

1. Drag across the artwork for the bones and click the Group button in the Properties panel to keep the artwork together.

Working with the Shaper tool

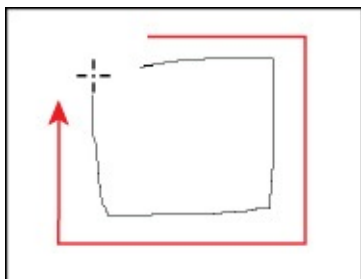
Another way to draw and edit shapes in Illustrator involves the Shaper tool (🖋️). The Shaper tool recognizes natural gestures and produces Live Shapes from those gestures. Without switching tools, you can combine, delete, fill, and transform basic shapes you create. In this section, you'll get a feeling for how the tool works by exploring the most widely used features.

● **Note:** The Shaper tool is present in the Tools panel of the classical workspace. In the Touch Workspace, it is a top-level tool in the toolbar. This tool works best with a stylus on touch surfaces, such as Surface Pro or Wacom Cintiq, or through indirect inputs such as the Wacom Intuos.

Drawing shapes with the Shaper tool

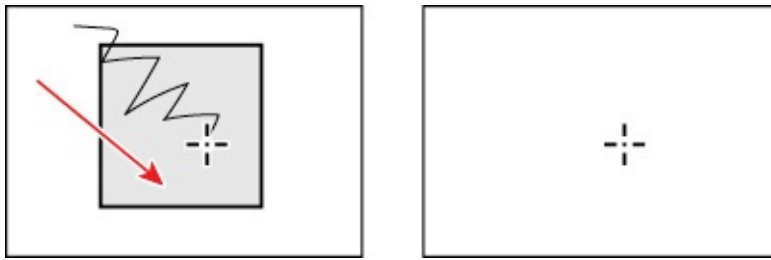
To get started with the Shaper tool, you'll draw a few simple shapes that will eventually become the sail for the boat you made.

1. Choose View > Fit Artboard In Window.
2. Select the Shaper tool (🖋️) in the Tools panel on the left. Draw a rough representation of a rectangle in a blank area of the artboard, like you would with a pencil on paper. Use the figure as a guide.



When you finish drawing the shape, the gesture will be converted to a Live Shape with a default gray fill. There are a variety of shapes that can be drawn with the Shaper tool, including (but not limited to) rectangles, squares, ellipses (circles), triangles, hexagons, lines, and more.

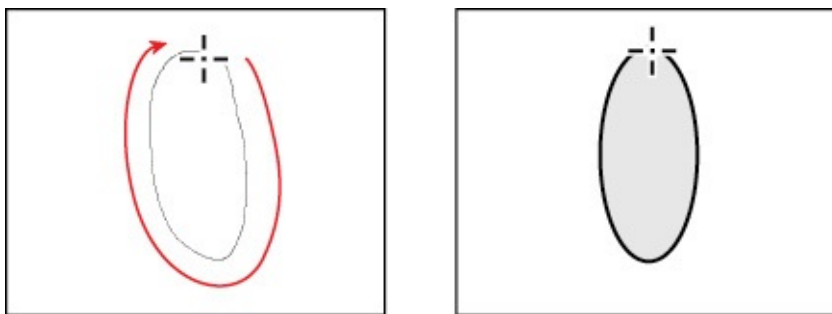
3. Draw a scribble over the shape you just drew to delete it.



This simple gesture is an easy way to delete shapes. Note that you can scribble across more than one object to remove them, and you simply need to scribble over part of the artwork, not the whole thing to delete it. You can also click within a shape you created to select it and then press Backspace or Delete to remove it.

● **Note:** If you try to draw a scribble, a line may be created instead. Simply scribble across all the shapes to remove them.

4. Draw an ellipse in a blank area of the artboard.

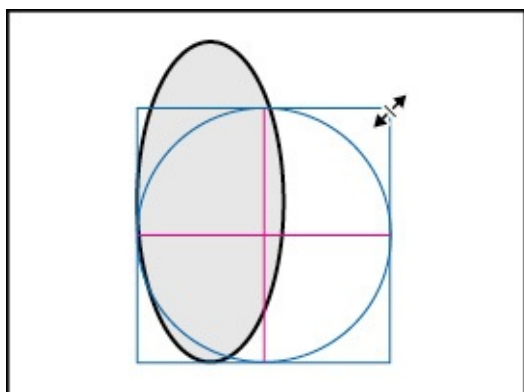


If the shape is not an ellipse, delete it by scribbling across it, and try again.

Once shapes are created, you can also use the Shaper tool to edit those shapes without having to switch tools. Next, you'll edit the ellipse you just created.

