FREE SAMPLE CHAPTER

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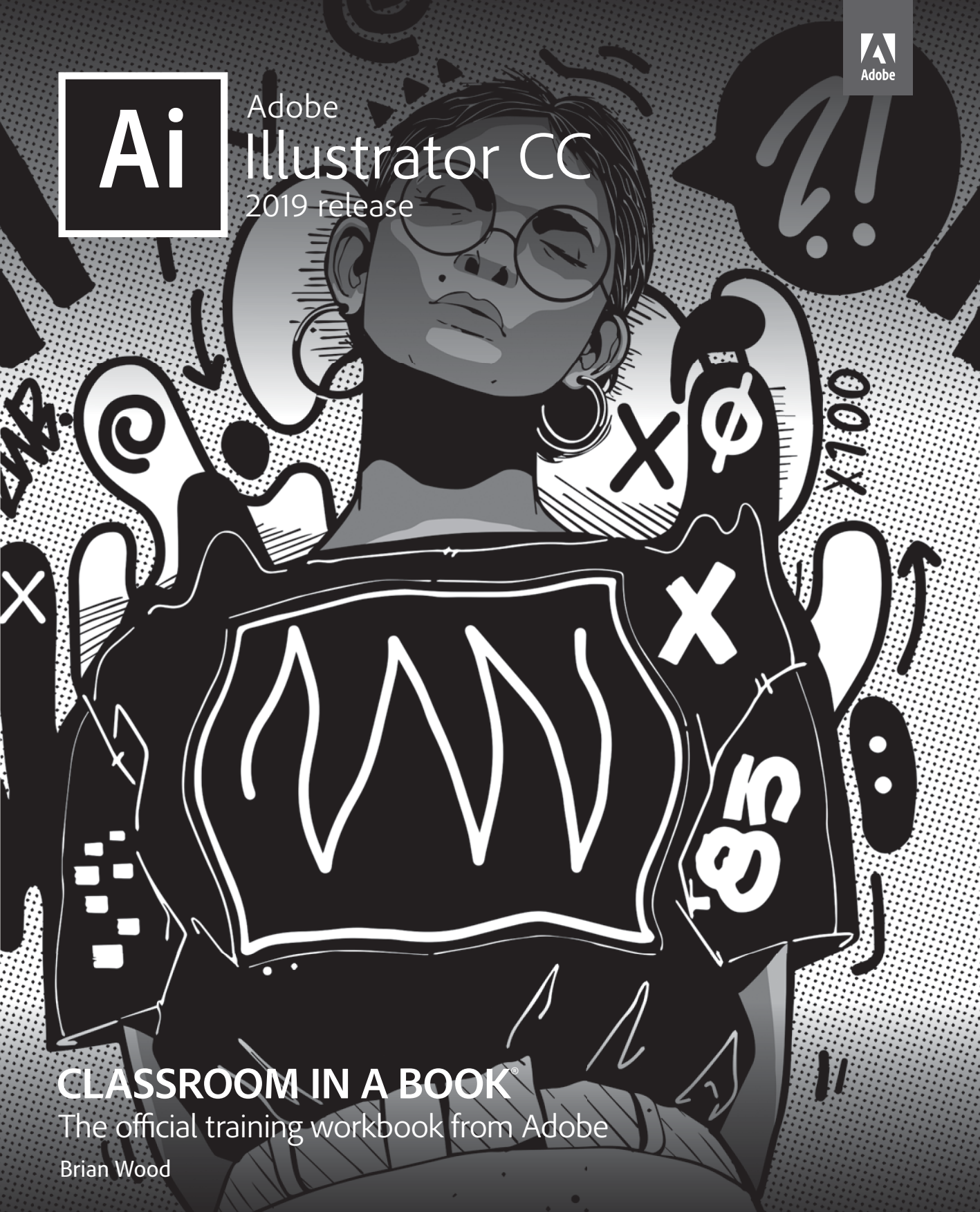
Adobe
Ai
Adobe
Illustrator CC
2019 release
CLASSROOM IN A BOOK®
The official training workbook from Adobe
Brian Wood

Adobe Illustrator CC Classroom in a Book® (2019 release)

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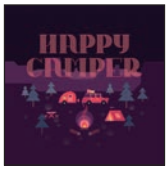

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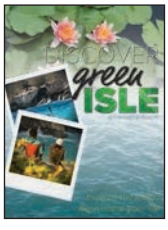

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GETTING STARTED

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

About Classroom in a Book®

Adobe Illustrator CC Classroom in a Book® (2019 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 Illustrator CC (2019 release).

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, including 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 that correspond to your interests and needs. Each lesson concludes with a review section to quiz you on the main concepts covered.

Prerequisites

Before beginning to use *Adobe Illustrator CC Classroom in a Book® (2019 release)*, you should have working knowledge of your computer and its operating system. Make sure that you know how to use the mouse and standard menus and commands and also 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

● **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."

Before you begin using *Adobe Illustrator CC Classroom in a Book® (2019 release)*, make sure that your system is set up correctly and that you've installed the required software and hardware.

You must purchase the Adobe Illustrator CC software separately. For complete instructions on installing the software, visit https://helpx.adobe.com/support/illustrator.html. You must install Illustrator from Adobe Creative Cloud onto your hard disk. Follow the on-screen instructions.

Fonts used in this book

The Classroom in a Book lesson files use fonts that are part of the Adobe Portfolio plan 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 fonts and installation, see the Adobe Illustrator CC Read Me file on the web at https://helpx.adobe.com/support/illustrator.html.

Restoring default preferences

Note: If finding the preferences file proves difficult, please contact brian@brianwoodtraining.com for assistance.

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 delete the current Adobe Illustrator Prefs file. Adobe Illustrator creates a new preferences file, if one doesn't already exist, the next time you start the program and save a file.

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. When you have finished the book, you can restore your saved settings, if you like.

To delete or save the current Illustrator preferences file

The preferences file is created after you quit the program the first time and is updated thereafter. *After launching Illustrator*, you can follow these steps:

1. Exit Adobe Illustrator CC.
2. Locate the file named Adobe Illustrator Prefs for macOS as follows:
   - <OSDisk>/Users/<username>/Library*/Preferences/Adobe Illustrator 23 Settings/en_US**/Adobe Illustrator Prefs
3. Locate the file named Adobe Illustrator Prefs for Windows as follows:
   - <OSDisk>\Users\<username>\AppData\Roaming\Adobe\Adobe Illustrator 23 Settings\en_US**\x86 or x64\Adobe Illustrator Prefs

Note: On Windows, the AppData folder is hidden by default. You will most likely need to enable Windows to show hidden files and folders. For instructions, refer to your Windows documentation.

*On macOS, the Library folder is hidden by default. To access this folder, in the Finder press the Option key, and choose Library from the Go menu in the Finder.

**The folder name may be different depending on the language version you have installed.

Tip: To quickly locate and delete the Adobe Illustrator preferences file each time you begin a new lesson, create a shortcut (Windows) or an alias (macOS) to the Adobe Illustrator 23 Settings folder.

For more information, refer to the Illustrator help: https://helpx.adobe.com/illustrator/using/setting-preferences.html

If you can't find the file, that's because either you haven't started Adobe Illustrator CC yet or you have moved the preferences file. The preferences file is created after you quit the program the first time and is updated thereafter.

4. Copy the file and save it to another folder on your hard disk (if you want to restore those preferences) or delete it.
5. Start Adobe Illustrator CC.

To restore saved preferences after completing the lessons

1. Exit Adobe Illustrator CC.
2. Delete the current preferences file. Find the original preferences file that you saved and move it to the Adobe Illustrator 23 (or other version number) Settings folder.

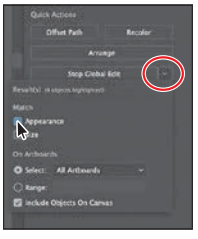
Note: You can move the original preferences file rather than renaming it.

WHAT'S NEW IN ADOBE ILLUSTRATOR CC (2019 RELEASE)

Adobe Illustrator CC (2019 release) is packed with new and innovative features to help you produce artwork more efficiently for print, web, and digital video publication. The features and exercises in this book are based on Illustrator CC (2019 release). In this section, you'll learn about many of these new features.

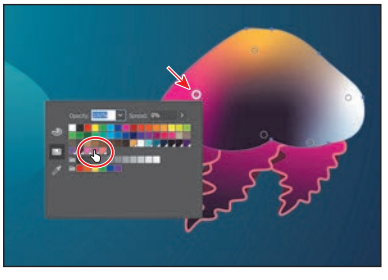
Global edit

Global edit is a quick and easy way to select and edit all similar objects based on appearance and size. It minimizes the likelihood of making manual errors and saves time as well.



Freeform gradients

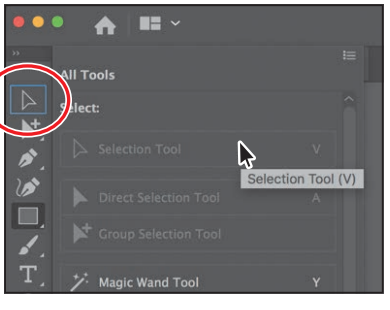
Freeform gradients let you apply a graduated blend of colors, creating blends that appear smooth and natural. You can add, move, and change the color of color stops to seamlessly apply gradients to your objects. With a freeform gradient fill, you can create a smooth color gradation across objects quickly and easily.



New Tools panel

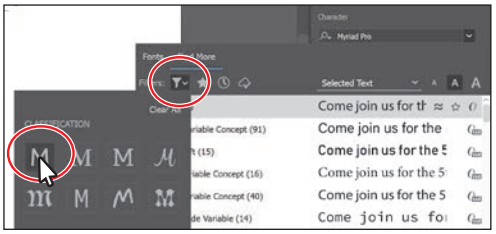
The new Tools panel that appears in the Essentials workspace now has an optimized tool set. You can add, remove, and group tools to suit your individual working style.

As you progress in the application, you can also switch to an advanced toolbar to easily access all of the tools.



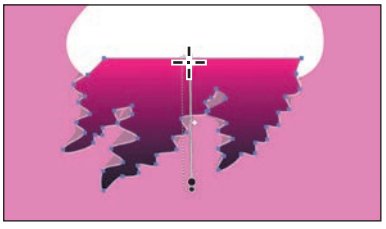
Enhanced visual font browsing

The Fonts panel now includes various new options to provide an enriched experience while working with fonts.



Enhanced linear and radial gradients

Linear and radial gradients now have an improved user interface to provide you with an enriched experience when applying and editing gradients.



Other enhancements

The following are other enhancements in Illustrator CC (2019 Release):

- **Scale the Illustrator user interface.** You can set the interface scaling by choosing Illustrator CC > Preferences > User Interface (macOS) or Edit > Preferences > User Interface (Windows).
- **New screen modes.** In this release, two new modes are available in the View menu: Presentation Mode and Trim View. Presentation Mode only displays the content on the active artboard, hiding the application menu, panels, guides, and frame edges and darkening the background to mimic an actual presentation. Choose View > Presentation Mode. Trim View mode trims the view to the boundaries of the artboard. In this mode grids, guides, and artwork extending beyond the edge of the artboard are hidden.
- **View artwork as outlines in the GPU Preview mode.** You can now view your artwork as outlines (View > Outline) in GPU Preview mode on screens with resolution greater than 2,000 pixels in width or height.
- **Improved stock image user experience.** The Adobe Stock dialog box that appears when you license an Adobe Stock image now includes an improved user interface.

▶ **Tip:** To learn more about the different modes, search for "View Artwork" in Illustrator Help (Help > Illustrator Help).

This list touches on just a few of the new and enhanced features of Illustrator CC (2019 release). Adobe is committed to providing the best tools possible for your publishing needs. We hope you enjoy working with Illustrator CC (2019 release) as much as we do.

—The Adobe Illustrator CC Classroom in a Book® (2019 release) team

A QUICK TOUR OF ADOBE ILLUSTRATOR CC (2019 RELEASE)

Lesson overview

In this interactive demonstration of Adobe Illustrator CC (2019 release), you'll get an overview of the main features of the application.

This lesson will take approximately 45 minutes to complete. Please log in to your account on peachpit.com to download the lesson files for this chapter, or go to the "Getting Started" section at the beginning of this book and follow the instructions under "Accessing the lesson files and Web Edition."

Your Account page is also where you'll find any updates to the lessons or to the lesson files. Look on the Lesson & Update Files tab to access the most current content.

In this demonstration of Adobe Illustrator CC, you'll be introduced to some key fundamentals for working in the application.

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 CC, offering a sense of the many possibilities. Along the way, you'll create artwork for a clothing boutique. First, you'll open the final artwork to see what you will create in this lesson.

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 "Getting Started" at the beginning of the book.

1. To ensure that the tools and panels function exactly as described in this lesson, delete or deactivate (by renaming) the Adobe Illustrator CC preferences file. See "Restoring default preferences" in the "Getting Started" section at the beginning of the book.
2. Start Adobe Illustrator CC.
3. Choose File > Open, or click Open in the Start workspace that is showing. Open the L00_end.ai file in the Lessons > Lesson00 folder.
4. Choose View > Fit Artboard In Window to see an example of the artwork you'll create in this lesson. Leave the file open for reference, if you'd like.

Note: If a small window appears offering a "quick tour" after opening the document, you can click Skip Tour.

Creating a new document

In Illustrator, you can start a new document using a series of preset options, depending on your needs. In this case, you will print the artwork you create as a postcard, so you will choose a preset from the Print category to start.

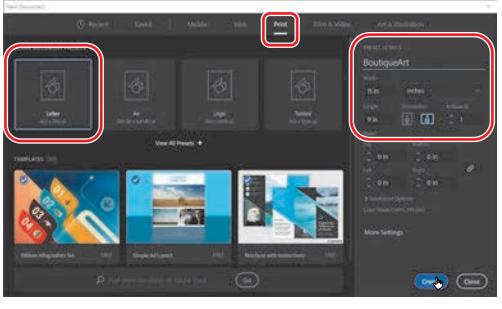
Note: Learn more about creating and editing artboards in Lesson 5, "Transforming Artwork."

1. Choose File > New.
2. In the New Document dialog box, select the Print category along the top of the dialog box.

   Make sure the Letter document preset is selected.

   In the Preset Details area on the right, change the following:

   - Name (below Preset Details): **BoutiqueArt**
   - Units (to the right of Width): **Inches**
   - Width: **11 in**
   - Height: **9 in**



Note: The figures in this lesson are taken using macOS and may look slightly different from what you see, especially if you are using Windows.

3. Click Create, and a new, blank document opens.

4 Choose File > Save As. In the Save As dialog box, leave the name as BoutiqueArt.ai, and 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) and then click Save.

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

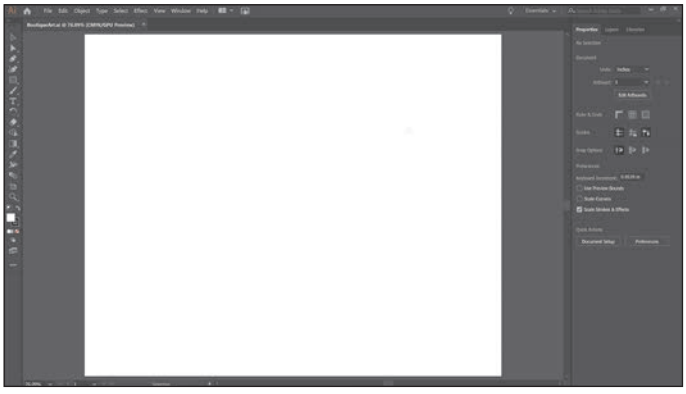
6 Choose Window > Workspace > Reset Essentials.

Note: If you don't see Reset Essentials in the Workspace menu, choose Window > Workspace > Essentials before choosing Window > Workspace > Reset Essentials.

Drawing a shape

Drawing shapes is the cornerstone of Illustrator, and you'll create many of them in the coming lessons. To start your project, you'll create a rectangle.

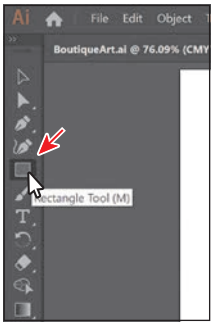
1 Choose View > Fit Artboard In Window.

