

Adobe Illustrator

2025 Release



Classroom in a Book®

The official training workbook from Adobe

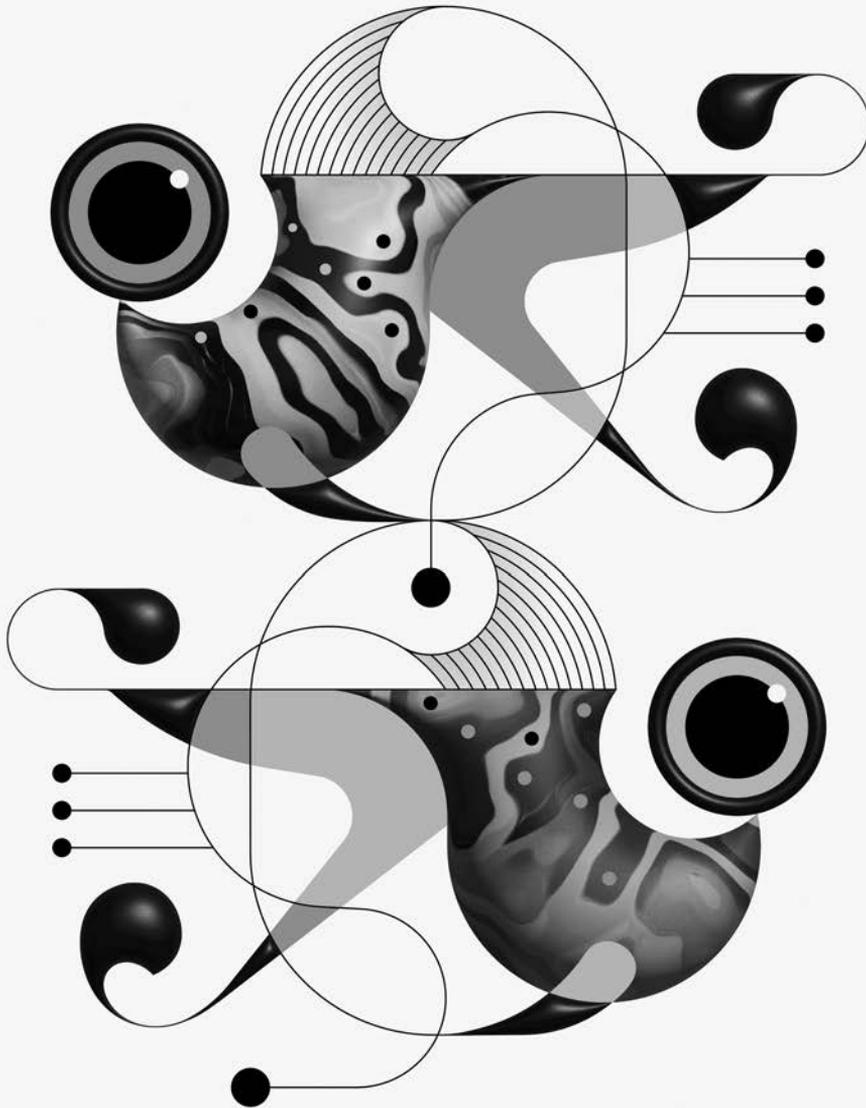
Brian Wood

FREE SAMPLE CHAPTER |



Adobe Illustrator

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Classroom in a Book[®]

The official training workbook from Adobe

Brian Wood

Adobe Illustrator Classroom in a Book® 2025 Release

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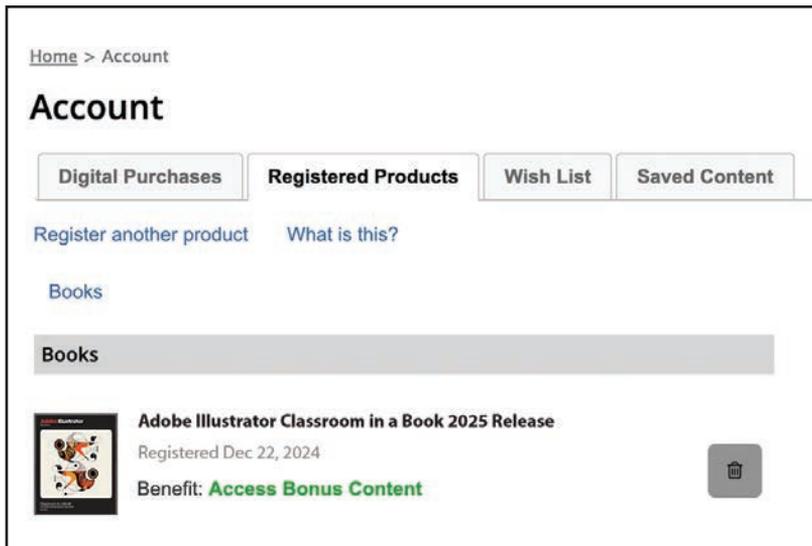
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WHERE ARE THE LESSON FILES?

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

- 1 Go to peachpit.com/IllustratorCIB2025.
 - 2 Sign in or create a new account.
 - 3 Click Submit.
- **Note:** If you encounter problems registering your product or accessing the lesson files or web edition, go to peachpit.com/support for assistance.
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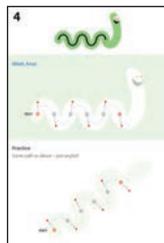
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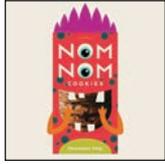
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3 MAKE A LOGO WITH SHAPES

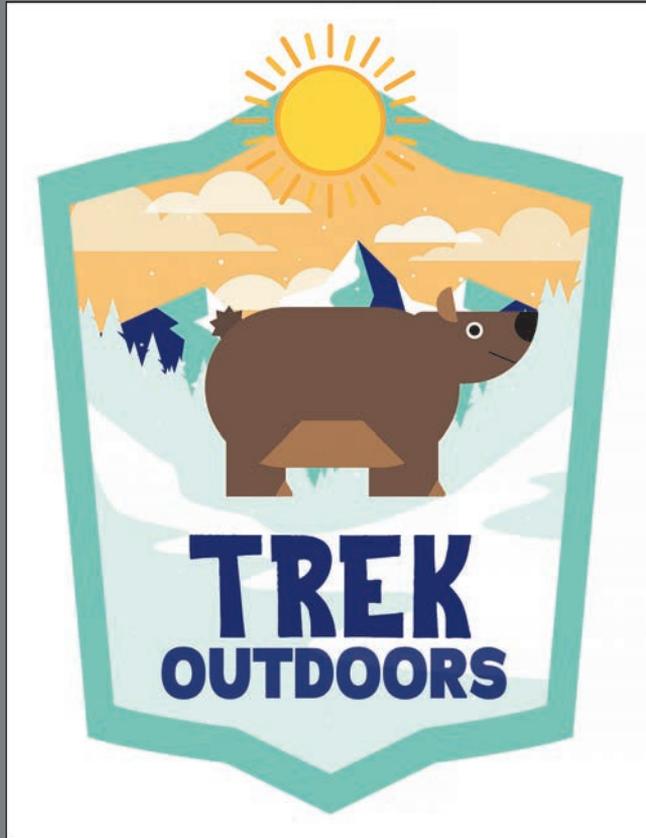
Lesson overview

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

- Create a new document.
- What is a bleed? 
- Use tools and commands to create a variety of shapes.
- Understand Live Shapes.
- Create rounded corners.
- Discover other ways to round corners. 
- Work with drawing modes.
- Use Image Trace to create shapes.
- Simplify paths.
- Explore Text to Vector Graphic (Beta).
- Gen Shape Fill (Beta). 



This lesson will take about 75 minutes to complete. To get the lesson files used in this lesson, download them from the web page for this book at peachpit.com/IllustratorCIB2025. For more information, see “Accessing the lesson files and Web Edition” in the Getting Started section at the beginning of this book.



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

Starting the lesson

In this lesson, you'll explore the different methods for creating artwork by using the shape tools and other methods to create a logo for an adventure company.

● **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 make sure that Adobe Illustrator behaves exactly as described in this lesson, reset the Adobe Illustrator preferences. See “Restoring default preferences” in the “Getting Started” section at the beginning of the book.

2 Start Adobe Illustrator.

3 Choose File > Open. Open L3_end.ai in the Lessons > Lesson03 folder you copied onto your hard disk.

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

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



Creating a new document

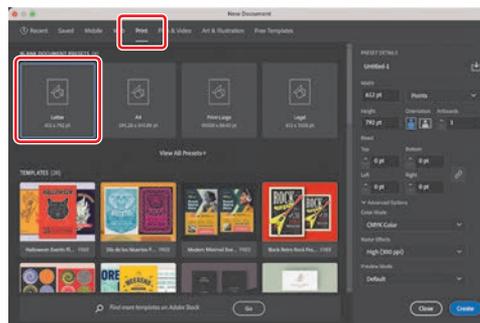
To start, you'll create a new document for the logo.

1 Choose File > New.

2 In the New Document dialog box, change the following options:

- Click the Print category at the top of the dialog box.
- Click the Letter blank document preset, if it isn't already selected.

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



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

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

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

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

- Units: Choose Inches from the units menu to the right of the Width field.
- Width: Select the Width value, and type **8**.
- Height: Select the Height value, and type **5**.
- Orientation: Portrait (📄).
- Artboards: 1 (the default setting).



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

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

4 Click Create to create a new document.

Saving your document

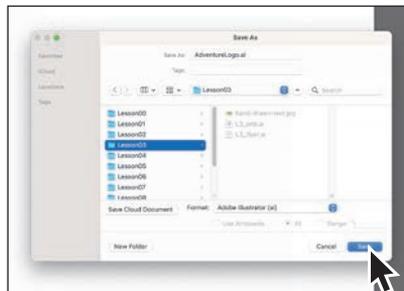
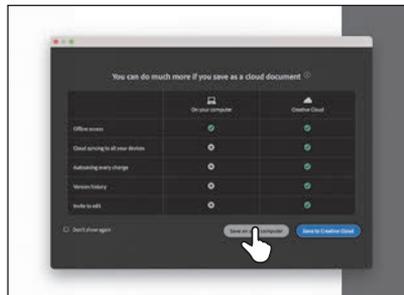
With the document open, now you’ll save it locally.