5. Click in the ellipse with the Shaper tool to select it.
6. Choose View > Zoom In.
7. Drag a corner of the ellipse to turn it into a circle. When magenta hinting crosshairs (Smart Guides) show in the center, it means the ellipse has become a circle (an ellipse with equal width and height).

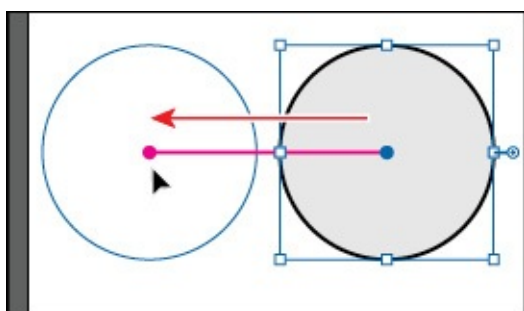
Shapes drawn with the Shaper tool are live and dynamically adjustable, so you can draw and edit intuitively without the extra hassle of switching between tools. Notice that no measurement label appears to indicate the shape size. When transforming shapes with the Shaper tool, measurement labels won't appear, even if Smart Guides are on.



Punching and combining shapes with the Shaper tool

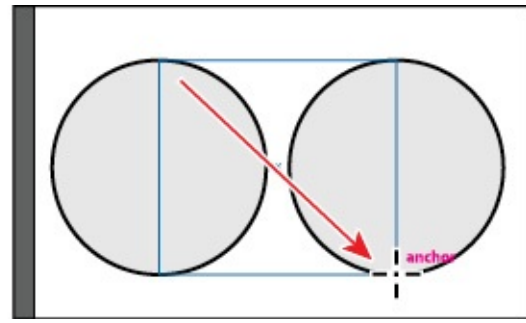
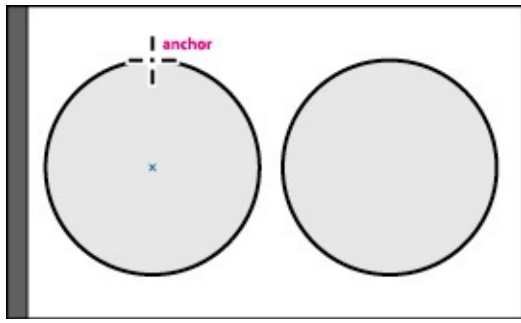
Not only does the Shaper tool let you draw shapes, but you can then combine, subtract, and continuously edit them, all with a single tool. Next, you'll draw a few more shapes and use the Shaper tool to add and subtract them from the original circle, creating a sail for the boat.


1. With the Shaper tool (✎) selected, press Shift+Option (macOS) or Shift+Alt (Windows), and drag the circle straight to the left to make a copy. A horizontal magenta alignment guide will show. *Make sure the circles are not touching*, and then release the mouse button and then the keys.

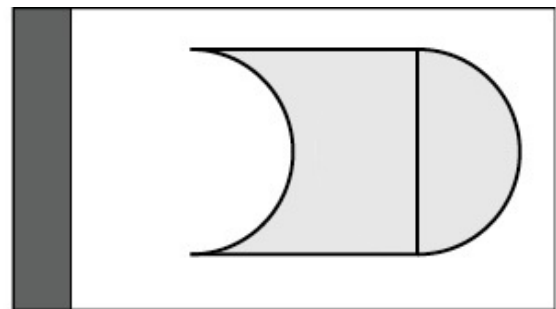
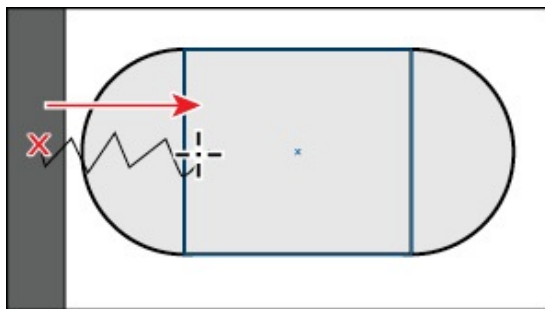


● **Note:** Don't worry if the new circle is on or off the edge of the artboard. You'll reposition it all shortly.

