

12

APPLYING EFFECTS

Lesson overview

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

- Use various effects, such as Pathfinder, Scribble, and Drop Shadow.
- Use Warp effects to distort type.
- Create three-dimensional (3D) objects from two-dimensional (2D) artwork.
- Map artwork to the surfaces of three-dimensional objects.



This lesson takes approximately an hour to complete. If needed, remove the previous lesson folder from your hard disk and copy the Lesson12 folder onto it.



Effects change the look of an object. Effects are live, which means that you can apply an effect to an object and then modify or remove it at any time, using the Appearance panel. Using effects, it's easy to apply drop shadows, turn two-dimensional artwork into three-dimensional shapes, and much more.

Getting started


In this lesson, you'll create objects using various effects. Before you begin, you'll need to restore the default preferences for Adobe Illustrator. Then, you'll open a file containing the finished artwork to see what you'll create.

- 1 To ensure that the tools and panels function exactly as described in this lesson, delete or deactivate (by renaming) the Adobe Illustrator CS6 preferences file. See “Restoring default preferences” on page 3.
- 2 Start Adobe Illustrator CS6.

● **Note:** If you have not already done so, copy the Lesson12 folder from the Lessons folder on the *Adobe Illustrator CS6 Classroom in a Book CD* onto your hard disk. See “Copying the Classroom in a Book files” on page 2.

- 3 Choose File > Open, and open the L12end.ai file in the Lesson12 folder, located in the Lessons folder on your hard disk.

This file displays a completed illustration of a soda can.

- 4 Choose View > Zoom Out to make the finished artwork smaller. Adjust the window size, and leave it on your screen as you work. (Use the Hand tool [) to move the artwork where you want it in the window.) If you don't want to leave the image open, choose File > Close.



To begin working, you'll open an existing art file.

● **Note:** In Mac OS, when opening lesson files, you may need to click the round, green button in the upper-left corner of the Document window to maximize the window's size.

- 5 Choose File > Open, and open the L12start.ai file in the Lesson12 folder, located in the Lessons folder on your hard disk.
- 6 Choose File > Save As, name the file **sodacan.ai**, and select the Lesson12 folder. Leave the Save As Type option set to Adobe Illustrator (*.AI) (Windows) or the Format option set to Adobe Illustrator (ai) (Mac OS), and then click Save. In the Illustrator Options dialog box, leave the Illustrator options at their default settings and then click OK.

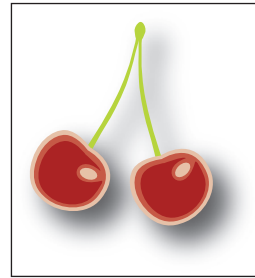


Using live effects

The Effect menu commands alter the appearance of an object without changing the base object. Applying an effect automatically adds the effect to the object's appearance attribute. You can apply more than one effect to an object. You can edit, move, delete, or duplicate an effect at any time in the Appearance panel. To edit the points that the effect creates, you must first expand the object.

There are two types of effects in Illustrator: vector effects and raster effects. In Illustrator, click the Effect menu item to see the different types of effects available.

- **Illustrator effects:** The top half of the Effect menu contains vector effects. You can apply these effects only to vector objects or to the fill or stroke of a bitmap object in the Appearance panel. The following vector effects can be applied to both vector and bitmap objects: 3D effects, SVG filters, Warp effects, Transform effects, Drop Shadow, Feather, Inner Glow, and Outer Glow.
- **Photoshop effects:** The bottom half of the Effect menu contains raster effects. You can apply them to either vector or bitmap objects.



Object with a drop shadow effect applied

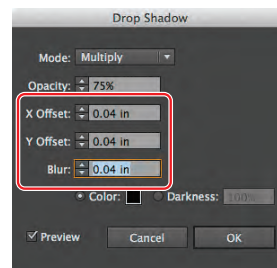
● **Note:** When you apply a raster effect, the original vector data is rasterized using the document's raster effects settings, which determine the resolution of the resulting image. To learn about document raster effects settings, search for "Document raster effects settings" in Illustrator Help.

Applying an effect

Effects are applied using the Effect menu or the Appearance panel and can be applied to objects or groups. In this part of the lesson, you are first going to learn how to apply an effect to a soda can label using the Effect menu and then you will apply an effect using the Appearance panel.

- 1 Choose Reset Essentials from the workspace switcher in the Application bar to reset the workspace.
- 2 Choose View > Smart Guides to deselect them.
- 3 With the Selection tool (⌘), click the text shapes "Sparkling Soda" on the artboard.
- 4 With the group selected, choose Effect > Stylize > Drop Shadow from the Illustrator Effects section of the menu that appears.
- 5 In the Drop Shadow dialog box, change the X Offset, Y Offset, and Blur to **.04 in**. Select Preview to see the drop shadow applied to the text shapes. Click OK.

This applies a subtle drop shadow to the text shapes.



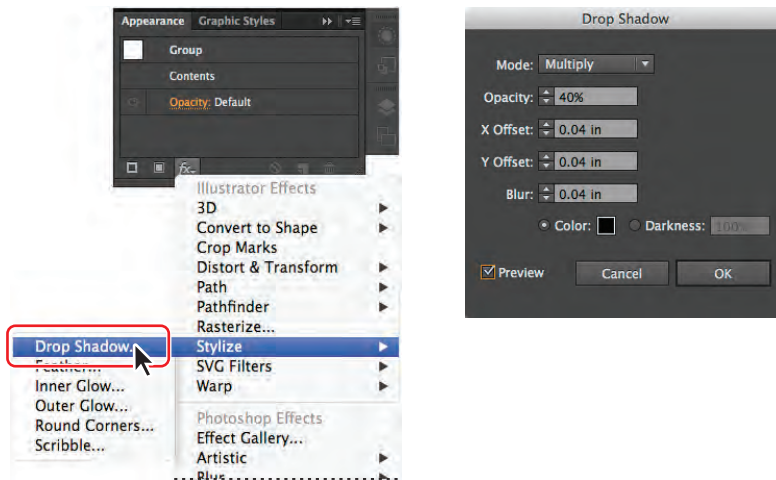
● **Note:** If you don't see "Reset Essentials" in the workspace switcher menu, choose Essentials before choosing Reset Essentials.