- 1 Choose File > Save.
- 2 If the Cloud Document dialog box opens, click Save On Your Computer to save the document locally.

To learn more about cloud documents, see the sidebar “What are cloud documents?” after this section.

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

- Filename: **AdventureLogo.ai**
- Saved in the Lessons > Lesson03 folder.
- Leave Adobe Illustrator (ai) chosen from the Format menu (macOS) or Adobe Illustrator (*.AI) chosen from the Save As Type menu (Windows).



4 Click Save.

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

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

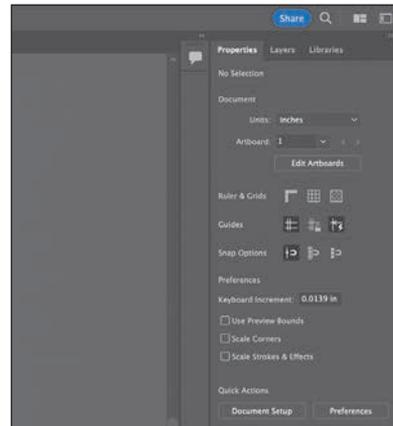
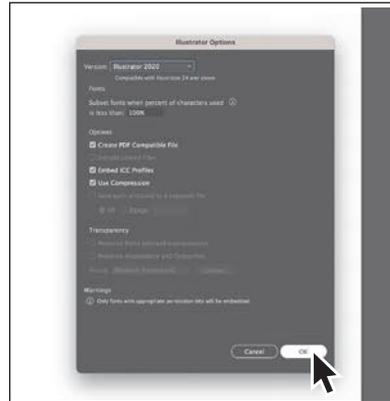
The Illustrator Options dialog box is full of options for saving the Illustrator document, from specifying a version for saving to embedding any files that are linked to the document. You usually won't have to change anything in there.

- 6 Choose Window > Workspace and make sure “Essentials” is selected, and then choose Window > Workspace > Reset Essentials to reset the workspace.
- 7 Look in the Properties panel on the right.

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

You can click the Document Setup button to set options like the document bleed and more.

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



What is a bleed?

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

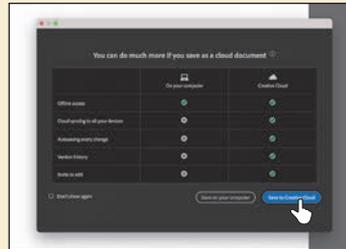
What are cloud documents?

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

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

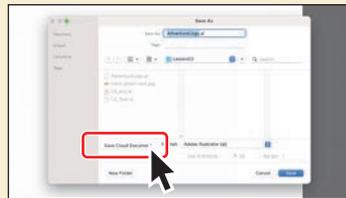
- After you create a new document or open a document from your hard drive, you save the file as a cloud document by choosing File > Save As.

The first time you do this, you will see a Cloud Document dialog box with options to save as a cloud document or save on your computer.



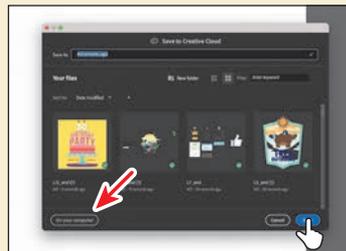
- To save as a cloud document, you would click the Save To Creative Cloud button. You can see it in the previous figure.

If instead of the Cloud Document dialog box you see the Save As dialog box and want to save as a cloud document, you can click the Save Cloud Document button.

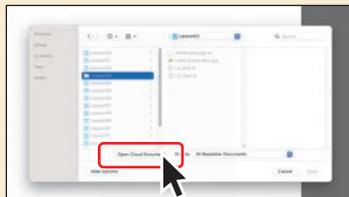


- In the dialog box that appears, you can change the name and click the Save button to save the document to Creative Cloud.

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



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



Want to open a cloud document?
Choose File > Open. In the Open dialog box, click the Open Cloud Document button.

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

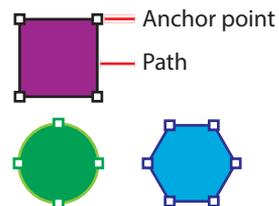
Working with basic shapes

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

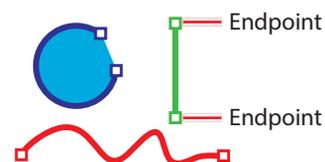
Shapes you create are made of *anchor points*, with paths connecting the anchor points.

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

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



Examples of closed paths

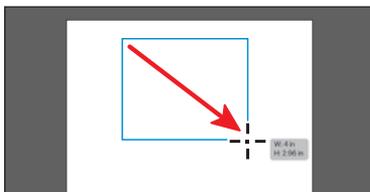


Examples of open paths

Creating rectangles

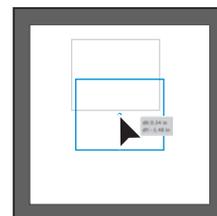
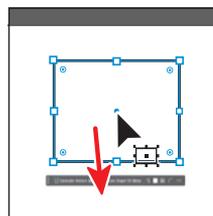
The main logo art for the adventure company will be a bear. First we'll create the larger rectangle that will be the body of the bear.

- 1 Select the Rectangle tool () in the toolbar.
- 2 Near the top of the artboard, drag to create a rectangle, and then release the mouse button. Don't worry about the size yet; you'll resize it shortly.



As you drew the shape, did you happen to notice the width and height in the little gray tool tip next to the pointer? That is called the *measurement label*. That label is a part of Smart Guides (View > Smart Guides).

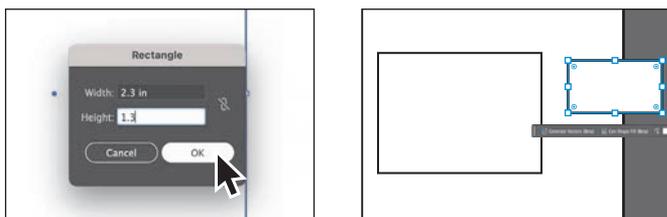
- 3 Move the pointer over the blue center dot of the rectangle (called the *center point widget*). When the pointer changes () , drag the shape into the middle of the artboard.



With the Rectangle tool selected, this is how you move a shape. Otherwise, you'll draw a new one!

Next, you'll create a smaller rectangle using a more precise method to serve as the head of the bear.

- 4 With the Rectangle tool () selected, click in an empty area of the artboard to open the Rectangle dialog box.
- 5 In the dialog box, change the Width to **2.3** inches and the Height to **1.3** inches. Click OK to create a new rectangle.



The rectangle is created wherever you click. Creating a rectangle this way is useful when you need to make a shape of a specific size.

Editing rectangles

All of the main shape tools create *Live Shapes*. Live Shapes have attributes, such as width, height, rotation, and corner radius, that are editable without switching from the drawing tool you are using. With two rectangles created, you'll make some changes to them so they look more like the body and head of a bear and are scaled relative to each other.

- 1 Select the Selection tool () in the toolbar.
- 2 Click the View menu and make sure that Smart Guides are on. A checkmark will appear next to Smart Guides in the menu if they are.



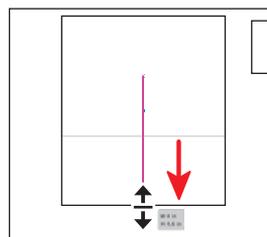
You can turn the Smart Guides on when they are useful. In this case, when you resize one of the rectangles, you will see a gray measurement label telling you its size.

- 3 Click anywhere in the larger rectangle to select it.

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

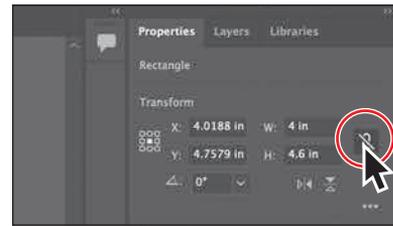
- 4 Drag the bottom, middle point of the rectangle until you see a height of approximately 4.6 inches in the measurement label (the gray tool tip next to the pointer), release the mouse button.

Since your rectangle might be bigger or smaller, I didn't tell you which way to drag (up or down).



You can also resize shapes with more precision in the Properties panel, which is what you'll do next.

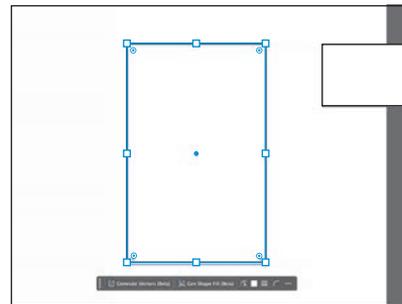
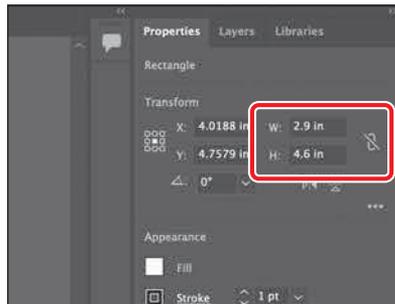
- 5 In the Transform section of the Properties panel on the right, make sure Maintain Width And Height Proportions to the right of Width (W:) and Height (H:) is *unselected* (it looks like this: ).