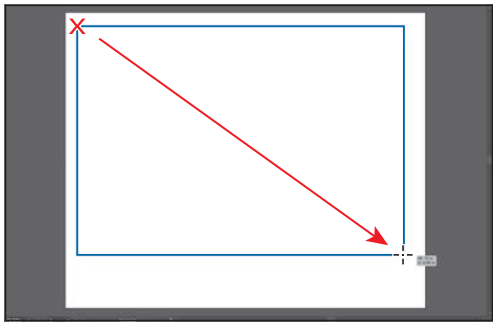


The white area you see is called the *artboard*, and it's where your printable artwork will go. Artboards are like pages in Adobe InDesign®.

Note: Learn more about creating and editing shapes in Lesson 3, "Using Shapes to Create Artwork for a Postcard."

2 Select the Rectangle tool ( ) in the Tools panel on the left. Move the pointer into the upper-left part of the artboard (see the red X in the figure). Press and drag down and to the right. When the gray measurement label next to the pointer shows a width of *approximately* 10 inches and a height of 7 inches, release the mouse button. The shape will be selected.





Note: You can also create shapes by clicking the artboard with a shape tool and specifying shape properties before they are created.

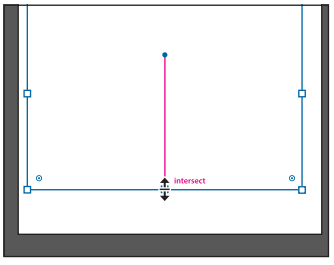
Note: If you don't see the size of the rectangle as you draw it, make sure that Smart Guides are turned on by choosing View > Smart Guides. A checkmark next to the Smart Guides menu item means they are on.

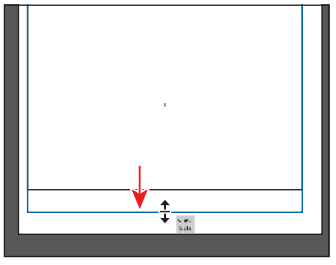
Editing shapes

Note: Learn more about editing shapes in Lesson 3, "Using Shapes to Create Artwork for a Postcard," and Lesson 4, "Editing and Combining Shapes and Paths."

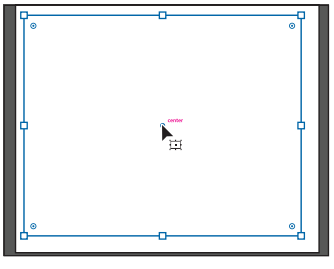
Most shapes are *live*, which means you can edit them without switching away from the tool you're drawing with, like the Rectangle tool. Next, you'll transform the shape you just drew and round the corners using the Rectangle tool.

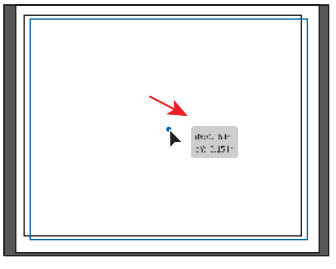
1 With the rectangle still selected, drag the bottom-middle point on the rectangle down until you see a height of approximately 8 inches in the gray measurement label next to the pointer.





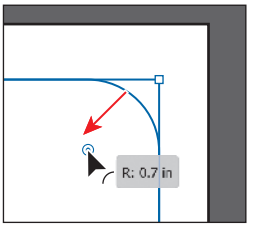
2 Move the pointer over the blue circle in the center of the rectangle. When the pointer changes (), drag it into the approximate center of the artboard.





Tip: You can also round all of the corners independently. You'll learn more about creating and editing Live Shapes in Lesson 3, "Using Shapes to Create Artwork for a Postcard."

3 With the rectangle still selected, drag the upper-right corner widget () toward the center of the rectangle. When the gray measurement label shows a value of approximately 0.7 in, release the mouse button.



A lot of the different types of shapes in Illustrator have widgets, like the corner widgets, for editing properties such as the number of sides on a polygon, adding pie angles to ellipses, and more.

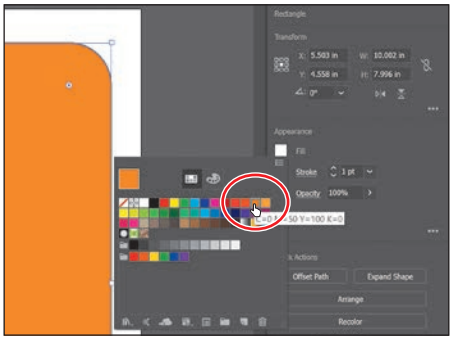
4 Choose File > Save to save the document.

Applying and editing color

Applying color to artwork is a common Illustrator task. Shapes you create can have a stroke (border) and can also be filled with a color. You can apply and edit *swatches*, which are the colors that come with each document by default, and create your own colors. In this section, you'll change the fill color of the selected rectangle.

Note: Learn more about fill and stroke in Lesson 7, "Using Color to Enhance Signage."

1 With the rectangle still selected, click the Fill color box (□) to the left of the word "Fill" in the Properties panel, to the right of the Document window. In the panel that opens, make sure that the Swatches option (▦) is selected at the top to show the default swatches (saved colors). Move the pointer over an orange swatch, and when a tool tip appears ("C=0, M=50, Y=100, K=0"), click to apply the orange color to the *fill* of the shape.

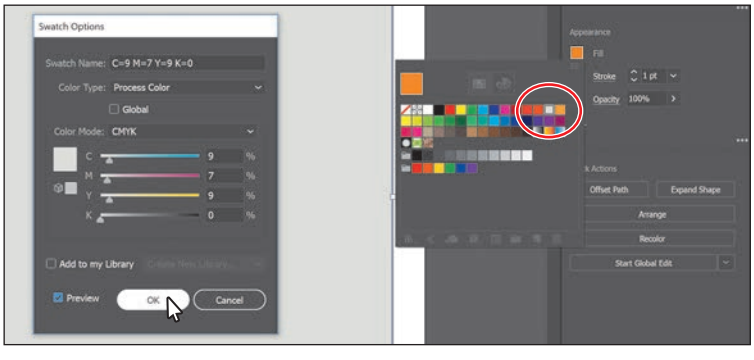


While you can use the default swatches, you can also create your own colors and save them as swatches to reuse them later.

2 With the Swatches panel still showing, double-click the orange swatch you just applied to the shape to edit the color.

3 In the Swatch Options dialog box, change the values to C=**9**, M=**7**, Y=**9**, K=**0** to make a light tan color. Select Preview to see the change to the rectangle. Click OK to save the change you made to the swatch.

Note: Going forward, you'll find you need to hide panels such as the Fill color panel before you continue. You can press the Escape key to do this.



4 Press the Escape key to hide the Swatches panel.

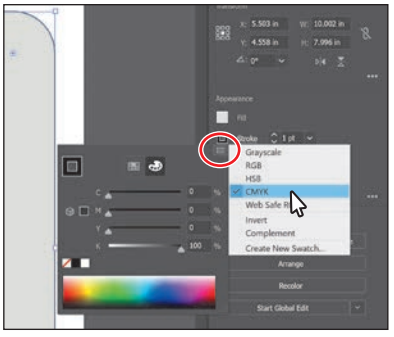
Editing strokes

Note: Learn more about working with strokes in Lesson 3, "Using Shapes to Create Artwork for a Postcard."

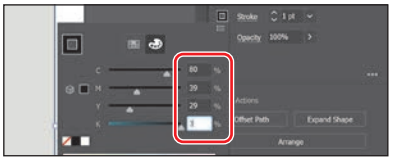
A stroke is the outline (border) of artwork like shapes and paths. There are a lot of appearance properties you can change for a stroke, including width, color, dashes, and more. In this section, you'll adjust the stroke of the rectangle.

1 With the rectangle still selected, click the Stroke color box ( ) in the Properties panel. In the panel that appears, click the Color Mixer button ( ) at the top to create a custom color.

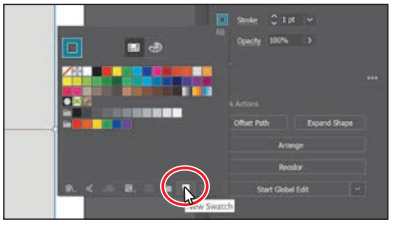
If you don't see CMYK sliders in the panel, choose CMYK from the panel menu ( ), which is circled in the figure.



2 Change the CMYK values to C=**80**, M=**39**, Y=**29**, and K=**3**.



3 To save the color you just created so you can use it again easily, click the Swatches button ( ) at the top of the panel. Click the New Swatch button ( ) at the bottom of the panel to save it as a swatch.

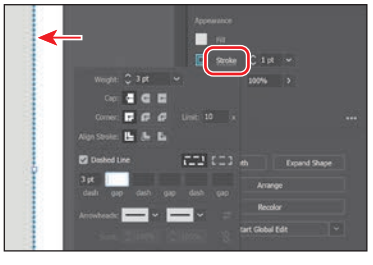


4 In the New Swatch dialog box that appears, deselect Add To My Library, and click OK.

The blue color should now be showing in the Swatches panel as a saved swatch.

5 Click the word "Stroke" in the Properties panel to open the Stroke panel. Change the following options:

- Stroke Weight: **3 pt**
- Dashed Line: **Selected**
- Dash: **3 pt** (Type **3** in the first dash field; then click the gap field to the right.)



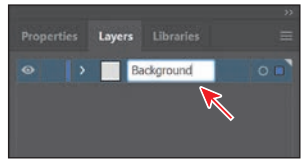
Working with layers

Layers allow you to organize and more easily select artwork. Next, using the Layers panel, you'll start to organize your artwork.

Note: Learn more about working with layers and the Layers panel in Lesson 9, "Organizing Your Artwork with Layers."

1 Choose Window > Layers to show the Layers panel to the right of the document.

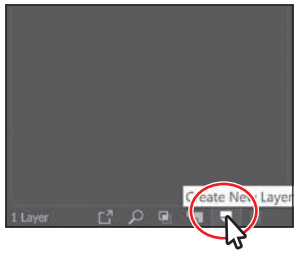
2 Double-click the text "Layer 1" (the layer name) in the Layers panel. Type **Background**, and press Return or Enter to change the layer name.

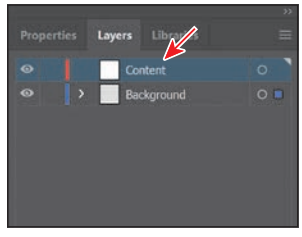


Naming layers can be helpful when organizing content. Currently, the rectangle you created is on this layer.

3 Click the Create New Layer button ( ) at the bottom of the Layers panel, to create a new, blank layer.

4 Double-click the new layer name, Layer 2, and type **Content**. Press Return or Enter to change the layer name.

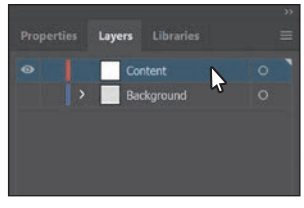




By creating multiple layers in your artwork, you can control how overlapping objects are displayed. In the document, artwork on the Content layer will be on top of the artwork on the Background layer since the Content layer is above the Background layer in the Layers panel.

5 Click the eye icon ( ) to the left of the Background layer name to temporarily hide the rectangle on the background layer.

6 Click the Content layer to make sure it's selected in the Layers panel.



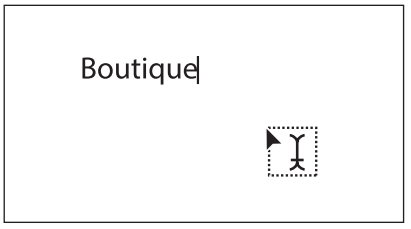
Any new artwork will be added to the selected Content layer.

Working with type

Note: Learn more about working with type in Lesson 8, "Adding Type to a Poster."

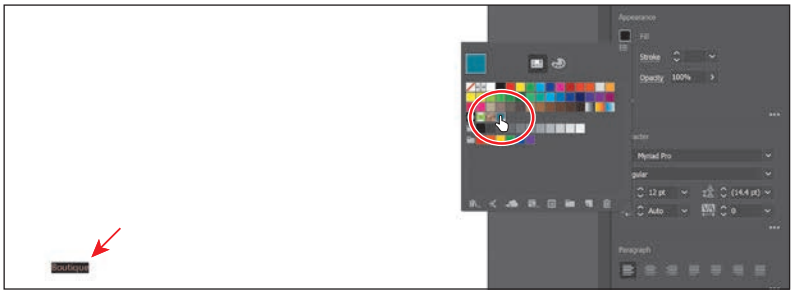
Next you'll add text to the project and change its formatting. You'll choose an Adobe font that requires an Internet connection to activate. If you don't have an Internet connection, you can simply choose another font that you already have installed.

1 Select the Type tool (T) in the Tools panel on the left, and click in a blank area toward the bottom of the artboard. A text area will appear with the selected placeholder text, "Lorem ipsum." Type **Boutique**.

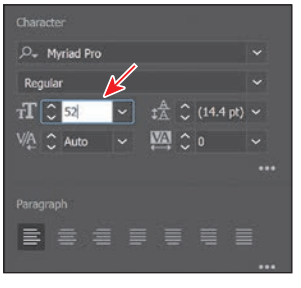


2 With the cursor still in the text, choose Select > All to select all of the text.

3 Click the Properties panel tab in the upper-right corner of the application window to the right to show the panel. Click the Fill color box. In the panel that appears, make sure the Swatches button ( ) is selected at the top of the panel, and click to select the blue swatch you created in a previous step. Press the Escape key to hide the panel.

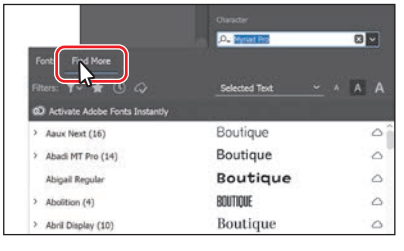


4 In the Character section of the Properties panel, select the font size, and type **52**. Press Return or Enter to accept the size change.



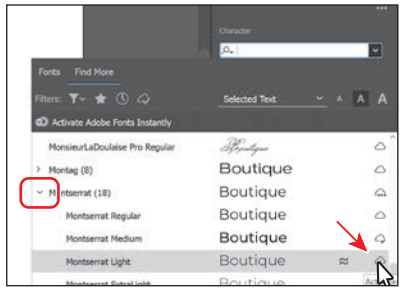
Next you'll apply an Adobe font, which requires an Internet connection. If you don't have an Internet connection or access to the Adobe fonts, you can choose any other font from the Font Family menu.

5 Click the arrow to the right of the Font Family field in the Properties panel. In the menu that appears, click Find More to see a listing of Adobe fonts.



The list of fonts you see may be different, and that's okay.

6 Scroll down in the menu to find the font named "Montserrat." Click the arrow to the left of the Montserrat font name to show the font styles (circled in the following figure).



7 Click the Activate button (☁) to the far right of the Montserrat Light font name to activate it.

8 Click OK in the dialog box that appears to activate the font.

If you run into syncing issues, look in the Creative Cloud desktop application, which is where you'll be able to see messages indicating that font syncing is turned off (turn it on in that case) or any other issues.

9 Click the Show Activated Fonts button (☁) to filter the font list and show the fonts you've activated. Move the pointer over the words "Montserrat Light" in the menu that appears to show a live preview on the selected text. Click Montserrat Light to apply it.

Note: It may take some time for the font to be activated.

10 With the text selected, in the Properties panel on the right, change the Tracking (VA) value by selecting the value in the field and typing **300**. Press Return or Enter to accept the change.

11 Click More Options (•••) in the Character section to show more options. Click the All Caps option (TT) to make the text capitals.

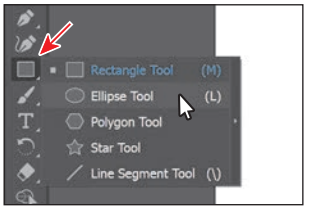
12 Choose Select > Deselect and then choose File > Save.

Creating shapes using the Shape Builder tool

Note: Learn more about working with the Shape Builder tool in Lesson 4, "Editing and Combining Shapes and Paths."

The Shape Builder tool ( ) is an interactive tool for creating complex shapes by merging and erasing simpler shapes. Next you'll create the top of an acorn with several shapes using the Shape Builder tool to combine them.

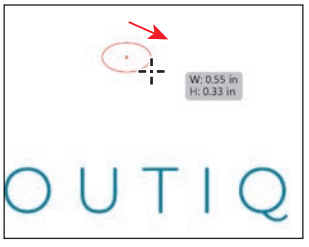
1 Press and hold down on the Rectangle tool ( ) in the Tools panel on the left. Select the Ellipse tool ( ) in the menu that appears.



