

## Isolation mode

Isolation mode is an Illustrator mode in which you can select and edit individual components or sub-layers of a grouped object. There are four ways to enter into isolation mode:

- Double-click a group using the Selection tool (⌘).
- Click the Isolate Selected Group button (⌘) in the Control panel.
- Right-click (Windows) or Ctrl+click (Mac OS) a group and choose Isolate Selected Group.
- Select a group in the Layers panel and choose Enter Isolation Mode from the Layers panel menu (⇧).

## Using shape and transform tools to create artwork

You will add to the basics that you have discovered to complete some different fish artwork.

- 1 Choose File > Open and navigate to the ai03lessons folder. Double-click on ai0303\_done.ai to open the file in Adobe Illustrator. Artwork of two swimming fish appear.
- 2 This is the file you will create. You can choose File > Close, or keep it open for reference throughout this exercise.

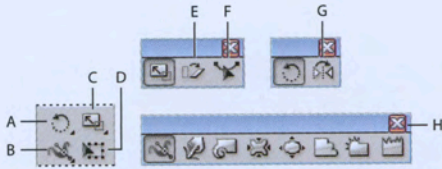


*You can leave this file open for reference or choose File > Close.*

- 3 Choose File > Open, navigate to the ai03lessons folder, and double-click on the ai0303.ai file. A document with four guides in the center of the page opens.
- 4 Choose File > Save As. The Save As dialog box appears.
- 5 Type **ai0303\_work.ai** into the Save As text field and navigate to the ai03lessons folder you saved on your hard drive; then press Save.
- 6 When the Illustrator Options dialog box appears, press OK.

## Using the transform tools

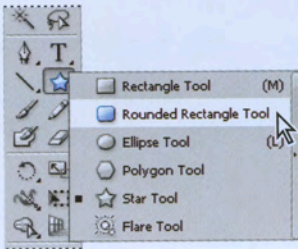
There are several basic transform tools. Though each performs a different task, they are essentially used in the same manner.



A. Rotate. B. Warp tools. C. Scale. D. Free Transform.  
E. Shear. F. Reshape. G. Width tool. G. Additional Warp tools.

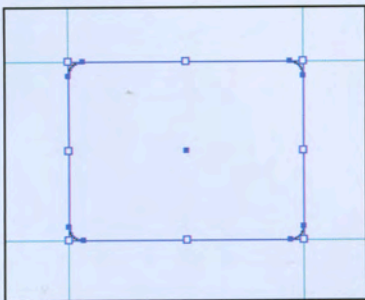
You used the Transform panel to rotate and shear earlier in this lesson. You will now use the transform tools to make changes by entering exact values.

- 1 Click and hold on the Star tool (☆) in the Tools panel to reveal the hidden tools. Select the Rounded Rectangle tool (◻).



Select the Rounded Rectangle tool.

- 2 Click and drag to create a rectangle with rounded corners of any size.
- 3 Activate the Selection tool (⬚) and, using the bounding box's anchors, click and drag until the rounded rectangle fits the dimensions of the guides located in the center of the document.

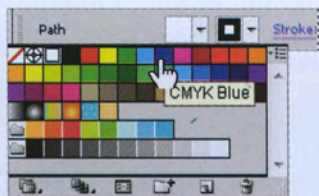


Manually drag anchors to fit the rectangle inside the guides.

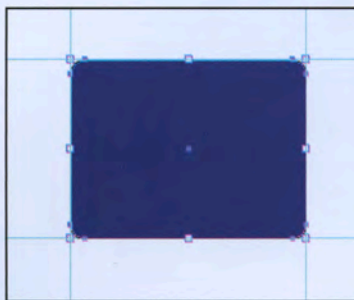
## Adding a fill color

You will now fill the rounded rectangle with a color.