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

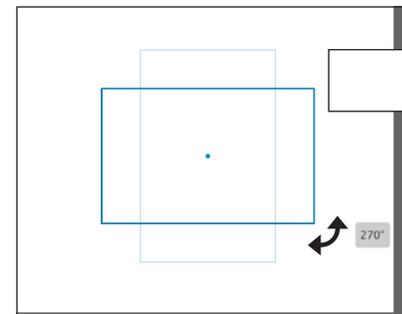
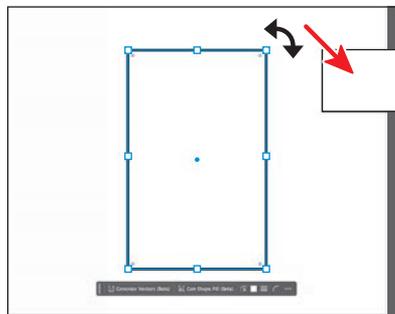
► **Tip:** Why are we being so precise? In Illustrator you can work as loosely or precisely as you need. I want all of our bear logos to be about the same size and shape, so some precision is necessary!

- 6 Select the Width (W:) value, and type **2.9 in**. Press Return or Enter to accept the change.



Now you'll rotate the larger rectangle so the bear body is horizontal.

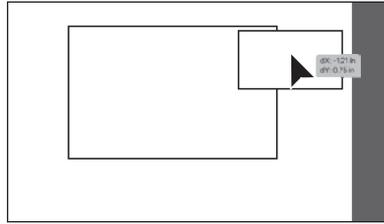
- 7 Move the pointer just off a corner of the larger rectangle. When you see rotate arrows () , drag clockwise to rotate the shape. As you drag, press the Shift key to constrain the rotation to increments of 45 degrees. When the rectangle is horizontal, release the mouse button and then the key.



► **Tip:** Look in the Properties panel and you'll also see a Rotate value. There are multiple ways to do almost everything in Illustrator. For instance, if you wanted to rotate more freely—at some random angle—you might do it by dragging, rather than choosing a rotation angle in the Properties panel.

Now you'll drag the smaller rectangle onto the larger rectangle. With the Selection tool, you can drag from anywhere within the shape bounds, as long as it is filled with a color, pattern, or gradient.

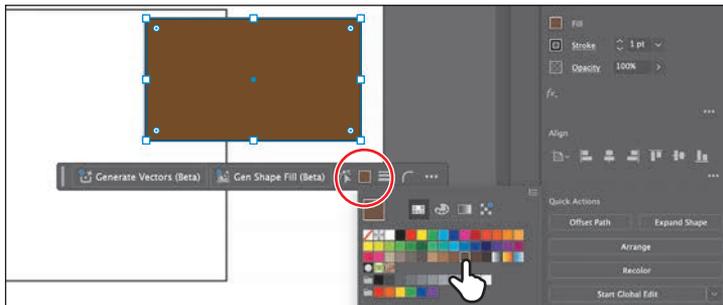
- 8 Drag the smaller rectangle onto the larger rectangle where the head of the bear should go.
- 9 Choose File > Save to save the file.



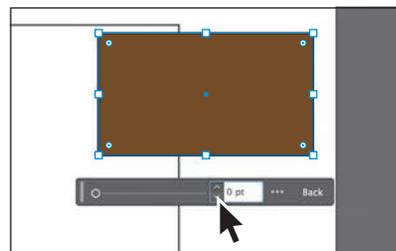
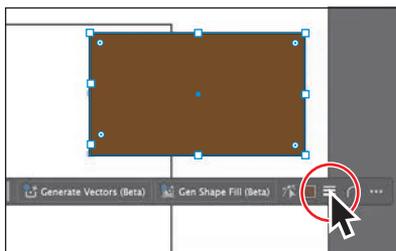
Changing the color of the shapes

By default, shapes are filled with white and have a black stroke (border). Next, you'll change the color of both rectangles to brown so they start to look more like a bear.

- 1 With the smaller rectangle selected, click the Fill color box (□) in the Contextual Task Bar.
- 2 In the panel that opens, make sure that Swatches (■) is selected. Select a brown color to fill the shape.

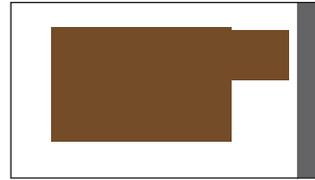


- 3 Click the Stroke option (≡) in the Contextual Task Bar and change the Stroke Weight to 0 (zero).



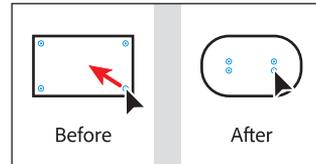
- 4 Click the larger rectangle to select the body of the bear.

- 5 For practice, change the fill color to the same brown and set the Stroke Weight to 0 (zero) following the previous steps.
- 6 Choose Select > Deselect.



Rounding rectangle corners by dragging

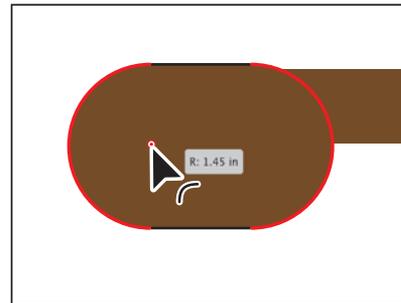
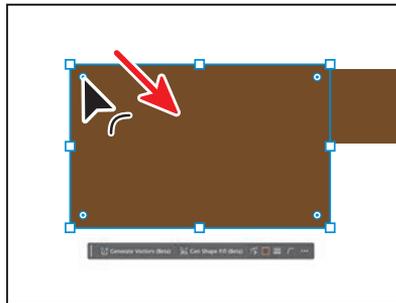
The rectangles you created don't look very much like a bear yet. Luckily, we can round the corners of the rectangles to make them more interesting.



- 1 Select the larger rectangle.
- 2 Choose View > Zoom In once or twice.

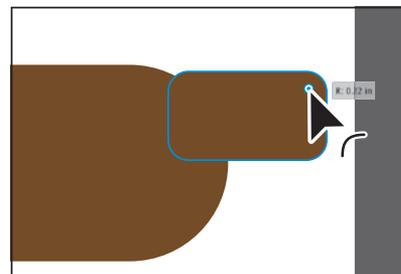
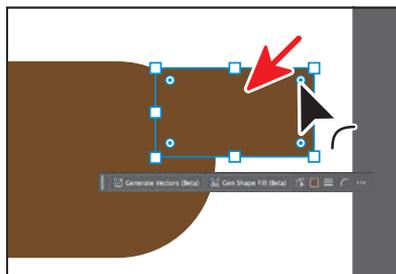
You need to see the Live Corners widgets (⦿) in each corner of the rectangle. If you are zoomed out far enough, the Live Corners widgets are hidden on the shape. Zoom in until you see them.

- 3 Drag any of the Live Corners widgets (⦿) in the rectangle toward the center to round all of the corners. Drag until the corners are as round as they can be.



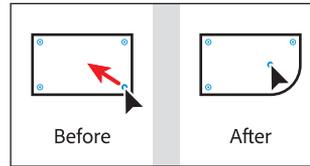
Drag a Live Corners widget far enough and a red arc appears on the shape, indicating you've reached the maximum corner radius.

- 4 Click to select the smaller brown rectangle (the head of the bear), and drag any of the Live Corners widgets (⦿) to round the corners a little.



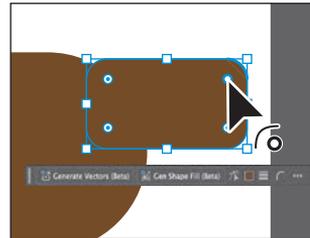
Rounding individual corners

You can also round individual corners using the Selection tool. Next, you'll explore rounding the individual corners of the head of the bear.



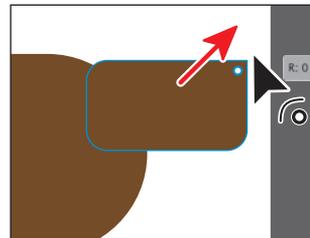
- 1 With the smaller rectangle selected, click the Live Corners widget (⦿) in the upper-right corner to select it, and then release.

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



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

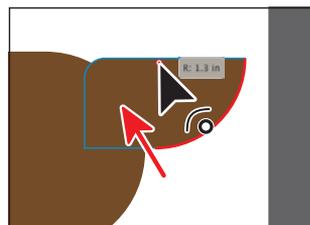
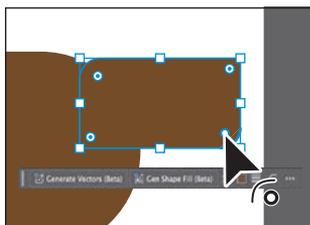
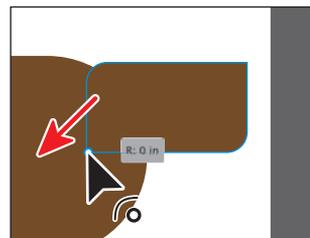
Be careful! If you don't click, release, and then drag, you won't select just the one corner widget. Instead, you'll round them all!



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

- 4 Click the corner widget in the lower-right corner and release to select it.

- 5 Then drag it toward the opposite corner, rounding the corner as much as possible.



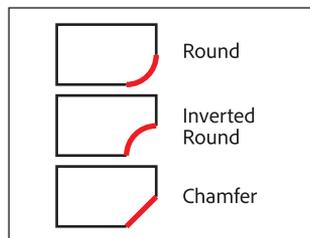
- 6 Choose Select > Deselect.
- 7 Choose File > Save.

Discover other ways to round corners

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

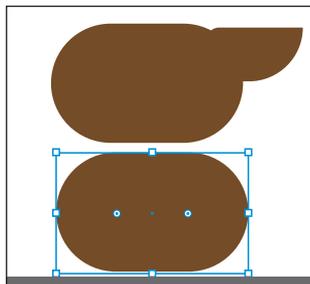
Changing a corner type

Aside from dragging to round corners, you can also use the Properties panel to change the type of corner radius and make more precise adjustments. The three types are shown in the figure at right.



Now you'll make a copy of the larger rectangle and change the corner types for a few corners. This rectangle will become the belly of the bear.

