Text Layer> 3 sublayer *and* the Image 2 sublayer to show them both.

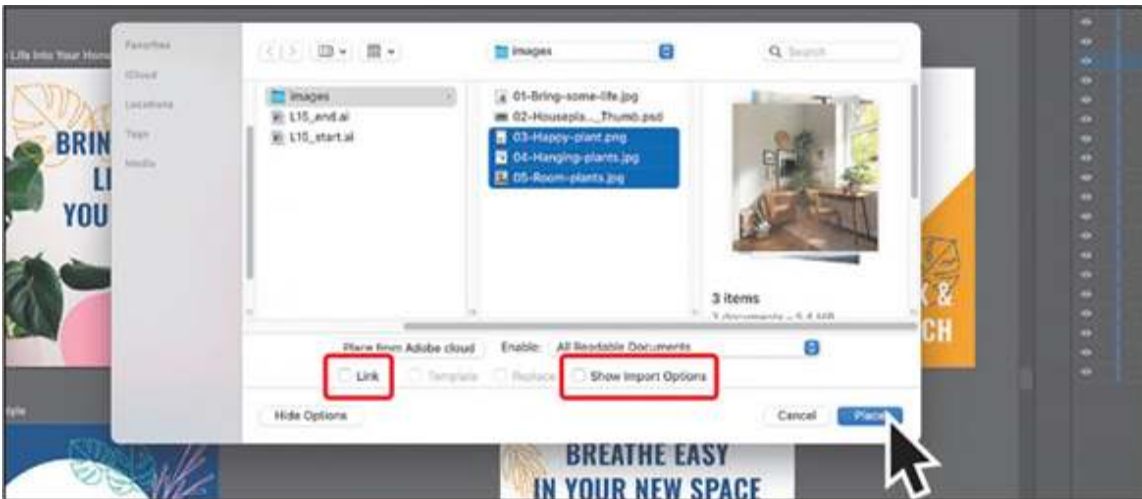


12. Choose Select > Deselect, and then choose File > Save.

Placing multiple images

In Illustrator you can also place multiple image files at one time. Next, you'll place several images at once to work faster and position them for different social media graphics.

1. Choose View > Fit All In Window so you can see everything now that the Layers panel is so wide.
2. Choose File > Place.
3. In the Place dialog box, in the Lessons > Lesson15 > images folder, select the 03-Happy-plant.png file.
4. Shift-click the image named 05-Room-plants.jpg to select *three* image files.
5. Deselect Show Import Options, and make sure that the Link option is *not* selected to embed the images.



6. Click Place.

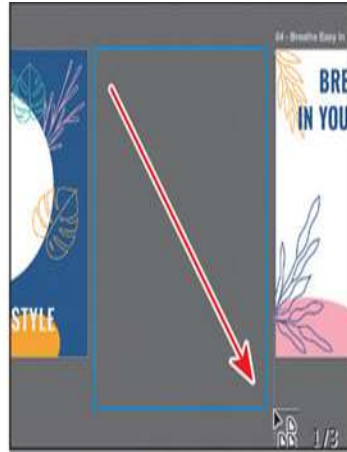
7. Move the loaded graphics pointer to the right of the artboard with the “FIND YOUR STYLE” text. Press the Right or Left Arrow key (or Up or Down Arrow key) a few times to see that you can cycle between the image thumbnails. Make sure that you see the smiling plant image thumbnail.

Tip

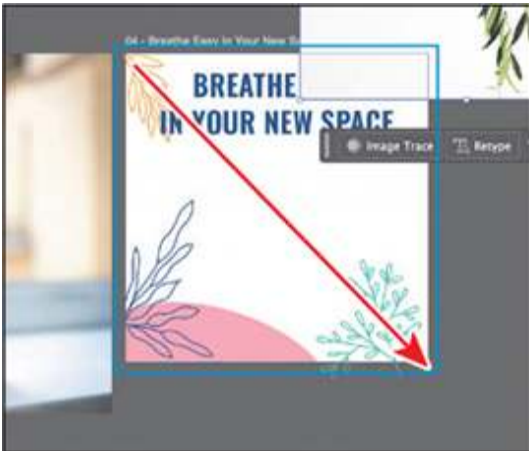
To discard an asset you see in the loaded graphics cursor (not place it), use the arrow keys until you see the asset in the cursor, and then press the Escape key.

Whichever thumbnail is showing in the loaded graphics cursor when you click or drag in the Document window is the image that is placed.

8. Drag to place the image to fill the gap between the artboards, as you see in the following figure.



9. Move the loaded graphics pointer just off the upper-left corner of the artboard with the “MIX & MATCH” text. Make sure the hanging plants image is showing in the loaded graphics cursor (you can see which one, to the left). Drag just past the lower-right corner of the artboard to place and scale the image.
10. Move the loaded graphics cursor just off the artboard with the “BREATHE EASY...” text. Drag to the lower-right corner of the artboard to place and scale the image.



11. Choose File > Save.

Placing Creative Cloud files

To learn how to place Adobe Photoshop cloud files, check out the video *Placing Creative Cloud files*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

Masking content

● Note

You will hear people use the phrases *clipping mask*, *clipping path*, and *mask*. Usually they mean the same thing.

Earlier in this lesson, you cropped an image and *permanently* removed parts of that image. You can also temporarily hide parts of any content, including an image, using a mask (also called a *clipping mask*), which you learned about in [Lesson 10](#).



An image with a white circle on top



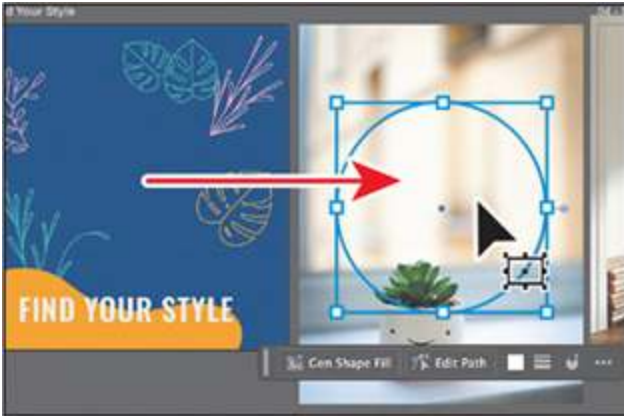
The image, with part of it now masked (hidden) by the circle

In the first part of the figure to the right is an image with a white circle on top. The white circle was applied as a mask in the second part of the figure to “mask” or hide part of the image.

Only vector objects can be a mask—from simple shapes to compound paths; however, any artwork can be masked.

Masking content with a shape

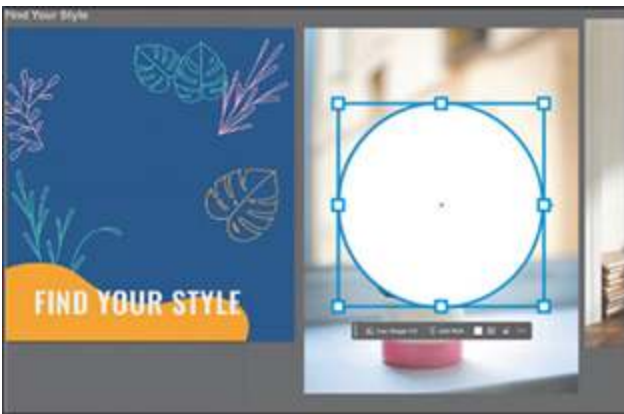
You can mask any content (vector, raster image, both) with a shape that you create. In this section, you’ll use a circle to mask the smiling plant image to give the image a more interesting appearance.



1. Select the white circle on the artboard with the “FIND YOUR STYLE” text. Drag it to the smiling plant image to its right.

The circle will be behind the image because the image was added after the circle.

2. To zoom in to the circle, press Command and + (macOS) or Ctrl and + (Windows) a few times.



3. To arrange the circle on top of the image, click the Arrange button in the Properties panel and choose Bring To Front.

● **Note**

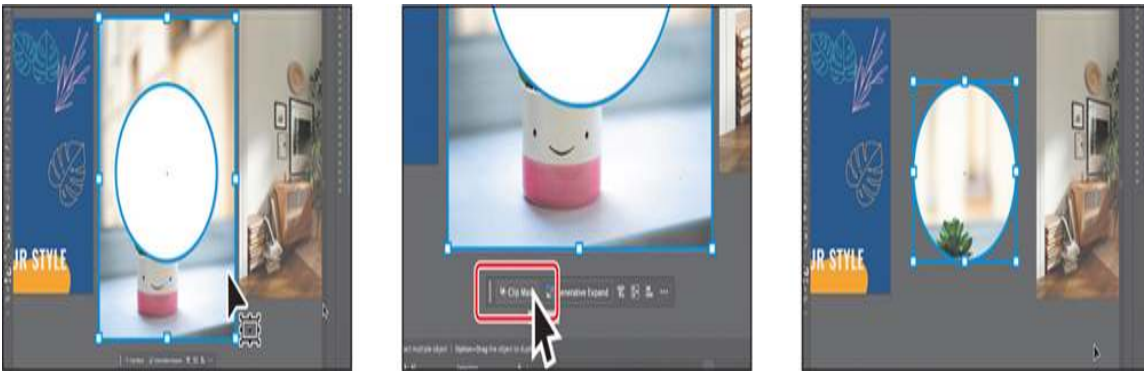
If you accidentally selected the image, you can arrange the image behind the circle instead!

4. Make sure the circle is not bigger than the image. If need be, make the circle smaller.

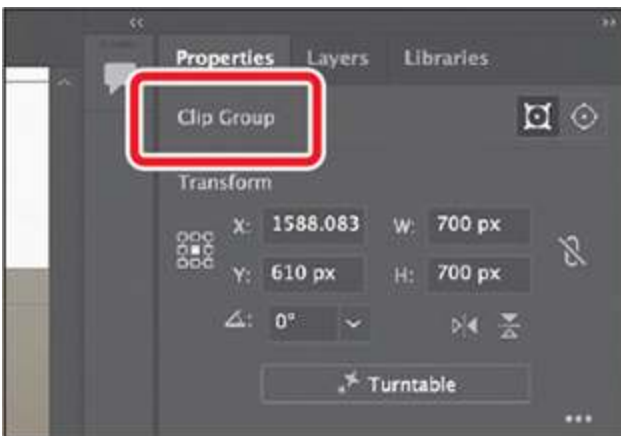
► Tip

It doesn't matter what color the shape is that you use to make the mask. The stroke and fill are removed when it becomes a mask.

4. Shift-click the smiling plant image beneath the circle to select it as well.
5. To mask the image with the circle, click the Clip Mask button in the Contextual Task Bar.

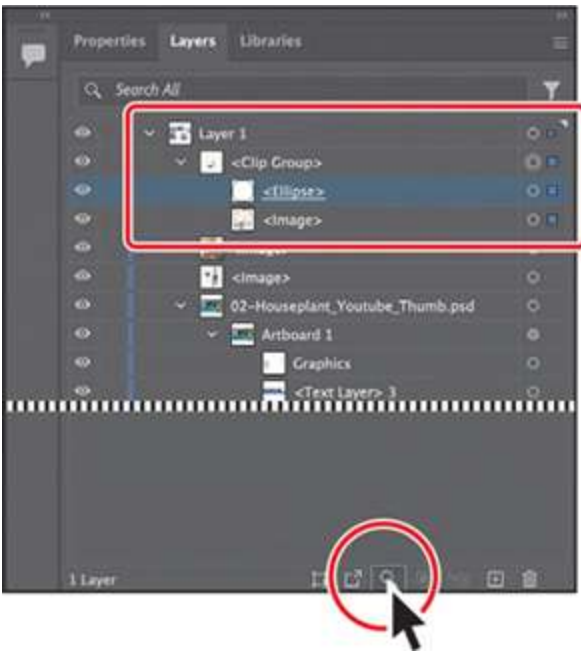


Exploring the mask you made



That mask (circle) and the image are now treated like a special group, called a *clip group*. If you open the Properties panel, you'll see "Clip Group." As with a regular group, you can edit what's in the group by double-clicking it and editing in Isolation mode.

1. Open the Layers panel (Window > Layers).



2. Click the Locate Object button (🔍) at the bottom of the panel.

Do you see the <Clip Group> sublayer? Within it, you'll find two things:

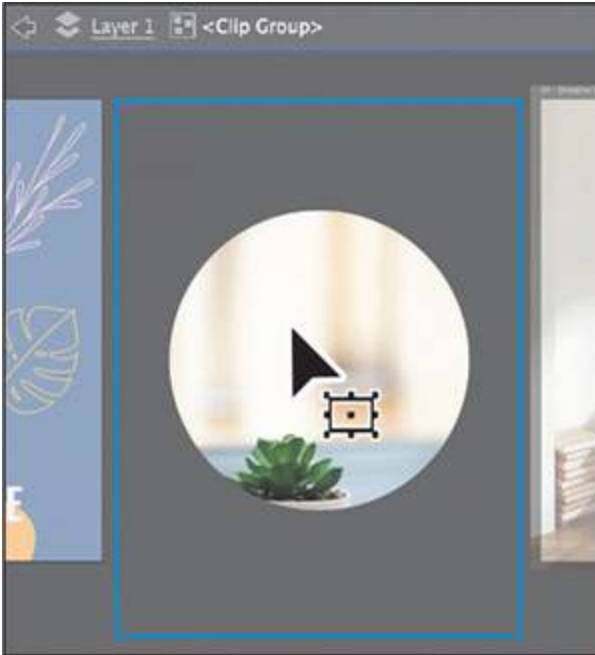
- <Ellipse>
- <Image>

The <Ellipse> is the circular mask shape; the <Image> is the smiling plant image.

Notice the underline applied to <Ellipse>? That underline means it's a mask.

Editing the mask and image

The smiling plant image is probably not centered in the circular mask. Next, you'll edit the image and the mask separately by double-clicking the mask group.