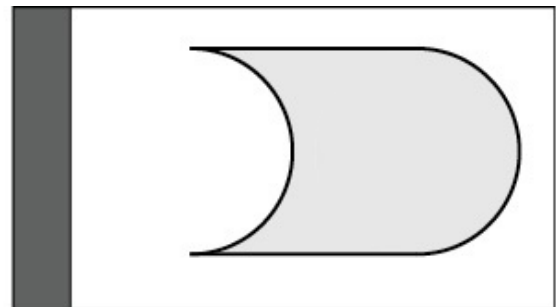
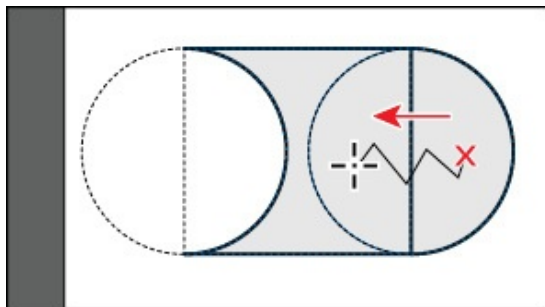
2. Click and hold down the mouse button on the Star tool (☆), and select the Rectangle tool (▢) in the Tools panel. Move the pointer over the center top of the circle on the left. When the word "anchor" appears, drag to create a rectangle. Drag to the bottom-center point of the circle on the right.




3. Select the Shaper tool () in the Tools panel. Click in a blank area of the artboard to deselect all shapes.
4. Move the pointer to the left of the shapes. Scribble across the circle shape, stopping *just after* the left edge of the rectangle. When you release, the circle on the left will be deleted, and the overlapping area of the shapes will be removed.




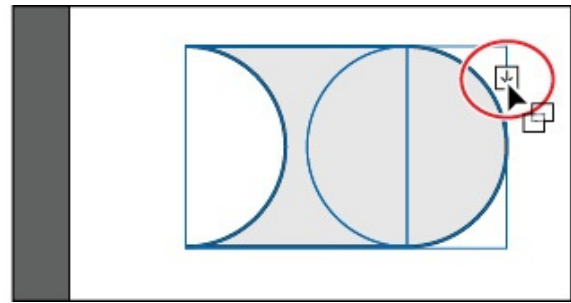
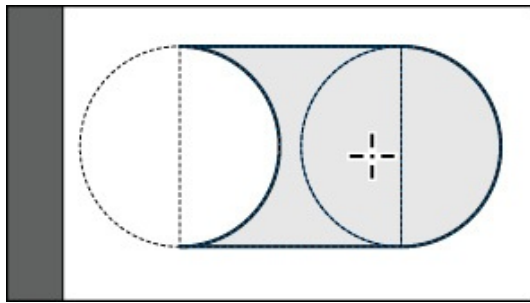
5. Move the pointer *into* the circle on the right, and draw a scribble to the left, into the gray area of the remaining rectangle shape to combine them.



6. Move the pointer over the gray shape to see the outlines of the original shapes, and then click to select the merged group, called a *Shaper Group*. See the first part of the following figure.

 **Tip:** You can also double-click a Shaper Group to be able to select the underlying shapes.

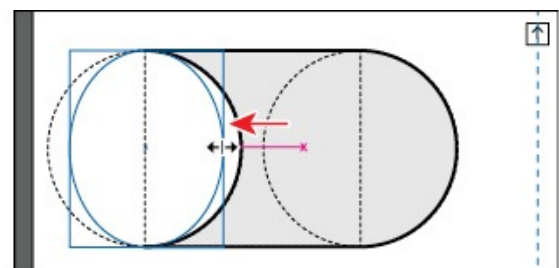
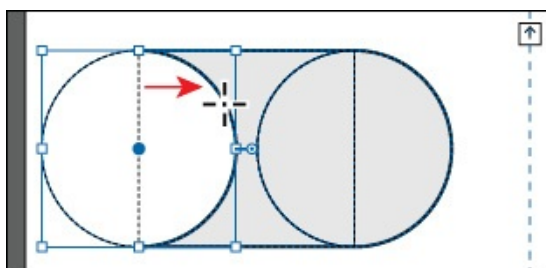
7. Click the arrow widget () on the right side of the Shaper Group to be able to select the underlying shapes. After clicking the arrow widget, the Shaper Group is in Construction Mode.




All shapes in a Shaper Group remain editable, even after portions of shapes may have been punched out or merged.

8. Click the *stroke* of the left circle to select it. Press the Option (macOS) or Alt (Windows) key and drag the right-middle bounding point to the left to make the circle a little narrower. Release the mouse button and then the key.

● **Note:** If you attempted to select the shape and you deselected instead, repeat the previous steps. The circle on the left now has no fill, so it cannot be selected by clicking within.

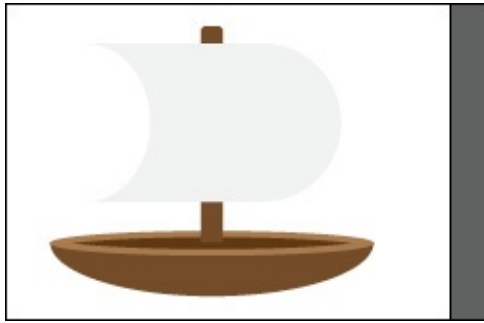


Notice that the circle you dragged is still punched out from the rectangle. Not only can you resize individual shapes in a Shaper Group, but you can also reposition them, rotate them, and more.