Next, you'll apply an effect using a different method, with the same result.

- 6 With the Selection tool, click the cherries to select the group.
- 7 With the group selected, click the Appearance panel icon (📄) on the right side of the workspace to expand the Appearance panel.

In the Appearance panel, you will see the word “Group” at the top of the panel, indicating that a group is selected. Effects can be applied to grouped objects.

- 8 Click the Add New Effect button (fx) at the bottom of the Appearance panel. You'll see the same listing of effects as in the Effect menu.
- 9 Choose Stylize > Drop Shadow from the menu that appears.
- 10 In the Drop Shadow dialog box, change the Opacity to 40% and leave the X Offset, Y Offset, and Blur set at .04 in. Select Preview to see the drop shadow applied. Click OK.



In the Appearance panel, notice that Drop Shadow is now listed in the panel.

- 11 Choose Select > Deselect.
- 12 Choose File > Save.

Next, you will edit the two drop shadow effects.

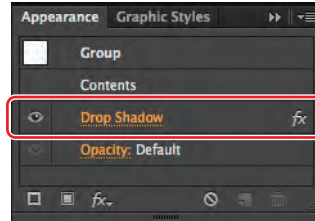


Editing an effect

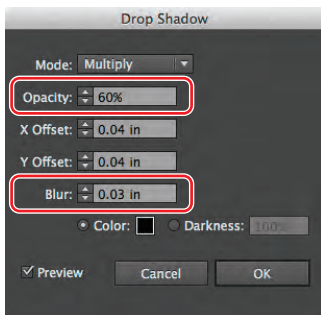
Effects are live, so they can be edited after they are applied to an object. You can edit the effect in the Appearance panel by selecting the object with the effect applied and then either clicking the name of the effect or double-clicking the attribute row in the Appearance panel. This displays the dialog box for that effect. Changes you make to the effect update in the artwork. In this section, you will edit the drop shadow effect applied to the cherries.

- 1 With the Selection tool (⌘), click the grouped cherry shapes and make sure that the Appearance panel is showing. If it isn't, choose Window > Appearance or click its panel icon (📄).

Notice the drop shadow effect listed in the Appearance panel. The (fx) icon to the right of an item listed in the panel indicates that it is an effect.



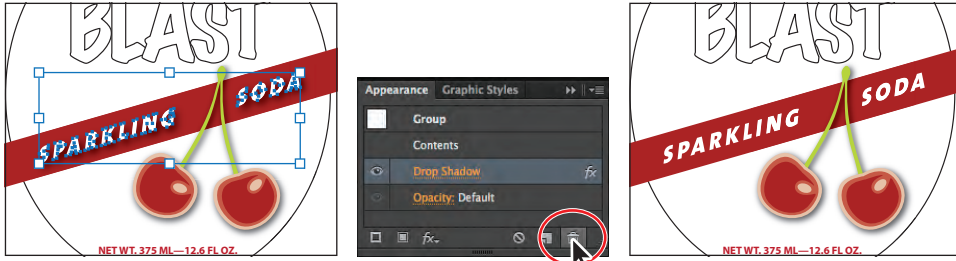
- 2 Click Drop Shadow in the Appearance panel. In the Drop Shadow dialog box, change Opacity to **60%** and select Preview to see the change. Try different settings to see their effects (we set the Blur at .03 in), and then click OK.



Next, you will remove an effect from the “Sparkling Soda” text shapes.

● **Note:** Be careful not to click the underlined words “Drop Shadow,” which will open the Drop Shadow dialog box.

- 3 With the Selection tool, click the “Sparkling Soda” text shapes.
- 4 In the Appearance panel, click to the right or left of Drop Shadow to highlight the attribute row for the Drop Shadow effect, if it’s not already highlighted. After highlighting the attribute row, click the Delete Selected Item button (🗑️) at the bottom of the panel.



Click the text shapes.

Delete the Drop Shadow.

The result.

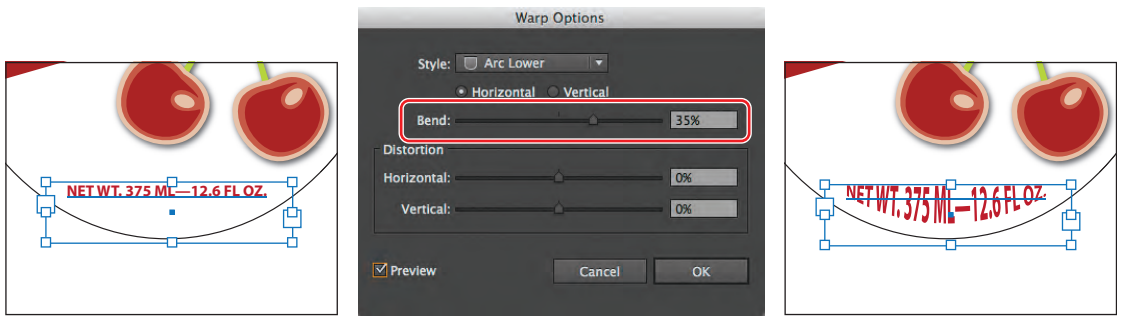
- 5 With the Selection tool, click to select the cherries group again.
- 6 Choose Object > Ungroup.
Notice that the drop shadow is gone from the cherries. When an effect is applied to a group, it affects the group as a whole. If the objects are no longer grouped together, the effect no longer applies.
- 7 Choose Edit > Undo Ungroup, and the drop shadow reappears.
- 8 Choose Select > Deselect and then File > Save.