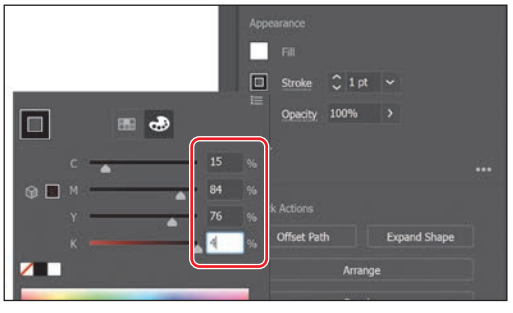
2 Above the text, drag to create an ellipse. See the figure for roughly how big to make it.

3 To zoom in to the shape, choose View > Zoom In three times.

4 Press the D key to apply the default color fill of white and a black stroke to the shape.

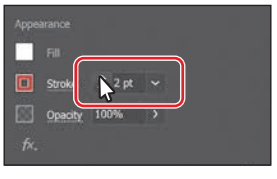


5 Click the stroke color in the Properties panel, and click the Color Mixer button ( ) at the top of the panel to make a new color. Change the color values to C=**15**, M=**84**, Y=**76**, K=**4**. Press Return or Enter to hide the panel.



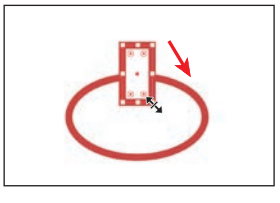
6 Change the stroke weight in the Properties panel to **2**.

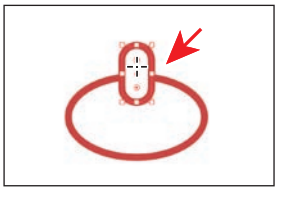
7 Press and hold on the Ellipse tool, and select the Rectangle tool ( ). Drag to create a small rectangle on top of the ellipse. See the first part of the following figure.



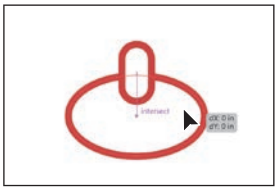
Note: If you don't see the corner widgets ( ), you may need to zoom in closer. You can do that by choosing View > Zoom In.

8 To round the corners of the rectangle, drag any of the corner widgets ( ) toward the center of the shape.



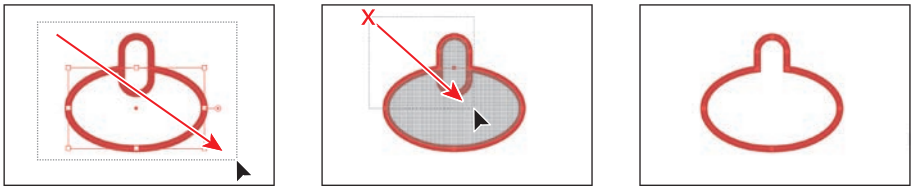


9 Select the Selection tool (▶) in the Tools panel on the left, and drag the ellipse so it is center aligned with the rounded rectangle. A temporary vertical magenta guide may appear when they are aligned.



10 Drag across both shapes to select them (see the first part of the following figure).

11 Select the Shape Builder tool (🔨) in the Tools panel on the left. Move the pointer where you see the red X in the middle part of the following figure. Press the Shift key, and drag across the two shapes to combine them. Release the mouse button and then the key.



Note: Don't worry if yours doesn't look like the figure. The goal is to understand how to create and edit the shapes. Besides, it's an acorn. They come in different shapes and sizes!

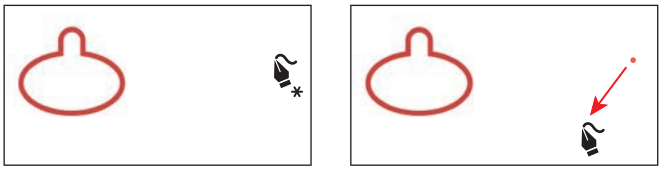
Creating with the Curvature tool

With the Curvature tool (✒), you can draw and edit paths quickly and visually to create paths with smooth refined curves and straight lines. In this section, you'll explore the Curvature tool while creating the final part for the acorn.

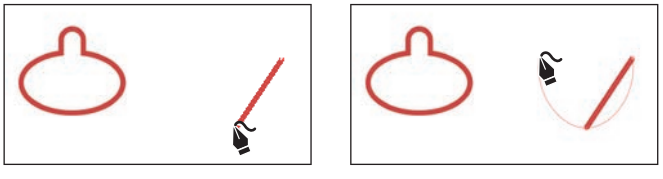
Note: Learn more about working with Curvature tool in Lesson 6, "Creating an Illustration with the Drawing Tools."

1 Select the Curvature tool (✒) in the Tools panel.

2 Move the pointer into a blank area, away from the top of the acorn you just created. Click and release to start drawing a shape (see the first part of the following figure). Move the pointer away (see the second part of the figure).

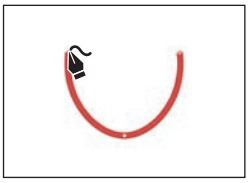


3 Click and release (see the first part of the following figure) to continue drawing a shape. Move the pointer away and notice the path curving in different ways as you move it.

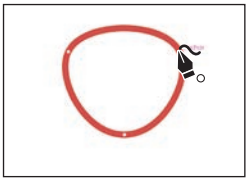


Every time you click, you are creating what is called an *anchor point*. The anchor points you add control the shape of the path.

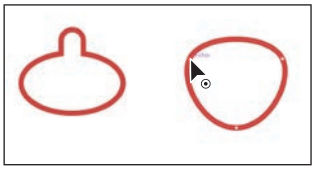
4 Move the pointer up and to the left, and when the path looks something like the figure, click and release to continue drawing the shape.

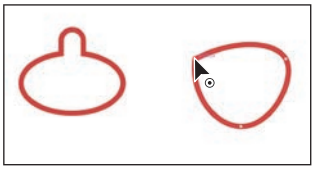


5 Move the pointer over where you first clicked. When the pointer shows a small circle next to it (), click to close the path, creating a shape.



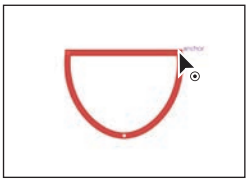
6 Move the pointer over the point on the left, and when the pointer looks like this , double-click to make it a corner.





7 Do the same for the point on the right (the first anchor point you created). Move the pointer over the point, and double-click to make it a corner as well.

You now have all of the artwork you need to make the acorn.



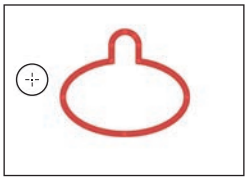
Transforming artwork

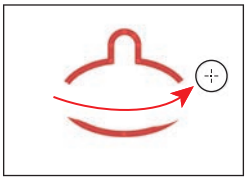
Note: Learn more about transforming artwork in Lesson 5, "Transforming Artwork."

In Illustrator, there are a number of ways to move, rotate, skew, scale, and more—in other words *transforming* artwork so you can get it just the way you want. Next you'll transform the acorn artwork.

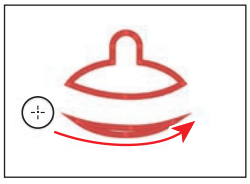
1 Select the Selection tool () in the Tools panel on the left. Click the top of the acorn shape you created in a previous section.

2 Select the Eraser tool () in the Tools panel on the left. Drag across the bottom of the artwork in a U shape to erase part of it. After releasing the mouse button, you will see the resulting shape.



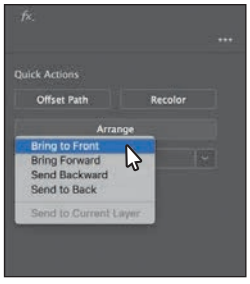


3 Drag across any remaining artwork below the acorn top to erase it (see the figure at right).

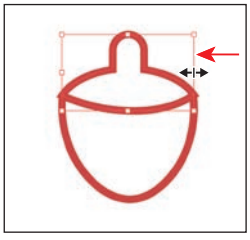


4 Select the Selection tool (▶), and drag the top of the acorn onto the bottom of the acorn, centering them as best you can (see the following acorn figure).

5 Click the Arrange button towards the bottom of the Properties panel to the right of the document and choose Bring To Front to bring the top of the acorn on top of the bottom.



6 Press Option (macOS) or Alt (Windows), and drag the right point on the box surrounding the shape to make it wider or narrower—whichever allows you to fit the top best. When it looks good, release the mouse button and then the key.

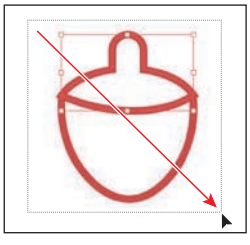


● **Note:** The figure shows making the top of the acorn a bit narrower. If you need to make yours wider, that's okay.

7 Drag across both acorn shapes to select them.

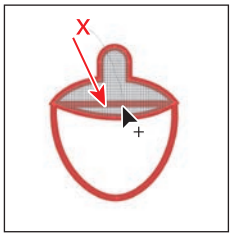
8 Click the Fill color in the Properties panel on the right, and choose the None swatch (⊘) to remove the white fill color.

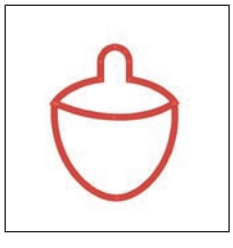
You'll see that the top shape of the acorn overlaps the bottom shape of the acorn. You can use the Shape Builder tool to fix that.



9 Select the Shape Builder tool (⊕) in the Tools panel on the left. Move the pointer where you see the red X in the following figure. Drag across the top shapes to combine them. Make sure not to drag into the bottom shape.

● **Note:** If you make a mistake with the Shape Builder tool, choose Edit > Undo Merge and try again.





10 Leave the acorn shapes selected, and choose File > Save.

Working with symbols

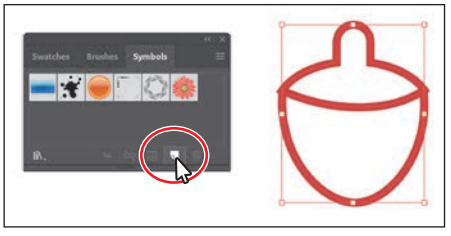
Note: Learn more about working with symbols in Lesson 13, "Creating Artwork for a T-Shirt."

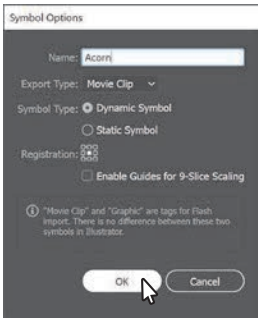
A *symbol* is reusable art stored in the Symbols panel. Symbols are useful because they can help you save time and can save on file size as well. You will now create a symbol from the acorn artwork.

1 With the acorn shapes still selected, select the Selection tool (▶).

2 Choose Window > Symbols to open the Symbols panel. Click the New Symbol button (▣) at the bottom of the panel to save the selected artwork as a symbol.

3 In the Symbol Options dialog box that appears, name the symbol **Acorn**, and click OK. If a warning dialog box appears, click OK as well.

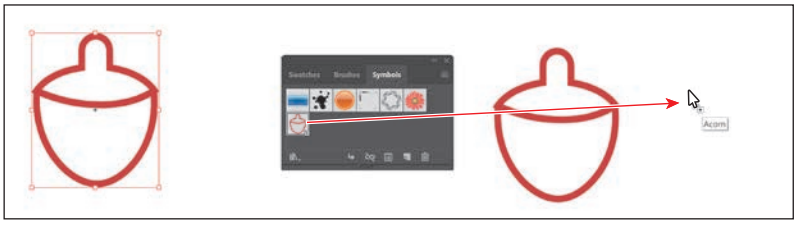




The artwork now appears as a saved symbol in the Symbols panel, and the acorn on the artboard you used to create the symbol is now a symbol instance.

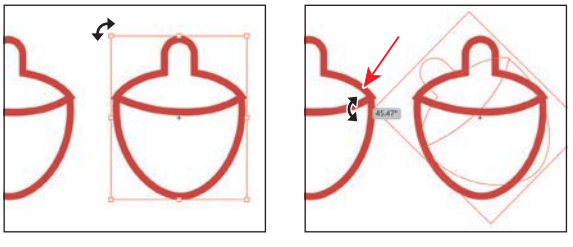
Note: Your acorn symbol instances may be in different locations than those in the figure. That's okay. Also, the figure shows dragging the third symbol onto the artboard.

4 From the Symbols panel, drag the acorn symbol thumbnail onto the artboard *twice.* You'll arrange them later.



5 Click the X at the top of the Symbols panel group to close it.

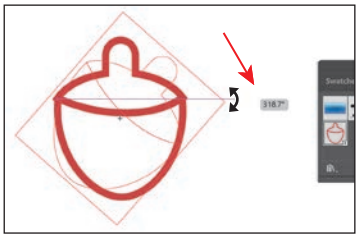
6 With one of the acorns selected, move the pointer just off of a corner. When the rotate arrows appear, drag to rotate the acorn.



7 Click to select one of the other acorns and rotate it in the opposite direction.

8 Double-click the red path of one of the acorn instances on the artboard to enter Isolation mode. In the dialog box that appears, click OK.

9 Click the stroke (border) of the bottom part of the acorn to select it.



▶ **Tip:** You could have also clicked the Edit Symbol button in the Properties panel to the right of the document.

10 Click the Stroke color in the Properties panel, and click the Color Mixer button ( ) at the top of the panel to make a new color. Change the color values to C=**2**, M=**44**, Y=**26**, K=**0**. After typing in the last value, press Return or Enter to make the change and also close the panel.

11 Choose Object > Arrange > Send To Back to ensure that the bottom part of the acorn is behind the top part.

● **Note:** If Send To Back is dimmed, then you are already set.

12 Double-click in a blank area of the Document window to exit the editing (Isolation) mode, and notice that the other acorns have changed as well.

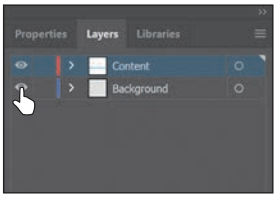
Creating and editing gradients

Gradients are color blends of two or more colors that you can apply to the fill or stroke of artwork. Next you'll apply a gradient to the background shape.

● **Note:** Learn more about working with gradients in Lesson 10, "Gradients, Blends, and Patterns."

1 Choose View > Fit Artboard In Window.

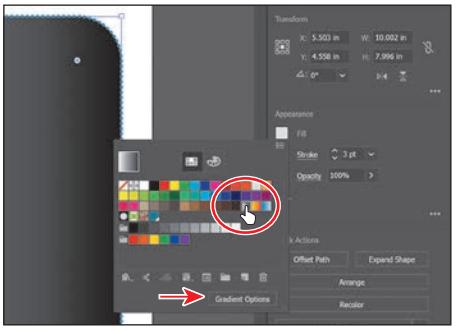
2 Click the Layers panel tab in the upper-right corner of the application window to show the panel. Click in the visibility column to the left of the Background layer name to show the rectangle on the Background layer.



3 With the Selection tool ( ) selected in the Tools panel to the left, click in the rectangle in the background to select it.

Note: A message may appear after selecting the gradient. You can click Okay to dismiss it. If you do this, you'll most likely need to click the Fill color in the Properties panel again to show the swatches.

4 Click the Properties panel tab in the upper-right corner of the application window to show the panel. In the Properties panel, click the Fill color box and make sure the Swatches option ( ) is selected. Select the white-to-black swatch with the tool tip "White, Black." Leave the panel with the swatches showing.



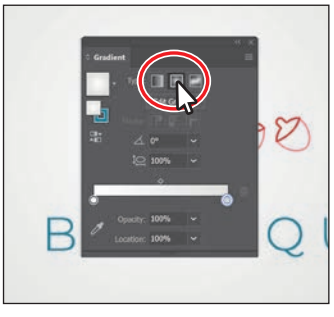
5 At the bottom of the panel, click the Gradient Options button to open the Gradient panel. An arrow is pointing to the button in the previous figure. You can drag the Gradient panel by the title bar at the top to move it around.