9. Press Esc to stop editing the individual shapes, and select the entire Shaper Group.
0. Click the Fill color box in the Properties panel, and make sure that the Swatches option () is selected in the panel that appears. Select a light gray color with a tooltip of “C=0 M=0 Y=0 K=5.”
1. Change the stroke weight to **0** in the Properties panel by clicking the down arrow until the stroke is removed.
2. Drag the sail shape onto the boat in the lower-right corner. You may need to zoom out.

● **Note:** You can Shift-drag a corner of the sail shape to resize it to fit better with the boat shapes, if needed.

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

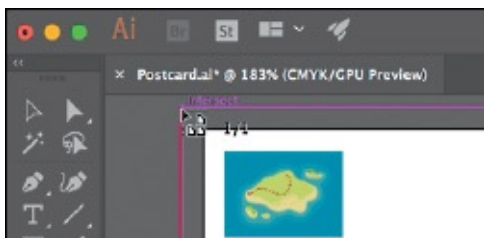


Using Image Trace

In this part of the lesson, you'll learn how to work with the Image Trace command. Image Trace traces existing artwork, like a raster picture from Adobe Photoshop. You can then convert the drawing to vector paths or a Live Paint object. This can be useful for turning a drawing into vector art, tracing raster logos, tracing a pattern or texture, and much more.

► **Tip:** Use Adobe Capture CC on your device to photograph any object, design, or shape and convert it into vector shapes in a few simple steps. Store the resulting vectors in your Creative Cloud libraries, and access them or refine them in Illustrator or Photoshop. Adobe Capture is currently available for iOS (iPhone and iPad) and Android.

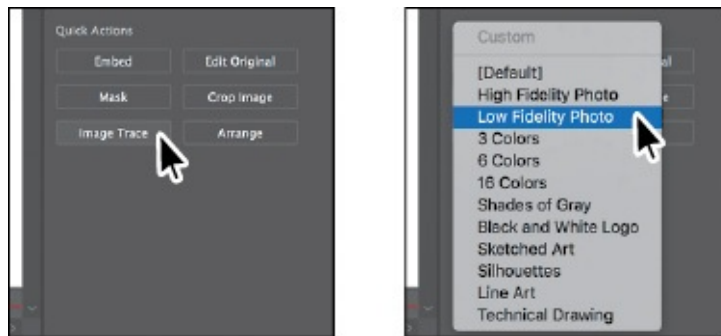
1. Click the Previous button (◀) below the document in the status bar to show the artboard to the left in the Document window.
2. Choose File > Place. In the Place dialog box, select the island.png file in the Lessons > Lesson03 folder on your hard disk, leave the options at their defaults, and click Place.
3. Move the pointer over the upper-left corner bleed guide (the red guide off the edge of the artboard), and click to place the image.



4. With the image selected, click the Image Trace button in the Properties panel to the right of the document, and choose Low Fidelity Photo. The tracing results you see may differ slightly from the figure, and that's okay.

● **Note:** You can also choose Object > Image Trace > Make, with raster

content selected, or begin tracing from the Image Trace panel (Window > Image Trace).



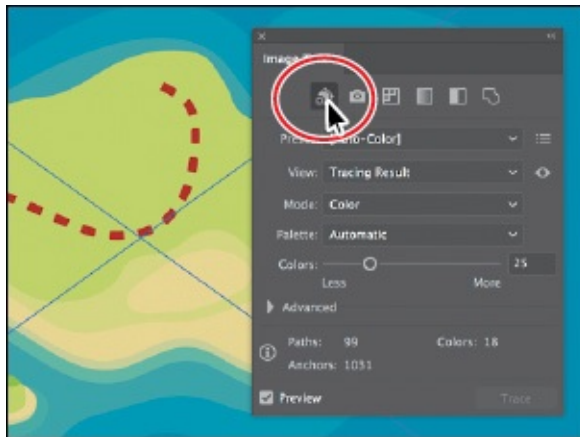
This converts the image into an image tracing object. That means you can't edit the vector content yet, but you can change the tracing settings or even the original placed image and then see the updates.

5. Choose 6 Colors from the Preset menu that's showing in the Properties panel.



The 6 Colors preset will trace the image, forcing the resulting vector content to use six colors only. In some cases, in an image with a lot of different color, this can apply the same color to a lot of content. An image tracing object is made up of the original 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 to best suit your needs.