● **Note:** When you ungroup the cherries, you will still see the word “Group” at the top of the Appearance panel. That’s because each cherry is its own group.

Styling text with effects

You can make a warp from objects in your artwork, or you can use a preset warp shape or mesh object as an envelope, like you saw in Lesson 7, “Working With Type.” Next, you will use a Warp effect to warp the text at the bottom of the label.

- 1 With the Selection tool (⌘) selected, select the “NET WT...” type at the bottom of the label.
- 2 Choose Effect > Warp > Arc Lower.
- 3 In the Warp Options dialog box, to create an arcing effect, set Bend to **35%**. Select Preview to preview the changes. Try choosing other styles from the Style menu, and then return to Arc Lower. Try adjusting the Horizontal and Vertical Distortion sliders to see the effect. Make sure that the Distortion values are returned to **0**, and then click OK.



Click to select the text.

Apply the Warp effect.

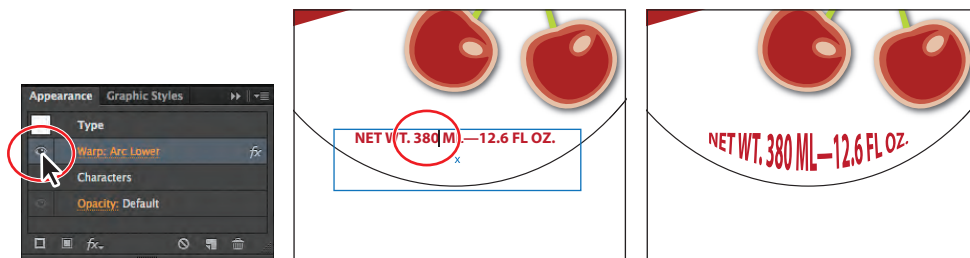
The result.

- 4 With the warped text still selected, click the visibility icon (👁) to the left of the Warp: Arc Lower row in the Appearance panel to turn off visibility for the effect. Notice that the text is no longer warped on the artboard.
- 5 Select the Type tool (T) in the Tools panel, and select and change the “375” text on the artboard to **380**.
- 6 Select the Selection tool, and then click the visibility column to the left of the Warp: Arc Lower row in the Appearance panel, to turn on visibility for the effect. Notice that the text is once again warped.

● **Note:** To learn more about the Appearance panel, see Lesson 13, “Applying Appearance Attributes and Graphic Styles.”

● **Note:** You selected the Selection tool again in this step because you originally applied the effect to the text object with the Selection tool.

- 7 Choose Select > Deselect.



Turn off the visibility.

Change the text.

The effect.

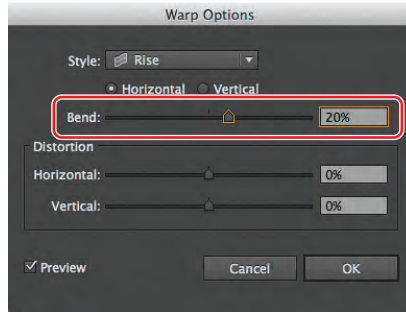
► **Tip:** It is not necessary to turn the visibility off for the Warp effect before editing the text on the artboard, but doing so can make it easier.

Next, you will apply multiple effects to the text “CHERRY BLAST” that has been converted to outlines at the top of the soda label.

- 1 With the Selection tool (⬚), click the “CHERRY BLAST” text shapes to select the group.

● **Note:** To learn more about creating outlines from type, see the section, “Creating text outlines” in Lesson 7, “Working With Type.”

- 2 Click the Add New Effect button (fx) at the bottom of the Appearance panel. Choose Warp > Rise.
- 3 In the Warp Options dialog box, leave the Horizontal option selected and change the Bend to 20%. Select Preview to see the change, and then click OK.



Notice how the selected text shapes (in blue) still look like the original shapes but are actually warped. This shows how a live effect allows you to print the text shapes with the Rise effect applied but does not change the underlying object. Also, you can see that the Appearance panel lists the Warp: Rise effect that has been applied to the text shapes.

Next, you will hide the selection anchor points so that you can focus on the outcome.

- 4 With the “CHERRY BLAST” text shapes still selected, choose View > Hide Edges.
- 5 In the Control panel, change the Fill color to the swatch named Banner and leave the stroke at black, 1 pt.
- 6 Choose Edit > Copy, and then choose Object > Hide > Selection.
- 7 Choose Edit > Paste In Front.
- 8 With the copy selected, change the Fill color to the swatch named Scribble and the Stroke color to None in the Control panel.

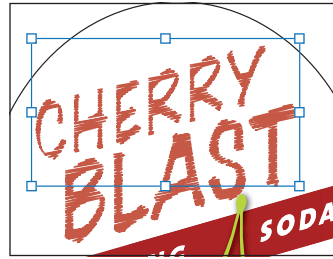
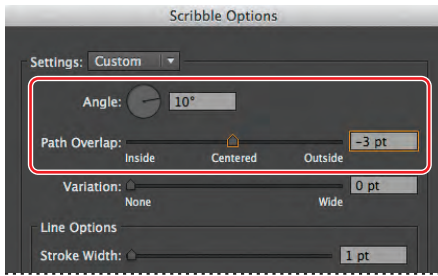


Next, you will apply the Scribble effect to the text shapes.

- 9 With the text shapes selected, choose Effect > Stylize > Scribble.
- 10 In the Scribble Options dialog box, choose Tight from the Settings menu. Select Preview to see the change. Change the Angle to 10, and the Path Overlap to -3 pt, and leave the remainder of the settings as they are. Click OK.