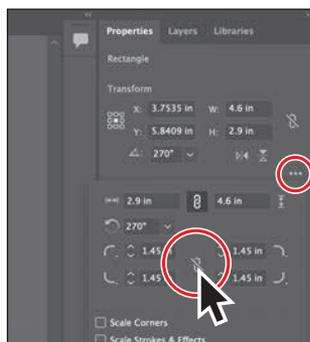
- 1 Choose View > Fit Artboard In Window to see the entire artboard.
- 2 Select the larger rectangle, and to copy it, choose Edit > Copy, and then paste it by choosing Edit > Paste.
- 3 Drag the copy just below the other rectangles.
You might need to select the two original rectangles and move them up a bit. If you do, make sure to select the copy again before continuing.
- 4 In the Properties panel, click More Options () in the Transform section to show more options. It's circled in the following figure.



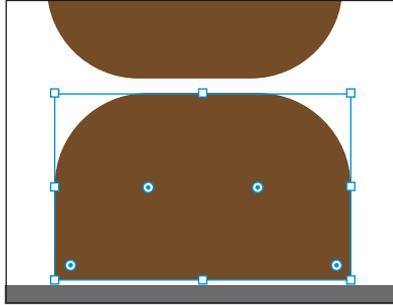
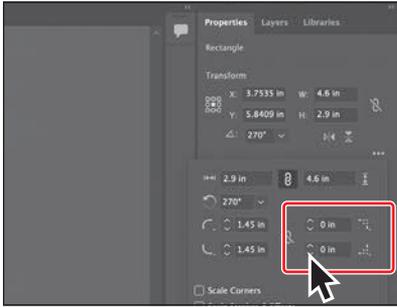
- 5 Ensure that Link Corner Radius Values is off—it should look like this: . You can click the button to toggle it on and off. It's circled in the figure.

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

For the next step, *pay attention to which corner is adjusted in the figure*. Since the rectangle was rotated earlier, the corner values in the panel no longer seem to correspond to the correct corner in the shape.

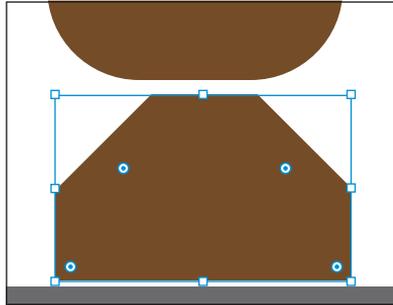
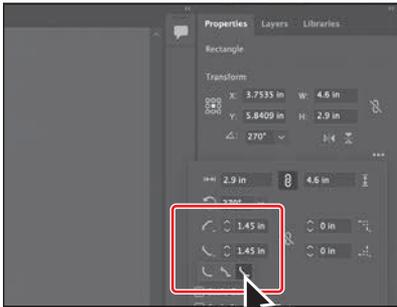


- 6 Change the lower-left and lower-right corners of the rectangle to 0 (zero).

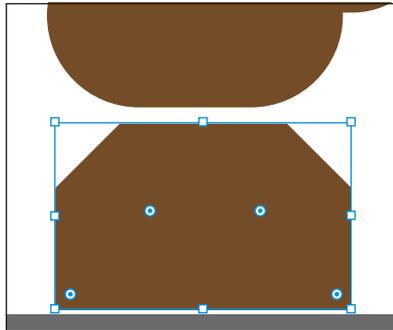
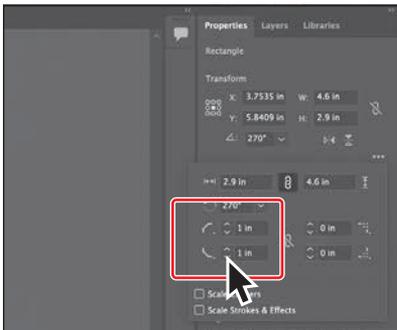


Aside from changing the corner radius, you can also change the corner type. You can choose between Round (default), Inverted Round, and Chamfer.

- 7 Change the Corner Type setting for the upper-left corner and upper-right corner of the rectangle to Chamfer (◻).

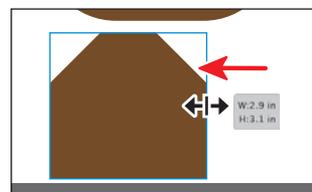


- 8 Make the corner radius for the same corners smaller—around 1 inch.



- 9 Press the Escape key to close the options panel, and leave the rectangle selected.

- 10 Drag a side handle to make the shape narrower. See the figure.



Creating an ellipse

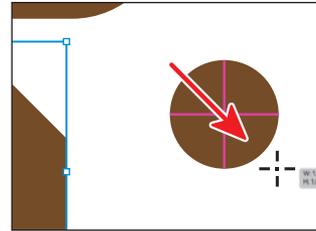
The Ellipse tool is used to create ellipses and perfect circles. Next, you'll create an ellipse with the Ellipse tool (○) to make an eye for the bear.

- 1 Press and hold the mouse button on the Rectangle tool (□) in the toolbar, and select the Ellipse tool (○).

When you draw the circle that will become the eye of the bear, you'll can make it bigger than it will be in the end so you can work with it more easily.

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

- 2 In an empty area of the artboard, Shift-drag to make a perfect circle that will become the eye of the bear. As a reference, I made mine about 1 inch in width and height. Release the mouse button and then the key.
- 3 Zoom in to the circle by choosing View > Zoom In a few times or by pressing Command and + (macOS) or Ctrl and + (Windows) a few times.



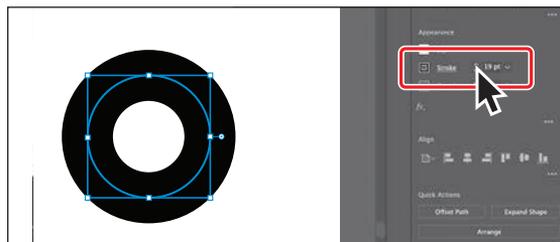
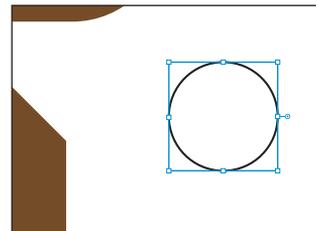
Editing an ellipse

With the eye shape (circle) created, now you'll change the appearance and put it in place.

- 1 Press the letter D on your keyboard to apply the default of a white fill and black stroke.

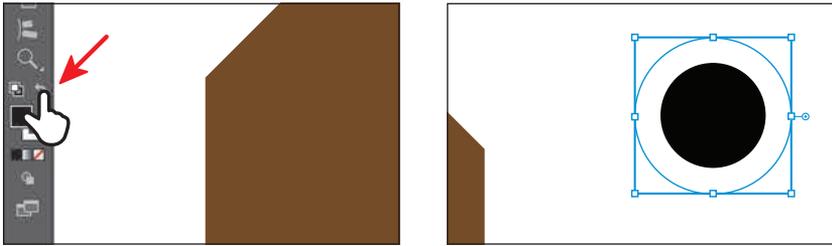
This is a keyboard shortcut that I use a lot to remove formatting from shapes and get them back to a default (that's what the "D" stands for) appearance of a white fill and black stroke!

- 2 Change the Stroke Weight setting in the Properties panel to **19 pt**.



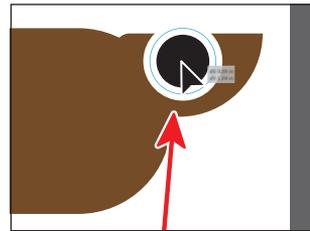
You could also have used the same method as before to change the stroke weight—using the Contextual Task Bar. Now, we need the fill to be black and the stroke to be white. So the opposite of what is applied to the current shape.

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

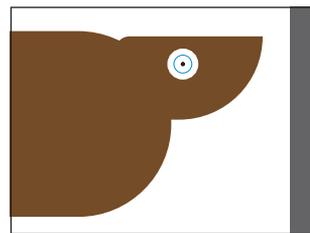


- 4 To see everything, choose View > Fit Artboard In Window.

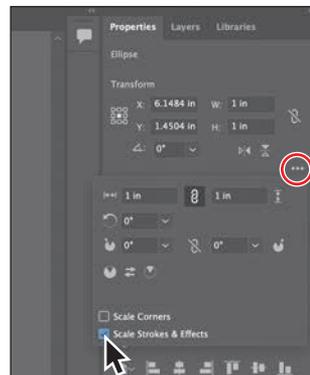
- 5 Drag the circle by the blue center dot (the center point widget) onto the head of the bear, as you see in the figure.



Next you'll make the eye smaller. By default, stroke weights do not scale (they stay the same). So if you were to make the circle a lot smaller, for instance, the stroke weight would stay 19 pt and look rather large. See the figure for an example. To scale the stroke as the circle scales, you can turn on an option.



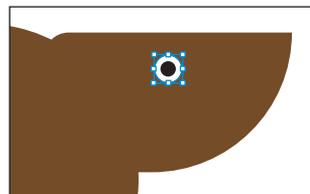
- 6 Click the More Options button (⋮) in the Transform section of the Properties panel. Select Scale Strokes & Effects in the panel that opens.



- 7 Shift-drag the circle to make it smaller. When it's small enough to look good, release the mouse button and then the key.

- 8 Drag the eye where you want it on the bear head.

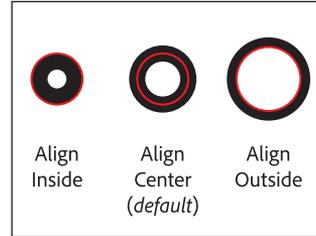
- 9 Choose File > Save.



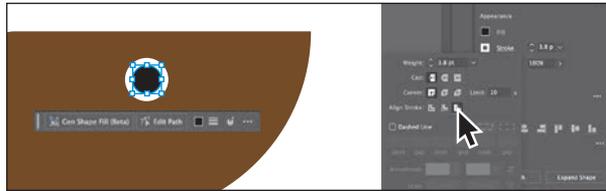
Changing stroke alignment

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

You can adjust this alignment so the stroke appears in the center (default), inside, or outside. Next, you'll change the stroke so you can see more of the fill of the eye.