1. To move and resize the image, double-click the smiling plant image to enter Isolation mode.

You will now see the edge of the blue bounding box for the image, and if you move the pointer over the edge of the circle, you will see that thin blue circle as well.



2. Move the pointer over the image, and when you see its blue edges, click to select it, and then drag it until the smiling plant is more centered. Make sure the entire mask shape is filled with the image.

The plant image needs to be bigger. So that you'll have room to scale the image by dragging, you'll zoom out.

3. Zoom out by pressing Command and – (macOS) or Ctrl and – (Windows) twice.
4. Shift-drag the top, middle bounding point to make the image bigger so the smiling plant fills more of the circle. Release the drag and then the key.



If the plant isn't centered at this point, you can drag it so it is.

5. Press the Escape key to exit Isolation mode.



6. Click away from the image to deselect it, and then drag the masked image into the center of the artboard with the "FIND YOUR STYLE"

text to the left.

● **Note**

You clicked away to deselect because only the image was selected previously, not the whole thing.

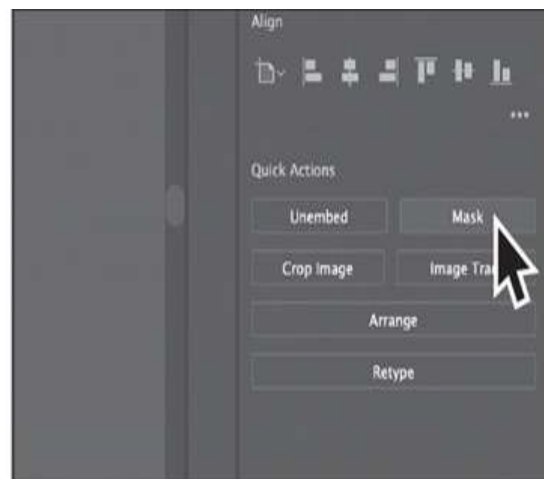
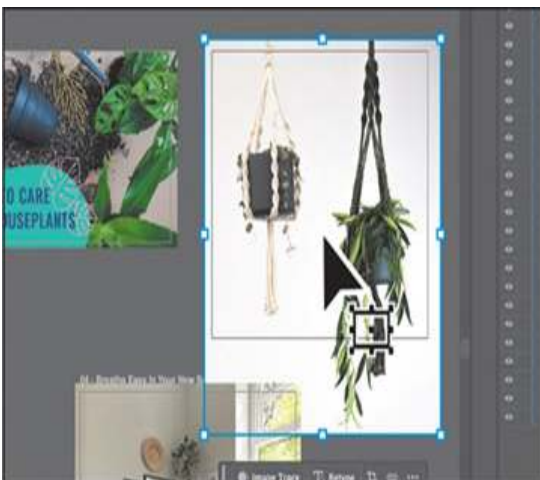
7. Choose Select > Deselect.

Automatic masking for an image

In this section, you'll see that Illustrator can create a simple mask for you, automatically, on an image so that you can hide parts of that image.

Masking in this way means Illustrator will create a shape, like a rectangle, the exact size of the image. It will then apply that shape as a mask. Nothing will be hidden to start, but you can edit the shape (mask) to hide parts however you want!

1. Choose View > Fit All In Window.
2. Select the hanging plants image. See the following figure for which one.
3. In the Properties panel, click the Mask button in the Quick Actions section.

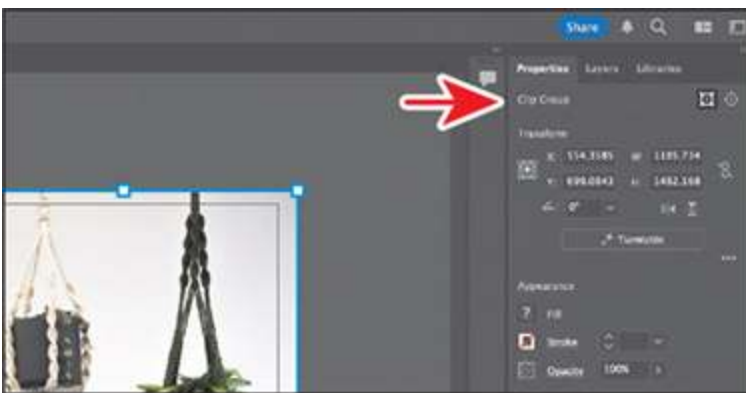


● Note

You may see “Path” at the top of the Properties panel, whereas the figure shows “Clip Group.” If you deselect, then reselect the image, you will see “Clip Group.”

Here’s what Illustrator did:

- Made a rectangle shape *exactly the same size* as the image.
- Selected the rectangle and the image and made the rectangle a mask.



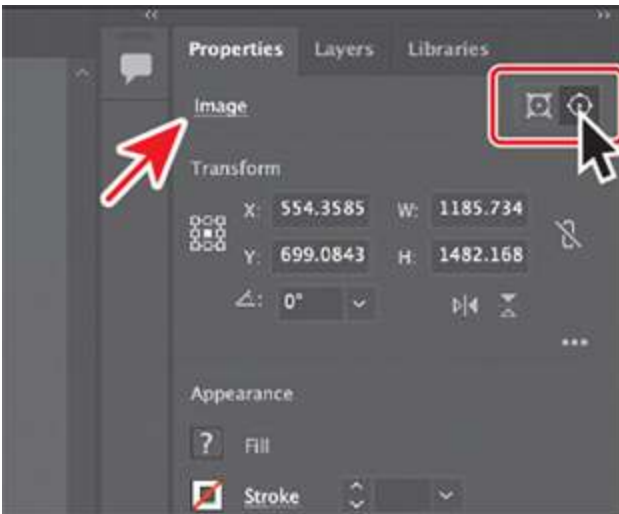
Editing the image mask


► Tip

Clicking the Isolate Mask button in the Properties panel does the same thing as double-clicking. It enters Isolation mode.

To edit the mask, the image, or both, you could double-click the image to enter Isolation mode, as you did previously. But in this case, it will be a little more challenging to select the mask shape because it’s exactly the same size as the image. To select the shape, you would have to click directly on its edge or select it in the Layers panel. Let’s try an easier way that you can use to edit any mask you make.

1. Deselect the image by choosing **Select > Deselect**, and then select the image again.



2. At the top of the Properties panel, click the Edit Contents button ().

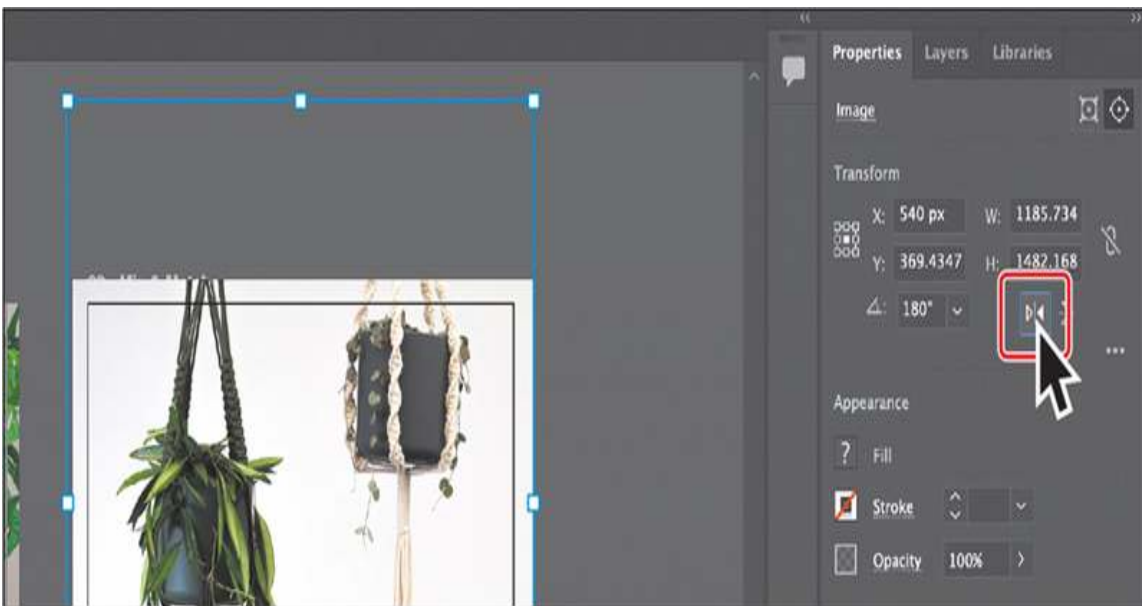
Clicking that button selects the image (the *content* of the mask) without having to go into Isolation mode. Looking to the left of the buttons in the Properties panel, you will now see the word “Image.” An arrow is pointing to it in the figure.



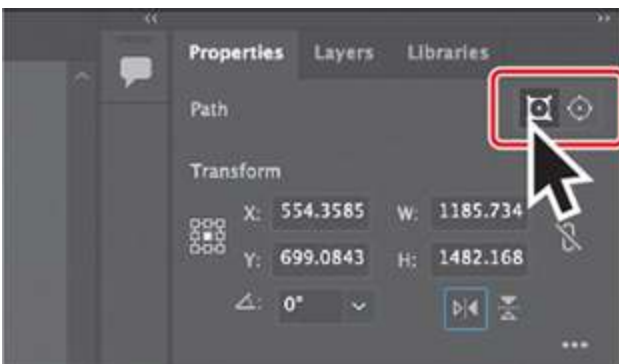
3. Shift-drag the image up so its bottom is almost aligned with the bottom of the artboard.

Pressing the Shift key while dragging constrains the movement. Notice that part of the top of the image is now gone because the mask is hiding it.

4. Click the Flip Horizontally button (↔) in the Properties panel to flip the image.



5. At the top of the Properties panel, click the Edit Clipping Path button (⌂) to the left of the Edit Contents button (⌂).



The mask *shape* is now selected!

6. Drag the corners of the selected mask shape so it snaps to the edges of the artboard and masks a little of the image edges.



You may want to zoom in to the image. You may find that the edges you are dragging are snapping to content other than the artboard. Zooming in will help to snap to the artboard more easily.

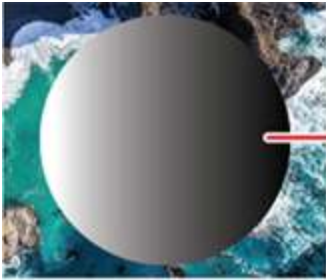
7. Click away from the image, and then select it again to select the whole thing.



8. Choose Object > Arrange > Send To Back to send it behind everything else.
9. Choose Select > Deselect, and then choose File > Save.

Masking with text

To learn how to mask content with text, check out the video *Masking with text*, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.



An image with a gradient-filled circle




The circle applied as an opacity mask

Creating an opacity mask


So far, the masks you’ve been making show or hide parts of content. What if you wanted to fade away part of an image or artwork—maybe to make a reflection? Or maybe to fade one image into another?

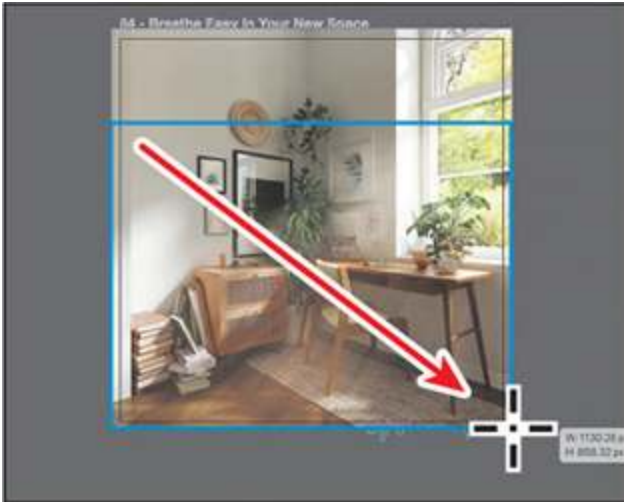
You would make an opacity mask. An *opacity mask* is technically just a mask—a shape masking parts of other content—but the shape for an opacity mask has a gradient applied to the fill. See the figure above. Opacity masks are made using the Transparency panel rather than the way you’ve been using up to this point. Next, you’ll create an opacity mask for the last image so that it fades out and you can more easily read text.



1. With the Selection tool () , select the last image you placed.

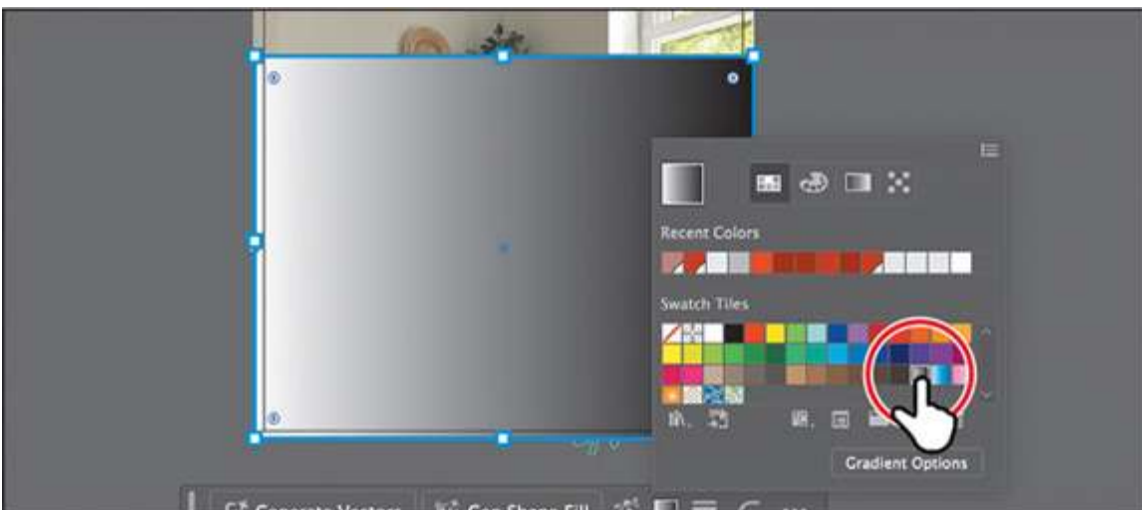
You may need to zoom out to see it.