- 1 Make sure the rounded rectangle is still selected. If it is not selected, click on it using the Selection tool (⌘).
- 2 Locate the Control panel at the top of your workspace and click on the Fill box on the left side of the panel. Color swatches appear, from which you can choose a color. Pass your cursor over the swatches, and each color's name appears in a tooltip. Select the color named *CMYK Blue*. If the tooltip does not appear, select the color you see highlighted in the figure below. Illustrator colors the shape blue.



Select *CMYK Blue* for the fill.



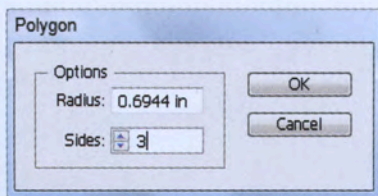
The result.

- 3 Lock the selected rectangle by pressing **Ctrl+2** (Windows) or **Command+2** (Mac OS), or by choosing **Object > Lock > Selection**. This makes it impossible to select the rectangle unless you unlock it. This feature is extremely helpful when you start creating more complicated artwork.

## Modifying a shape

You will now use the shape tools to create and add light rays to the illustration.


- 1 From the list of hidden shape tools beneath the Rounded Rectangle tool in the Tools panel, select the Polygon tool (◻) and click once on the artboard. The Polygon dialog box appears.
- 2 Leave the radius as it is; type **3** into the Sides text field and press **OK**. A triangle is drawn.

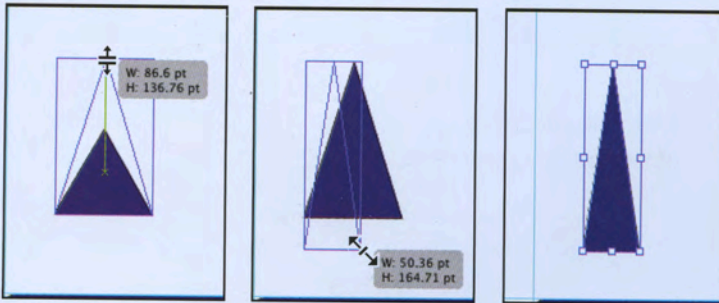


Change the amount of sides.



The result.

- 3 Choose the Selection tool () , and click and drag the top center anchor of the bounding box upward, to stretch the triangle.
- 4 Elongate the triangle more by clicking on the lower-right corner of the bounding box, pulling down, and dragging the anchor to the left.



Click and drag upward.

Drag inward and down.

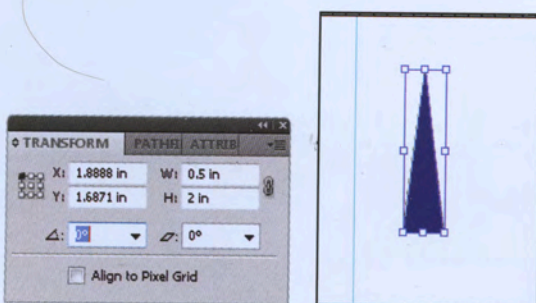
The result.

By clicking and dragging the anchor, you visually resize the shape.

### Entering a shape size in the Transform panel

For the purpose of this illustration, you will use the Transform panel to make sure that the triangle is sized correctly.

- 1 If it is not visible, choose Window > Transform, or click on the Transform in the Control panel. The Transform panel appears.
- 2 With the triangle still selected, type **.5** in the W (Width) text field, and type **2** into the H (Height) text field. Press Enter (Windows) or Return (Mac OS).

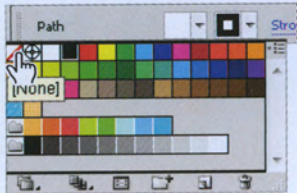


Enter values in the Transform panel.

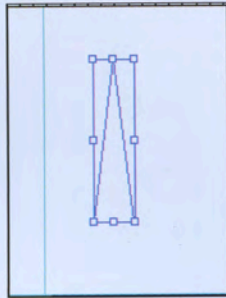
The result.

- 3 Press **D**; the triangle's color reverts to the default white fill and black stroke colors.