6 In the Gradient panel, do the following:

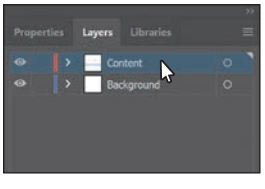
- Click the Fill box to make sure you are editing the fill (circled in the figure).
- Double-click the little black color stop ( ) on the right side of the gradient slider in the Gradient panel (it's circled in the figure).
- Click the Color button ( ) in the panel that appears. Click the panel menu icon ( ), and choose CMYK.
- Change the CMYK color values to C=**9**, M=**7**, Y=**9**, K=**0**. Press Return or Enter after typing in the last value to make the change and hide the panel.

7 Click the Radial Gradient button ( ) at the top of the Gradient panel to change the gradient to a circular gradient. Click the X at the top of the Gradient panel to close it.

8 Choose Object > Hide > Selection to hide the background shape temporarily. That way you can focus on other artwork.



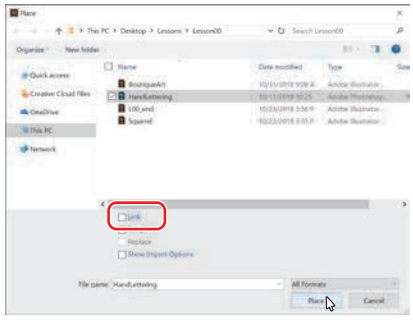
9 Click the Layers panel tab in the upper-right corner of the application window to show the Layers panel. Click the Content layer name so that any new artwork you add will be on the Content layer and above the content on the Background layer.



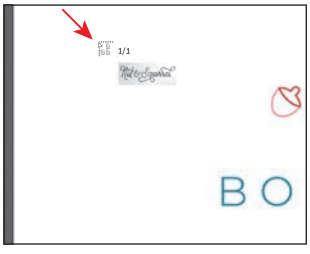
Placing an image in Illustrator

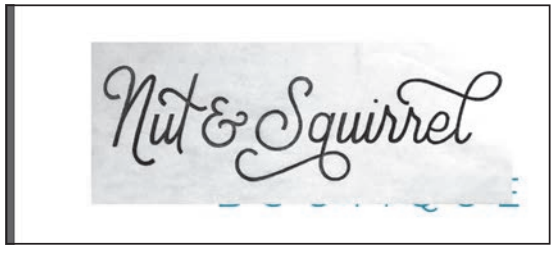
In Illustrator, you can place raster images, like JPEG files, Adobe Photoshop® files, and other Illustrator files, and either link to them or embed them. Next you'll place an image of hand-drawn text.

1 Choose File > Place. In the Place dialog box, navigate to the Lessons > Lesson00 folder, and select the HandLettering.psd file. Make sure that the Link option in the dialog box is *not* selected, and click Place.



2 Move the loaded graphics cursor into the artboard. Click to place the hand lettering image.





Note: Learn more about placing images in Lesson 14, "Using Illustrator CC with Other Adobe Applications."

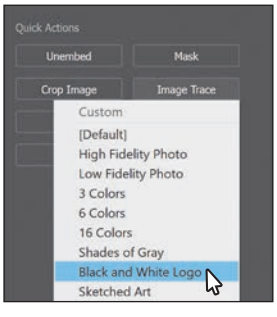
Note: On macOS, if you don't see the Link option in the dialog box, click the Options button.

Using Image Trace

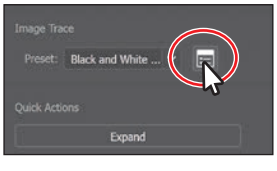
You can use Image Trace to convert raster images into vector artwork. Next you'll trace the hand lettering Photoshop file you just placed.

1 With the Selection tool (▶) selected, click to select the hand-lettering image.

2 To trace the lettering so you can edit it as shapes in Illustrator, click the Properties panel tab to show the panel. Then, click the Image Trace button in the Properties panel, and choose Black And White Logo from the menu.



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



Note: Learn more about Image Trace in Lesson 3, "Using Shapes to Create Artwork for a Postcard."

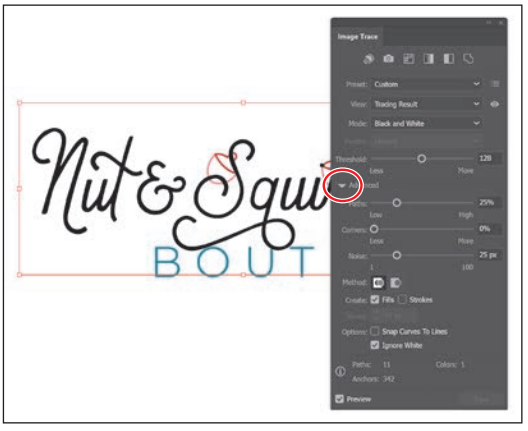
Note: The hand lettering was hand-drawn and a picture was taken of it. It was created by Danielle Fritz (www.behance.net/danielle_fritz).

Note: When you edit a value in the Image Trace panel, Illustrator applies each change to the tracing, so it may take some time.

Tip: Another method for converting the hand-drawn lettering is by using the Adobe Capture® CC app. To learn more about Adobe Capture, visit https://www.adobe.com/products/capture.html.

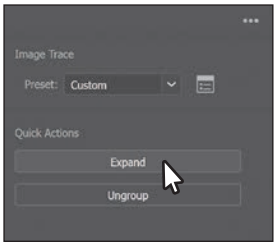
4 In the Image Trace panel that opens, click the disclosure triangle to the left of Advanced (circled in the figure). Set the following options for a better trace:

- Paths: **25%**
- Corners: **0%**
- Noise: **25 px**
- Snap Curves To Lines: **deselected**
- Ignore White: **selected**



5 Close the Image Trace panel by clicking the small X at the top.

6 With the lettering still selected, click the Expand button in the Quick Actions section of the Properties panel to make the object a series of editable shapes that are grouped together.



7 With the lettering selected, click the Fill color in the Properties panel. With the Swatches option ( ) selected at the top of the panel, click the blue color you created previously to apply it.

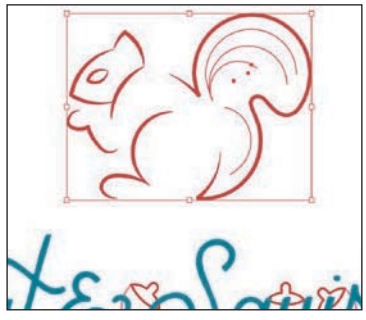
8 With the Selection tool selected, pressing the Shift key, drag a corner of the text shapes to make them larger. When you see a width of approximately 8.5 inches in the gray measurement label next to the pointer, release the mouse and then the key.

Working with brushes

Brushes let you stylize the appearance of paths. You can apply brush strokes to existing paths, or you can use the Paintbrush tool (🖌) to draw a path and apply a brush stroke simultaneously. Next you'll copy existing artwork from another Illustrator document and apply a brush to part of it.

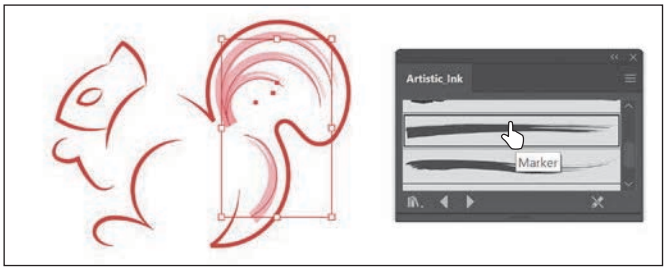
Note: Learn more about working with brushes in Lesson 11, "Using Brushes to Create a Poster."

1. Choose File > Open. Select the Squirrel.ai file in the Lessons > Lesson00 folder, and click Open.
2. Choose View > Fit Artboard In Window.
3. To select and copy all of the squirrel artwork, choose Select > All On Active Artboard. To copy the artwork, choose Edit > Copy.
4. Choose File > Close to close the Squirrel.ai file, and return to the Boutique project.
5. Choose Edit > Paste.
6. Drag the squirrel artwork by one of the red paths, up toward the top of the artboard.



Note: The lines in the tail of the squirrel and the squirrel artwork are separate objects. If you find that you only drag one, simply drag the other artwork into place.

7. Choose Select > Deselect to deselect all of the artwork. Click a lighter red path in the tail of the squirrel to select a group of paths.
8. Choose Window > Brush Libraries > Artistic > Artistic_Ink to open the Artistic_Ink collection of brushes in a separate panel.
9. Scroll down in the Artistic_Ink panel list. Move the pointer over a brush in the list, and you will see its name in a tool tip. Click the brush named "Marker" in the panel to apply it to the selected paths.



Note: The brush you apply is an art brush, which means that it stretches artwork along the path. The brush artwork is scaled on the path based on the stroke (border) weight.

10. Click the X in the corner of the Artistic_Ink panel to close it.
11. Select the Selection tool (▶), and pressing the Shift key, click the red path of the squirrel artwork to select the paths in the tail and the squirrel. Choose Object > Group to keep it all together.

Aligning artwork

Note: Learn more about aligning artwork in Lesson 2, "Techniques for Selecting Artwork."

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 move all of the artwork into position and align some of it to the center of the artboard.

1 Choose Object > Show All to show all of the previously hidden artwork.

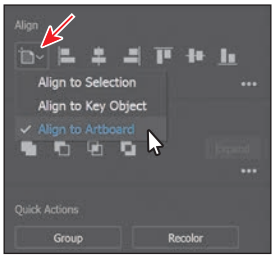
2 With the Selection tool (▶) selected, drag each object into position like you see in the figure. It doesn't have to match exactly.

Tip: You can also drag across the background rectangle and text to select them.

3 Click to select the background rectangle, and pressing the Shift key, click the BOUTIQUE text to select it as well.

4 Click the Align To Selection option (▣) in the Properties panel to the right of the document, and choose Align To Artboard from the menu.

Any content you apply an alignment to will now align to the edges of the artboard.



5 Click the Horizontal Align Center button (▣) to align the selected artwork to the horizontal center of the artboard.

6 Choose Select > Deselect.

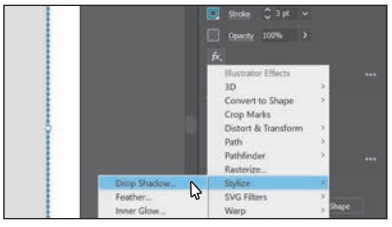
Working with effects

Effects alter the appearance of an object without changing the base object. Next you'll apply a subtle Drop Shadow effect to the rectangle in the background.

Note: Learn more about effects in Lesson 12, "Exploring Creative Uses of Effects and Graphic Styles."

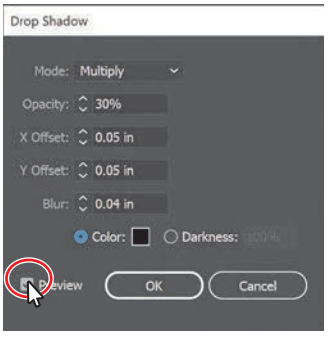
1 With the Selection tool (▶), click the rectangle in the background.

2 Click the Choose An Effect button (fx) in the Properties panel on the right, and choose Stylize > Drop Shadow.



3 In the Drop Shadow dialog box, set the following options (if necessary):

- Mode: **Multiply** (the default setting)
- Opacity: **30%**
- X Offset and Y Offset: **0.05 in**
- Blur: **0.04**



4 Select Preview to see it applied to the rectangle and then click OK.

5 Choose Select > Deselect.

6 Choose File > Save.

Presenting your document

In Illustrator, you can view your document in different ways. If you need to present your work to someone else, for instance, you can show the document in Presentation mode, which is what you'll do next.

1 Choose View > Presentation Mode.

Everything but the active artboard is hidden from view. The area around the artboard is replaced by a solid color, usually black. If there were more artboards (like multiple pages in Adobe InDesign), you could press the right or left arrow key to navigate between them.

2 Press the Escape key to exit Presentation mode.

3 Choose File > Save and then choose File > Close.

Tip: Another way to show your document in Presentation mode is to click the Change Screen Mode (▭) button toward the bottom of the Tools panel on the left and choose Presentation mode. You could also press Shift+F to turn on Presentation mode. To turn it off, you can press the Escape key.

10 GRADIENTS, BLENDS, AND PATTERNS

Lesson overview

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

- Create and save a gradient fill.
- Apply and edit a gradient on a stroke.
- Apply and edit a radial gradient.
- Adjust the direction of a 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.
- Create and paint with patterns.

This lesson will take about 60 minutes to complete. Please log in to your account on peachpit.com to download the files for this lesson, or go to the "Getting Started" section at the beginning of this book and follow the instructions under "Accessing the lesson files and Web Edition." Store the files on your computer in a convenient location.

Your Account page is also where you'll find any updates to the lessons or to the lesson files. Look on the Lesson & Update Files tab to access the most current content.

To add depth and interest to your artwork in Illustrator, you can apply gradient fills, which are graduated blends of two or more colors, patterns, and shapes and colors. In this lesson, you'll explore how to work with each of these to complete several projects.

Starting the lesson

In this lesson, you'll explore various ways to work with gradients, blend shapes and colors, and create and apply patterns. Before you begin, you'll restore the default preferences for Adobe Illustrator CC. Then you'll open a finished art file for the first part of the lesson to see what you'll create.

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. To ensure that the tools function and the defaults are set exactly as described in this lesson, delete or deactivate (by renaming) the Adobe Illustrator CC preferences file. See "Restoring default preferences" in the "Getting Started" section at the beginning of the book.
2. Start Adobe Illustrator CC.
3. Choose File > Open, and open the L10_end1.ai file in the Lessons > Lesson10 folder on your hard disk.
4. Choose View > Fit All In Window. If you don't want to leave the document open as you work, choose File > Close.

   To begin working, you'll open an art file that you need to finish.

5. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson10 folder, and select the L10_start1.ai file on your hard disk. Click Open to open the file. Don't worry, you'll make it look a *lot* better by the end of this lesson!
6. Choose View > Fit All In Window.
7. Choose File > Save As, name the file **Jellyfish_poster.ai**, and select the Lessons > Lesson10 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.

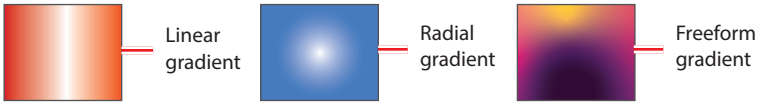
Note: If you don't see Reset Essentials in the workspace switcher menu, choose Window > Workspace > Essentials before choosing Window > Workspace > Reset Essentials.

8. In the Illustrator Options dialog box, leave the Illustrator options at their default settings and then click OK.
9. Choose Reset Essentials from the workspace switcher in the Application bar.

Working with gradients

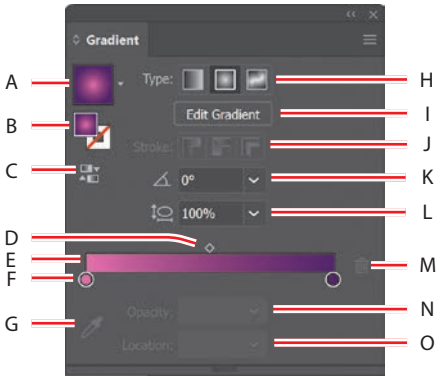
A *gradient fill* is a graduated blend of two or more colors, and it always includes a starting color and an ending color. You can create different types of gradient fills in Illustrator, including *linear*, in which the beginning color blends into the ending color along a line; *radial*, in which the beginning color radiates outward, from the center point to the ending color; and *freeform*, where you can create a graduated blend of color stops within a shape in an ordered or random sequence such that the blending appears smooth and as natural color. You can use the gradients provided with Adobe Illustrator CC or create your own gradients and save them as swatches for later use.

Note: As of the writing of this book, you cannot save freeform gradients as a swatch for later use.



You can apply, create, and modify gradients with the Gradient panel (Window > Gradient) or the Gradient tool ( ) in the Tools panel. In the Gradient panel, the Gradient Fill box or Stroke box displays the current gradient colors and gradient type applied to the fill or stroke of an object.

Note: The Gradient panel you see won't match the figure, and that's okay.