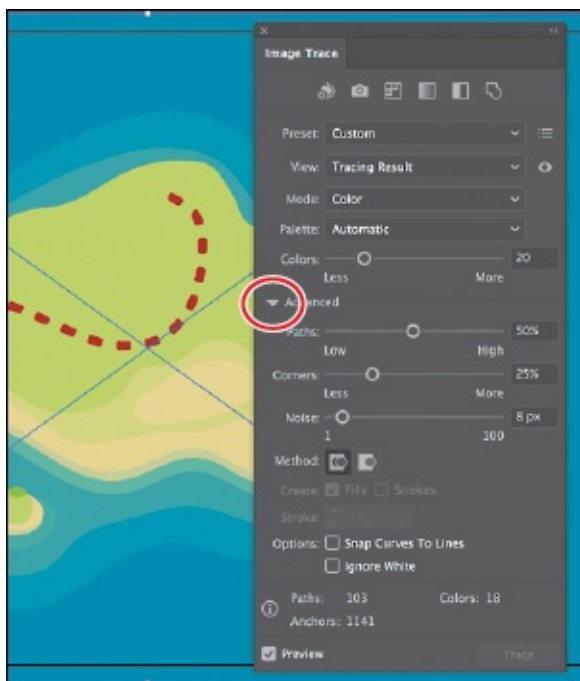
6. Click the Image Trace Panel button (📄) in the Properties panel. In the Image Trace panel, click the Auto-Color button (🎨) at the top.



The buttons along the top of the Image Trace panel are saved settings for converting the image to grayscale, black and white, and more. Below the buttons at the top of the Image Trace panel, you will see the Preset option. This is the same option as in the Properties panel. The Mode option allows you to change the color mode of resulting artwork (color, grayscale, or black and white). The Palette option is also useful for limiting the color palette or for assigning colors from a color group.

► **Tip:** The Image Trace panel can also be opened by choosing Window > Image Trace.

7. 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 the values as a starting point:

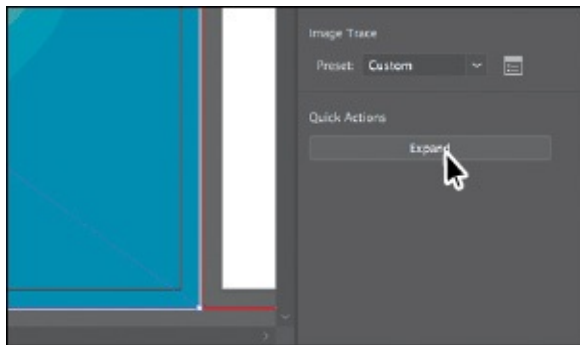


- Colors: 20

- Paths: **50%**
- Corners: **25%**
- Noise: **8 px**

8. Close the Image Trace panel.

9. With the map tracing object still selected, click the Expand button in the Properties panel.



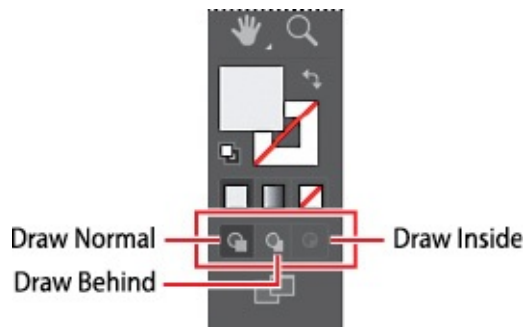
The map is no longer an image tracing object but is composed of shapes and paths that are grouped together.

0. Choose Object > Hide > Selection to temporarily hide it.

Working with drawing modes

Illustrator has three different drawing modes available that are found at the bottom of the Tools panel: Draw Normal, Draw Behind, and Draw Inside. Drawing modes allow you to draw shapes in different ways. The three drawing modes are as follows:

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



● **Note:** To learn more about clipping masks, see [Lesson 14, “Using Illustrator CC with Other Adobe Applications.”](#)

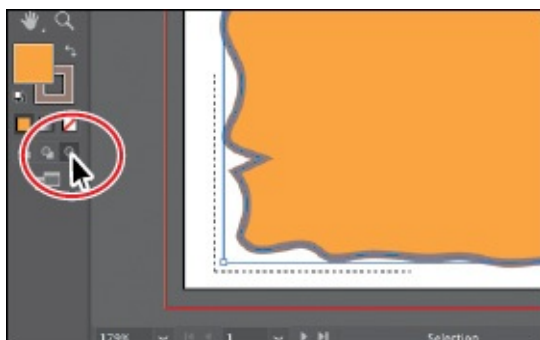
Using the Draw Inside mode

Next, you will learn how to add artwork inside of a selected shape using the Draw Inside drawing mode. This can be useful if you want to hide (*mask*) part of the artwork.

1. Choose File > Open. In the Open dialog box, select the map_edges.ai file in the Lessons > Lesson03 folder on your hard disk and click Open.

The orange shape you see is just a closed path that was created using the Pencil tool in the Tools panel. You’ll copy this shape and paste it back in the Postcard.ai file.