After you make changes in the dialog box, the Settings menu will show Custom, rather than Tight.

● **Note:** The Scribble effect in the figure may not look exactly like yours, and that's okay.



- 11 Choose Object > Show All.
- 12 Choose Select > Deselect and then File > Save.



Editing shapes with a Pathfinder effect

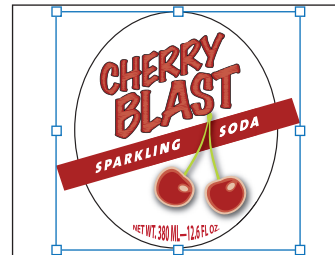
Pathfinder effects are similar to working with Pathfinder commands in the Pathfinder panel, except they are applied as effects and do not change the underlying content.

Next, you will apply a Pathfinder effect to several shapes.

- 1 With the Selection tool (⬚), Shift-click to select both the red banner shape behind the “SPARKLING SODA” text shapes and the oval in the background.
 - 2 Choose Object > Group.
- You grouped the objects together because Pathfinder effects may only be applied to groups, layers, or type objects.
- 3 Choose Effect > Pathfinder > Intersect to create a shape that shows where the two shapes intersect.

● **Note:** If you see a warning dialog box when you choose Effect > Pathfinder > Intersect, it’s because you didn’t group the objects first.

Notice that the Intersect effect appears in the Appearance panel. Clicking Intersect allows you to change the Pathfinder effect and to edit the Intersect effect.



● **Note:** To learn more about the Pathfinder commands, see the “Working with Pathfinder effects” section in Lesson 3, “Creating and Editing Shapes.”

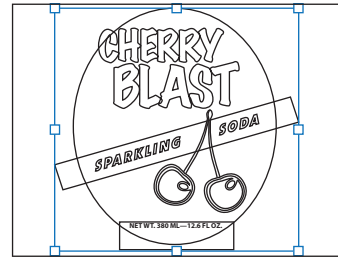
● **Note:** To remove the Intersect effect from a group that you just applied it to, click the Intersect effect in the Appearance panel and then click the Delete Selected Item button (🗑️) at the bottom of the panel.

● **Note:** You'll learn more about the Appearance panel in Lesson 13, "Applying Appearance Attributes and Graphic Styles."

- 4 With the group still selected, choose View > Outline.

The two shapes are still there and completely editable, since the effect being applied is live.

● **Note:** To intersect shapes, you can also use the Pathfinder panel, which will expand the shapes immediately, by default. Using the Effect menu lets you edit shapes independently.



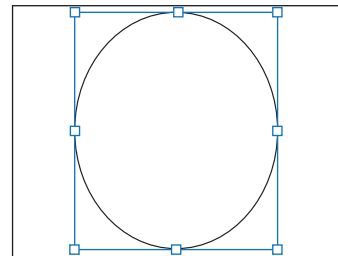
Next, you will copy the oval shape from the group of shapes that has the Pathfinder effect applied.

- 5 With the Selection tool, double-click directly on the edge of the oval shape to enter Isolation mode.

This allows you to edit just the two shapes that are part of the group.


● **Note:** You are double-clicking the edge because shapes in Isolation mode have no fill, so they can't be selected by clicking in the center.

- 6 Click the edge of the oval shape to select it. Choose Edit > Copy.
- 7 Press the Escape key to exit Isolation mode. Choose Select > Deselect.
- 8 Choose View > Preview, and then choose Edit > Paste In Front to paste a copy on top of the other objects. Leave the oval shape selected.
- 9 Choose File > Save.

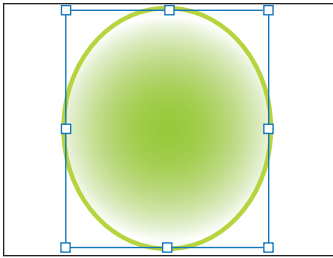


Applying the Offset Path effect

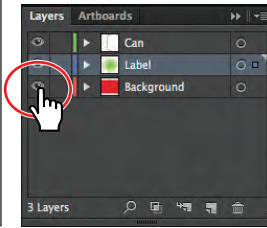
Next, you will edit the oval shape by adding multiple strokes to it. You will then edit the multiple strokes by offsetting them against the oval shape. This process allows you to create the appearance of multiple stacked shapes.

- 1 With the oval shape selected, change the Stroke color to the swatch named Green, the Fill color to the gradient swatch named Center, and the stroke weight to **5 pt** in the Control panel.
- 2 Click the word "Stroke" in the Control panel, and click the Align Stroke To Outside button () in the Stroke panel. Press the Escape key to hide the panel.

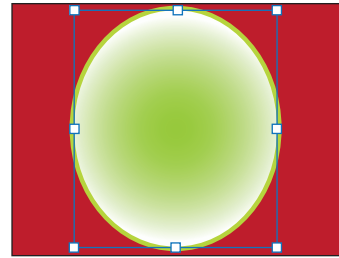
- 3 Click the Layers panel icon (☰) on the right side of the workspace to expand the Layers panel. Click the visibility column to the left of the Background layer to reveal the background shape.



Edit the stroke and fill.



Show the Background layer. The result.



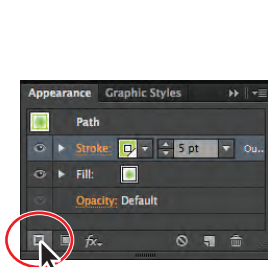
Next, you will add another stroke to the shape and then edit the gradient fill.

- 4 Click the Appearance panel icon (☰) to expand the panel. Click the arrow to the left of the stroke and fill rows to collapse them, if necessary. With the green shape still selected and the stroke row selected in the Appearance panel, click the Add New Stroke button (☰) at the bottom of the Appearance panel. A new stroke appears in the panel, but the shape looks the same.