- Click once on the Stroke box in the Control panel at the top of the Illustrator work area and select None from the Stroke swatches drop-down menu. The triangle is not visible at this time (as it is white on a white background), but you can still see its anchor points.



Change the stroke color to None.



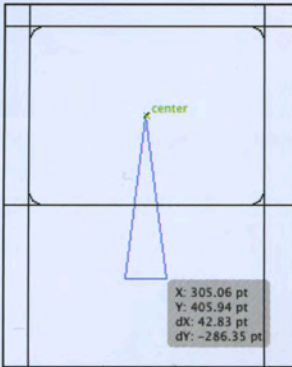
The result.

## Viewing in Outline view

By default, previews of Adobe Illustrator artwork are in color. There will be times, however, when you create shapes that are white, or possibly have no fill or stroke color. Finding these items on your white artboard after you deselect them can be difficult. This is where Outline view can help.

- With the Selection tool (⌘), click somewhere on the artboard to deselect the triangle. Unless your triangle crosses over the rectangle you created earlier, you can no longer see the shape.
- Choose View > Outline, or press Ctrl+Y (Windows) or Command+Y (Mac OS). Outline view displays artwork so that only its outlines (or paths) are visible. Viewing artwork without fill and stroke attributes speeds up the time it takes Illustrator to redraw the screen when working with complex artwork; it is also helpful when you need to locate hidden shapes.

- 3 With the Selection tool, click on one of the triangle's sides and reposition it so its tip touches the center (indicated by an x) of the rectangle.



The triangle and rectangle arranged in the Outline view.

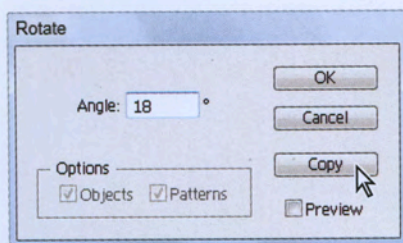
- 4 Choose View > Preview, or press Ctrl+Y (Windows) or Command+Y (Mac OS) once more. The color attributes are visible again.

## Rotating the shape

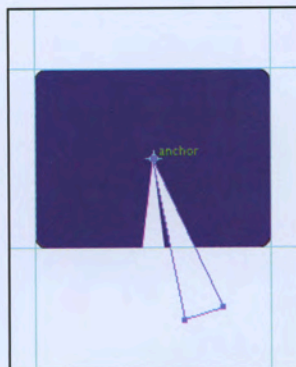
You will now create a series of triangle shapes and rotate them 360 degrees, creating what will look like rays of light.

- 1 Make sure the triangle is selected.
- 2 Select the Rotate tool (⦿) from the Tools panel. The Rotate tool allows you to visually rotate objects, as well as enter specific rotation angles. In this example, you will enter values so that the triangles are evenly spaced.
- 3 Alt+click (Windows) or Option+click (Mac OS) the tip of the triangle aligned with the rectangle's center. When you have a Rotate tool selected and you Alt+click (Windows) or Option+click (Mac OS) on the artboard, you define the reference point from which the selected shape is rotated. Doing this also displays the Rotate dialog box, in which you can enter an exact value for the angle.

- 4 Type **18** into the Angle text field and press **Copy**. This rotates a copy of your triangle 18 degrees and keeps the original triangle intact. The value of 18 degrees evenly divides into 360 degrees, which will make the distribution of these rays even when you circle back to the starting point.

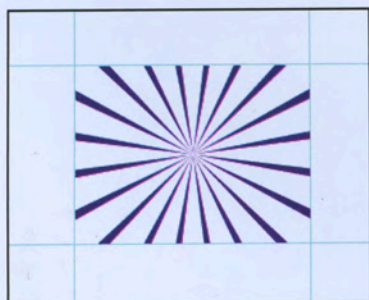


Enter rotate values and press **Copy**.



A rotated copy is created.

- 5 Press **Ctrl+D** (Windows) or **Command+D** (Mac OS) to repeat the transformation. The triangle shape copies, and rotates again.
- 6 Continue to press **Ctrl+D** (Windows) or **Command+D** (Mac OS) until you reach the original triangle.