A. Gradient
B. Fill box/ Stroke box
C. Reverse Gradient
D. Gradient midpoint
E. Gradient slider
F. Color stop
G. Color Picker
H. Gradient type
I. Edit Gradient
J. Stroke gradient type
K. Angle
L. Aspect ratio
M. Delete Stop
N. Opacity
O. Location

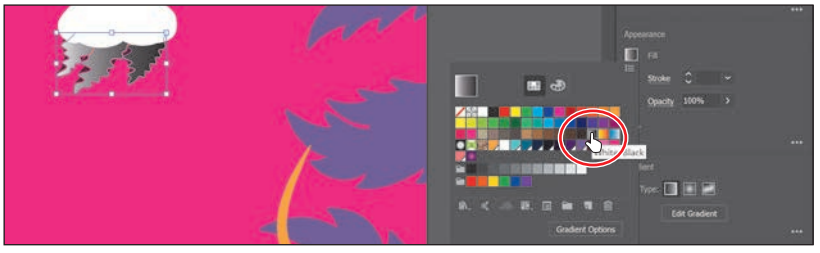
In the Gradient panel under the gradient slider (labeled "E" in the previous figure), the leftmost gradient stop (labeled "F") is called a color stop. This marks the starting color; the right gradient stop marks the ending color. A *color stop* is the point at which a gradient has changed from one color to the next. You can add more color stops by clicking below the gradient slider. Double-clicking a color stop opens a panel where you can choose a color from swatches or color sliders.

Applying a linear gradient to a fill

With the simplest, two-color linear gradient, the starting color (leftmost color stop) blends into the ending color (rightmost color stop) along a straight line. To begin the lesson, you'll apply a gradient fill that comes with Illustrator to the yellow shape.

1 With the Selection tool ( ) selected, click the small yellow jellyfish shape.

2 Click the Fill color ( ) in the Properties panel, click the Swatches button ( ), and select the gradient swatch named "White, Black." Leave the swatches showing.



The default black-and-white gradient is applied to the fill of the selected shape.

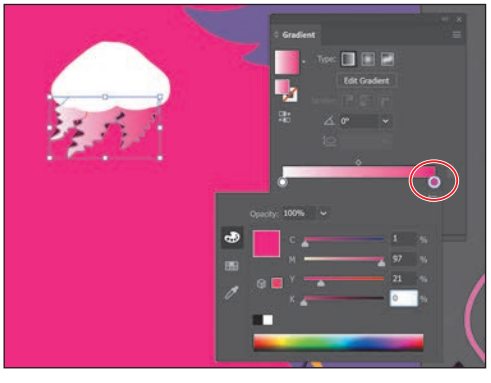
Editing a gradient

Next, you'll edit the colors in the default black and white gradient you applied.

1 Click the Fill color in the Properties panel again to show the swatches, if it's not still showing. Click the Gradient Options button at the bottom of the panel to open the Gradient panel (Window > Gradient), and perform the following:

- Double-click the black color stop on the right side of the gradient slider to edit the color in the Gradient panel (circled in the figure). In the panel that appears, click the Color button ( ) to open the Color panel.
- Click the menu icon ( ), and choose CMYK from the menu, if CMYK values aren't showing.
- Change the CMYK values to C=**1**, M=**97**, Y=**21**, and K=**0**.

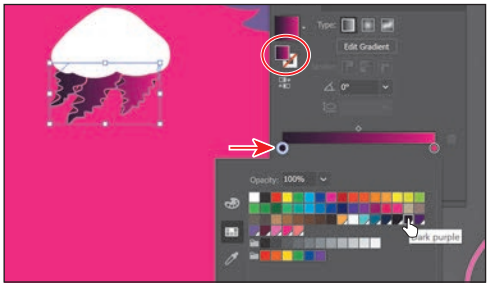
Tip: To move between text fields, press the Tab key. Press Enter or Return to apply the last value typed.



2 Click in a blank area of the Gradient panel to hide the Swatches panel.

3 In the Gradient panel, perform the following:

- Make sure that the Fill box is selected (circled in the figure) so that you'll edit the fill color and not the stroke color.
- Double-click the white, leftmost gradient stop to select the starting color of the gradient (an arrow is pointing to it in the figure).
- Click the Swatches button ( ) in the panel that appears.
- Click to select the dark purple swatch named "Dark purple."



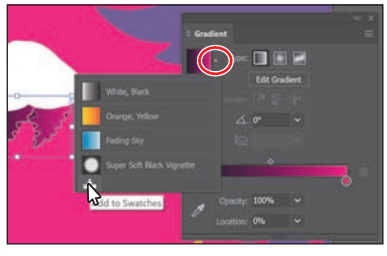
Note: You can press the Escape key to hide panels, but be careful. If you press the Escape key in this case, the K value *may* revert to the previous value.

Saving a gradient

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.

1 In the Gradient panel, click the Gradient menu arrow ( ) to the left of the word "Type," and click the Add To Swatches button ( ) at the bottom of the panel that appears.

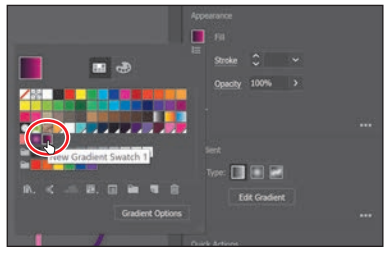
The Gradient menu you just saw lists all the default and saved gradients that you can apply.



Tip: Like most things in Illustrator, there is more than one method for saving a gradient swatch. You can also save a gradient by selecting an object with a gradient fill or stroke, clicking the Fill box or Stroke box in the Swatches panel (whichever the gradient is applied to), and then clicking the New Swatch button ( ) at the bottom of the Swatches panel.

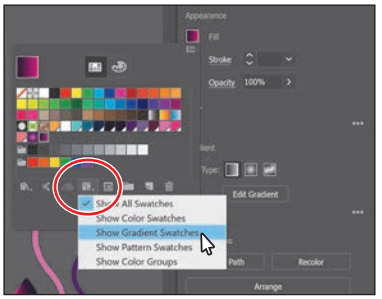
2 Click the X at the top of the Gradient panel to close it.

3 With the jellyfish shape still selected, click the Fill color in the Properties panel. With the Swatches option ( ) selected, double-click the "New Gradient Swatch 1" thumbnail to open the Swatch Options dialog box.



4 In the Swatch Options dialog box, type **Jelly1** in the Swatch Name field and then click OK.

5 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.

6 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.

7 Click the gradient named "Jelly1" (the one you just saved) in the Swatches panel to make sure it's applied before continuing to the next step.

8 Click the Show Swatch Kinds Menu button ( ) at the bottom of the Swatches panel, and choose Show All Swatches from the menu.

9 Choose File > Save, and leave the shape selected.

Adjusting a linear gradient fill

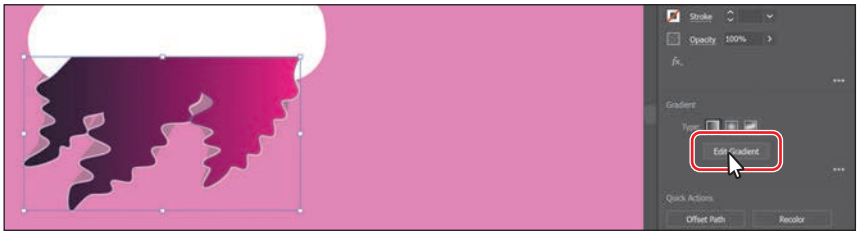
Once you have painted an object with a gradient, you can adjust the direction, the origin, and the beginning and end points of the gradient applied to the artwork, using the Gradient tool. Now you'll adjust the gradient fill in the same shape.

1 With the Selection tool ( ) selected, double-click the shape to isolate it.

This is a great way to enter Isolation mode for a single shape so you can focus on it without the other content (in this case) on top of it.

2 Choose View > Zoom In several times.

3 Click the Edit Gradient button in the Properties panel.

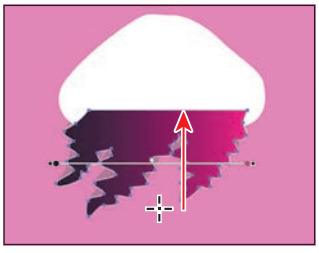


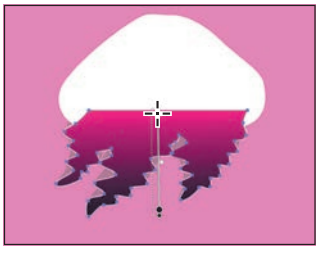
This selects the Gradient tool ( ) in the Tools panel and enters a Gradient Editing mode. With the Gradient tool, you can apply a gradient to the fill of an object or edit an existing gradient fill. Notice the horizontal gradient slider that appears in the middle of the shape, much like the one found in the Gradient panel. The slider indicates the direction and duration of the gradient. You can use the gradient slider on the art to edit the gradient without opening the

Tip: You can hide the gradient annotator (bar) by choosing View > Hide Gradient Annotator. To show it again, choose View > Show Gradient Annotator.

Gradient panel. The two color circles on either end represent the color stops. The smaller circle on the left shows the starting point of the gradient (the first color stop), and the smaller square on the right is the ending point (the last color stop). The diamond you see in the middle of the slider is the midpoint of the gradient.

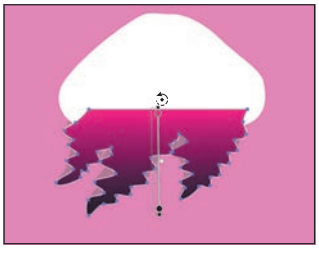
4 With the Gradient tool selected, drag from the bottom of the shape up, to the top of the shape to change the position and direction of the starting and ending colors of the gradient.

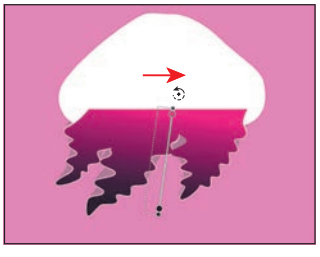




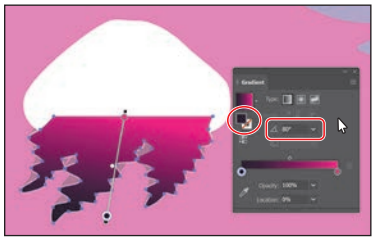
Where you begin dragging is where the first color starts and where you end is where the last color stops. As you drag, adjusting the gradient shows a live preview in the object.

5 With the Gradient tool, move the pointer just off the small black square at the *top* of the gradient annotator. A rotation icon (↻) appears. Drag to the right to rotate the gradient in the rectangle and then release the mouse button.





6 Double-click the Gradient tool in the Tools panel to open the Gradient panel (if it isn't already open). Ensure that the Fill box is selected in the panel (circled in the figure) and then change the Angle value to **80**. Press Return or Enter.



7 Choose Object > Lock > Selection to lock the shape so you don't accidentally move it later and to make selecting other artwork easier.

8 Select the Selection tool, and press the Escape key to exit Isolation mode. You should be able to select other artwork again.

● **Note:** Entering the gradient rotation in the Gradient panel, rather than adjusting it directly on the artboard, is useful when you want to achieve consistency and precision.

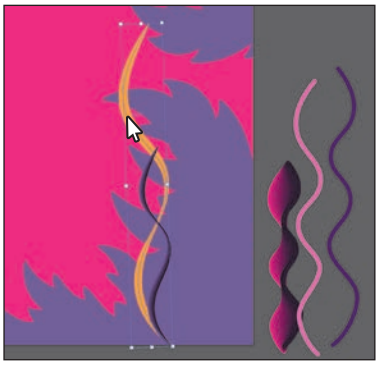
Applying a linear gradient to a stroke

Tip: Curious how the light orange path is tapered on the ends? I drew a path with the Pencil tool and then applied a variable width profile in the Control panel (Window > Control)!

You can also apply a gradient blend to the stroke of an object. Unlike a gradient applied to the fill of an object, you cannot use the Gradient tool to edit a gradient on the stroke of an object. A gradient on a stroke, however, has more options available in the Gradient panel than a gradient fill. Next, you'll add colors to a stroke to create some seaweed.

1 Choose View > Fit Artboard In Window.

2 With the Selection tool (▶) selected, click the light orange squiggly path in the lower-right corner to select that path.



You'll make this simple path into seaweed that looks something like the purple squiggly path in front of it.

Note: Depending on the resolution of your screen, you may see a double-column Tools panel.

3 Click the Stroke box at the bottom of the Tools panel, and click the Gradient box below the Stroke box to apply the last used gradient.

Note: The Color panel group may open. If it does, you can close it.

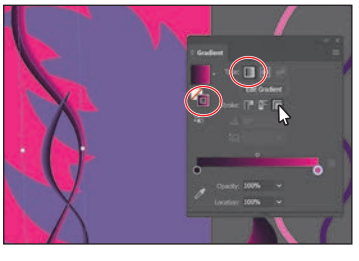
4 Press Command and + (macOS) or Ctrl and + (Windows) a few times to zoom in.

Editing a gradient on a stroke

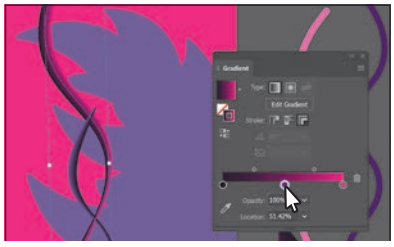
For a gradient applied to a stroke, you can choose how to align the gradient to the stroke: within, along, or across. In this section, you'll explore how to align a gradient to the stroke and also edit the colors of the gradient.

Note: You can apply a gradient to a stroke in three ways: within a stroke (default) (), along a stroke (), and across a stroke ().

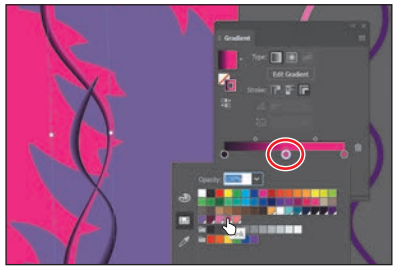
1 In the Gradient panel (Window > Gradient), click the Stroke box (if not already selected; it's circled in the figure) to edit the gradient applied to the stroke. Leave Type as Linear Gradient (circled in the figure), and click the Apply Gradient Across Stroke button () to change the gradient type.



2 Move the pointer below the gradient slider, between the two color stops, in the Gradient panel. When the pointer with a plus sign (▷+) appears, click to add another color stop like you see in the first part of the following figure.



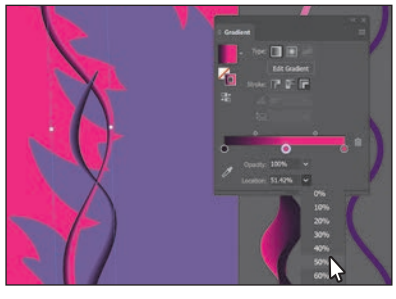
3 Double-click that new color stop and, with the swatches selected (▦), click the swatch named "Pink." Press the Escape key to hide the swatches and return to the Gradient panel.



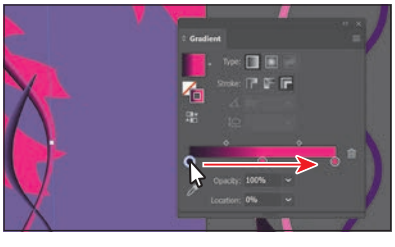
4 With the color stop still selected (you can tell it's selected because it has a blue highlight around it), change Location to **50%**.

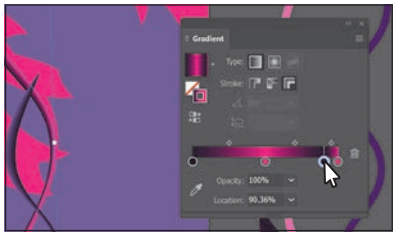
You could have also dragged the color stop along the gradient slider to change the Location value.

For the next few steps, you'll discover how to add a new color to the gradient by dragging to create a copy of a color stop in the Gradient panel.



5 Pressing the Option (macOS) or Alt (Windows) key, drag the darker color stop on the far left end to the right; release the mouse button when you see *roughly* 90% in the Location value and then release the modifier key.



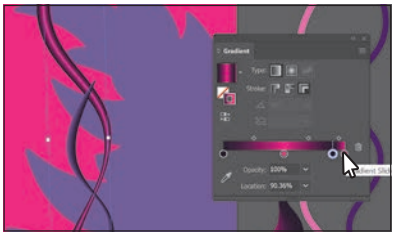


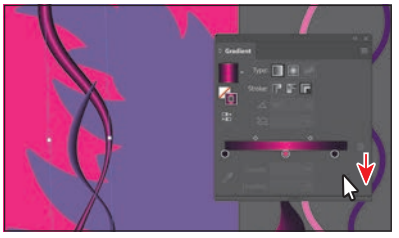
There are now four color stops. Next you'll see how to remove a color stop.

▶ **Tip:** When copying a color stop by pressing Option or Alt, if you release the mouse button on top of another color stop, you'll swap the two color stops instead of creating a duplicate.