- 1 With the eye circle still selected, zoom in by pressing Command and + (macOS) or Ctrl and + (Windows) a few times.
- 2 Click the word “Stroke” in the Properties panel to open the Stroke panel.
- 3 In the Stroke panel, click the Align Stroke To Outside button (📄) to align the stroke to the outside edge of the circle.



I hope you can see the difference when the stroke is aligned to the outside. Zoom in if you need to. I made the eye a little smaller after aligning the stroke.

- 4 Choose Select > Deselect.

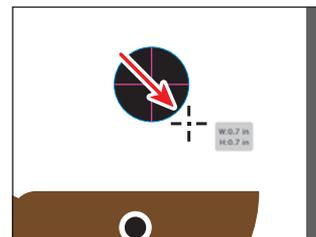
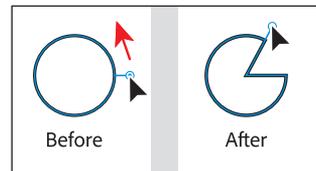
Creating a pie shape from an ellipse

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

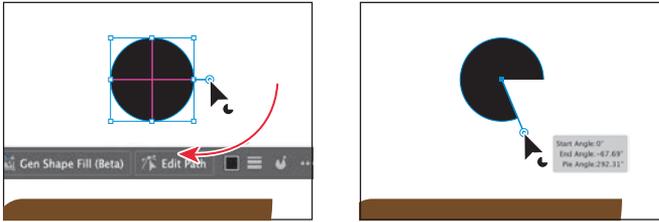
- 1 With the Ellipse tool (○) still selected, change the Stroke Weight in the Properties panel to 0.
- 2 Shift-drag to make another circle in an empty area of the artboard.

This circle will become the ear of the bear—but you can make it bigger and scale it down later, if you want.

With it selected, *do you see the pie widget (⊖) on the right side of the shape?* You can drag that to make a pie shape.

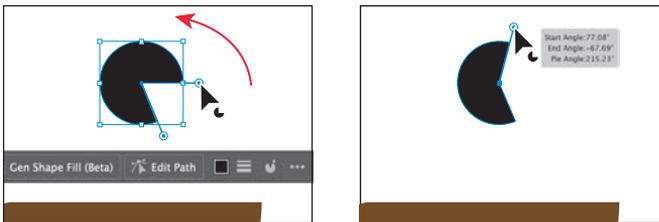


- 3 Drag the pie widget clockwise around the bottom of the ellipse, and then release.



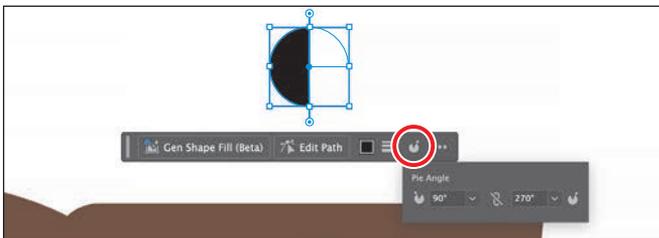
Notice that there is another pie widget in the same place from which you started dragging this one. The pie widget you just dragged is called the *pie start angle*, and the other pie widget is called the *pie end angle*.

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



The ear shape you are making will look best if we see exactly half of it. That requires the two pie widgets you dragged to be at precise angles to each other—showing 180 degrees of the circle. You can adjust them with precision in the Properties panel.

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



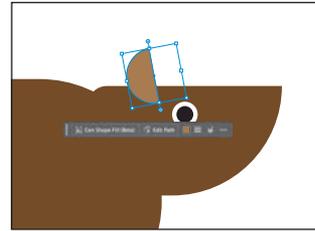
- 8 Drag the half-circle ear on top of the bear head.
- 9 With the ear still selected, change the Fill color in the Properties panel to a lighter brown than the bear head.

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

● **Note:** The figure shows the result after choosing 270° from the Pie End Angle menu.

- 10 Try adjusting the size of the ear if you need to make it look better, and rotate it slightly.

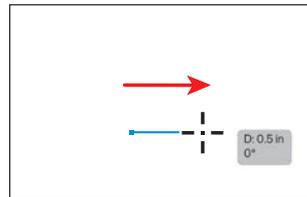
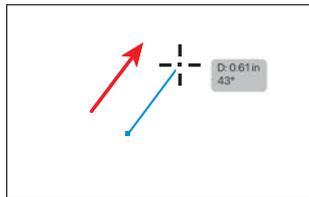
Want a little practice? You could make a new ear (or copy) to give the bear two ears! The new ear might look better if it were behind the bear head—so you can choose Arrange > Send To Back.



Drawing lines

Lines created with the Line Segment tool are Live, and similarly to Live Shapes, they have many editable attributes after they are drawn. Next, you'll create a line with the Line Segment tool. This line will become a leg of the bear.

- 1 Press and hold on the Ellipse tool (○) in the toolbar, and select the Line Segment tool (↘).
- 2 In an empty area of the artboard, press and drag in any direction to draw a line. *Don't release the mouse button yet.*
- 3 As you drag, press the Shift key to constrain the line to a multiple of 45 degrees. Notice the length and angle in the measurement label next to the pointer as you drag. Drag directly to the right until the line is around 0.5 inches in length. Release the mouse button and then the key.



Editing a line

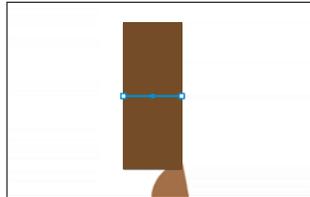
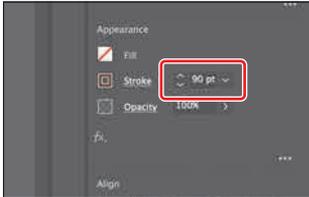
Now you'll change the color of, rotate, and change the stroke weight of the line.

- 1 Click the Stroke color box in the Properties panel, and make sure that the Swatches option (■) is selected in the panel that appears. Select the same brown color as the body of the bear.

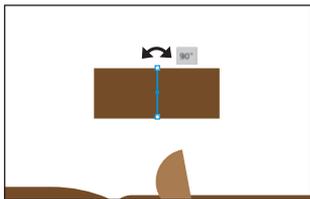
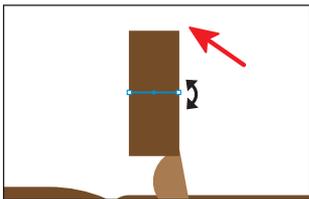


Since this is a leg, and a bear leg is not horizontal, it needs to be rotated. Yes, you could have drawn it that way, but then we wouldn't explore rotating lines!

- 2 With the line selected, change the stroke weight to **90 pt** in the Properties panel to the right of the document.

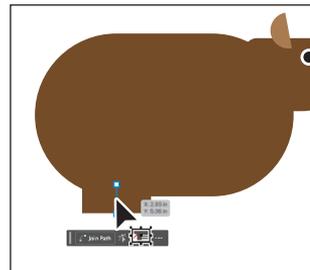


- 3 With the new line selected, move the pointer just off the right end. When the pointer changes to a rotate arrow (↻), press and drag up until you see an angle of 90° in the measurement label next to the pointer. That will make the line vertical.



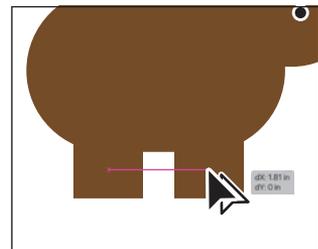
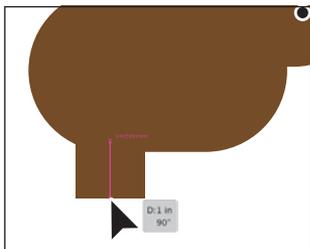
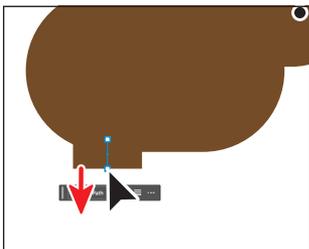
- 4 Choose View > Fit Artboard In Window.
- 5 Select the Selection tool (▸) in the toolbar, and drag the line by the center point to make it a leg for the bear.

It's a little short—so let's make it longer. For the following figures, I moved the belly shape that was below the bear out of the way.



Note: If you resize a line in the same trajectory as the original path, it will snap to that same trajectory. You will also see the words "Line Extension" and "on" appear at opposite ends of the line. These appear because the Smart Guides are turned on.

- 6 Drag the end of the line to make the leg longer.
- 7 Make a copy by Option-dragging (macOS) or Alt-dragging (Windows) the line to where the other leg should be. Release the mouse button and then the key.

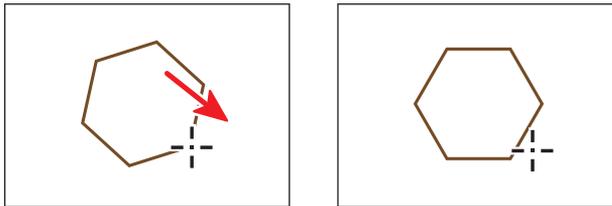


Creating polygons

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

Now you'll create several polygons to make the claws of the bear.

- 1 Press and hold the Line Segment tool () in the toolbar, and select the Polygon tool () .
- 2 Choose View > Smart Guides to turn them off.
- 3 Choose Select > Deselect.
- 4 Press the letter D on your keyboard to apply the default of a white fill and a black, 1-pt stroke. Otherwise, the stroke will be a rather large 90 point!
- 5 Move the pointer into an empty area of the artboard. Drag to the right to draw a polygon. As you drag, press the Shift key to straighten the shape. Release the mouse button and then the key.