2. Select the Rectangle tool () in the toolbar, and starting about a quarter of the way down from the top, drag to create a rectangle that covers the image.



This will become the mask. Don't worry if there is no fill color. In the next step, you'll apply a gradient fill.

3. With the rectangle selected, change the fill color to a white-to-black linear gradient called White, Black in the Contextual Task Bar.



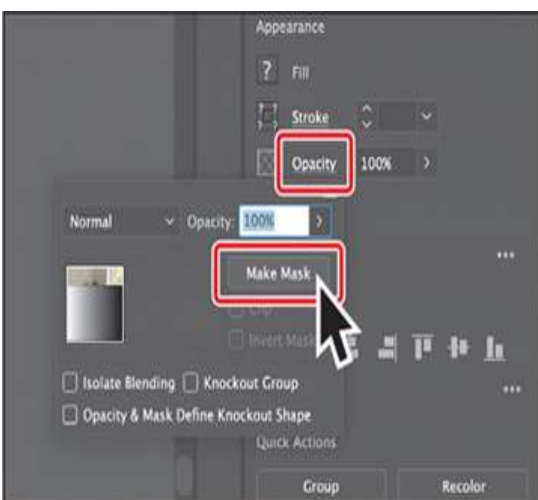
4. Make sure that the Stroke Weight is 0 (zero).



5. Select the Selection tool (▮) and, while pressing the Shift key, click the image beneath the rectangle to select it as well.
6. In the Properties panel, click the word “Opacity” to open the Transparency panel. In the panel, click the Make Mask button, and leave the artwork selected and the panel showing.

● **Note**

If you had wanted to create a mask with the same dimensions as the image, instead of drawing a shape you could have simply clicked the Make Mask button in the Transparency panel.



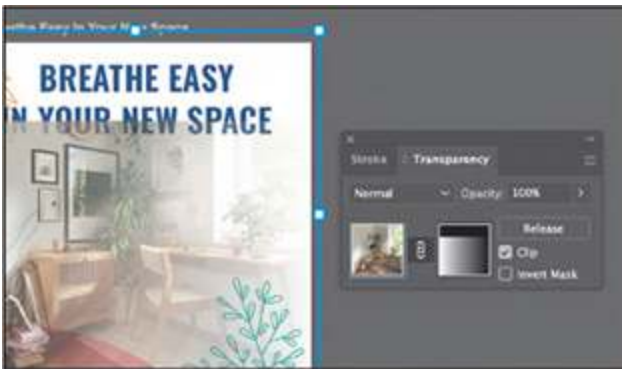
After you click the Make Mask button, it becomes the Release button. If you were to click the button again, the image would no

longer be masked. Notice that where there is white in the rectangle shape (mask), the image is showing, and where there is black, it is hidden. The gradient mask gradually reveals the image.

Editing an opacity mask

Next you'll adjust the opacity mask that you just created by turning it on and off, resizing the mask shape, and refining the gradient fill.

1. Choose Window > Transparency to open the Transparency panel.

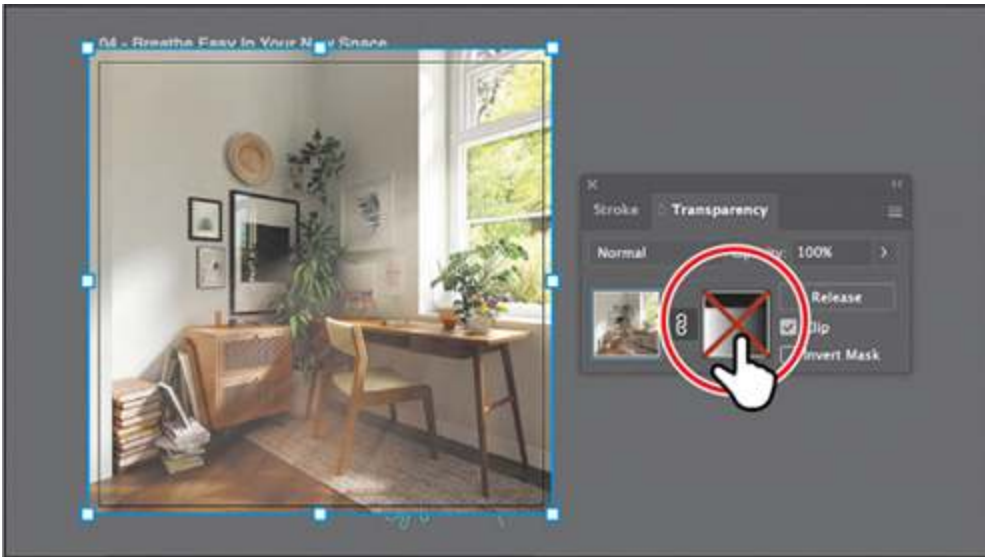


This is the same panel you reached when you clicked Opacity in the Properties panel. In the panel, you'll see the image thumbnail on the left and the mask shape on the right.

2. In the Transparency panel, Shift-click the mask thumbnail to disable the mask.

► **Tip**

To disable and enable an opacity mask, you can also choose Disable Opacity Mask or Enable Opacity Mask from the Transparency panel menu.



Notice that a red X appears on the mask thumbnail in the Transparency panel and that the entire image reappears on the artboard. Hiding the mask can be useful to see all of the masked object again if you need to do anything to it.

3. In the Transparency panel, Shift-click the mask thumbnail to enable the mask again.



4. Click just the mask thumbnail on the right side of the Transparency panel to select it. If the mask isn't selected on the artboard, click to select it with the Selection tool (▢).

► **Tip**

To show the mask by itself (in grayscale if the original mask had color in it) on the artboard, you can also Option-click (macOS) or Alt-click (Windows) the mask thumbnail in the Transparency panel.

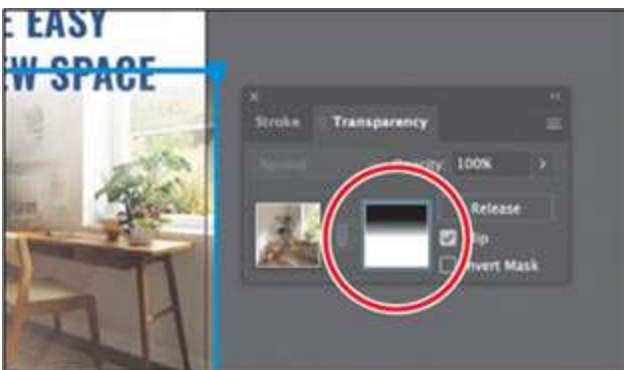
Clicking the opacity mask in the Transparency panel selects the mask (the rectangle) on the artboard. With the mask selected, you can't edit other artwork on the artboard. Also, notice that the document tab above the image shows (<Opacity Mask>/Opacity Mask), indicating that you are now editing the mask.



5. Make sure that the Fill box toward the bottom of the toolbar is selected.
6. Select the Gradient tool (▢) in the toolbar.
7. Move the pointer into the center of the image—above or below the horizontal gradient bar that now appears in the image. Drag up to the top of the mask shape.





Notice that the mask thumbnail in the Transparency panel shows the new gradient appearance. At this point, if you wanted to make the mask fit the artboard better, you could resize it with the Selection tool.



8. In the Transparency panel, click the image thumbnail so you are no longer editing the mask.

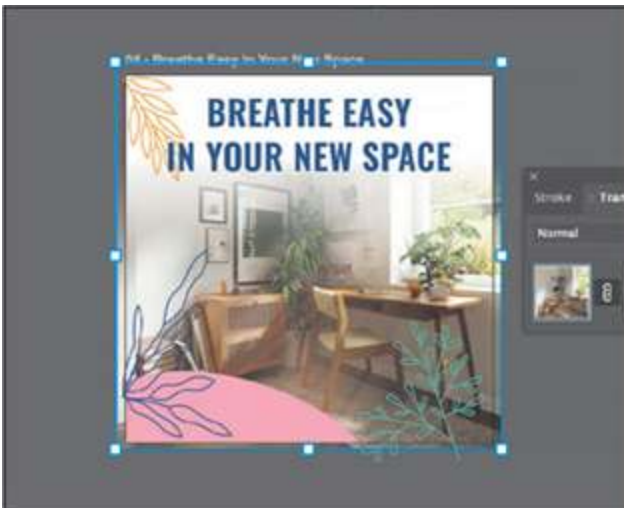
► **Tip**

To move the image or the mask separately, you can click the link icon () between the image thumbnail and the mask thumbnail in the Transparency panel.

9. Select the Selection tool ()—just so the Gradient tool is no longer selected.



10. Choose Object > Arrange > Send To Back.
11. Close the Transparency panel group.
12. Choose Select > Deselect, and then choose File > Save.



Working with image links


Whether you link to images or embed them, you can see a listing of all the images in your document in the Links panel. With the Links panel you can manage all linked or embedded artwork. The Links panel displays a small thumbnail of the artwork and uses icons to indicate the artwork's status. From the Links panel, you can view the images linked to and embedded, replace a placed image, update a linked image that has been edited outside of Illustrator, or edit a linked image in the original application, such as Photoshop.

Finding link information

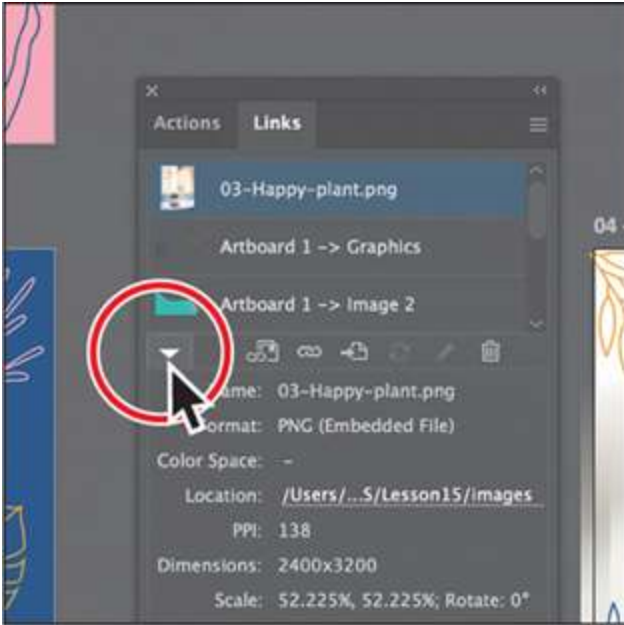
When you place an image, it can be helpful to see where the original image is located, what transformations have been applied to it (such as rotation and scale), and more. Next, you'll explore the Links panel to discover image information.


1. Choose Window > Workspace > Reset Getting Started.
2. Choose Window > Links to open the Links panel.
3. Select the 03-Happy-plant.png image in the Links panel list.
4. Click the Show Link Info arrow in the lower-left corner of the Links panel to reveal the link information at the bottom of the panel.

► Tip

If you see a cloud icon () in the Links panel, that means a graphic was placed from a Creative Cloud library or cloud document and is linked to that asset.

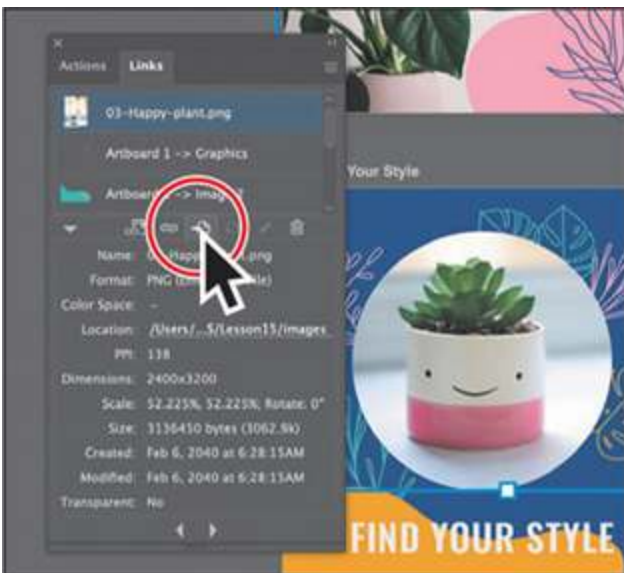
Looking at the top part of the Links panel, you'll see a listing of all the images you've placed. In the link info area below the image list, you'll see information about the image, such as the fact that it's embedded (Embedded File), the resolution, the transformation information, and more.



5. Click the Go To Link button () below the list of images.

The 03-Happy-plant.png image will be selected and centered in the Document window.

6. Choose Select > Deselect, and then, if necessary, choose File > Save.



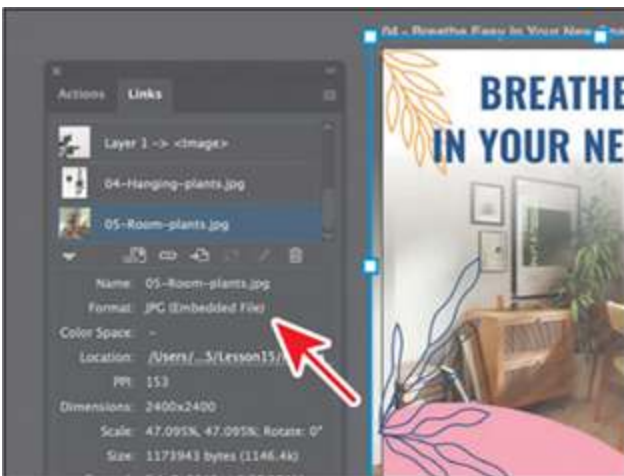
Embedding and unembedding images

Embedded images live inside your Illustrator file—the image data travels with the document, so there are no external links to break. You can convert

any linked image to embedded at any time. So why would you embed? Here are a few reasons:

- Portability: Package everything in one file for easy sharing and archiving.
- Reliability: Avoid missing-link errors when moving or renaming folders.
- Handoff: Keep placed art intact for print or vendor deliveries.