● **Note:** The second part of the figure shows dragging the color stop, before releasing the mouse button and then the key.

6 Drag the lighter color stop on the far right down, away from the gradient slider. When you see that it's gone from the slider, release the mouse to remove it.

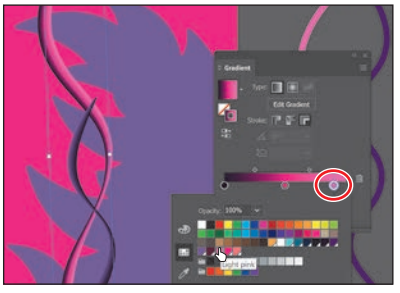




7 Double-click the new color stop, and with the Swatches option selected, select the Light pink color to apply it.

8 Click the X at the top of the Gradient panel to close it.

9 Choose File > Save.



Applying a radial gradient to artwork

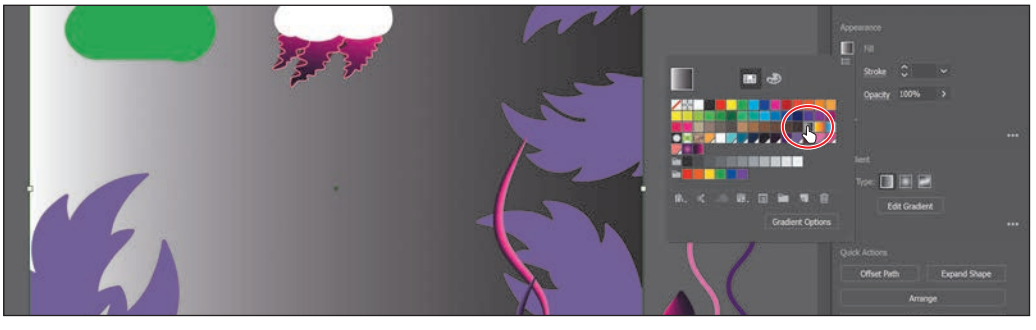
As previously noted, with a *radial gradient*, the starting color (leftmost color stop) of the gradient defines the center point of the fill, which radiates outward to the ending color (rightmost color stop). Next, you'll create and apply a radial gradient fill to a shape to the large rectangle in the background.

1 Choose View > Fit Artboard In Window.

2 With the Selection tool (▶) selected, click the pink shape in the background.

3 Make sure the Fill box is selected toward the bottom of the Tools panel.

4 Change the fill color to the White, Black gradient in the Properties panel. Press the Escape key to hide the Swatches panel.



5 Click the Radial Gradient button in the Properties panel to convert the linear gradient to a radial gradient.

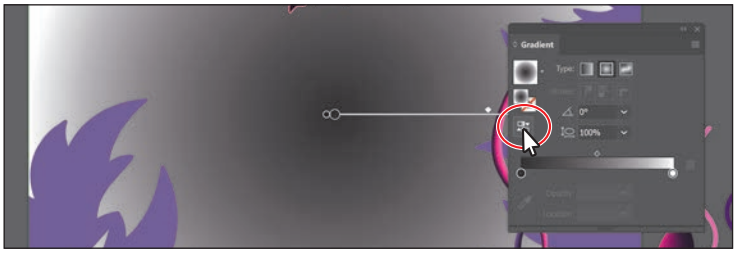
Note: The Fill box needs to be selected in the Tools panel to see the Gradient options in the Properties panel. You can also click the Gradient Options button in the Swatches panel to open the Gradient panel and change the gradient type.

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 in a gradient using the Gradient tool right on the artwork, which is what you'll do next.

1 Double-click the Gradient tool ( ) in the Tools panel to select the tool and also open the Gradient panel.

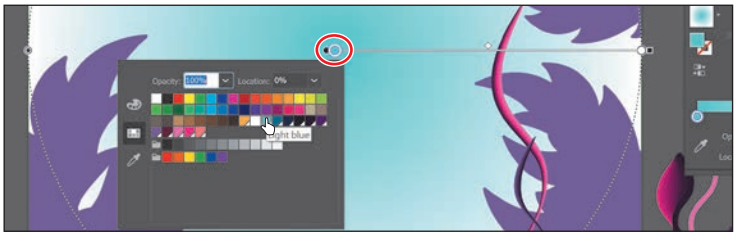
2 In the Gradient panel, with the rectangle still selected, click the Reverse Gradient button ( ) to swap the white and black colors in the gradient.



3 Move the pointer over the gradient slider in the ellipse, and perform the following:

- Double-click the black color stop in the center of the ellipse to edit the color (it's circled in the following figure).
- In the panel that appears, click the Swatches button ( ), if it's not already selected.
- Select the swatch named "Light blue."

Note: You may need to move the Gradient panel out of the way.



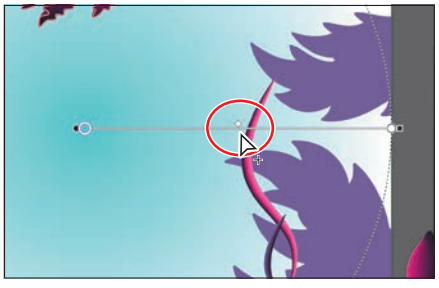
Notice that the gradient slider starts from the center of the ellipse and points to the right. The dashed circle around the gradient slider indicates that it is a radial gradient. You can set additional options for radial gradients, as you'll soon see.

4 Press Escape to hide the panel.

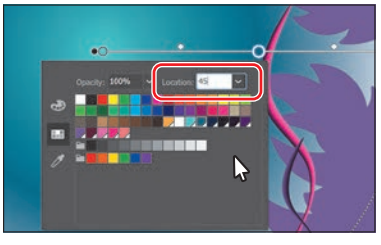
5 Move the pointer beneath the gradient slider, in the middle. When the pointer with a plus sign ($\triangleright_+$) appears, click to add another color to the gradient (see the first part of the following figure).

Tip: When you edit a color stop that has a swatch applied, you can easily see which swatch is applied because it is highlighted in the panel.

6 Double-click the new color stop. In the panel that appears, make sure that the Swatches option is selected, and select the swatch named "Blue."



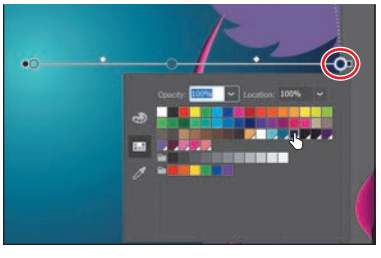
7 Change Location to **45%**. Press Enter or Return to change the value and hide the panel.



8 Double-click the white color stop on the far right. In the panel that appears, make sure that the Swatches option is selected, and select the swatch named "Dark blue."

9 Press the Escape key to hide the panel.

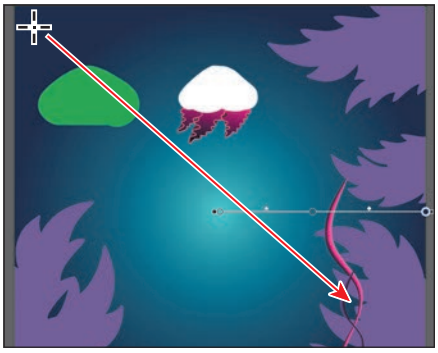
10 Choose File > Save.

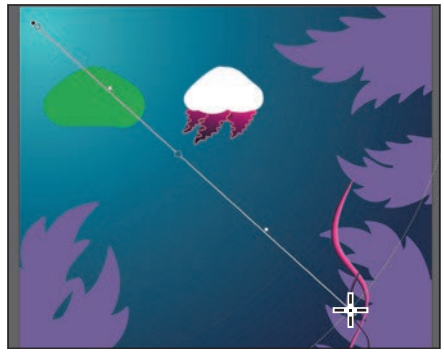


Adjusting the radial gradient

Next, you'll change the aspect ratio of the radial gradient and change the radius and the origin of the radial gradient.

1 With the Gradient tool (■) selected and the rectangle still selected, move the pointer near the upper-left corner of the artboard. Drag toward the lower-right corner of the artboard to change the gradient in the rectangle.

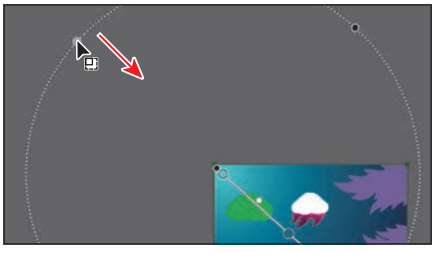


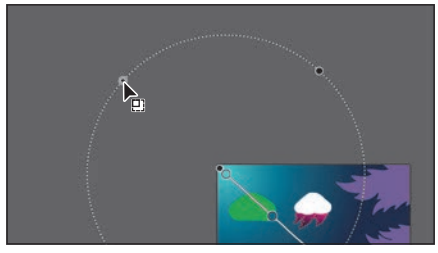


2 Move the pointer over the gradient slider on the artwork so you can see the dashed circle around the gradient. Press Command and – (macOS) or Ctrl and – (Windows) a few times to zoom out so you can see the entire dashed circle.

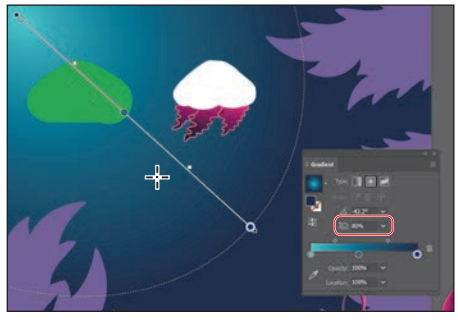
● **Note:** After zooming out, you may need to move the pointer back over the gradient slider to see the dashed circle.

3 Move the pointer over the double-circle on the dashed circle (see the first part of the following figure). When the pointer changes (), drag toward the center of the artboard a little. Release the mouse button to shorten the gradient.





4 In the Gradient panel, ensure that the Fill box is selected and then change the Aspect Ratio () to **80%** by selecting it from the menu. Move the pointer over the gradient slider to see the dashed circle again. Leave the Gradient panel open.



The aspect ratio changes a radial gradient into an elliptical gradient and makes the gradient better match the shape of the artwork. Another way to edit the aspect ratio is to do so visually. If you move the pointer over the gradient on the selected artwork with the Gradient tool selected and then move the pointer over the black circle that appears on the dotted path, the pointer changes to . You can then drag to change the aspect ratio of the gradient.

▶ **Tip:** You can also drag the gradient slider to reposition the gradient in the ellipse.

▶ **Tip:** You can drag the small dot to the left of the larger dot in the center of the gradient to reposition the center of the gradient without moving the entire gradient bar.

● **Note:** The aspect ratio is a value between 0.5% and 32,767%. As the aspect ratio gets smaller, the ellipse flattens and widens.

5 Choose View > Fit Artboard In Window.

6 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.

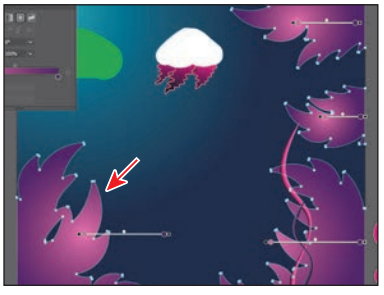
Now you'll apply a linear gradient fill to the seaweed shapes.

1 With the Selection tool ( ) selected, click the purple seaweed artwork in the lower-left corner (an arrow is pointing to it in the following figure).

2 To select all objects with that same purple color fill, choose Select > Same > Fill Color.

3 Click the Fill color in the Properties panel. In the panel that appears, make sure the Swatches button ( ) is selected, and select the Plant gradient swatch.

4 Select the Gradient tool ( ) in the Tools panel.

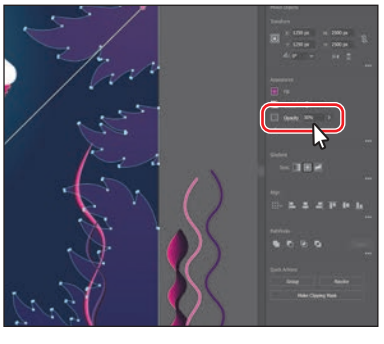


You can see that every object now has the gradient fill applied separately. With the Gradient tool selected, you can see that each object has its own annotator bar.

5 Drag from the upper-right corner of the artboard to the lower-left corner.

Dragging across multiple shapes with the Gradient tool allows you to apply a gradient across those shapes.

6 With the shapes still selected, change the Opacity value in the Properties panel to **30%**.

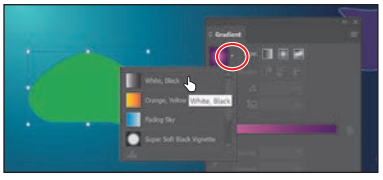


Adding transparency to gradients

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 on the jellyfish shape.

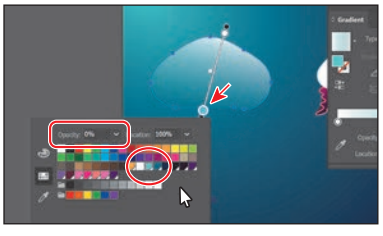
1 Select the Selection tool (▶), and click to select the green shape in the design.

2 In the Gradient panel, ensure that the Fill box is selected. Click the Gradient menu arrow (▾) and then select White, Black to apply the generic gradient to the fill.



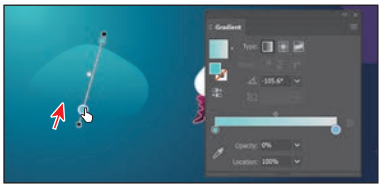
3 Select the Gradient tool (■) in the Tools panel, and drag from the top edge of the shape down to just past the bottom edge at a slight angle.

4 With the pointer over the shape, double-click the black color stop at the bottom. Make sure the Swatches button (▦) is selected, and then select the color named "Light blue" from the swatches. Choose **0%** from the Opacity menu. Press Return or Enter to hide the swatches.

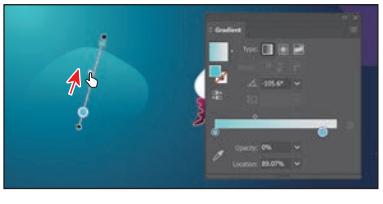


5 Double-click the white color stop on the other end of the gradient slider. Select the color named "Light blue" from the swatches. Choose **70%** from the Opacity menu. Press Return or Enter to hide the swatches.

6 Drag the bottom blue color stop up to shorten the gradient a little.



7 Drag the gradient midpoint (the diamond shape) up a little. More of the shape will become transparent.



8 Choose File > Save.

Creating freeform gradients

Aside from creating linear and radial gradients, you can also create freeform gradients. Freeform gradients are made of a series of color stops that you can place anywhere within a shape. The colors blend together between the color stops to create a freeform gradient. Next, you'll apply and edit a freeform gradient to the top of the jellyfish.

1 Select the Selection tool (▶), and click the white shape at the top of the jellyfish to select it.

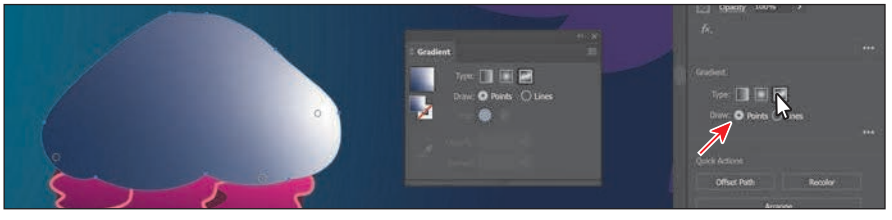
2 Press Command and + (macOS) or Ctrl and + (Windows) a few times to zoom in.

3 Select the Gradient tool (▮) in the Tools panel.

4 Select the Freeform Gradient option in the Properties panel on the right.

After applying a freeform gradient, you can choose whether you'd like to use points or lines.

5 Ensure that the Points option is selected in the Gradient section of the Properties panel (an arrow is pointing to it in the figure).



When you apply a freeform gradient to selected content, Illustrator adds color stops to the object. The number of color stops depends on the shape and each color stop has a different solid color applied. With the Points option selected, you can add move, edit, or delete the color stops independently to change the overall gradient. You can also add other color stops, depending on your design. If you select the Lines option, you can draw the paths that color follows.

Note: The colors you see in your shape may be different, and that's okay.