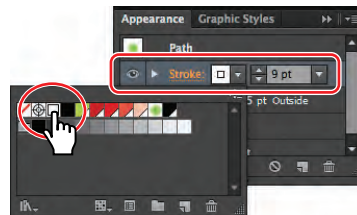
The shape now has two strokes directly on top of each other that are the same color and same weight.

- 5 In the Appearance panel, change the Stroke weight for the selected (highlighted) Stroke to **9 pt**.
- 6 Click the Stroke Color in the Appearance panel, and select the white swatch in the Swatches panel. Press Enter or Return to close the Swatches panel and return to the Appearance panel.

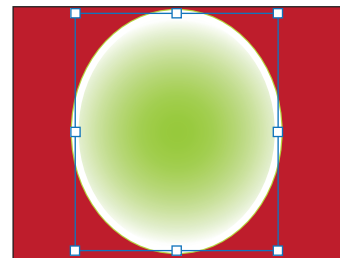
You can add multiple strokes to an object and apply different effects to each one, giving you the opportunity to create unique and interesting artwork.



Add a new stroke.

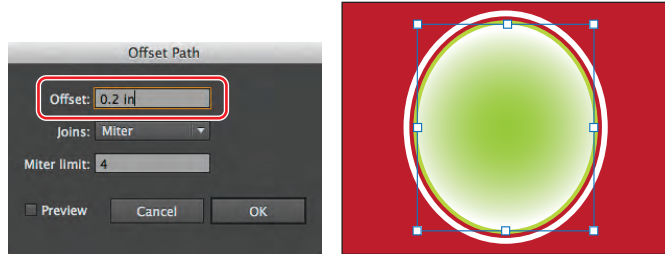


Change the Stroke weight and color.

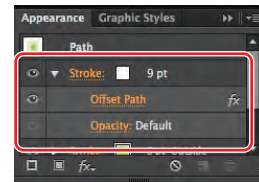


The result.

- 7 With the white stroke row selected in the Appearance panel, click the Add New Effect (fx) button at the bottom of the Appearance panel. Choose Path > Offset Path.
- 8 In the Offset Path dialog box, change the Offset to .2 in, and click OK.



- 9 In the Appearance panel, click the arrow to the left of the words "Stroke: 9 pt" to toggle it open. Notice that Offset Path is a subset of Stroke. This indicates that the Offset Path effect is applied to only that Stroke.




Now that the artwork is complete, you will scale it and then save it as a symbol in the Symbols panel. Then, you'll apply it to a 3D soda can that you'll create.

- 10 With the Selection tool selected, hold down the Shift key and click the red rectangle in the background to select both shapes. Choose Object > Arrange > Send To Back.
- 11 Choose Select > All On Active Artboard. Choose Object > Group.



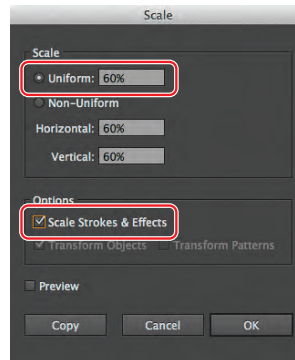
Applying Photoshop effects

As described earlier in the lesson, the effects in the bottom half of the Effect menu are Photoshop effects. You can apply them to either vector or bitmap objects. Photoshop effects are effects that generate pixels rather than vector data. Photoshop effects include SVG Filters, all of the effects in the bottom portion of the Effect menu, and the Drop Shadow, Inner Glow, Outer Glow, and Feather commands in the Effect > Stylize submenu.

12 With the Group selected, double-click the Scale tool () in the Tools panel.

13 In the Scale dialog box, change the Uniform Scale value to **60%** and select Scale Strokes & Effects. Click OK.

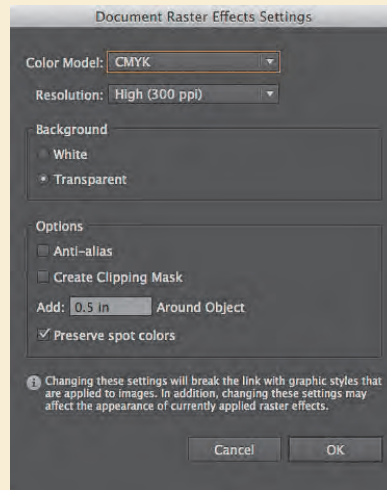
● **Note:** If you scale content and do not select Scale Strokes & Effects, the stroke weights and effects will stay the same when you scale the content.



Document raster effects settings

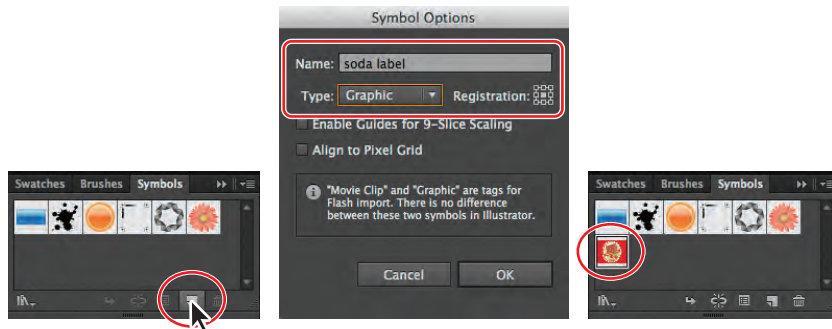
Whenever you apply a raster effect, Illustrator uses the document's raster effects settings to determine the resolution of the resulting image. It's important to check the document raster effects settings before you start working with effects.

You set rasterization options for a document when creating a new document or by choosing Effect > Document Raster Effects Settings. In the Document Raster Effects Settings dialog box, for all raster effects in a document or when you rasterize a vector object, you can set the Color Model, Resolution, Background, Anti-alias, Create Clipping Mask, and Add Around Object. To learn more about Document Raster Effects Settings, search for "About raster effects" in Help.