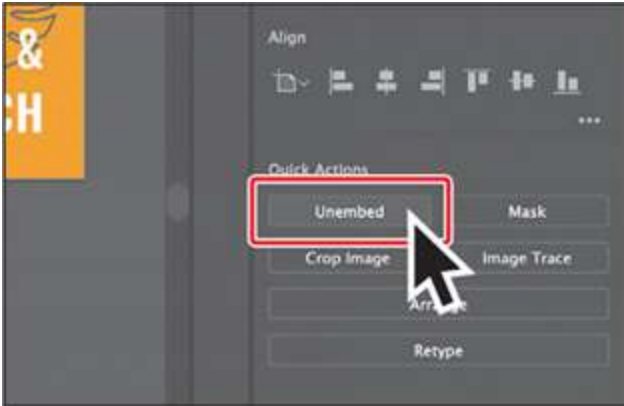
When you need to edit the artwork in Photoshop or reuse it elsewhere, simply unembed. Illustrator will save the embedded image to your drive as a PSD or TIFF, then automatically replace the embedded artwork with a link to that new file. Next, you'll unembed an image in this document.



1. Choose View > Fit All In Window.
2. With the Selection tool (▀), click to select the 05-Room-plants.jpg image (the image with the alpha mask) on the lower-right artboard.
3. Look in the Links panel, and you'll see JPG (Embedded File) in the link info.

The 05-Room-plants.jpg image was embedded when you originally placed it.

You may decide that you need to edit an embedded image in a program like Photoshop. To do that, you need to unembed the image to make edits to it, which is what you'll do next.



4. Click the Unembed button in the Properties panel.

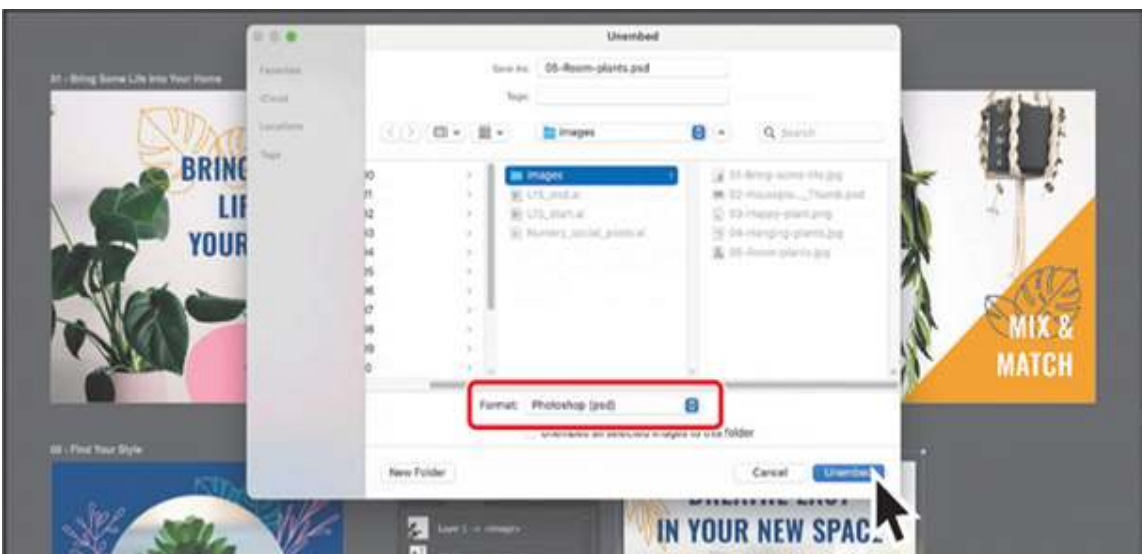
► **Tip**


You can also choose Unembed from the Links panel menu (≡).

► **Tip**

Want to *embed* a linked image? You can choose Embed Image(s) from the Links panel menu (≡).

5. In the dialog box that appears, navigate to the Lessons > Lesson15 > images folder (if not already selected). Make sure Photoshop (*.PSD) is chosen from the Format menu (macOS) or the Save As Type (Windows) menu, and click Unembed.



As you learned earlier, the X that now shows on the image on the artboard means the image is linked and not embedded. If you were to edit the image in Photoshop, it would be updated in Illustrator, since it is linked. Also notice the link icon () that now shows in the Links panel next to the image name!



6. Choose **Select > Deselect**.

Replacing images

To learn how to replace images in your designs, check out the video **Replacing images**, which is part of the Web Edition. For more information, see the “[Web Edition](#)” section of “[Getting Started](#)” at the beginning of the book.

7. Choose **File > Save**.


8. Choose **File > Close** as many times as necessary to close all open files.



Review questions

- 1 Describe the difference between linking and embedding in Illustrator.
- 2 How do you show options when importing images?
- 3 What kinds of objects can be used as masks?
- 4 How do you create an opacity mask for a placed image?

- 5** Describe how to replace a placed image with another image in a document.

Review answers

- 1** A **linked file** is a separate, external file connected to the Illustrator file by a link. A linked file does not add significantly to the size of the Illustrator file. The linked file must accompany the Illustrator file to preserve the link and to ensure that the placed file appears when you open the Illustrator file. An **embedded file** becomes part of the Illustrator file. The increased Illustrator file size reflects the addition of the embedded file. Because the embedded file is part of the Illustrator file, no link can be broken. You can update linked and embedded files using the Relink button () in the Links panel.
- 2** When placing an image using the File > Place command, in the Place dialog box, select the Show Import Options option. Selecting this will open the Import Options dialog box, where you can set options before placing. In macOS, if you don't see the options in the Import Options dialog box, click the Show Options button.
- 3** A mask can be a simple or compound path, and masks (such as an opacity mask) may be imported with placed Photoshop files. You can also create layer clipping masks with any shape that is the topmost object of a group or layer.
- 4** You create an opacity mask by placing the object to be used as a mask on top of the object to be masked. Then you select the mask and the object(s) to be masked and either click the Make Mask button in the Transparency panel or choose Make Opacity Mask from the Transparency panel menu.
- 5** **You'll find the answer to this question in a video!** See the section "[Replacing images](#)" on the previous page. **Answer:** To

replace a placed image with a different image, select the image in the Links panel. Then click the Relink button () (or the Relink From CC Libraries button []), and locate and select the replacement image. Click Place or Relink (if you clicked the Relink From CC Libraries button).

16 Sharing Projects

Lesson overview

In this lesson, you'll learn how to do the following:

- Fix a missing link.
- Package a file.
- Create a PDF.
- Use the Export For Screens command.
- Work with the Asset Export panel.
- Invite others to edit.
- Share for review.



This lesson will take about 30 minutes to complete. To get the lesson files used in this lesson refer to the instructions in “[Accessing the lesson files and Web Edition](#)” in the “[Getting Started](#)” section at the beginning of this book.



In this lesson, you'll explore various methods for sharing and exporting your projects as PDFs and for optimizing your Illustrator content for use on the web, in apps, and in onscreen presentations.

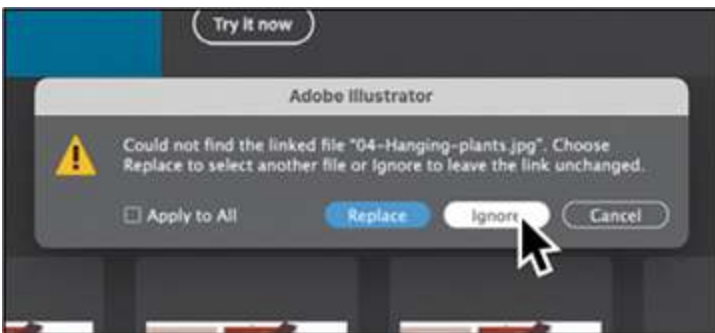
Starting the lesson

Before you begin this lesson, you'll restore the default preferences for Adobe Illustrator and open the first lesson file.

1. Start Adobe Illustrator.
2. To make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “[Restoring default preferences](#)” in the “[Getting Started](#)” section at the beginning of the book.
3. Choose File > Open. Open the L16_links.ai file in the Lessons > Lesson16 folder you copied to your computer.

Note

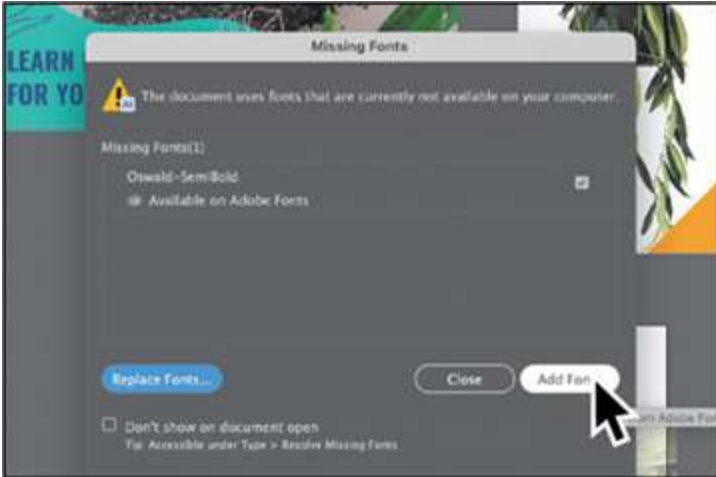
If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the “[Getting Started](#)” section at the beginning of the book.



4. In the warning dialog that appears, click Ignore.

There is at least one image, 04-Hanging-plants.jpg, linked to the Illustrator document that Illustrator can't find on your system. You learned about linked files in [Lesson 15](#). Instead of replacing the

missing image(s) from this dialog box, later in the lesson you will open the Links panel so you can see which are missing and replace them there.



5. If the Missing Fonts dialog box appears, click Add Fonts to add all missing fonts (your list may not match the figure). After they are added, click Close.
6. If a dialog box appears referring to font auto-activation, then click Skip.
7. Choose File > Save As. If the Save To Adobe Cloud Storage dialog box opens, click On Your Computer.
8. In the Save As dialog box, navigate to the Lesson16 folder, and open it. Name the file **SocialPlant.ai**. Leave Adobe Illustrator (.ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows), and then click Save.

● Note

If you don't see Reset Getting Started in the Workspace menu, choose Window > Workspace > Getting Started before choosing Window > Workspace > Reset Getting Started.

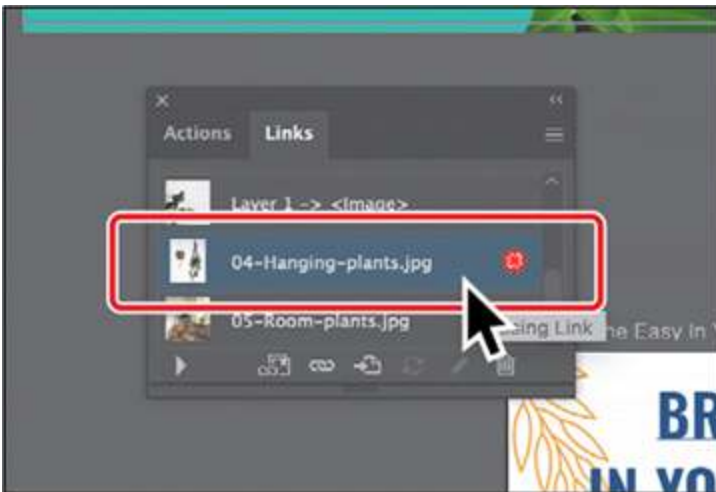
9. In the Illustrator Options dialog box, leave the Illustrator options at their default settings. Click OK.

10. Choose Window > Workspace > Reset Getting Started to ensure that the workspace is set to the default settings.
11. Choose View > Fit All In Window.


Fixing the missing image link


Because you ignored the missing link dialog box when the document opened, you should now fix the missing images if you plan to print or export this document. In the document, you will see a low-resolution preview. When you print or PDF, for instance, the linked full-resolution image replaces the low-resolution version you see. If you create a PDF or print this document without fixing the missing link(s), Illustrator will use a low-resolution version of each missing image.

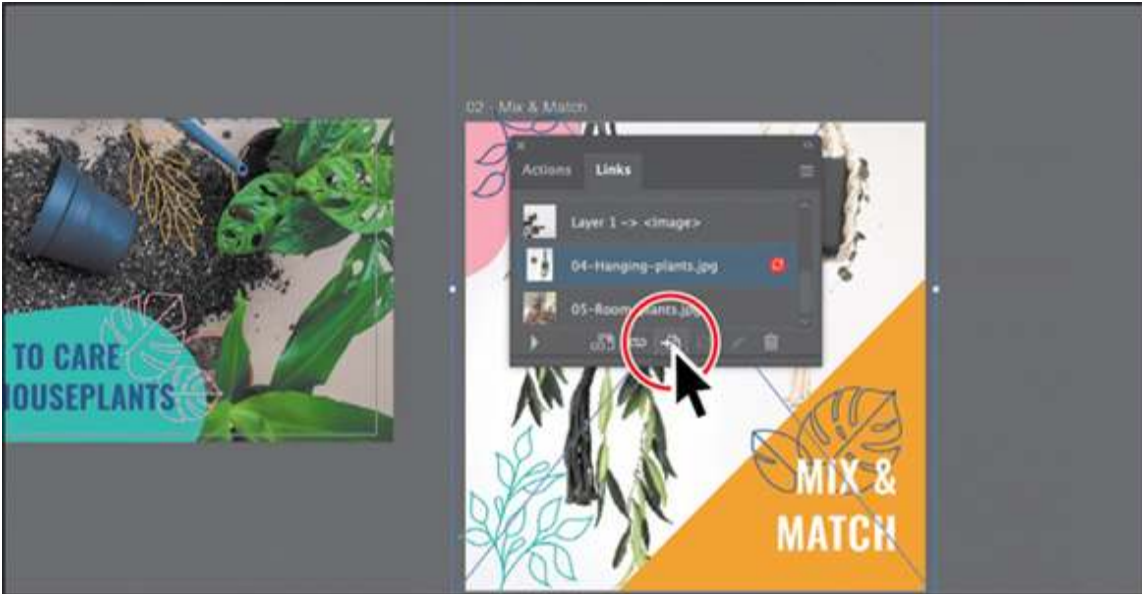
1. To open the Links panel, choose Window > Links.