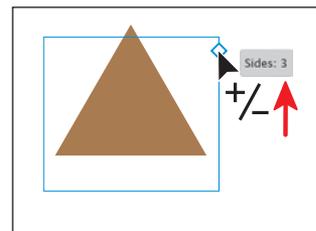
Notice that you didn't see the gray measurement label (the tool tip), since it's part of the Smart Guides that you turned off. Smart Guides can be helpful in certain situations, such as when more precision is necessary—maybe you want to know how large the shape is—and can be toggled on and off when needed.

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

Now you'll make it look more like a claw by turning the shape into a triangle.

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

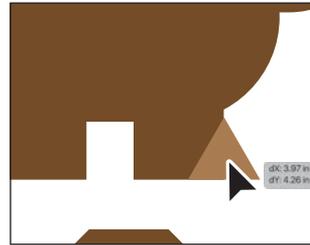
- 10 Choose File > Save.



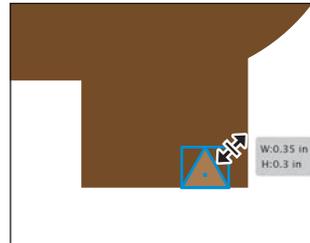
Editing a polygon

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

- 1 Select the Selection tool (▸) in the toolbar.
- 2 Drag the polygon to the bottom of one of the legs. See the figure for where.
- 3 Zoom in to the claw shape by pressing Command and + (macOS) or Ctrl and + (Windows) a few times.



- 4 To make it smaller, press the Shift key and drag a corner to change the width and height proportionally (together). When it looks like the size of a proper claw, release the mouse button and then the key.

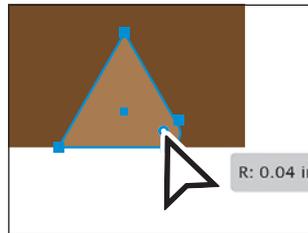
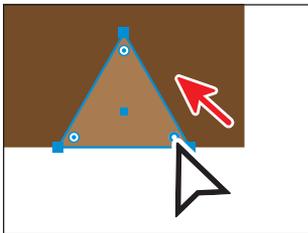
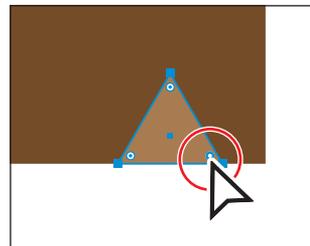


Note: Depending on how big your polygon was to start, you made it either larger or smaller in this step to match the height we suggest.

With the polygon shape now created, you'll round one of the corners so the claw is a little less sharp. We need to round only one of the corners, so you will select the corner you want to round.

With the Selection tool selected, a polygon shows only a single Live Corner widget, so you can't round just one corner with the Selection tool. To round only one corner, you will use the Direct Selection tool.

- 5 Select the Direct Selection tool in the toolbar. Click the Live Corners widget (⦿) in the corner showing in the figure.
- 6 Drag the selected Live Corners widgets toward the center of the triangle to round the one corner a little.

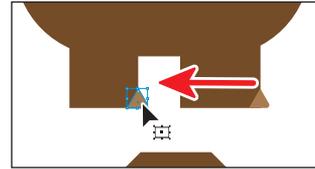
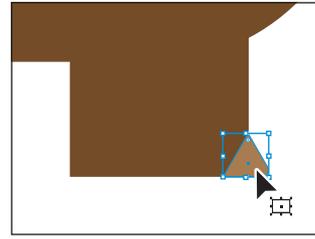


7 Select the Selection tool (▸) and drag the triangle into position like you see in the figure.

8 To make a copy, choose Edit > Copy and then Edit > Paste In Front.

A copy is placed directly on top of the original.

9 Drag it into place on the other leg, like you see in the figure. You may need to zoom out.

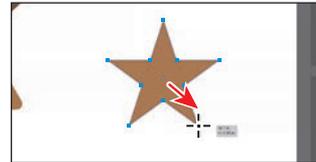


Creating a star

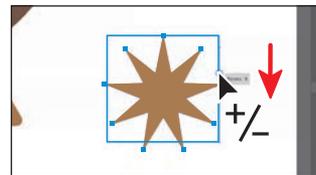
Next, you'll use the Star tool (☆) to create a star that will become the tail of the bear. The Star tool also creates Live Shapes, so editing the star after the fact is made easy.

1 Press and hold the Polygon tool (⬡) in the toolbar, and select the Star tool (☆).

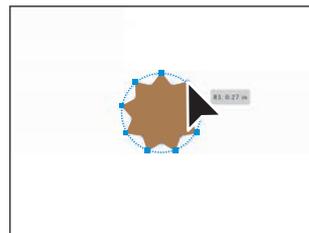
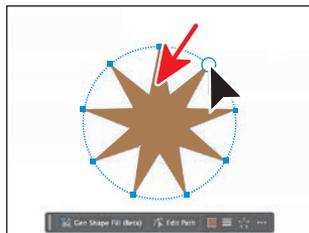
2 In an empty area of the artboard, drag to make a star. As you drag, press Shift to straighten it. Drag until the measurement label shows a width of about 1 inch. Release the mouse button and then the key.



3 To change the number of points on the star, drag the Side widget down to increase the number to nine.

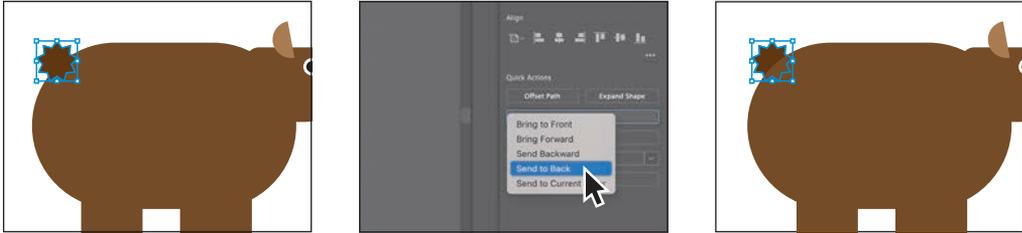


4 To make the arms shorter, drag the Radius 1 widget toward the center.



5 Click the Fill color box (■) in the Properties panel, make sure that the Swatches option (■) is selected, and change the color to a darker brown.

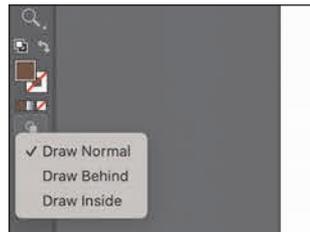
- 6 Drag it into position, as you see in the figure.
- 7 Click the Arrange button in the Properties panel and choose Send To Back to send the star behind the rest of the bear.



Working with drawing modes

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

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

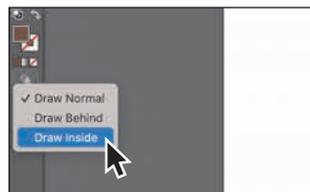


● **Note:** A clipping mask is a shape that hides parts of other artwork. You will learn more about clipping masks in Lesson 15, “Placing and Working with Images.”

Using Draw Inside mode

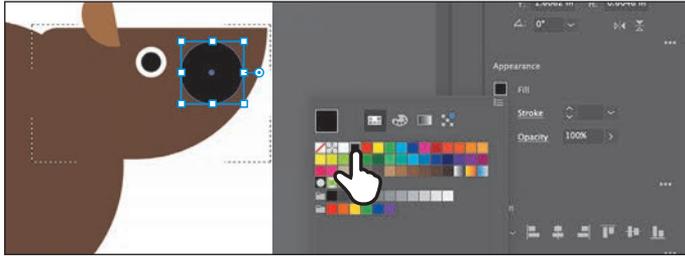
Now you'll add a nose (and a few other things) to the bear by drawing and pasting inside of shapes using the Draw Inside drawing mode. This can be useful if you want to hide (mask) part of the artwork. You can draw, place, or paste content into a shape with Draw Inside mode active.

- 1 Select the Selection tool (⬮) and click to select the bear's head.
- 2 Choose Draw Inside from the Drawing Modes menu (☰), near the bottom of the toolbar.
- 3 Press and hold on the Star tool (☆) in the toolbar and select the Ellipse tool (○).



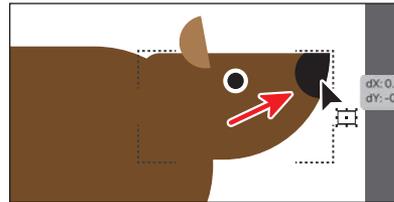
● **Note:** If the toolbar you see is displayed as a double column, you will see all three of the drawing modes as buttons toward the bottom of the toolbar.

- 4 Draw a circle on the bear head that will become a nose. See the following figure.
- 5 Change the fill color to black.



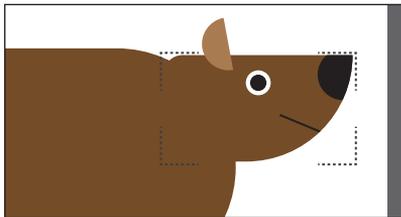
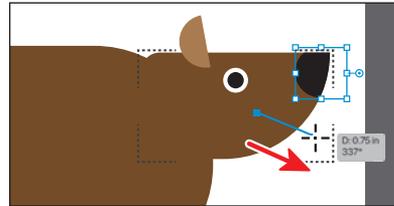
- 6 With the Selection tool selected, drag the circle into position where the nose might go.

If you drag the circle so it extends beyond the edges of the bear's head, you will see that part is hidden because it is inside of the bear head.



Now you'll draw a line to give the bear a smile.

- 7 Press and hold the Ellipse tool in the toolbar and select the Line Segment tool. Draw a straight line that will be the mouth of the bear.
- 8 Change the Stroke Weight to 2 pt and the Stroke Color to black.



- 9 Click the Drawing Modes button () toward the bottom of the toolbar. Choose Draw Normal.