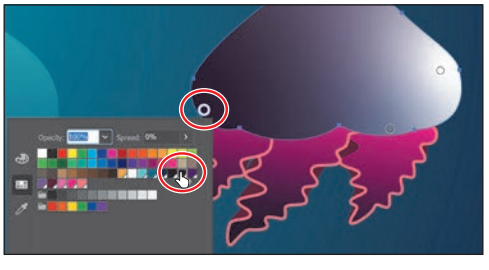
Note: By default illustrator chooses color from surrounding artwork. This is due to the preference Illustrator CC > Preferences > General > Enable Content Aware Defaults (macOS) or Edit > Preferences > General > Enable Content Aware Defaults (Windows) is on. You can deselect this option to create your own color stops.

Editing a freeform gradient

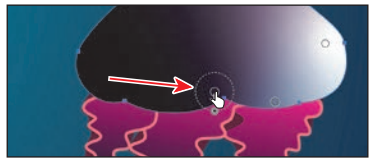
In this section, you'll edit the color stops in the freeform gradient.

1 Double-click the color stop you see in the figure to show the color options. With the swatches showing, select the Dark purple swatch to apply it.

With each of the color stops, you can drag it, double-click to edit its color, and more.



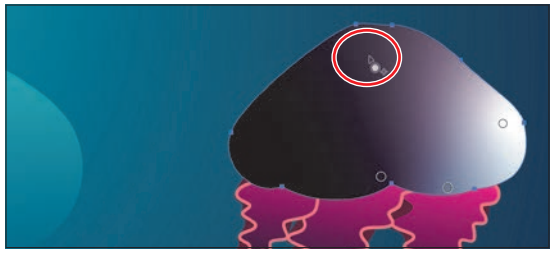
2 Drag the Dark purple color stop to the bottom center of the shape.

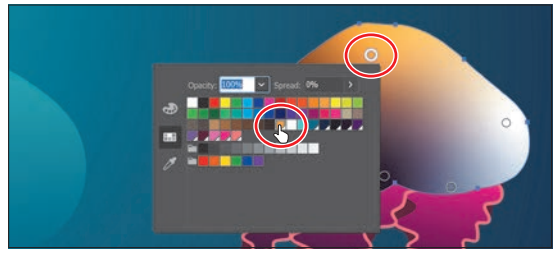


Next you'll edit and move the other color stops.

3 Click in the shape near the top to add another color stop (see the first part of the following figure).

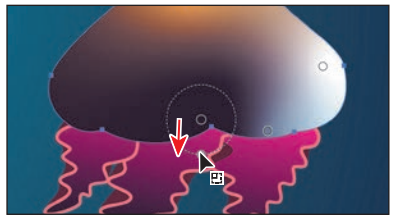
4 Double-click the new color stop, and change the color to the Yellow swatch.



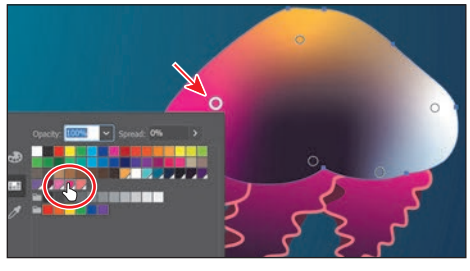


The dark purple area of the gradient needs to be bigger or more spread out. To do that, you can adjust the spread of the color.

5 Move the pointer over the Dark purple color stop at the bottom of the shape. When you see the dotted circle appear, drag the widget at the bottom of the circle away from the color stop. The dark purple color will appear to "spread" further away from the color stop.



6 Click in the shape to add a new color stop (see the figure for the position). Double-click the new color stop you just added, and change the color to the Pink swatch.



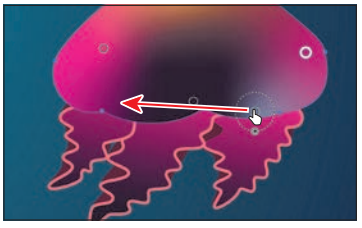
7 Click the color stop circled in the figure. In the Gradient panel, click the Color Picker (🖉) to sample some color. Click in the pink area below the selected shape to sample the color and apply it to the point.

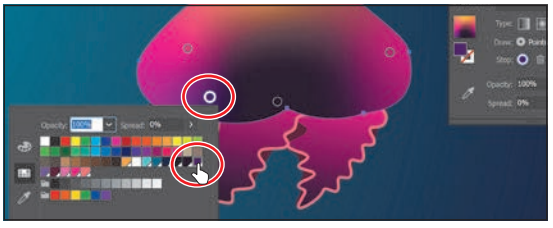
Applying color stops in a line

Aside from adding gradient stops, you can also create gradient color stops in a line to shade the area around the line you've drawn using the Gradient tool.

1 With the Gradient tool still selected, drag the color stop you see below to the left side of the shape.

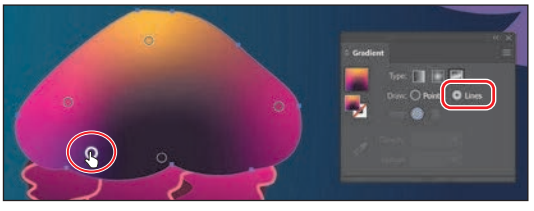
2 Double-click the color stop to show the color options. With the swatches option selected, click to apply the swatch named "Purple."





3 Select Lines in the Gradient panel to be able to draw a gradient along a path.

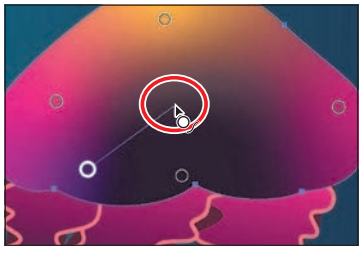
4 Click the purple color stop you just changed the color of, so you can start drawing from that point.

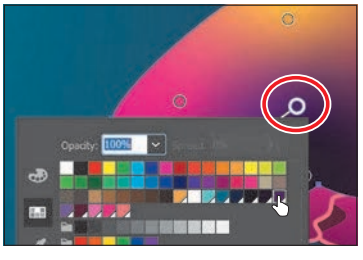


Note: The first part of the following figure shows before clicking to add the next color stop.

5 With the color stop still selected, move the pointer into the center of the shape, and you'll see the path preview. Click to create a new color stop. Double-click the new color stop, and ensure that the Purple swatch is applied.

6 Click to make a final color stop to the right and towards the bottom of the shape. It should already be purple.

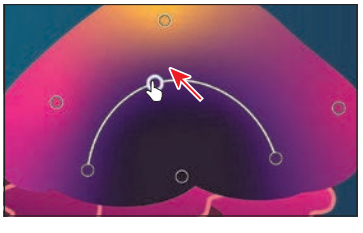




7 Drag the middle color stop up and to the left a little to see the effect on the gradient.

8 Close the Gradient panel.

9 Choose Select > Deselect.



Working with blended objects

You can blend two distinct objects to create and distribute shapes evenly between two objects. The two shapes you blend can be the same or different. You can also blend between two open paths to create a smooth transition of color between objects, or you can combine blends of colors and objects to create color transitions in the shape of a particular object.

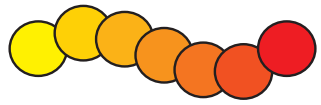
The following are examples of different types of blended objects you can create:

Blend between two of the same shape.

Blend between two of the same shapes, each with a different color fill.

Blend between two different shapes with different fill colors.

Blend between two of the same shape along a path.



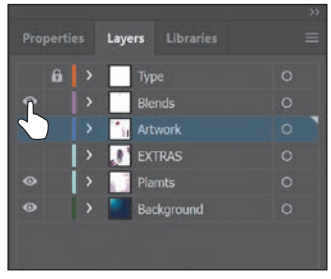
Smooth color blend between two stroked lines (original lines on left, blend on right).

When you create a blend, the blended objects are treated as one object, 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. You can also expand the blend to divide it into distinct objects.

Creating a blend with specified steps

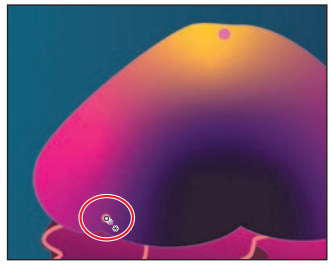
Next you'll use the Blend tool ( ) to blend two shapes that you will use to create a pattern for the jellyfish.

1 In the Layers panel (Window > Layers), click the visibility column for the layer named Blends to show the layer content. You should now see three smaller circles on top of the freeform gradient object.



2 Select the Blend tool ( ) in the Tools panel. Move the little box part of the pointer ( ) over the center of the leftmost circle, and click.

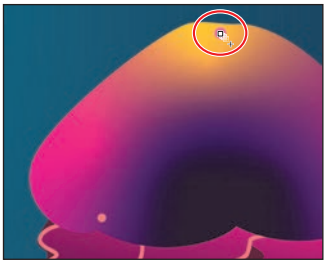
By clicking, you are telling Illustrator that this will be the starting point of the blend. Nothing will appear to happen.



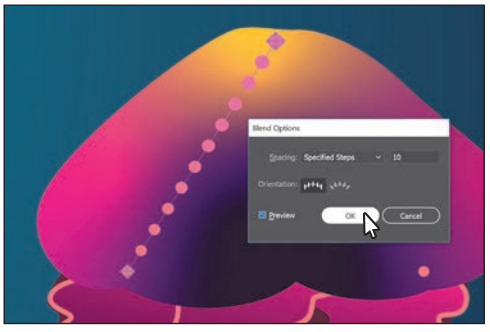
Tip: You can add more than two objects to a blend.

Note: If you wanted to end the current path and blend other objects, you would first click the Blend tool in the Tools panel and then click the other objects, one at a time, to blend them.

3 Move the pointer over the center of the small circle at the top of the freeform gradient shape. When the pointer looks like this: , click to create a blend between these two objects.



4 With the blended object still selected, choose Object > Blend > Blend Options. In the Blend Options dialog box, choose Specified Steps from the Spacing menu, change Specified Steps to **10**. Select Preview, and then click OK.



Tip: To edit the blend options for an object, you can also select the blend object and then double-click the Blend tool. You can also double-click the Blend tool ( ) in the Tools panel to set tool options *before* you create the blend object.

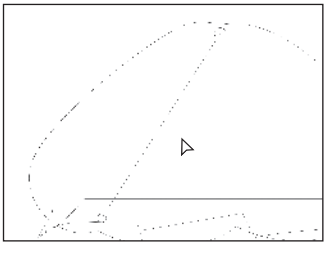
Modifying a blend

Now you'll edit one of the shapes in the blend as well as the spine of the blend you just created so the shapes blend along a curve.

1 Select the Selection tool ( ) in the Tools panel, and double-click anywhere right on the blend object to enter Isolation mode.

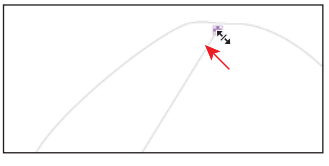
This temporarily ungroups the blended objects and lets you edit each original shape, as well as the spine. The spine is a path along which the steps in a blended object are aligned. By default, the spine is a straight line.

2 Choose View > Outline.



In Outline mode, you can see the outlines of the two original shapes and a straight path (spine) between them. These three objects are what a blend object is composed of, by default. It can be easier to edit the path between the original objects in Outline mode.

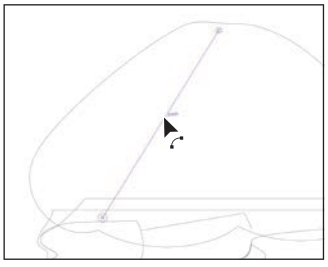
3 Click the edge of the top circle to select it. Pressing the Shift key, drag a corner of the bounding box to make it about half the size. Release the mouse button and then the key.

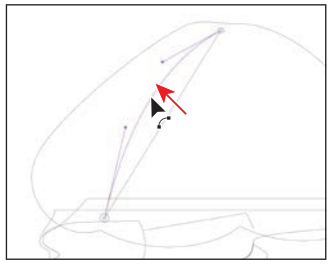


Tip: It's a small circle to begin with, so you may want to zoom in for this step, and then zoom back out.

4 Choose Select > Deselect, and remain in Isolation mode.

5 Select the Pen tool ( ) in the Tools panel. Press the Option key (macOS) or Alt key (Windows), and position the pointer over the path between the shapes. When the pointer changes ( ), drag the path up and to the left a little, like in the figure.



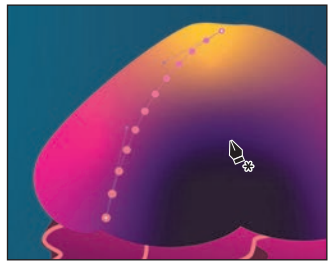


Tip: Another way to reshape the spine of a blend is to blend the shapes along another path. You can draw another path, select the blend as well, and then choose Object > Blend > Replace Spine.

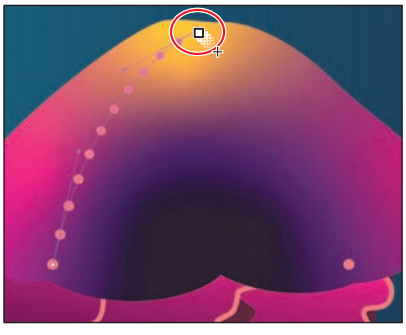
6 Choose View > Preview (or GPU Preview).

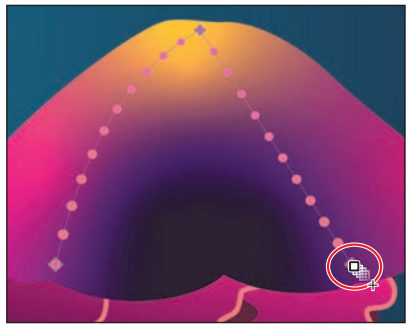
7 Press the Escape key to exit Isolation mode.

Now you'll continue the blend to include the last circle.



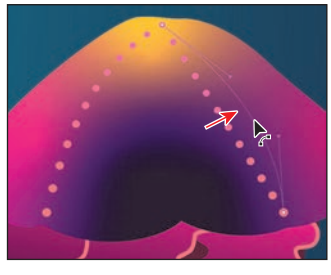
8 Select the Blend tool, and click the top circle. Click in the circle on the lower-right to continue the blend path.





Note: The circles are pretty small. You may want to zoom in to complete this step, and then zoom out when finished.

9 Select the Pen tool ( ) in the Tools panel. Press the Option key (macOS) or Alt key (Windows), and position the pointer over the path between the shapes. When the pointer changes ( ), drag the path up and to the right a little, as in the figure.



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

Creating and editing a smooth color blend

You can choose several options for blending the shapes and colors of objects to create a new object. When you choose the Smooth Color blend option in the Blend Options dialog box, Illustrator combines the shapes and colors of the objects into many intermediate steps, creating a smooth, graduated blend between the original objects, as you see in the figure above.

If objects are filled or stroked with different colors, the steps are calculated to provide the optimal number of steps for a smooth color transition. If the objects contain identical colors or if they contain gradients or patterns, the number of steps is based on the longest distance between the bounding box edges of the two objects. Now you'll combine two shapes into a smooth color blend to make seaweed.

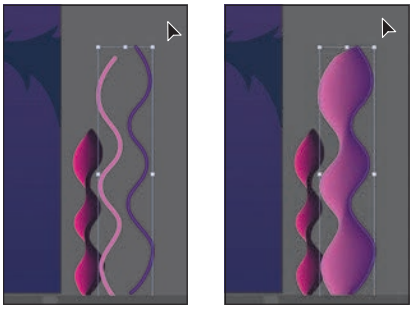
1 Choose View > Fit Artboard In Window.

If you look off the right edge of the artboard, you'll see a wavy pink path and a wavy purple path. You will blend them together do they look like the shape just to the left of them. The pink and purple paths have a stroke color and no fill. Objects that have strokes blend differently than those that have no stroke.

2 Select the Selection tool (▶), and click the pink path off the right edge of the artboard. Press the Shift key and click the purple path on the right to select both.

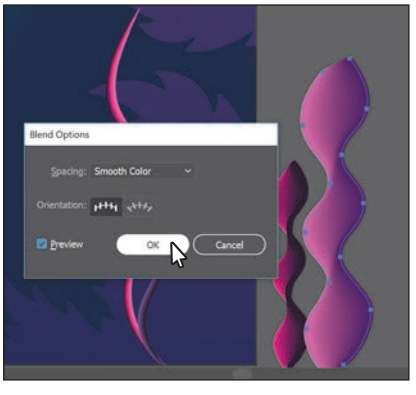
3 Choose Object > Blend > Make.