2. In the Links panel, select 04-Hanging-plants.jpg. You might need to scroll in the panel.

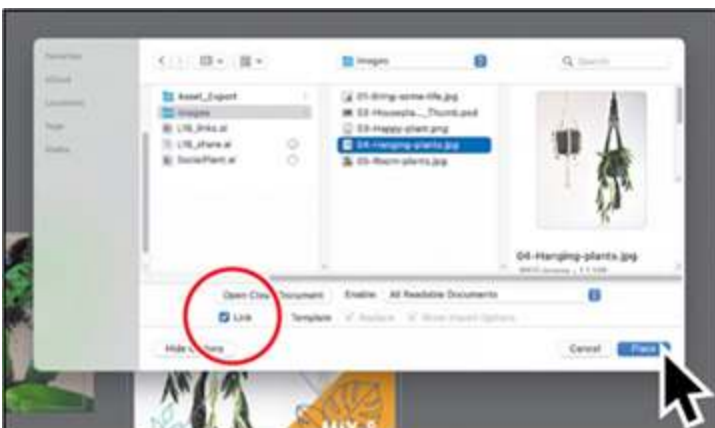
You'll see it has an icon () to the far right of the name, telling you the image is missing.

3. At the bottom of the panel, click the Go To Link button () to show the missing image in the document.

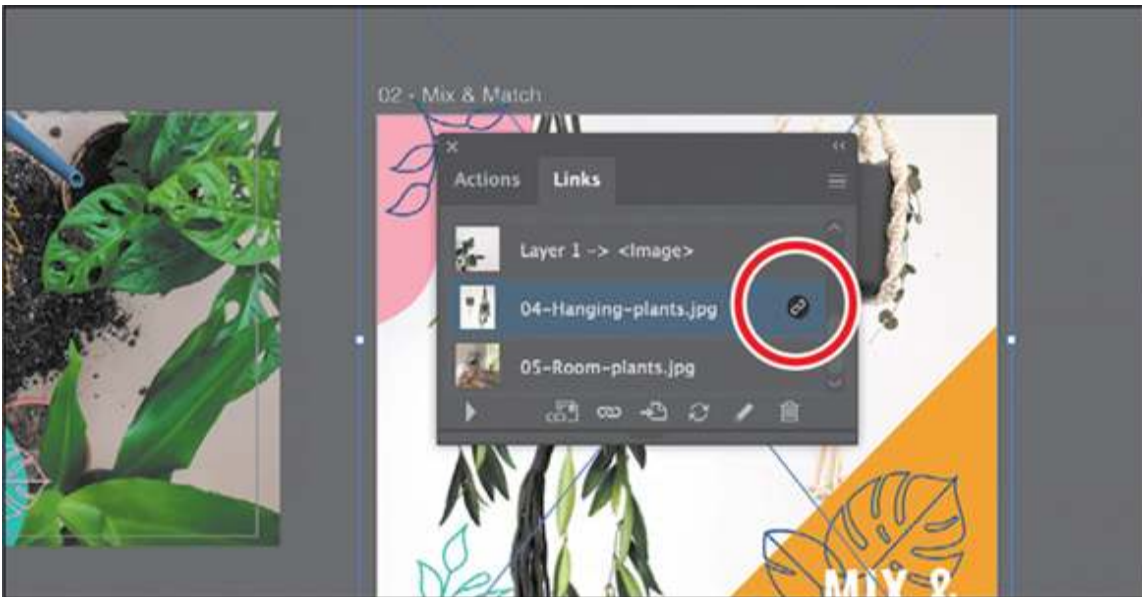


Clicking the Go To Link button is a great way to see where the image is used in the document. To fix the missing link, you will relink to the original image.

4. At the bottom of the panel, click the Relink button (🔗) to link the missing image to the original.
5. In the dialog box that opens, navigate to the Lessons > Lesson16 > images folder, select 04-Hanging-plants.jpg, and ensure that Link is selected. Click Place.



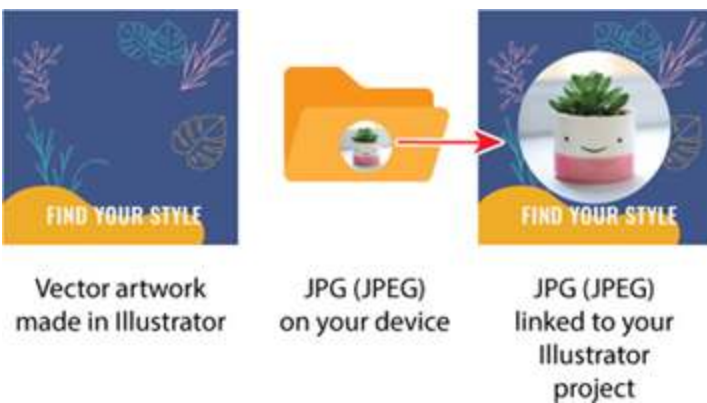
In the Links panel, the 04-Hanging-plants.jpg image now shows a link icon (🔗), telling you it's linked to the original.



6. Choose Select > Deselect.
7. Choose File > Save.
8. Close the Links panel group.


Packaging a file

Suppose you are working on an Illustrator project and you need to give someone else the file. If it's vector content you created in Illustrator, you can just send them the file. But if you have images or other linked content in your project, you need to send those with the Illustrator file so it will output correctly.



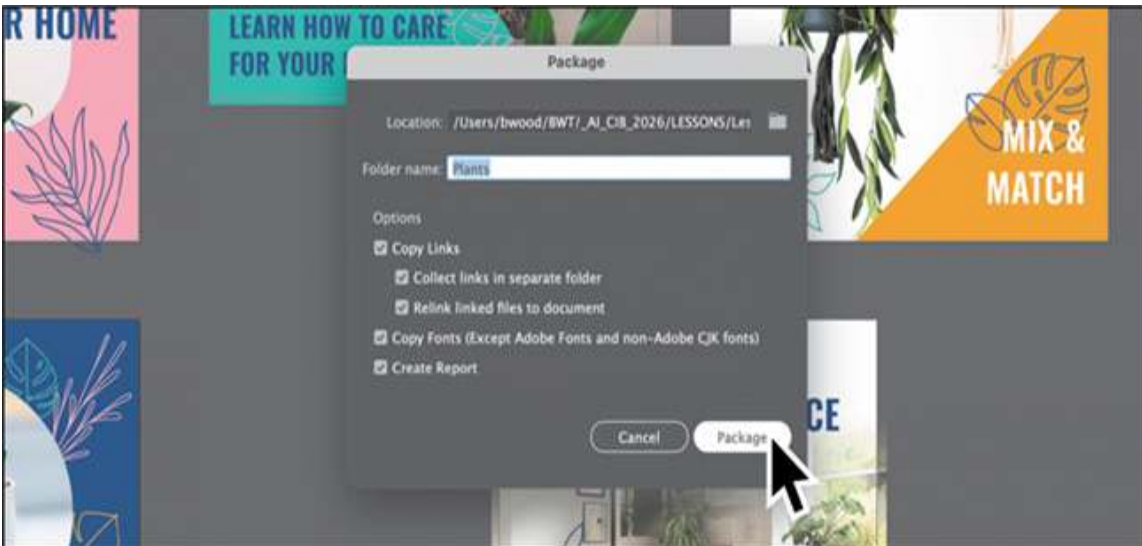
You can have Illustrator help you by collecting the file and everything linked to it. This is called *packaging*. When you package a file, Illustrator creates a folder that contains a copy of the Illustrator document, any necessary fonts, copies of the linked graphics, and a report that contains information about the packaged files.

To practice, you'll package the SocialPlant.ai file so you can send it to someone.

1. With the SocialPlant.ai file open, choose File > Package.
2. If you are asked to save the file, save it. In the Package dialog box, set the following options:
 - Click the folder icon () and navigate to the Lesson16 folder, if you are not already there. Click Choose (macOS) or Select Folder (Windows) to return to the Package dialog box.
 - Folder name: **Plants**
 - Options: Leave at default settings.

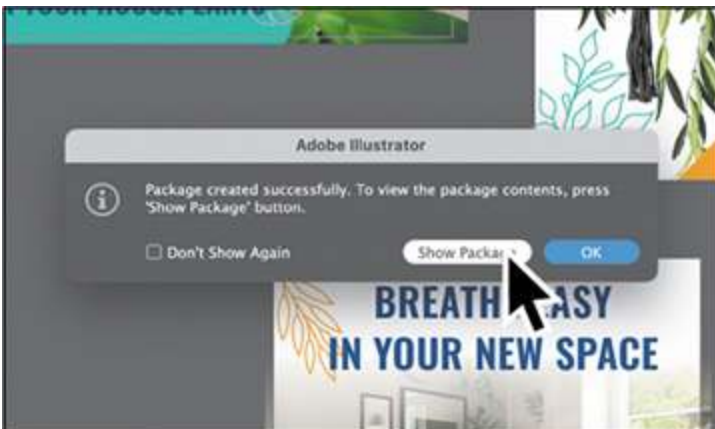
The Copy Links option *duplicates* all of the linked files to the new folder it creates. The Collect Links In Separate Folder option creates a folder called Links and copies the links into it. The Relink Linked Files To Document option updates the links within the Illustrator document to link to the new copies.

3. Click Package.



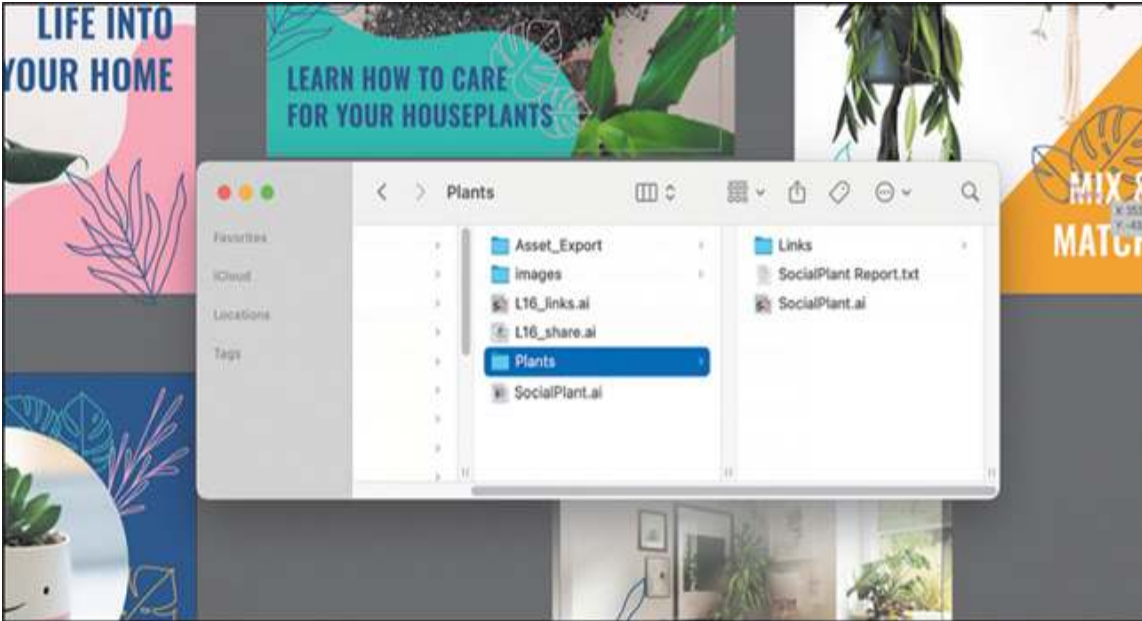
4. In the next dialog box, which discusses font licensing restrictions, click OK.

Clicking Back would allow you to deselect Copy Fonts (Except Adobe Fonts And Non-Adobe CJK Fonts).



5. In the final dialog box to appear, click Show Package to see the package folder.

In the package folder there should be a copy of the Illustrator document and a folder named Links that contains any linked images. The SocialPlant Report text file contains information about the document contents.



6. Return to Illustrator.

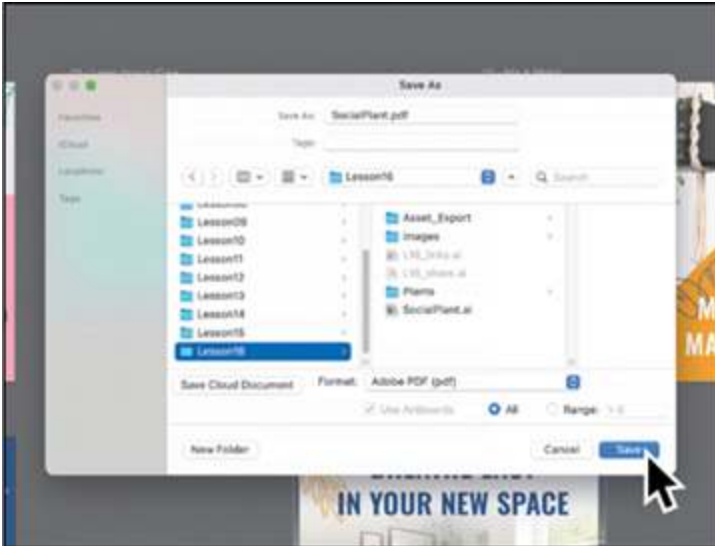
Creating a PDF

To share files with others who don't have Illustrator or simply with your later self, you can create a PDF of your work in Illustrator. PDFs are useful for review and commenting if someone doesn't have Illustrator, when preparing files for professional printing (since printers may require PDFs for accuracy and quality), and when archiving to a universal format that preserves the exact appearance of your design. Now, you'll save this project as a PDF so it can be easily shared and viewed by others.