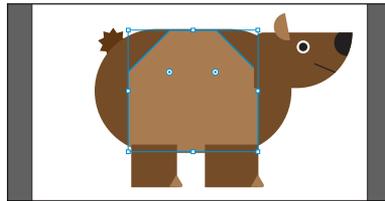
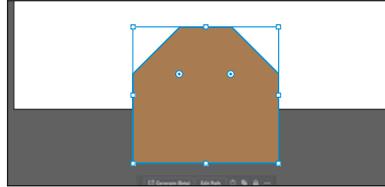
When you're finished adding content inside a shape, you can choose Draw Normal so that any new content you create will be drawn normally (stacked rather than drawn inside).



Practicing with Draw Inside mode

Now you'll take the brown chamfered corner rectangle and paste it into the body of the bear to make the belly.

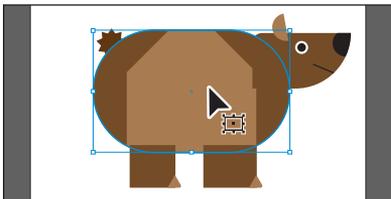
- 1 With the Selection tool (▸), click the rectangle with chamfered edges to select it.
- 2 Change the fill color to a lighter brown.
- 3 Choose Edit > Cut to cut it from the artboard.
- 4 Select the body of the bear.
- 5 Choose Draw Inside from the Drawing Modes menu (◻), near the bottom of the toolbar.
- 6 Choose Edit > Paste.
The artwork is pasted within the bear body shape. You'll get it into place in the next section.
- 7 Click the Drawing Modes button (◻) toward the bottom of the toolbar. Choose Draw Normal.
- 8 Choose Select > Deselect, and then choose File > Save.



Editing content drawn inside

Next you'll make adjustments to the bear's belly to see how you can edit an object inside another object after you create it.

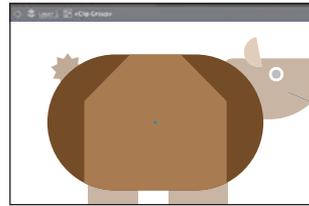
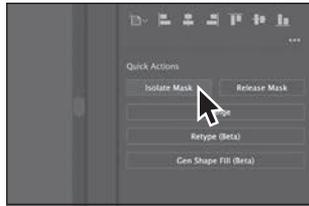
- 1 With the Selection tool (▸) selected, try clicking the lighter bear belly shape. You'll wind up selecting the darker brown bear body that it's inside of.



The bear body is now a mask (called a *clipping path*). The bear body and the belly artwork you pasted inside make a *clip group*. Looking at the top of the Properties panel, you will see “Clip Group.”

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

- 2 With the clip group selected, click the Isolate Mask button in the Properties panel to enter Isolation mode. Now you can select either the clipping path (the brown bear body shape) or the lighter brown artwork pasted within.



- 3 Drag the lighter brown belly shape to look more like you see in the figure.

You can use the arrow keys to move it, make it smaller, and perform any other type of transformation as well.

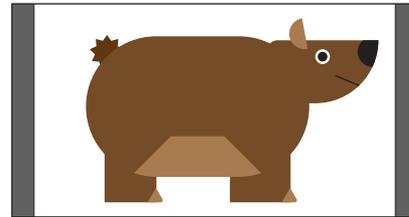
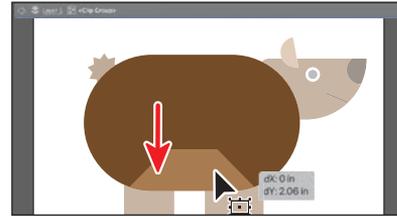
- 4 Press the Escape key to exit Isolation mode.

You'll probably see that the legs are in front of the bear body. Let's put them behind.

- 5 Drag across both the legs and the claws (triangles). Choose Object > Arrange > Send To Back.

I moved my legs up and farther apart.

- 6 Choose Select > Deselect.

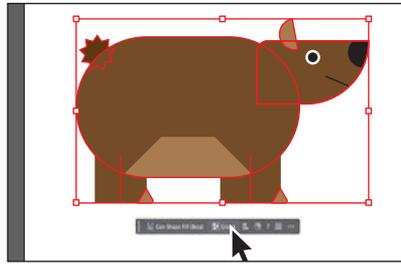


Pasting artwork between documents

Next you'll paste the bear logo you've created so far into another Illustrator document that contains a flyer design.

- 1 To select all of the bear artwork, choose Select > All On Active Artboard.
- 2 Copy it by choosing Edit > Copy.
- 3 Choose File > Open. Open L3_flyer.ai in the Lessons > Lesson03 folder you copied onto your hard disk.
- 4 Click in the blank artboard on the right to make it active, and fit the artboard in the window by pressing Command+0 (macOS) or Ctrl+0 (Windows).
- 5 Choose Edit > Paste to paste the bear logo.

- 6 Click the Group button in the Contextual Task Bar below (or above) the artwork to group it.
- 7 Choose Select > Deselect.



Using Image Trace to convert images into editable vector art

In this part of the lesson, you'll learn how to work with the Image Trace command, which converts a raster image, like a JPEG, into editable vector artwork. Tracing can help turn something you drew on paper—for instance, a logo, a pattern or texture, or hand-drawn type—into editable vector art. In this section, you'll trace hand-drawn text that is part of the logo type.

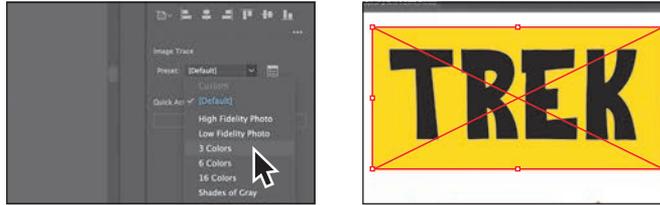
- 1 Choose File > Place. In the Place dialog box, select the hand-drawn-text.jpg file in the Lessons > Lesson03 folder on your hard disk, leave all options at their defaults, and click Place.
- 2 Click in the artboard to place the image.
- 3 If you need to, drag the image you just placed and the bear so they don't overlap.
- 4 Select the TREK image, and to center the image in the Document window, choose View > Zoom In a few times.
- 5 With the image selected, click the Image Trace button in the Contextual Task Bar.



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

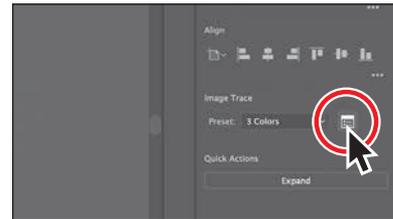
An image tracing object comprises the source image and the tracing result, which is the vector artwork. By default, only the tracing result is visible. However, you can change the display of both the original image and the tracing result.

- 6 Choose 3 Colors from the Preset menu in the Properties panel.



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

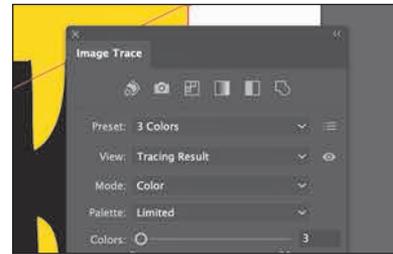
- 7 Click the Open The Image Trace Panel button (📄) in the Properties panel.



The buttons at the top of the Image Trace panel are for converting the image to grayscale, black and white, and more.

Below the buttons at the top, you'll see the Preset menu. This menu has the same options as in the Properties panel.

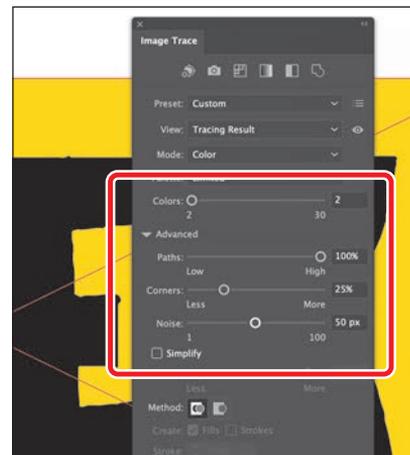
The Mode menu allows you to change the color mode of the resulting artwork (color, grayscale, or black and white). The Palette menu is also helpful in limiting the color palette or assigning colors from a color group.



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

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

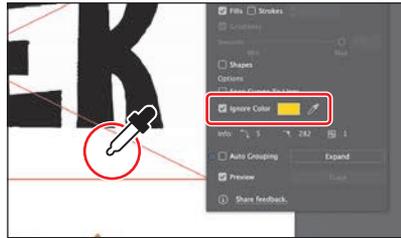
- Colors: **2**
- Paths: **100%** (For path fitting. A higher value means a tighter fit.)
- Corners: **25%** (A higher value means more corners.)
- Noise: **50 px** (Reduce noise by ignoring areas of a set pixel size. A higher value means less noise.)



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

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

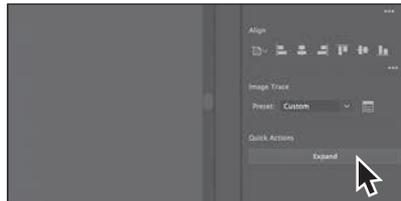
There are a lot of options in the Image Trace panel for you to explore. You will see an option for Simplify. I'm pointing that out because you will learn about a Simplify command with more options in the next section.



11 Close the Image Trace panel.

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

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



Cleaning up traced artwork

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

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

In the Simplify options that appear, the Reduce Anchor Point slider is set to an auto-simplified value by default.

2 Drag the slider all the way to the left to remove a lot of points and see what the text looks like.



Dragging the slider to the left reduces the anchor points and simplifies the path. The closer the slider is to the minimum value on the left, the fewer the anchor points there are, but the path will most likely look different. The closer the slider

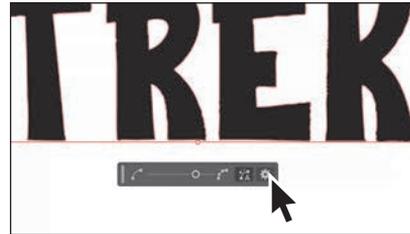
is to the maximum value, the more it will look like it did before you applied the Simplify command.

- 3 Click the Auto-Simplify button (🔄) in the Simplify options bar to set the default amount again.