2. Select the Selection tool (⬚) in the Tools panel, and click the orange map edges shape to select it. Choose Edit > Copy.
3. Click the Postcard.ai tab to return to the postcard document. Choose Edit > Paste In Place.
4. Click the orange shape to select it, if it isn’t, and then click the Draw Inside button (⬚), near the bottom of the Tools panel.



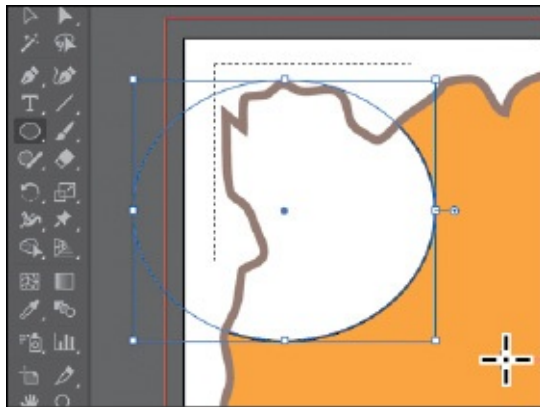
This button is active when a single object is selected (path, compound path, or text), and it allows you to draw within the selected object only. Notice that the orange shape has a dotted open rectangle around it, indicating that, if you draw, paste, or place content, it will be inside the

orange shape.

● **Note:** If the Tools panel you see is displayed as a single column, you can click the Drawing Modes button (◻) at the bottom of the Tools panel and choose Draw Inside from the menu that appears.

5. Choose Select > Deselect.

Notice that the orange shape still has the dotted open rectangle around it, indicating that Draw Inside mode is still active. The shape you are about to draw inside of does not need to be selected.



6. Click and hold down the mouse button on the Rectangle tool (◻) in the Tools panel, and select the Ellipse tool (◯). Press the letter D to apply the default white fill and black stroke to the shape you are about to draw. Click and drag to create an ellipse that overlaps the edge of the orange shape.

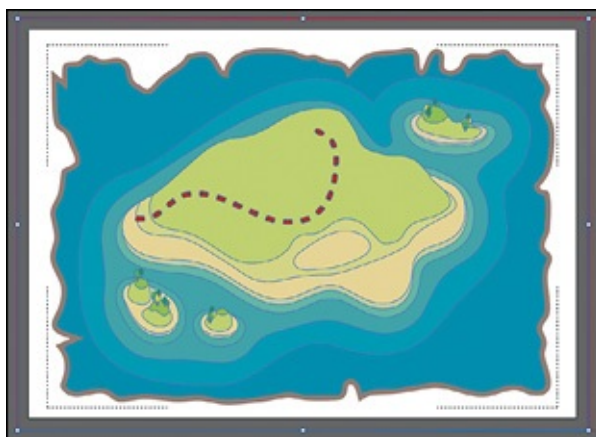
The ellipse you just drew is within the orange shape, and part of it is being hidden.

7. Choose Edit > Undo Ellipse to get rid of the ellipse.

You can also place or paste content into a shape with Draw Inside mode active.

8. Choose Object > Show All to show the island artwork again, which is now behind the orange shape.

9. Select the Selection tool (◻) in the Tools panel, and choose Edit > Cut to cut the selected island artwork from the artboard.



0. Choose Edit > Paste In Place.

The island artwork is placed within the orange shape.

1. Click the Draw Normal button () at the bottom of the Tools panel.

When you are finished adding content inside a shape, you can click the Draw Normal button so that any new content you create will be drawn normally (stacked rather than drawn inside).

● **Note:** If the Tools panel you see is displayed as a single column, you can click the Drawing Modes button at the bottom of the Tools panel and choose Draw Normal from the menu that appears.


2. Choose Select > Deselect.

▶ **Tip:** You can also toggle between the available drawing modes by pressing Shift+D.

▶ **Tip:** You can separate the shapes by choosing Object > Clipping Mask > Release. This would make two objects, stacked one on another.

Editing content drawn inside

Next, you'll edit the map artwork inside of the shape to see how you can later edit content inside.

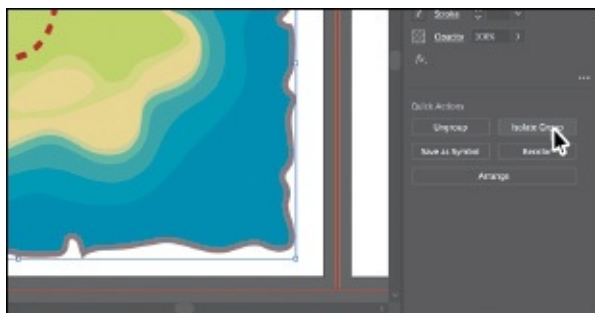
1. With the Selection tool () selected, click to select the island artwork. Notice that it selects the map edges shape instead.