1. Choose File > Save As.

● Note

If you see the Cloud Document dialog box, click Save On Your Computer to save the file locally.



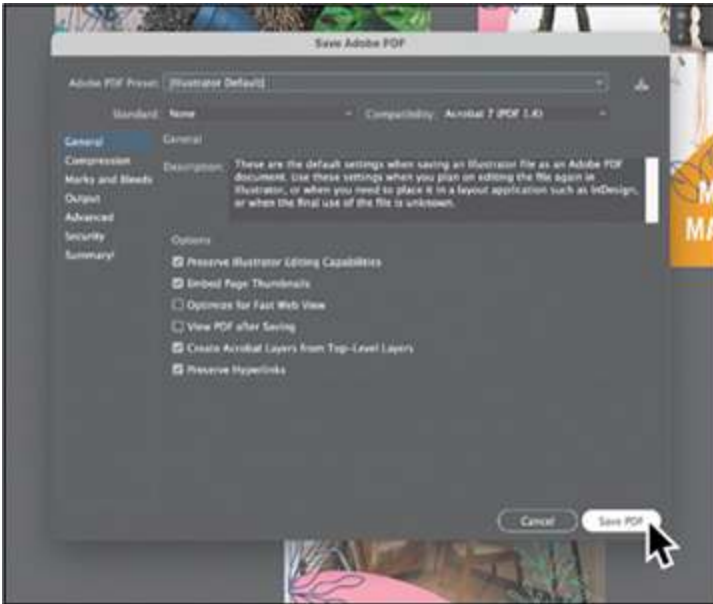
2. In the Save As dialog box, set the following:

- Choose Adobe PDF (pdf) from the Format menu (macOS) or Adobe PDF (*.PDF) from the Save As Type menu (Windows).
- Navigate to the Lessons > Lesson16 folder, if necessary.
- Select All for the number of artboards.

3. Click Save.

► **Tip**

You can also export (File > Export > Export As) an Adobe PDF file.



4. In the Save Adobe PDF dialog box, click the Adobe PDF Preset menu to see all of the PDF presets available. Ensure that [Illustrator Default] is chosen.

There are many ways to customize the creation of a PDF. Creating a PDF using the [Illustrator Default] preset creates a PDF in which all Illustrator data is preserved. PDFs created with this preset can be reopened in Illustrator without any loss of data. If you are planning on saving a PDF for a particular purpose, such as viewing on the web or printing, you may want to choose another preset or adjust the options.

5. Click Save PDF. The open file is now a PDF.
6. Choose File > Close to close the PDF.

Exporting artboards and assets

Say a coworker comes to you needing a PNG of the Illustrator file you're working on, or you need to upload an icon or logo to a website that can't accept an Illustrator file. In Illustrator, you can export entire artboards or

selected assets using the File > Export > Export For Screens command and the Asset Export panel.

► **Tip**

To learn more about working with web graphics, search for “File formats for exporting artwork” in Illustrator Help (Help > Illustrator Help).

You can export in several file formats: JPEG, SVG, PDF, PNG, OBJ, USDA, USDZ, GLTF, WebP, AI, and EPS. These formats are optimized for use on the web, on devices, in onscreen presentations, and in 3D applications and are compatible with most browsers, yet each has different capabilities. Simply select the artwork you want to export, and Illustrator will automatically isolate it from the rest of the design and save it as an individual file.

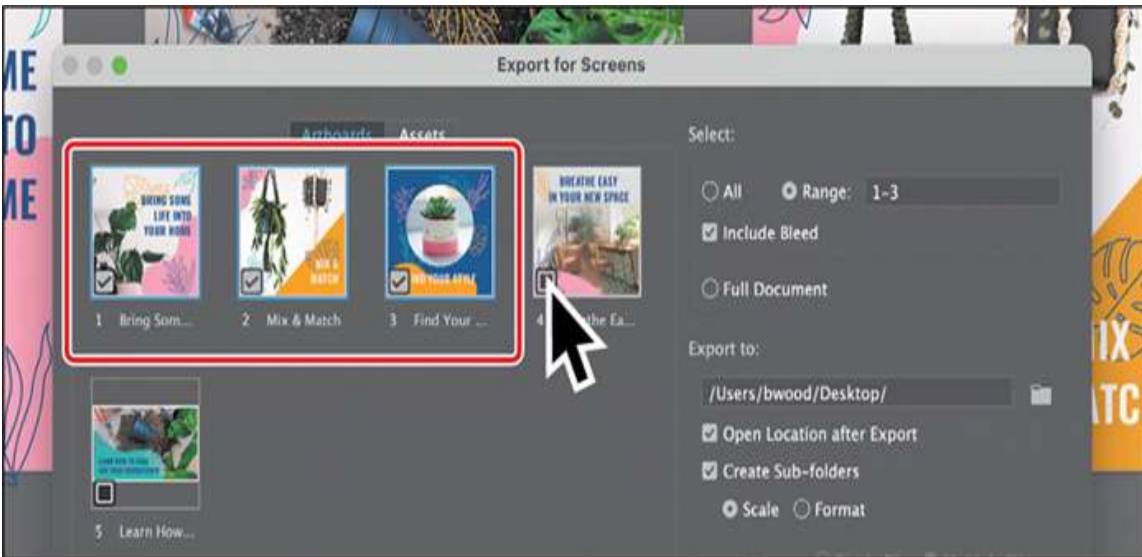
Exporting artboards

In this section, you’ll learn how to export artboards from your document, which can be helpful when you want to show someone a design you are working on or to capture a design for use in a presentation, website, or app.

1. Choose File > Open. Open the SocialPlant.ai file in the Lessons > Lesson16 folder.
2. Choose View > Fit All In Window.
3. Choose File > Export > Export For Screens.

In the Export For Screens dialog box that appears, you can choose between exporting artboards and exporting assets. Once you decide what to export, you can set the export settings on the right side of the dialog box.

4. With the Artboards tab selected, look at the artboard thumbnails. Deselect the last two artboards and leave the first three selected. See the figure.

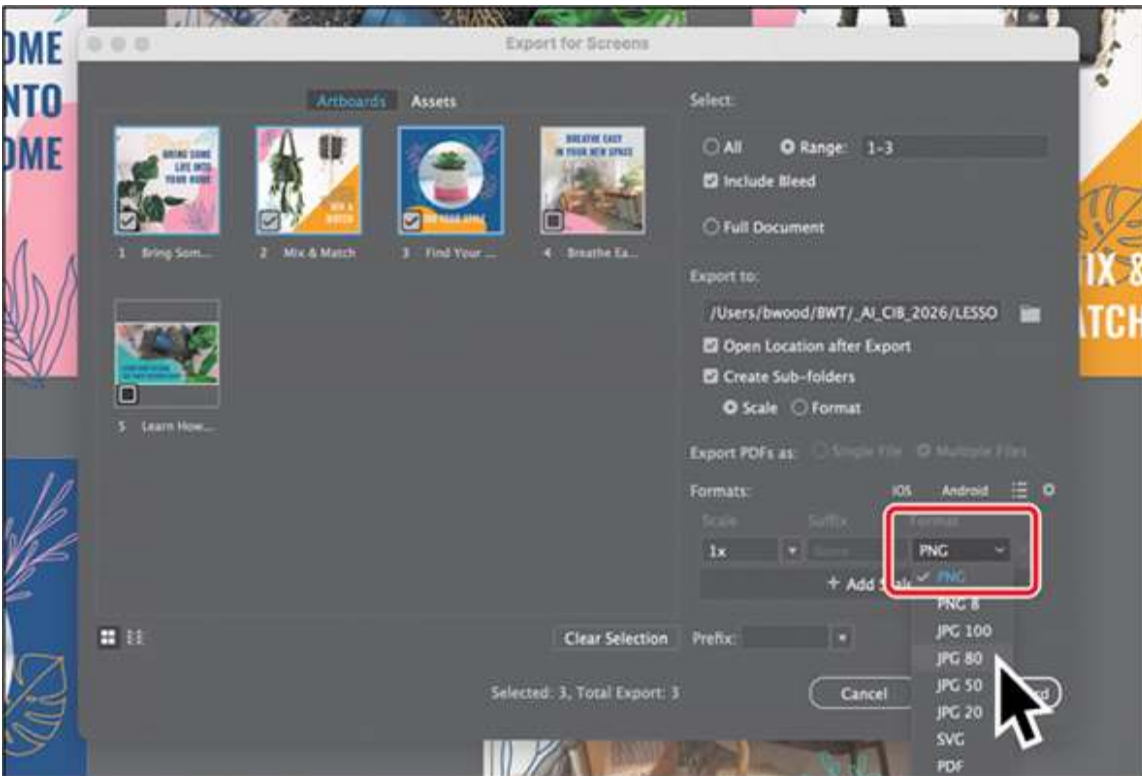


You can choose to export all or a specific range of artboards.

► **Tip**

To export all artwork in a single file, select Full Document.

5. Click the folder icon (📁) to the right of the Export To field. Navigate to the Lessons > Lesson16 folder, and click Choose (macOS) or Select Folder (Windows).
6. Click the Format menu, and choose JPG 80.



In the Formats section of the Export For Screens dialog box, you can set a Scale factor for the exported asset, create (or in this case edit) a suffix for the filename, and change the format. You can also export multiple versions with different scale factors and formats by clicking the + Add Scale button. You might need to scroll in the Formats area to see it.

7. Click Export Artboard.

► Tip

To avoid creating subfolders, like the folder “1x,” you can deselect Create Sub-folders in the Export For Screens dialog box when exporting.

The Lesson16 folder should open, and you should see a folder named 1x and, in that folder, the JPEG images.

8. Close the folder, and return to Illustrator.

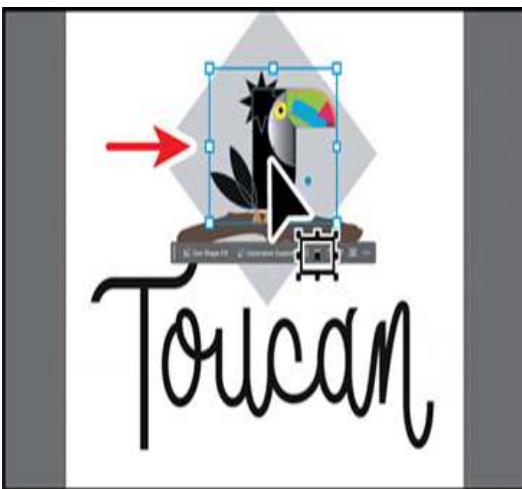
Exporting assets

Using the Asset Export panel, you can quickly and easily export individual assets in file formats such as JPEG, PNG, PDF, and SVG. The Asset Export panel lets you collect assets that you might export frequently and can be an excellent tool for web and mobile workflows because it allows for exporting multiple assets with a single click. In this section, you'll open the Asset Export panel, collect the artwork in the panel, and then export it.

Note

There are several methods for exporting artwork in a variety of formats. You can select artwork in your Illustrator document and choose File > Export Selection. This adds the selected artwork to the Asset Export panel and opens the Export For Screens dialog box.

1. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson16 folder. Select the L16_share.ai file, and click Open.
2. Choose View > Fit Artboard In Window.
3. With the Selection tool (◻), click to select the bird.
4. Press the Shift key, and click to select the “TOUCAN” text shapes.



5. With the artwork selected, choose Window > Asset Export to open the Asset Export panel.

The Asset Export panel is where you can save content for export now or later. It can work in conjunction with the Export For Screens dialog box to set export options for the selected assets, as you'll see.

6. Drag the selected artwork into the top part of the Asset Export panel. When you see a plus sign (+) appear, release to add the artwork to the Asset Export panel. Each group or individual object is a different asset.

► **Tip**

To add artwork to the Asset Export panel, you can also right-click the artwork in the Document window and choose **Collect For Export > As Single Asset** (or **As Multiple Assets**) or choose **Object > Collect For Export > As Single Asset** (or **As Multiple Assets**).

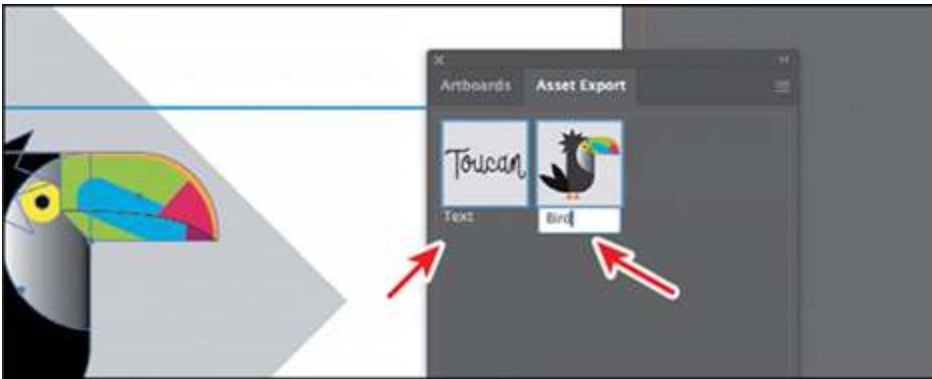


The assets are tied to the original artwork in the document. In other words, if you update the artwork in the document, the corresponding asset is updated in the Asset Export panel. Every asset you add to the Asset Export panel is saved with the panel and will stay there until you delete it from either the document or the Asset panel.

► **Tip**

If you Option-drag (macOS) or Alt-drag (Windows) multiple objects into the Asset Export panel, the selected content will become a single asset in the Asset Export panel.

7. Click the label below the “TOUCAN” text thumbnail in the Asset Export panel, such as Asset 1, and rename it **Text**. Click the bird thumbnail label and rename it **Bird**. Press Return or Enter to accept the last name.