- 4 Click the Advanced Options (⚙️) in the Simplify options bar. In the dialog box that opens, make sure Preview is selected to see the changes happen.

You can see the original number of anchor points (Original) of the text and the number of anchor points after applying the Simplify command (New).



- 5 In the Simplify dialog box, drag the Simplify Curve slider all the way to the right (Maximum).

This is a great starting point, and the artwork will look like it did before you applied the Simplify command.

- 6 Drag the same Simplify Curve slider to the left until you think it looks smoother on the edges. I set the Simplify Curve option to around 65%.
- 7 Do the same for the Corner Point Angle Threshold. Drag the slider until there are fewer ripples in the edge of the text. I set it to 94°.



For the Corner Point Angle Threshold, if the angle of a corner point is less than the angle threshold, the corner point is not changed. This option helps keep corners sharp, even if the value for Curve Precision is low.

- 8 Click OK.

- 9 Choose View > Fit All In Window.
- 10 Select the Eyedropper tool (👉) from the toolbar and click in the “OUTDOORS” text in the flyer to sample the color and apply it to the “TREK” text.



Adding the text and bear logo to the flyer

Now you'll move the bear logo artwork and the text into place.

- 1 With the Selection tool (👉) selected, drag the bear logo and the text into the flyer and arrange them however you like.

If you want to resize either, do so with the Selection tool, pressing the Shift key to maintain proportions.



- 2 Choose File > Save.

Using Text To Vector Graphic (Beta)

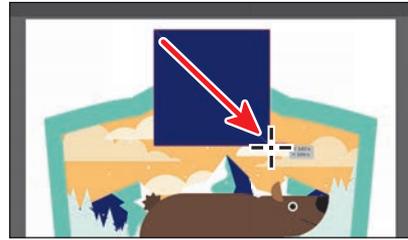
Using Text To Vector Graphic, you can generate all kinds of vector content based on a simple everyday language text prompt. As of this writing, this feature is still in beta, *so it will change over time*. Keep that in mind as you go through this section. Also, we will touch on features that you can explore more on your own. We will use this feature to create a sunshine icon for our flyer.

- 1 Choose View > Fit Artboard In Window to fit the flyer in the Document window.

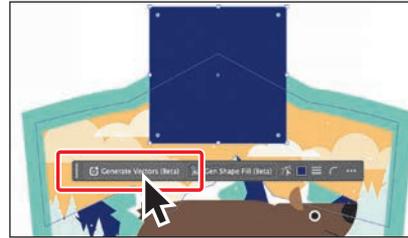
To generate artwork with Text To Vector Graphic, you can either select a placeholder shape—like a rectangle—and replace it or generate artwork that is added to your design. You'll add a rectangle to the flyer so it is used as a placeholder and sized roughly as we need it to be.

- 2 Select the Rectangle tool (☐) from the shape tools in the toolbar.

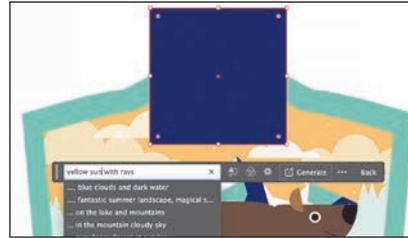
- 3 Draw a rectangle at the top of the design.



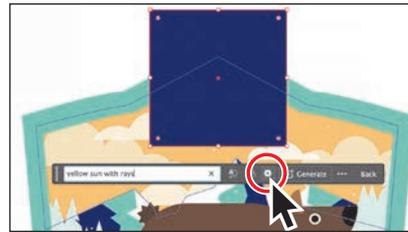
- 4 Click the Generate Vectors (Beta) button in the Contextual Task Bar beneath the artwork.



- 5 Type in a prompt to make a sunshine icon. I typed **yellow sun with rays**.
Most of the time you want to be more descriptive with your prompts to get the desired artwork. But this prompt worked well for me.

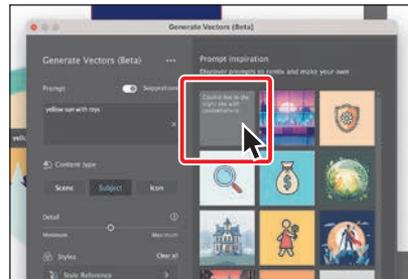


- 6 Click the View All Settings option (⚙️) in the Contextual Task Bar.
In the Generate Vectors (Beta) dialog box that opens, you have a lot of options you can set to refine the artwork generated.



The thumbnails on the right side of the dialog box are example prompts you can click to start from. Hover over a thumbnail and you can see the prompt used.

There are currently three types of artwork you can generate using this method. You can see them in the Content Type section of the dialog box:

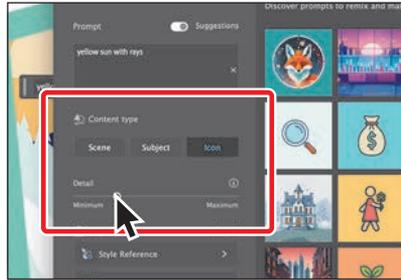


- **Scene:** Creates an entire vector scene with many elements.

- **Subject:** Creates artwork without a background. Choose this if you want to add something to an existing scene or design.
- **Icon:** Creates vector artwork that is low in detail without a background.

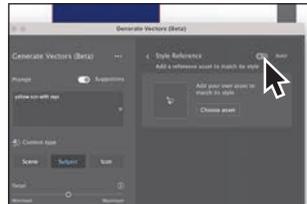
7 Select Icon and make sure the Detail slider is farther to the left so the sunshine has less detail.

There are a number of Style options in the dialog box that you can use to control the appearance of the generated artwork. I urge you to explore those. Here is a high-level overview of what each is:



- **Style Reference:** You can sample artwork in your document to match the style of it.
- **Effects:** This is a fun way to control the “look” of your artwork.
- **Color and Tone:** Specify the number of colors and/or what colors to use in the generated artwork.

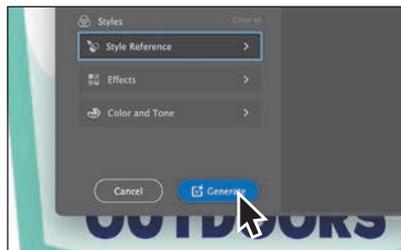
8 Click the Style Reference button. In the upper-right of the dialog box, turn off Auto.



That way, it will follow the suggested prompt word “yellow.” Otherwise, it will make the generated art aqua or some other color widely used in the artwork on the artboard, by default.

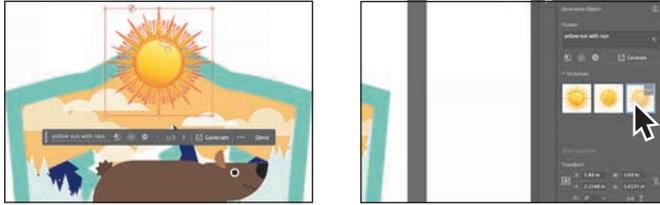
9 Click Generate at the bottom of the dialog box.

The first time you generate, a dialog box may appear asking you to agree with the user guidelines—do so, if you see the dialog box. Then, after a short time, the rectangle will be replaced with generated artwork. The generated artwork is vector—which means it is completely editable!



The sunshine artwork that you see will *definitely* be something different when you generate your own artwork.

- 10 In the Properties panel, click one of the other variation thumbnails to replace the selected sunshine artwork in the flyer.



Don't like what you see? Click the Generate button again to generate more artwork based on the same text prompt. You can also try changing your prompt text and/or the options and clicking Generate again!

I wound up lowering the detail for the Content Type further and generating a few more times to get the result you see.



There are other options to explore related to the Text to Vector Graphic feature, but I just wanted to give you a taste of what is to come. As time goes on, this feature will only get better!

- 11 Choose File > Save.
- 12 If you want to try the new Gen Shape Fill (Beta), watch the following video. Otherwise, choose File > Close to close the open files.

Gen Shape Fill (Beta)

Discover a whole new way to “fill in” a shape with amazing generated artwork using Gen Shape Fill (Beta). To learn more, check out the video *Gen Shape Fill (Beta)*, which you'll find in the Web Edition. For more information, see the “Web Edition” section of “Getting Started” at the beginning of the book.

Review questions

- 1 When creating a new document, what is a document category?
- 2 What are the basic tools for creating shapes?
- 3 What is a Live Shape?
- 4 Describe what Draw Inside mode does.
- 5 How can you convert a raster image into editable vector shapes?
- 6 Briefly describe what Text To Vector Graphic is.

Review answers

- 1 You can set up a document for different kinds of output, such as print, web, video, and more, by choosing a category. For example, if you are designing a web page mockup, you can select the Web category and select a document preset (size). The document will be set with the units in pixels, the color mode as RGB, and the raster effects to Screen (72 ppi)—all optimal settings for a web design document.
- 2 There are five shape tools in the Essentials workspace: Rectangle, Ellipse, Polygon, Star, and Line Segment (the Rounded Rectangle and Flare tools are not in the toolbar in the Essentials workspace).
- 3 After you draw a rectangle, ellipse, star, or polygon (or a rounded rectangle, which wasn't covered) using a shape tool, you can continue to modify its properties, such as width, height, rounded corners, corner types, and radii (individually or collectively). This is what is known as a Live Shape. The shape properties, such as corner radius, are editable later in the Transform panel, in the Properties panel, or directly on the art.
- 4 Draw Inside mode lets you draw objects or place images inside other objects, including live text, automatically creating a clipping mask of the selected object.
- 5 You can convert a raster image into editable vector shapes by selecting it and then clicking the Image Trace button in the Properties panel. To convert the tracing to paths, click Expand in the Properties panel, or choose Object > Image Trace > Expand. Use this method if you want to work with the components of the traced artwork as individual objects. The resulting paths are grouped.
- 6 Using Text To Vector Graphic, you can generate all kinds of vector content based on a simple everyday language text prompt and settings you can refine.

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