The map edges shape is now a mask, also called a *clipping path*. The island artwork and the map edges shape, together, make a *clip group* and are now treated as a single object. If you look at the top of the Properties panel, you will see Clip Group. Like other groups, if you would like to edit

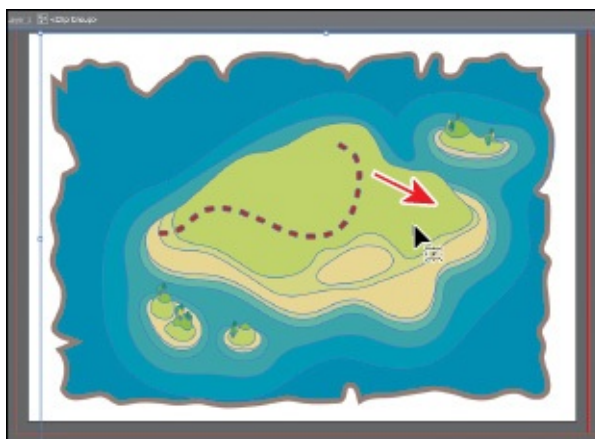
the clipping path (the object that contains the content drawn inside of it) or the content inside, you can double-click the Clip Group object.



2. With the Clip Group selected, click the Isolate Group button in the Properties panel to enter Isolation mode and be able to select the clipping path (map edges shape) or the island artwork within.



3. Click the map artwork within the map boundaries, and drag it down and to the right a little.



► **Tip:** Sometimes it can be helpful to choose View > Outline to more easily see and select shapes when in Isolation mode.

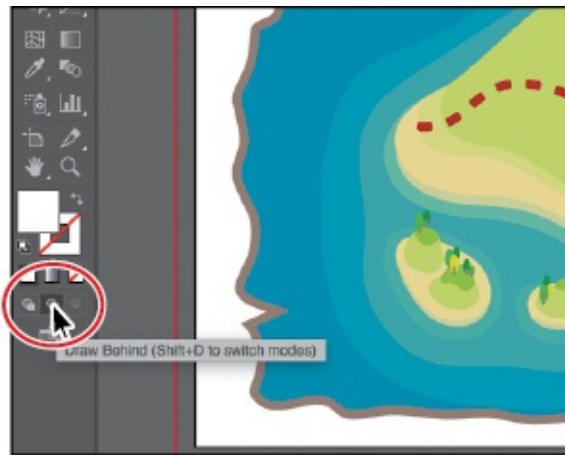
4. Press Esc to exit Isolation mode.
5. Choose Select > Deselect and then choose File > Save.

Working with Draw Behind mode

Throughout this lesson, you've been working in the default Draw Normal mode. Next, you'll draw a rectangle that will cover the artboard and go behind the rest of the content using Draw Behind mode.

1. Click the Draw Behind button (🔒) at the bottom of the Tools panel.

As long as this drawing mode is selected, every shape you create using the different methods you've learned will be created behind the other shapes on the page. The Draw Behind mode also affects placed content (File > Place).



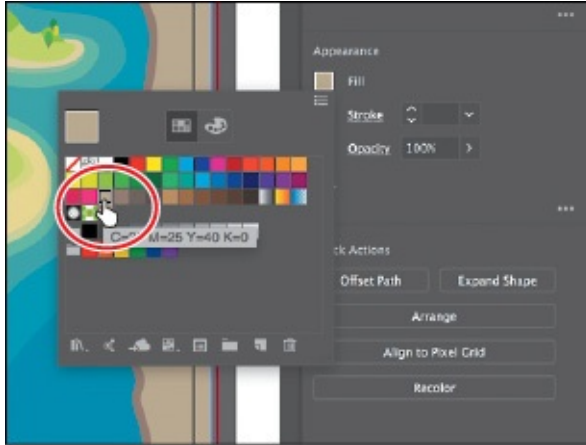
● **Note:** If the Tools panel you see is displayed as a single column, you can click the Drawing Modes button (🔒) at the bottom of the Tools panel and choose Draw Behind from the menu that appears.

2. Click and hold down the mouse button on the Ellipse tool (○) in the Tools panel, and select the Rectangle tool (□). Position the pointer off the upper-left corner of the artboard where the red bleed guides meet. Click and drag to the lower-right corner of the red bleed guides.



● **Note:** If artwork was selected, clicking the Draw Behind button would allow you to draw artwork behind the selected artwork.

3. With the new rectangle selected, click the Fill color box in the Properties panel. Make sure that the Swatches option (🎨) is selected, then change the fill color to a tan color with the tooltip “C=25 M=25 Y=40 K=0.” Press the Escape key to hide the panel.