—From Illustrator Help

- 14** Click the Symbols panel icon (📁), or choose Window > Symbols to expand the Symbols panel. Select the Selection tool and, with the group selected, click the New Symbol button (📄) at the bottom of the Symbols panel to create a symbol. In the Symbol Options dialog box, name the symbol **soda label** and choose Graphic from the Type menu. Click OK.



Create a new symbol.

Change the symbol options.

The result.

- 15** Choose Select > Deselect and then File > Save. Keep the file open.

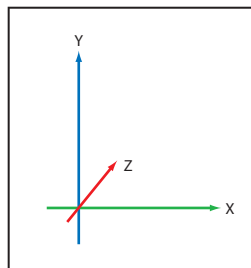
► **Tip:** To learn more about symbols, see Lesson 14, "Working with Symbols."

Working with a 3D effect

Using the Illustrator 3D effect, you can control the appearance of 3D objects with lighting, shading, rotation, and other attributes. In this part of the lesson, you'll use two-dimensional shapes as the foundation for creating three-dimensional objects.

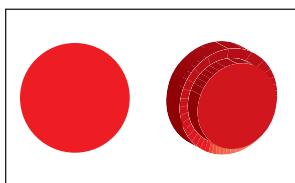
You can apply three types of 3D effects:

- **Extrude & Bevel:** Extends a 2D object along the object's Z axis to add depth to the object. For example, if you extrude a 2D ellipse, it becomes a cylinder.
- **Revolve:** Sweeps a path or profile in a circular direction around the global Y axis (revolve axis) to create a 3D object.
- **Rotate:** Uses the Z axis to rotate 2D artwork in 3D space and change the artwork's perspective.

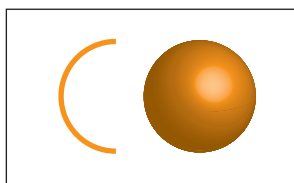


The 3D effect takes advantage of the X, Y, and Z axes.

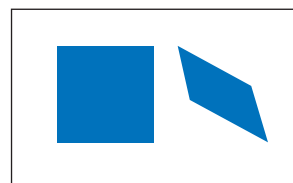
Below are examples of each type of 3D effect applied to an initial shape on the left.



Extrude & Bevel 3D effect



Revolve 3D effect



Rotate 3D effect

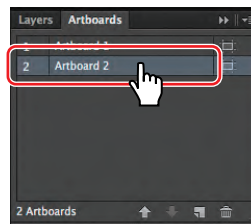
Creating a revolved object

In this part of the lesson, you will explore the 3D effect called Revolve. You will create a soda can from an existing path on the second artboard, using the Revolve effect.

- 1 Choose Window > Workspace > Reset Essentials.
- 2 Click the Artboards panel icon (📄) to expand the Artboards panel.
- 3 Double-click Artboard 2 in the panel (not the name) to fit the artboard in the Document window. Click the Artboards panel tab to collapse the panel.
- 4 Choose Select > All On Active Artboard.

The selected path is half of the shape of a soda can. When you apply the Revolve effect to it, it will be revolved around the right or left edge to create a 360 degree shape, if that's what you want.

- 5 Click the Stroke color in the Control panel, and choose None (☐).



● **Note:** The stroke color overrides the fill color of the object, when revolved.

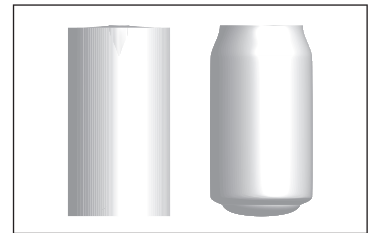
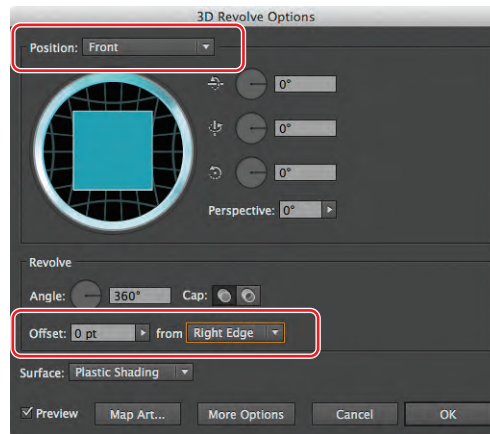
- 6 Click the Fill color in the Control panel, and select White.
- 7 Choose Effect > 3D > Revolve. In the 3D Revolve Options dialog box, choose Front from the Position menu. Select Preview to see the changes. You may need to reposition the 3D Revolve Options dialog box to see the artwork.

● **Note:** Depending on the complexity of the shape being revolved and the speed of the computer you are working on, making changes in the 3D Revolve Options dialog box can take some time. It may be helpful to deselect Preview, make some changes, and then select Preview again. That way the shape does not have to “redraw” on the artboard every time a change is made in the dialog box.

► **Tip:** The Angle determines the degree of revolution. To create a “cut-away” look, you can change the degree to less than 360.

- 8 Choose Right Edge from the Offset From menu. Click OK.

This is the edge that your arc revolves around. The result varies dramatically, depending on the side that you choose and whether you have a stroke or fill applied to the original object.



Choose which edge to revolve around.

Left Edge.

Right Edge.

- 9 Choose File > Save, and keep the file open.

3D Revolve options

In the 3D Options dialog box for the Revolve 3D effect, there are several other options worth mentioning:

- **Angle:** Sets the number of degrees to revolve the path, between 0 and 360.
- **Cap:** Specifies whether the object appears solid (Turn Cap On For Solid Appearance) or hollow (Turn Cap Off For Hollow Appearance).
- **Offset:** Adds distance between the revolve axis and the path, to create a ring-shaped object, for instance. You can enter a value between 0 and 1,000.