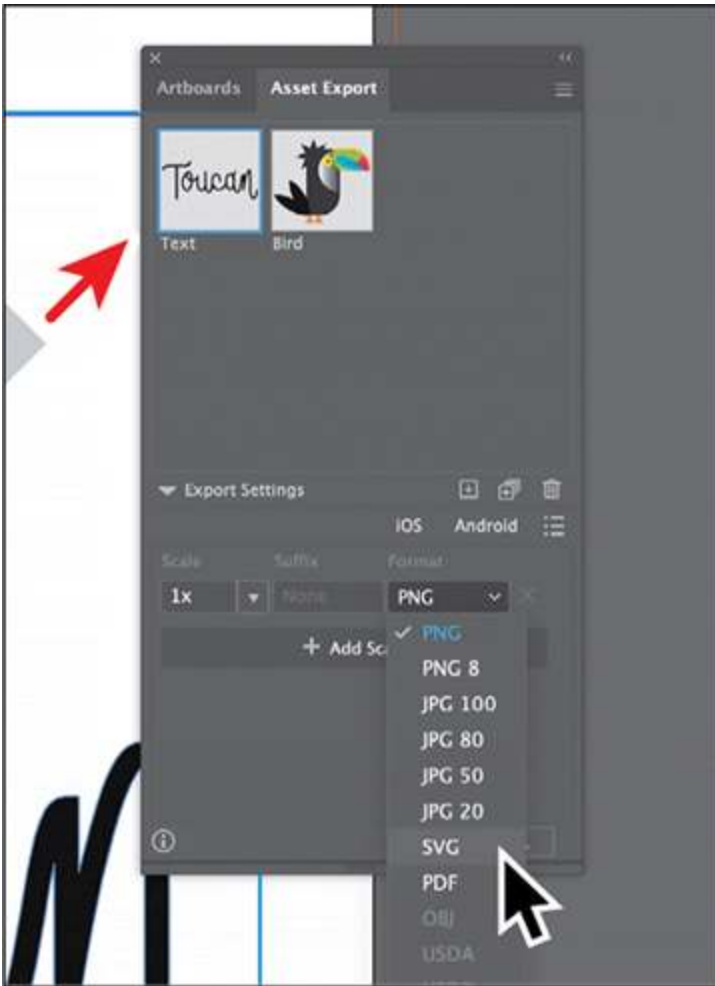
When you drag content into the Asset Export panel, the name you gave the artwork in the Layers panel appears. If you had not renamed the content, you will see generic names like Asset 1, Asset 2, and so on.

Before exporting, you will need to first select the assets you'd like to export.

8. In the Asset Export panel, select the Text thumbnail.
9. In the Export Settings area of the Asset Export panel, choose SVG from the Format menu, if necessary.

● **Note**

If you are creating assets for use on iOS or Android, you could click iOS or Android to display a list of scaled export presets appropriate to each platform.



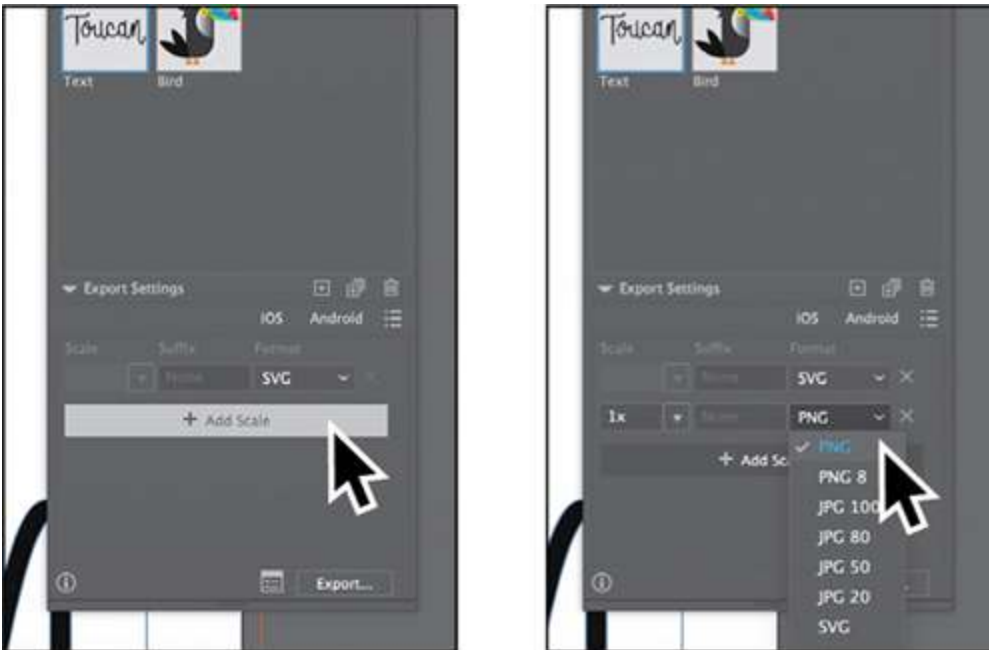
(The Format setting you see to start, before choosing SVG, may be something different than what you see in the figure, and that's okay.)

SVG is perfect for a website, but sometimes a co-worker may ask for a PNG version or some other format of the same logo as well.

10. Click the + Add Scale button so you can export the artwork in another format.

Adding a scale makes the Scale value of the additional format something other than 1x, by default.


11. Choose 1x from the Scale menu so the second asset is exported at 100% of the size of the artwork on the artboard, and ensure that Format is set to PNG.



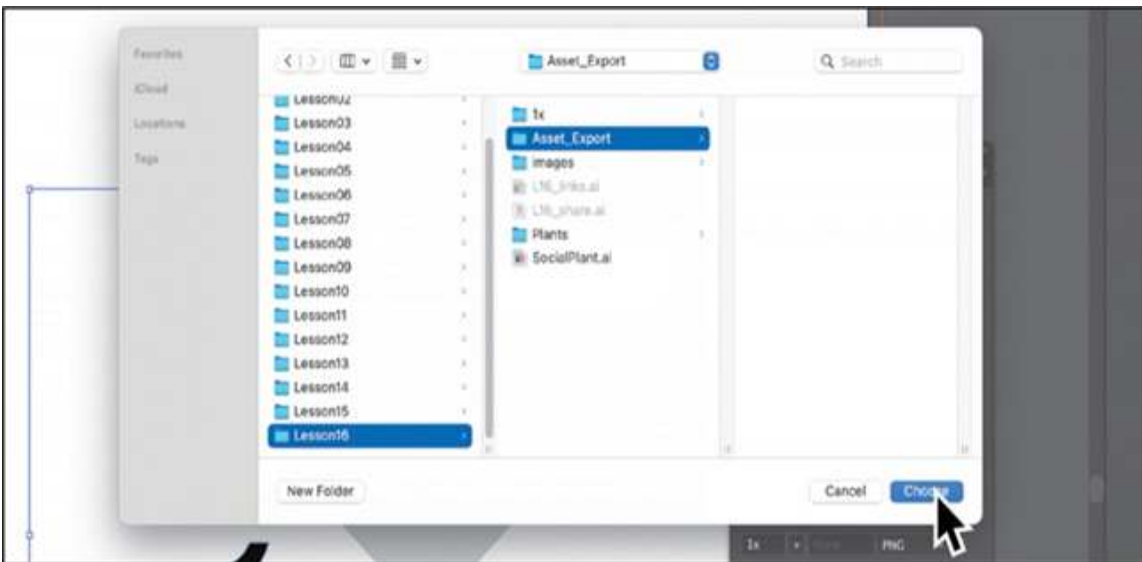
In this case, you'll get SVG and PNG files for the selected asset in the Asset Export panel. You can also set a scale (1x, 2x, and so on) if you need multiple scaled versions of the selected assets—perhaps for Retina and non-Retina displays for raster formats like JPEG or PNG. You can also add a suffix to the exported filename. A suffix could be something like “@1x” to indicate an exported asset's 100% scaled version.

12. With the Text thumbnail selected at the top of the Asset Export panel, click Export at the bottom of the panel to export the selected asset.

► Tip

You can also click the Launch The Export For Screens Dialog button () at the bottom of the Asset Export panel. This will open the Export For Screens dialog box, where you can adjust all the same settings, including a few more.

13. In the dialog box that appears, navigate to the Lessons > Lesson16 > Asset_Export folder, and click Choose (macOS) or Select Folder (Windows) to export the assets.



Both the SVG file and the PNG file are exported to the Asset_Export folder in a subfolder.

14. Close the Asset Export panel group.
15. Choose Select > Deselect.

Inviting others to edit

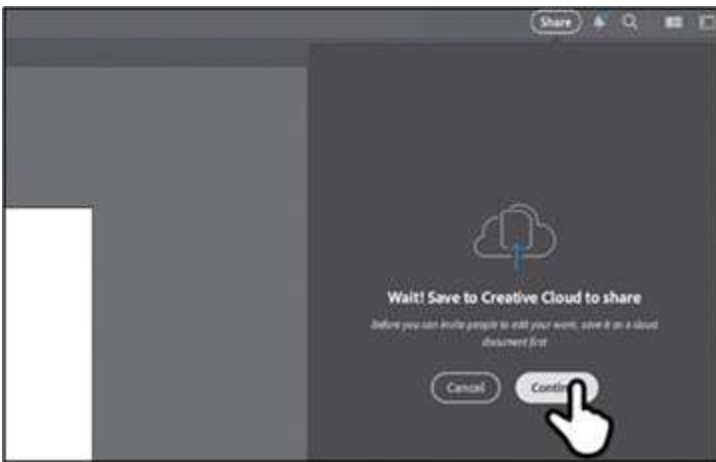
If you want to work on an Illustrator project with someone else, you can invite them to edit your Illustrator document. To invite others to edit a document, you need to save that document as a cloud document. In Illustrator, only one collaborator can edit a cloud document at a time (called *asynchronous editing*).

For this next section, if you want to follow along, you will need the email address of someone you can share the file with and an internet connection.

1. With the L16_share.ai file still open, choose File > Invite To Edit.

If the document has yet to be saved as a cloud document (saved to your Creative Cloud account), that must be done before moving on. The Share window will open in the upper-right corner of the app. If it is not open, don't click the Share button; instead, choose File > Invite To Edit again.

2. In the Share window, click Continue to save the file as a Creative Cloud document.

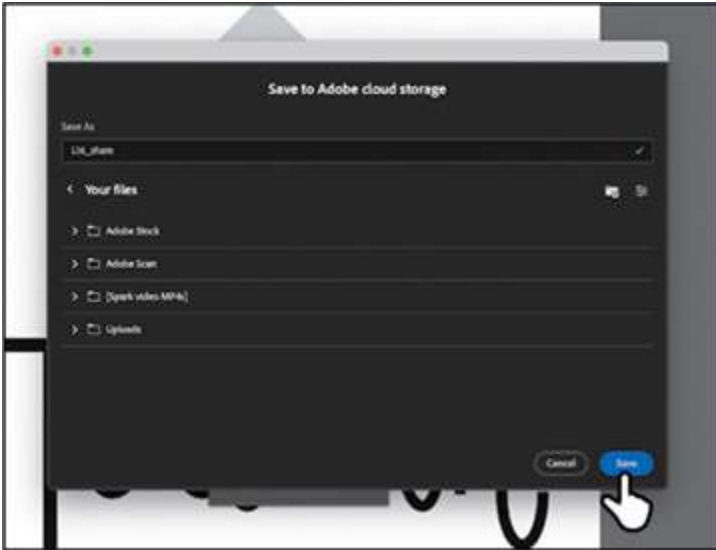


3. In the Save To Adobe Cloud Storage dialog box, click Your Files, and then click Save.

● Note

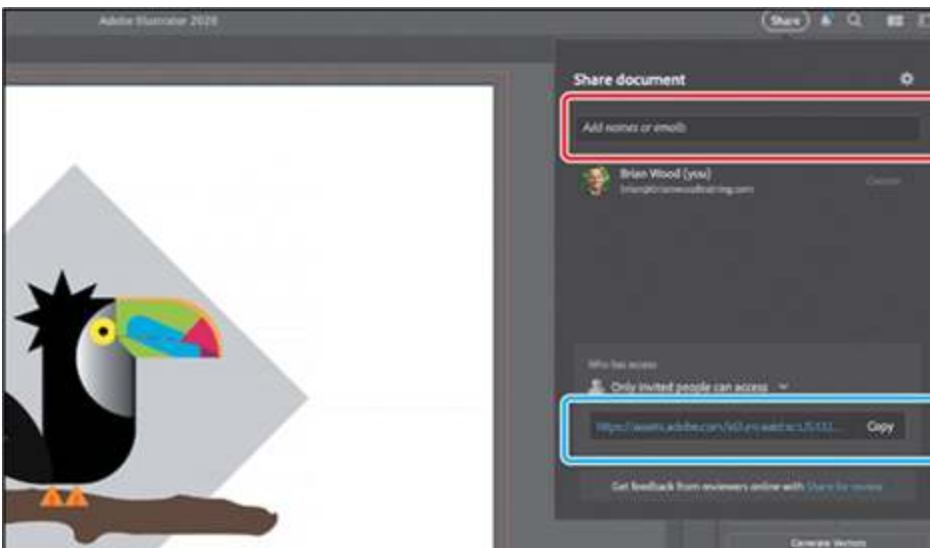
If someone wants to edit the Illustrator document, they will need to have Illustrator installed and be signed in to Creative Cloud.

The Share window in the upper-right corner of the app will now contain two ways to invite people:



- You can invite users to edit the document by entering their email address, and they will receive an invite email and notification in the Creative Cloud desktop app. It's highlighted in **red** in the following figure.
- You can also invite users by sharing a link with them. Users will be taken to a browser where they can open the Illustrator document in Adobe Illustrator (if possible). It's highlighted in **blue** in the following figure.

To allow users that you share a link with to open the file in Illustrator, you need to choose Anyone With The Link Can Comment from the Who Has Access menu.