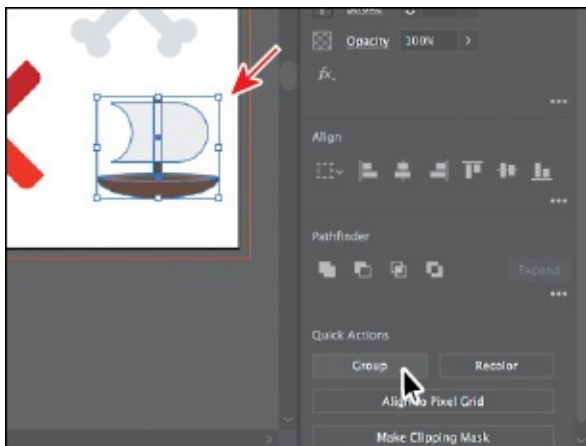


4. Choose Object > Lock > Selection.

Finishing up

To finish the postcard, you'll bring the artwork onto the artboard with the island artwork on it.

1. Choose View > Fit All In Window to see both artboards.
2. Select the Selection tool (🖱️), and drag across the ship artwork to select it. Click the Group button in the Properties panel.

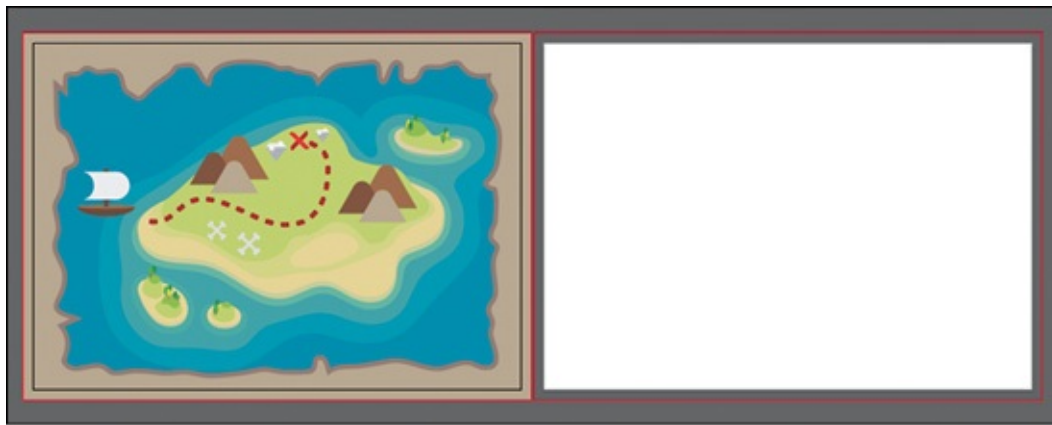


3. Choose Select > All On Active Artboard to select all of the shapes. Choose Object > Arrange > Bring To Front.

You brought the selected artwork to the front because it was created first, which means it would be behind the artwork on the left artboard, which was created after. Next, you'll drag the artwork onto the artboard on the left and resize it.

4. Choose Select > Deselect.
5. Drag each group from the right artboard onto the left artboard, one at a time. To resize each group to better fit within the map, you can press the Shift key and drag a corner of the artwork bounding box to scale it. When finished, release the mouse button and then the key.

In the final artwork, I created copies of a few of the objects by choosing Edit > Copy and then Edit > Paste. I also selected copies of the mountain shape and changed the color fill in the Properties panel on the right, for each.



● **Note:** You may want to zoom in to different artwork by choosing View > Zoom In.

6. Choose File > Save and then File > Close.

Review questions

1. What are the basic tools for creating shapes?
2. What is a Live Shape?
3. How do you select a shape with no fill?
4. What is the Shaper tool?
5. How can you convert a raster image to editable vector shapes?

Review answers

1. There are six shape tools: Rectangle, Rounded Rectangle, Ellipse, Polygon, Star, and Flare (the Flare tool was not covered in the lesson). As explained in [Lesson 1](#), “[Getting to Know the Work Area](#),” to tear off a group of tools from the Tools panel, position the pointer over the tool that appears in the Tools panel, and hold down the mouse button until

the group of tools appears. Without releasing the mouse button, drag to the triangle on the right side of the group and then release the mouse button to tear off the group.

2. After you draw a rectangle, rounded rectangle, ellipse, or polygon using the 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.
3. Items that have no fill can be selected by clicking the stroke (or edge) or by dragging a selection marquee across the item.
4. Another way to draw and edit shapes in Illustrator involves the Shaper tool. The Shaper tool recognizes natural gestures and produces Live Shapes from those gestures. Without switching tools, you can transform individual shapes you create and even perform operations such as punch and combine.
5. You can convert a raster image to 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.