—From Illustrator Help

Changing the lighting of a 3D object

The Revolve effect allows you to add one or more lights, vary the light intensity, change the object's shading color, and move lights around the object.

In this section, you will change the strength and direction of the light source.

- 1 With the soda can shape selected, click the words “3D Revolve” in the Appearance panel.

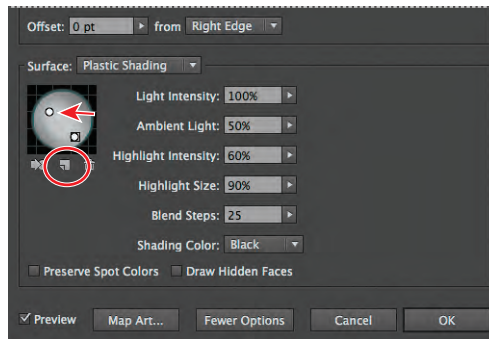
If the Appearance panel is not visible, choose Window > Appearance. You may also need to scroll in the Appearance panel or resize it for easier viewing.

- 2 Select Preview in the 3D Revolve Options dialog box, and click More Options.

You can create custom lighting effects on your 3D object. Use the Preview window in the lower left of the 3D Revolve Options dialog box to reposition the lighting and to change the shade color.

- 3 Choose Plastic Shading from the Surface menu, if not already selected.

- 4 In the Preview window (the shaded sphere), drag the white square that represents the light source to the left. This changes the direction of the lighting. Click the New Light button (📄) to add another light source to the soda can. Drag the second light source down and to the right.

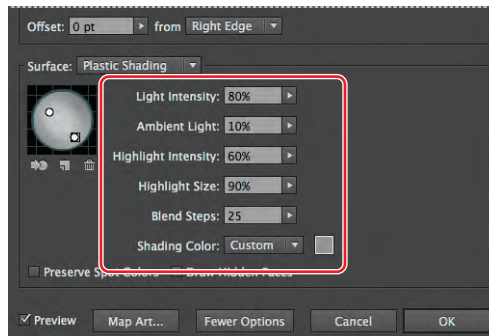


Try positioning them in different arrangements, and move the dialog box out of the way to see the artwork.

- 5 Choose Custom from the Shading Color menu. Click the colored square to the right of the Shading Color menu to open the Color Picker. In the Color Picker, change the color to a medium gray (C=0, M=0, Y=0, K=50). Click OK to close the Color Picker, and return to the 3D Revolve Options dialog box.

- 6 In the 3D Revolve Options dialog box, change Light Intensity to 80% and the Ambient Light to 10%. Leave the dialog box open.

Ambient light controls the brightness uniformly on the surface of the 3D object.



● **Note:** Depending on the speed of the computer you are working on, it may take some time to process changes made in the 3D Revolve Options dialog box.

- 7 Change the Blend Steps to **40**, and click OK when it is done processing.
- 8 Choose File > Save.

Surface shading options

In the 3D Options dialog box for Extrude & Bevel and Revolve, Surface lets you choose options for shading surfaces such as:

- **Wireframe:** Outlines the contours of the object's geometry and makes each surface transparent.
- **No Shading:** Adds no new surface properties to the object. The 3D object has the same color as the original 2D object.
- **Diffuse Shading:** Makes the object reflect light in a soft, diffuse pattern.
- **Plastic Shading:** Makes the object reflect light as if it were made of a shiny, high-gloss material.

***Note:** Depending on what option you choose, different lighting options are available. If the object only uses the 3D Rotate effect, the only Surface choices available are Diffuse Shading or No Shading.*

—From Illustrator Help

Mapping a symbol to the 3D artwork

You can map artwork to the surface of an object with a 3D effect applied. This artwork can come from Illustrator or from artwork imported from other applications, such as Photoshop. The artwork you map needs to be 2D artwork that's stored in the Symbols panel. Symbols can be any Illustrator art object, including paths, compound paths, text, raster images, mesh objects, and groups of objects. In this part of the lesson, you will map the soda label that you previously saved as a symbol to the soda can.

- 1 With the soda can still selected, click 3D Revolve in the Appearance panel. Drag the 3D Revolve Options dialog box off to the side, so that you can see the soda can artwork. Make sure that Preview is also selected.
- 2 Click the Map Art button in the 3D Revolve Options dialog box.

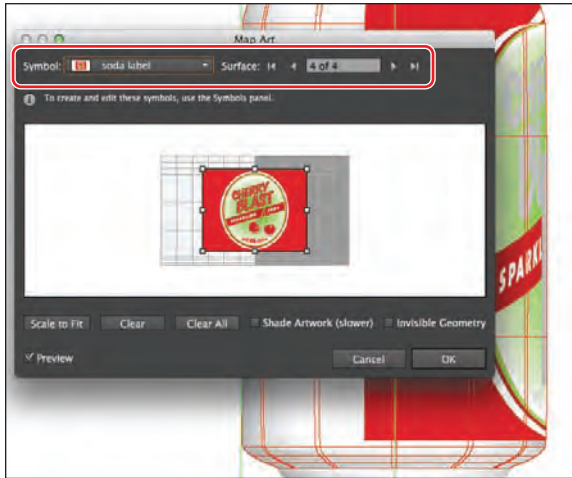
When you map art to a 3D object, you first need to choose which surface to map the art to. Every 3D object is composed of multiple surfaces. For example, an extruded square becomes a cube that is made of six surfaces: the front and back faces and the four side faces. Next, you will choose which surface to map the artwork to.

3 Drag the Map Art dialog box off to the side. Click the Next Surface button (▶) until “4 of 4” appears in the Surface field. In the artwork, notice that Illustrator is highlighting the wireframe and the selected surface in red.