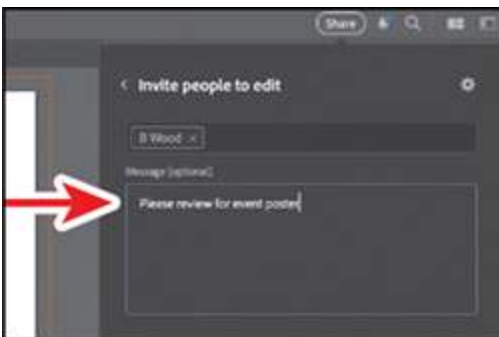
► **Tip**

You can set whether users can comment or download a copy by clicking the gear icon (⚙️) in the upper-right corner of the Invite To Edit dialog box.

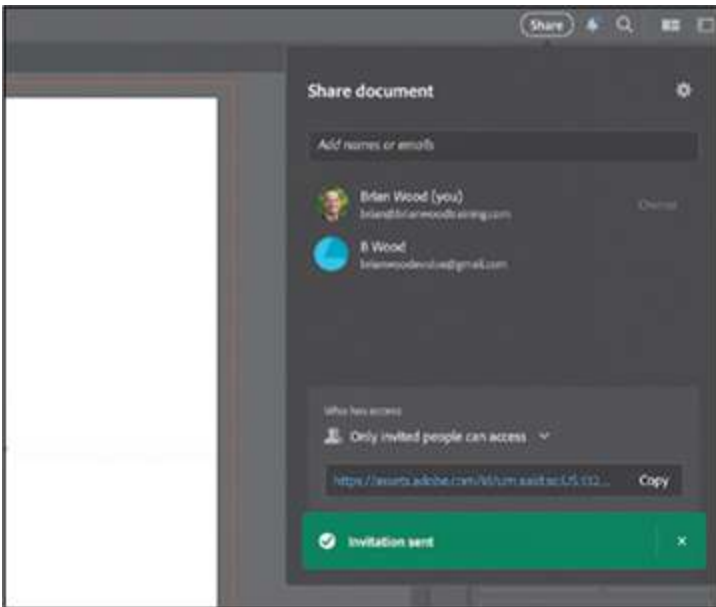
4. Enter an email address in the email field at the top. Press Return or Enter.



5. You can then enter a message (optional) and click Invite To Edit.

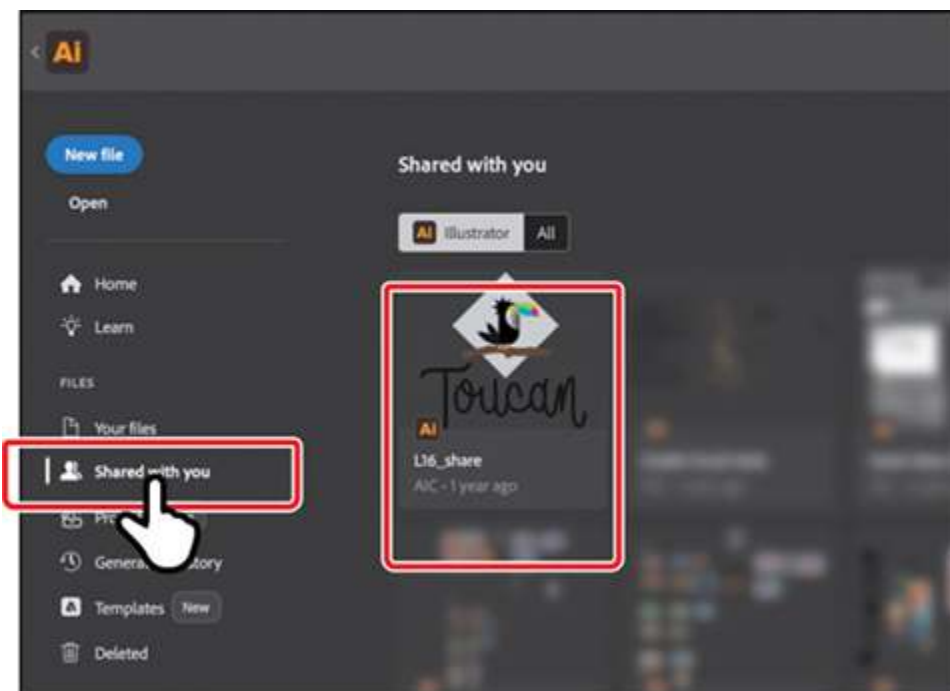


The invited user will receive an email and a notification in the Creative Cloud desktop app.



6. Click away from the Invite To Edit dialog box to close it.

If you invite users via email, they will see the file on the Desktop Illustrator home screen (🏠) by clicking Shared With You. See the following figure.

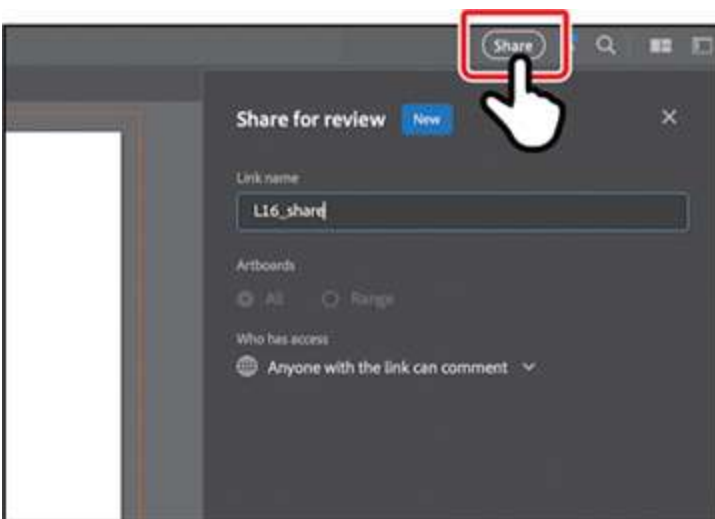


Sharing for review

You can use Share For Review to share a document with someone with the express desire to have them review it rather than make edits. Share For Review is helpful if you want to share with someone who doesn't have Illustrator because the review can happen in the browser (or the Creative Cloud desktop app).

Unlike with the Invite To Edit feature, you do not need to save as a cloud document before sharing a file for review. Illustrator generates a link from the document, and that link is what you share. Now, you'll try sharing the previous file for review.

1. With the L16_share *cloud document* still open, click the Share button in the upper-right corner of the app.

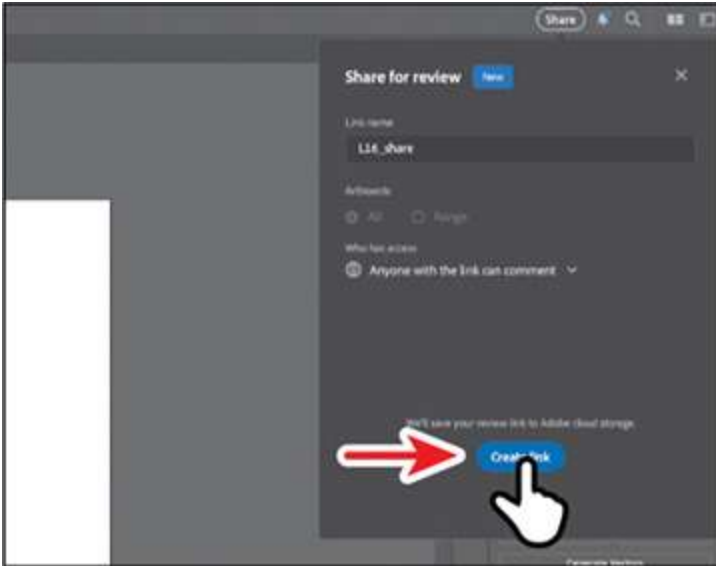


2. Click the Create Link button to make a shareable link.

Note

If you've used the Share For Review feature since you reset the application preferences, you may see a different dialog box. As long as there is a button to create a link, click it!

You can invite someone to review via email or by sending them the link.

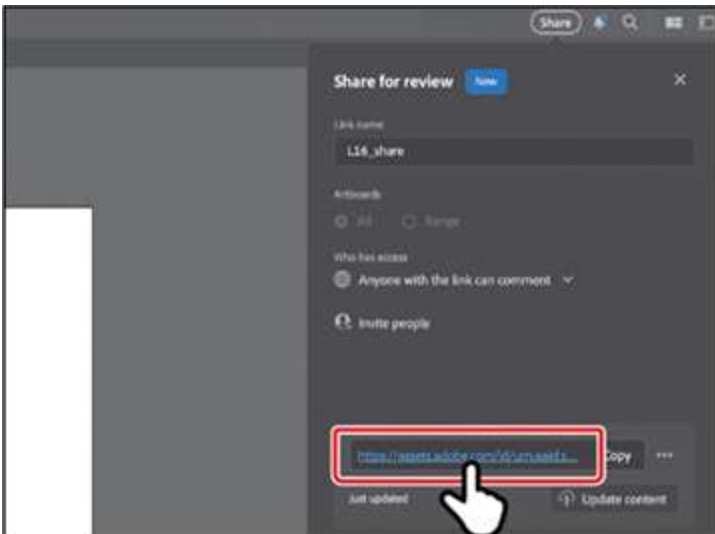


If you invite people via email, they are sent an email and a notification in the Creative Cloud desktop app. If you want it so that only invited people (via email) can access the link destination, choose Only Invited People Can Comment from the Who Has Access menu. Otherwise, choose Anyone With The Link Can Comment from the Who Has Access menu if you are okay with anyone reviewing—invited via email or sent a link.

3. Click the blue link you see in the Share dialog box to view the document in the browser.

● Note

At first you may see a small message; it contains help. You can skip it.

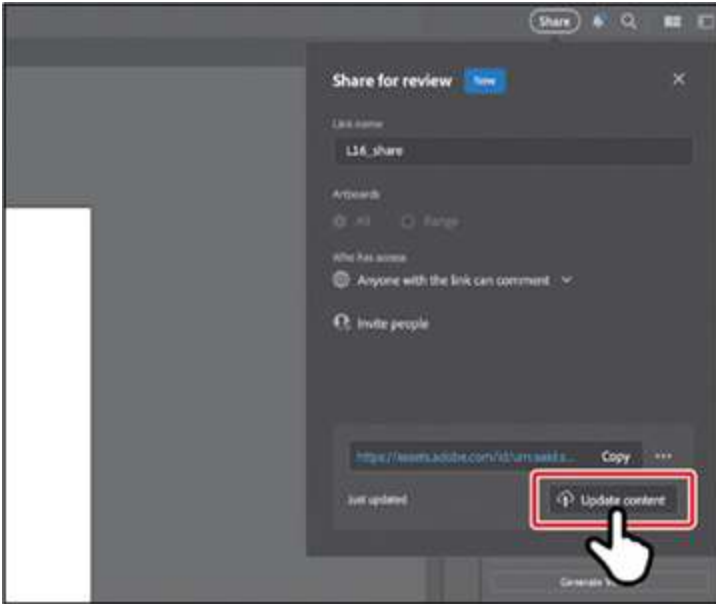


At right is what someone who is reviewing the document in a browser will see.

4. Return to Illustrator.



One last thing to point out—and this is possibly the best part of Share For Review. Suppose you make changes to the document in Illustrator and want someone to review the updated document. In that case, you can click Update Content, and the reviewers will see the latest version of the document!



5. Close the Share window.
6. Choose File > Close for all open files without saving.

Review questions

- 1 Describe what packaging an Illustrator document does.
- 2 Describe how you export an artboard.
- 3 Name image file types that can be chosen in the Export For Screens dialog box and Asset Export panel.
- 4 Describe the generic process for exporting assets with the Asset Export panel.
- 5 How must an Illustrator document be saved to invite others to edit it?

Review answers

- 1 *Packaging* is used to gather all of the necessary pieces of an Illustrator document. Packaging creates a copy of the Illustrator file, the linked images, and the necessary fonts (if desired), and gathers those copies into a folder.
- 2 To export an artboard, choose File > Export > Export As (not covered in the lesson) or File > Export > Export For Screens. In the Export For Screens dialog box that appears, you can choose between exporting artboards and exporting assets. You can choose to export all or a specific range of artboards.
- 3 The image file types that can be chosen in the Export For Screens dialog box and the Asset Export panel are PNG, JPEG, SVG, PDF, OBJ, USDA, USDZ, GLTF, WebP, AI, and EPS.
- 4 To export assets using the Asset Export panel, the artwork to be exported needs to be collected in the Asset Export panel. Once it's in the panel, you can select the asset(s) to be exported, set the export settings, and then export.
- 5 For others to edit your Illustrator document, the file must be saved as a Creative Cloud document.

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Contributors



Brian Wood is a content strategist for the Adobe MAX team, a creative/speaker/trainer, and the author of numerous books and LinkedIn Learning courses. He enjoys designing and building unique, custom wood furniture in his spare time.

To learn more, check out [linkedin.com/in/brian-wood-training](https://www.linkedin.com/in/brian-wood-training).

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Team credits

The following individuals contributed to the development of this edition of *Adobe Illustrator Classroom in a Book 2026 release*:

Writer: Brian Wood

Adobe Press Executive Editor: Laura Norman

Adobe Press Sponsoring Editor: Anshul Sharma

Adobe Press Senior Production Editor: Tracey Croom

Copy Editor: Linda Laflamme

Keystroke: Megan Ahearn

Technical Editor: Victor Gavenda / Keith Gilbert

Project Design: Birgit Palma, Carra Sykes, Danielle Fritz, and Brian Wood

Compositor: Brian Wood

Proofreader: Scout Festa

Indexer: Valerie Haynes Perry

Interior Design: Mimi Heft
Cover Illustration: Anthony Lam

Lesson project credits

The following individuals contributed artwork for the lesson files for this edition of *Adobe Illustrator Classroom in a Book 2026* release:

Birgit Palma (www.birgitpalma.com): Lessons 00, 1, 3, 11, and 14

Carra Sykes (www.carrasykes.com): Lessons 2, 5, 6, 9, and 12

Danielle Fritz (www.behance.net/danielle_fritz): Lessons 4, 8, 10, 13, 15, and 16

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