This is another way to create a blend and can be useful if creating a blend using the Blend tool proves challenging. The blend you created is using the last settings from the Blend Options dialog box (Smooth Color).



Note: Your blend object may look different to start, and that's okay. You'll adjust it next.

4 With the blend object still selected, double-click the Blend Tool (⧉) in the Tools panel. In the Blend Options dialog box, make sure that Smooth Color is chosen from the Spacing menu. Select Preview and then click OK.



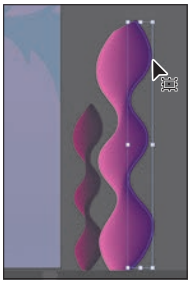
5 Choose Select > Deselect.

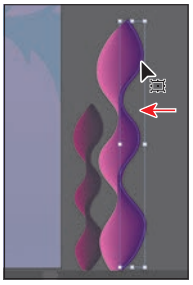
Next you'll edit the paths that make up the blend.

Tip: You can also click the Blend Options button in the Properties panel to edit the options for a selected blend object.

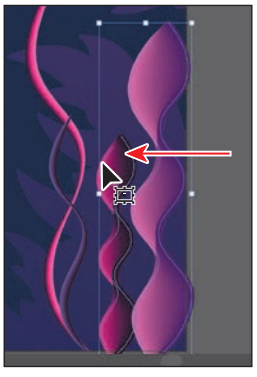
Note: Creating smooth color blends between paths can be difficult in certain situations. For instance, if the lines intersect or the lines are too curved, unexpected results may occur.

6 Select the Selection tool (▶), and double-click within the color blend to enter Isolation mode. Click the path on the right to select it. Drag it to the left until it looks like the figure. Notice how the colors are now blended.

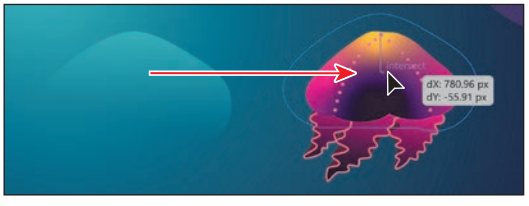




7 Double-click away from the blend object to exit Isolation mode. Drag across both seaweed objects to select them, then drag them onto the artboard.

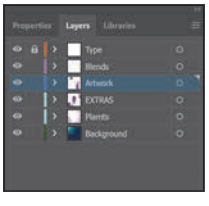


8 Drag the transparent gradient shape onto the jellyfish.



9 Click the Arrange button in the Properties panel, and choose Bring To Front to bring the selected shape on top of the freeform gradient artwork.

10 In the Layers panel, make all of the layers visible by clicking the visibility column for each layer that is currently hidden.



11 Choose File > Save and then choose File > Close.

Creating patterns

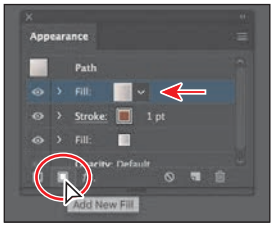
In addition to process colors, spot colors, and gradients, the Swatches panel can also contain pattern swatches. Illustrator provides sample swatches of each type in the default Swatches panel as separate libraries and lets you create your own patterns and gradients. In this section, you will focus on creating, applying, and editing patterns.

Applying an existing pattern

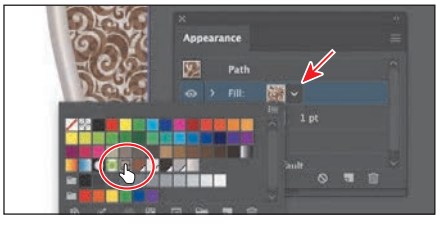
A *pattern* is artwork saved in the Swatches panel that can be applied to the stroke or fill of an object. You can customize existing patterns and design patterns from scratch with any of the Illustrator tools. Patterns can start with artwork (a tile) that is repeated (tiled) within a shape, starting at the ruler origin and continuing to the right. Next you'll apply an existing pattern to a shape.

1. Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson10 folder, and select the L10_start2.ai file on your hard disk. Click Open to open the file.
2. Choose File > Save As, name the file **Cake_poster.ai**, and select the Lessons > Lesson10 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.
3. In the Illustrator Options dialog box, leave the Illustrator options at their default settings and then click OK.
4. Choose View > Fit All In Window.
5. With the Selection tool (▶) selected, click to select the tan background rectangle behind all of the other artwork.

● **Note:** You'll learn all about the Appearance panel in Lesson 12, "Exploring Creative Uses of Effects and Graphic Styles."



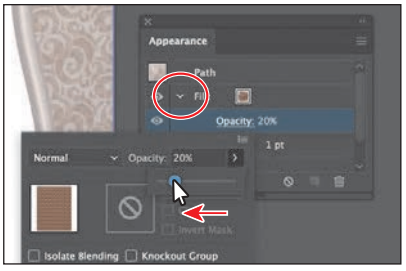
6. Click More Options (•••) in the Appearance section of the Properties panel to open the Appearance panel (or choose Window > Appearance). Click the Add New Fill button at the bottom of the panel. This adds a second gradient fill to the rectangle and layers it on top of the first.



7. In the Appearance panel, click the *top* fill color box to the right of the word "Fill" to show a panel of swatches. An arrow is pointing to it in the figure. Select the Pompadour swatch.

The pattern swatch fills the shape as a second fill on top of the first. The swatch named "Pompadour" is included in the swatches for a Print document. You can find so many more pattern swatches in Illustrator by choosing Window > Swatch Libraries > Patterns and choosing a pattern library.

8 In the Appearance panel, just below the *top* word "Fill," click the word "Opacity" to open the Transparency panel (or choose Window > Transparency). Change the Opacity value to **20**. Click in a blank area of the Appearance panel to hide the Transparency panel.



Note: If you don't see the word "Opacity" below the top Fill row, click the disclosure triangle (▸) to the left of the top word "Fill" to show it. The arrow is circled in the figure.

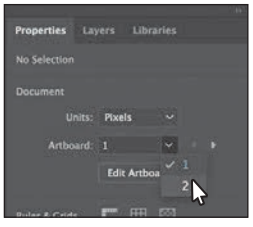
9 Close the Appearance panel.

10 Choose Object > Lock > Selection and then choose File > Save.

Creating your own pattern

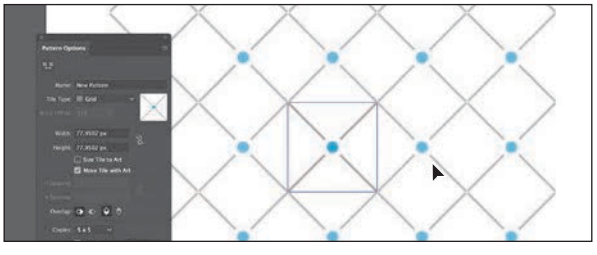
In this section, you'll create your own custom pattern. Patterns you create are saved as a swatch in the Swatches panel for the document you're working in.

1 With nothing selected, choose 2 from the Artboard menu in the Properties panel to show the smaller artboard on the right. If it's already active (chosen), choose View > Fit Artboard In Window.



2 With the Selection tool (▸) selected, choose Select > All On Active Artboard to select the artwork you'll use to create a pattern.

3 Choose Object > Pattern > Make. Click OK in the dialog box that appears.



Note: You don't need to have anything selected when you create a pattern. You can add content to the pattern when you edit it in Pattern Editing mode, as you'll see.

When you create a pattern, Illustrator enters Pattern Editing mode, which is similar to the Isolation mode you've worked with in previous lessons. Pattern Editing mode allows you to create and edit patterns interactively, while previewing the changes to the pattern on the artboard. All other artwork is dimmed and cannot be edited while in this mode. The Pattern Options panel (Window > Pattern Options) also opens, giving you all the necessary options to create your pattern.

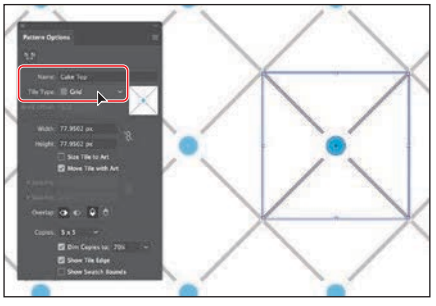
Note: A pattern can be composed of shapes, symbols, or embedded raster images, among other objects that you can add in Pattern Editing mode. For instance, to create a flannel pattern for a shirt, you can create three overlapping rectangles or lines, each with varying appearance options.

4 Choose Select > All On Active Artboard to select the artwork.

5 Press Command and + (macOS) or Ctrl and + (Windows) to zoom in.

The series of lighter-colored objects around the artwork in the center are the repetition of the pattern. They are there for a preview and are a little dimmed to let you focus on the original. The blue box around the original group of objects is the *pattern tile* (the area that repeats).

6 In the Pattern Options panel, change Name to **Cake Top**, and try choosing different options from the Tile Type menu to see the effect on the pattern. Before continuing, make sure Grid is selected.



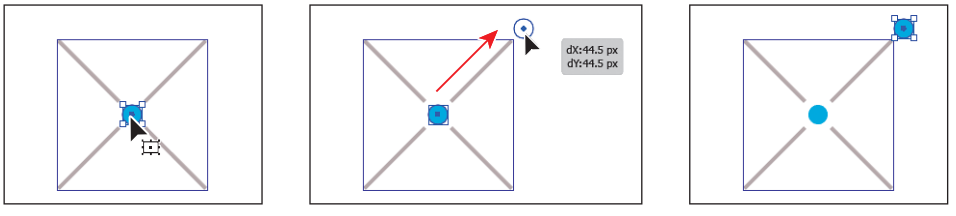
The name in the Pattern Options panel becomes the name of the swatch saved in the Swatches panel and can be useful to distinguish multiple versions of a pattern swatch, for instance. Tile Type determines how the pattern is tiled. You have three main Tile Type choices: the default grid pattern, a brick-style pattern, or the hex pattern.

7 Choose 1 x 1 from the Copies menu at the bottom of the Pattern Options panel. This will remove the repeat and let you temporarily focus on the main pattern artwork.

8 Click in a blank area to deselect the artwork.

Note: Don't forget to release the mouse first and then the keys.

9 Option+Shift-drag (macOS) or Alt+Shift-drag (Windows) the blue circle in the center to a little outside the upper-right corner of the blue pattern tile box.

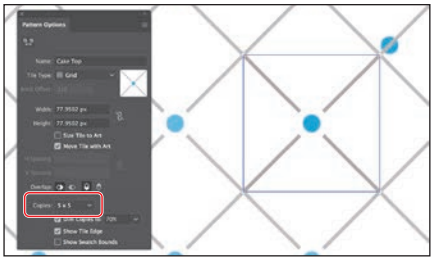


10 Click in a blank area to deselect the artwork.

Tip: The H Spacing and V Spacing values can be either positive or negative values, and they move the tiles apart or bring them closer together, either horizontally (H) or vertically (V).

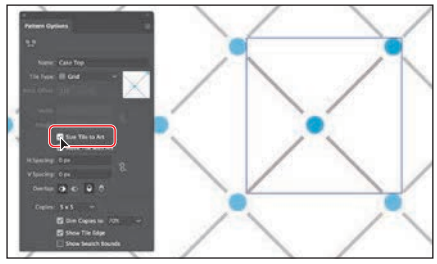
11 In the Pattern Options panel, change the following options:

- Choose 5 x 5 from the Copies menu to see the repeat again.



Notice that the new circle is not repeated. That's because it's not within the pattern tile. Only artwork within the pattern tile is repeated.

- Select the Size Tile To Art option in the Pattern Options panel.

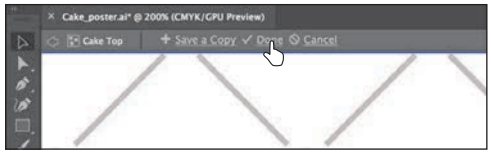


The Size Tile To Art selection fits the tile area (the blue square) to the bounds of the artwork, changing the spacing between the repeated objects. With Size Tile To Art deselected, you could manually change the width and the height of the pattern definition area in the Width and Height fields to include more content or to edit the spacing between. You can also edit the tile area manually with the Pattern Tile Tool button ( ) in the upper-left corner of the Pattern Options panel.

If you set the spacing values (H Spacing or V Spacing) to negative values, the artwork in the pattern tile will overlap. By default, when objects overlap horizontally, the left object is on top; when objects overlap vertically, the top object is on top. You can set the overlap values: Left In Front, Right In Front to change overlap horizontally or Top In Front, Bottom In Front to change the overlap vertically (they are the small buttons in the Overlap section of the panel).

Note: To learn more about the Pattern Options panel, search for "Create and edit patterns" in Illustrator Help (Help > Illustrator Help).

12 Click Done in the bar along the top of the Document window. If a dialog box appears, click OK.



13 Choose File > Save.

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.

Applying your pattern

You can assign a pattern using a number of different methods. In this section, you'll apply your pattern using the fill color in the Properties panel.

1 With nothing selected, click the Previous Artboard button ( ) in the Properties panel to show the larger artboard on the left.

2 With the Selection tool ( ), click the top cake shape (see the following figure). Choose Edit > Copy and then Edit > Paste In Front.

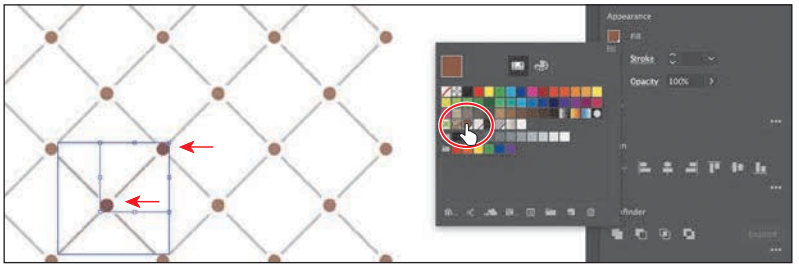
3 Select the swatch named "Cake Top" from the Fill color in the Properties panel.

Note: Instead of making a copy of the shape, you could have applied a second fill to the shape like you did previously.

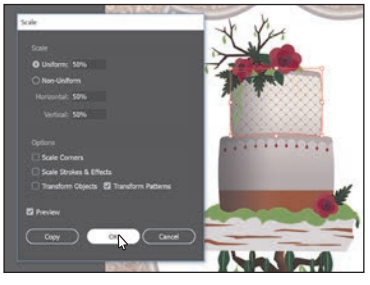
Editing your pattern

Next you'll edit the Cake Top pattern swatch in Pattern Editing mode.

1. With the shape still selected, click the Fill color in the Properties panel. Double-click the Cake Top pattern swatch to edit it in Pattern Editing mode.
2. Press Command and + (macOS) or Ctrl and + (Windows) several times to zoom in.
3. In Pattern Editing mode, with the Selection tool (▶) selected, click one of the blue circles; then while pressing the Shift key, click to select the other.
4. In the Properties panel, change the fill color to the brown swatch named "BG."



5. Click Done in the gray bar along the top of the Document window to exit Pattern Editing mode.
6. Choose View > Fit Artboard In Window.
7. Click the top cake shape with the pattern fill to select it, if necessary.
8. With the shape selected, choose Object > Transform > Scale to scale the pattern but not the shape. In the Scale dialog box, change the following options (if not already set):
   - Uniform Scale: **50%**
   - Scale Corners: **Deselected** (default setting)
   - Scale Strokes & Effects: **Deselected** (default setting)
   - Transform Objects: **Deselected**
   - Transform Patterns: **Selected**



9. Select Preview to see the change. Click OK.
10. Choose Select > Deselect and then choose File > Save.
11. Choose File > Close.

▶ **Tip:** In the Scale dialog box, if you want to scale the pattern *and* the shape, you can select Transform Objects and select Transform Patterns. You can also transform patterns in the Transform panel (Window > Transform) by choosing Transform Pattern Only, Transform Object Only, or Transform Both from the panel menu (☰) before applying a transformation.

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, you can drag the diamond icons 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 gradient 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 select the Gradient tool in the Tools panel, move the pointer over the gradient-filled object, and then click beneath the gradient slider that appears in the artwork to add or edit a color stop.
4. Drag with the Gradient tool to adjust the direction of a linear or radial gradient. Dragging a long distance changes colors gradually; dragging a short distance makes the color change more abruptly. 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 together—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.

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