4 Choose soda label from the Symbol menu. Select Preview, if not already selected.

● **Note:** If you select the wrong surface, choose Clear and then map to another surface.

● **Note:** You can work in the Map Art dialog box without selecting Preview, if you find that Preview slows your system down.



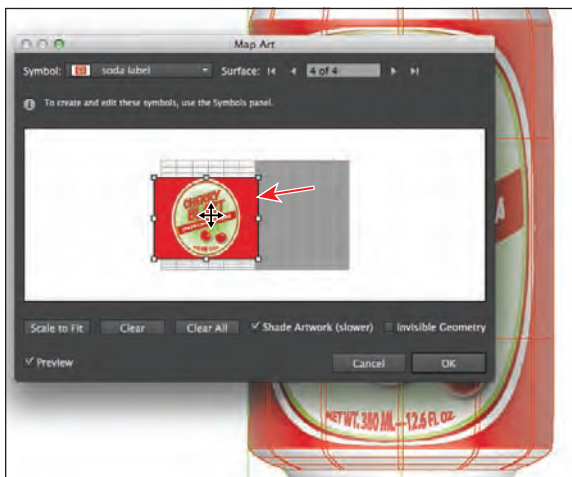
5 Deselect Preview in the Map Art dialog box to speed up the next few steps.

6 Drag the symbol into the light area of the map in the Map Art dialog box.

A light gray color marks surfaces that are currently visible. A dark gray color marks surfaces that are hidden by the object's current position.

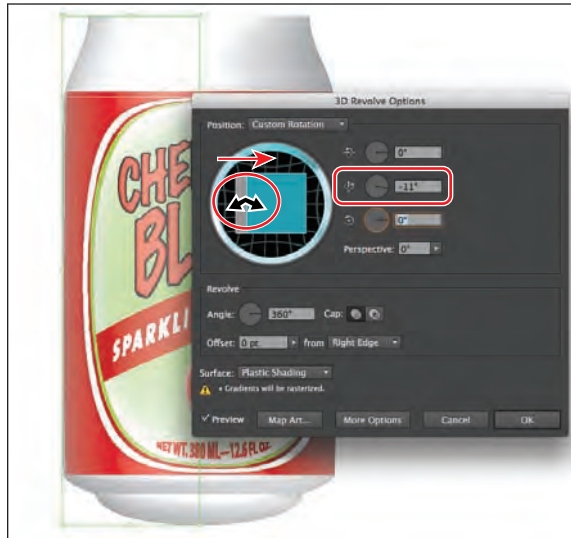
7 Select Shade Artwork (Slower). Select Preview to see the artwork with the symbol mapped to it. You may want to reposition or resize the artwork. Then, click OK to close the Map Art dialog box.

▶ **Tip:** If you don't like the position or size of the symbol artwork, you can click the Clear button at the bottom of the dialog box to clear the symbol artwork from the current surface.



▶ **Tip:** You can interact with the symbol in the Map Art dialog box, using the normal bounding box controls to move, scale, or rotate the object.

- 8 In the 3D Revolve Options dialog box, click the Fewer Options button and then click the left edge of the blue square and drag to the right to spin the 3D object along the Y axis. With Preview selected, release the mouse button when you see a value of -11 in the Y axis field. Make sure that the X and Z values above and below the Y value are 0. Click OK.



The texture now wraps around the soda can. Next, you will edit the soda can color.

To map artwork to a 3D object

When mapping 3D objects, consider the following:

- Because the Map Art feature uses symbols for mapping, you can edit a symbol instance and then automatically update all surfaces that are mapped with it.
- You can interact with the symbol in the Map Art dialog box with normal bounding box controls to move, scale, or rotate the object.
- The 3D effect remembers each mapped surface on an object as a number. If you edit the 3D object or apply the same effect to a new object, there may be fewer or more sides than the original. If there are fewer surfaces than the number of surfaces defined for the original mapping, the extra artwork will be ignored.
- Because a symbol's position is relative to the center of an object surface, if the geometry of the surface changes, the symbol will be remapped relative to the new center of the object.
- You can map artwork to objects that use the Extrude & Bevel or Revolve effect, but you can't map artwork to objects that only use the Rotate effect.

—From Illustrator Help

- 9 With the Selection tool selected and the 3D object selected, change the Fill color to the swatch named Background in the Control panel.

Notice that the entire shape changes color, except where the symbol artwork is mapped to the surface. At this point, if necessary, you can edit the shape that you started with. If you need to rotate the 3D object, in this situation it's best done in the 3D Revolve Options dialog box.

► **Tip:** If you need to edit the shape, it is recommended that you first deselect the visibility column of the 3D Revolve (Mapped) effect in the Appearance panel. Then, when you are finished editing the shape, click the visibility column to show the 3D Revolve (Mapped) effect again.

- 10 Choose View > Show Edges to show the edges for later lessons.

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



Printing resources

To make optimum decisions about printing, you should understand basic printing principles, including how the resolution of your printer or the calibration and resolution of your monitor can affect the way your artwork appears when printed. Illustrator's Print dialog box is designed to help you through the printing process. For information on working in the print dialog box, see "Print dialog box options" in Illustrator Help.

For information on working with color management in Illustrator, see "Printing with color management" in Illustrator Help.

For information on the optimal ways to print a document, including information on color management, PDF workflows, and more, visit the following site:

- <http://www.adobe.com/print/>

For information on printing in the Adobe Creative Suite, visit the following site:

- <http://www.adobe.com/designcenter/print/CS5-5-printing-guide.html>

For a guide to working with transparency in the Creative Suite and how to properly print transparent content, visit the following site:

- http://partners.adobe.com/public/asn/en/print_resource_center/Transparency-DesignGuide.pdf

Note: While the *Transparency-DesignGuide.pdf* guide was created for users of Creative Suite 3, it still contains useful information.