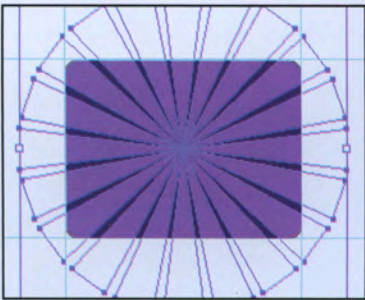
The triangle after being rotated.

- 7 If you are still in Outline view, press **Ctrl+Y** (Windows) or **Command+Y** (Mac OS) to return to the Preview view.

## Changing the color of the triangles

You will now select the triangles and change their opacity.

- 1 Switch to the Selection tool (**V**) and select any one of the white triangles.
- 2 Choose **Select > Same > Fill Color** and all the white triangles become selected. The **Select > Same** feature can be helpful when selecting objects that share a common feature, including fill color, stroke color, stroke point size, and more.
- 3 Choose **Object > Group**. Grouping these shapes together makes it easier to select them later.
- 4 Type **50** into the Opacity text field in the Control panel and press **Enter (Windows)** or **Return (Mac OS)** to change the opacity of the white triangles to 50 percent.




Select the triangles and change the opacity to 50 percent.

- 5 Choose **File > Save** to save your work.

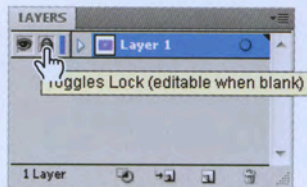
## Using layers when building an illustration

Layers have many uses in Adobe Illustrator. You will learn more about layers in Lesson 7, “Organizing your Illustration with Layers.” In this lesson, you will find out how to use layers to lock and temporarily hide artwork that you don’t want to inadvertently select while you work on other things.

- 1 Open the Layers panel by pressing the Layers button () in the dock on the right side of the workspace. Notice that when you start to work in Illustrator, you begin with a layer named Layer 1. All the artwork that you have created throughout this lesson is added as a sub-layer to this layer. You will now lock a sub-layer and create a new layer onto which you can put additional artwork.



- Click on the Toggles lock (a small empty box) to the left of Layer 1 in the Layers panel. A padlock icon (🔒) appears, indicating that this layer is locked. You cannot select or change any items on this layer.



The Toggles lock area of the Layers panel.



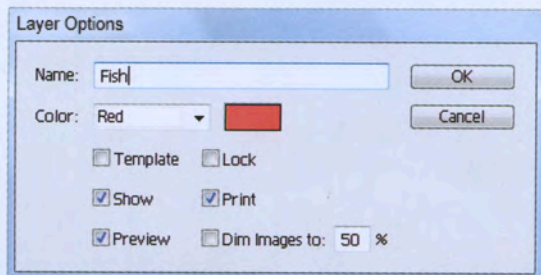
Earlier in this lesson, you selected and locked the rectangle using the **Object > Lock** menu item. That method works well for individual items, especially if you don't typically work with layers. Locking a layer is different, as it locks all items on the layer at once.

- To unlock the layer, click on the padlock icon. The layer unlocks.
- Relock Layer 1 by clicking on the Toggles lock square again.

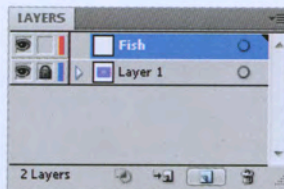
### Creating a new blank layer

You will now create a new blank layer onto which you can paste artwork.

- Alt+click (Windows) or Option+click (Mac OS) the Create New Layer button (📄) at the bottom of the Layers panel. The Layer Options dialog box appears. By holding down the Alt/Option key, you can name the layer before its creation.
- Type **Fish** into the Name text field and press OK. A new empty layer appears on top of the original (Layer 1) displayed in the Layers panel. You are now ready to copy and paste artwork from another Illustrator file into this one.



Name the new layer.

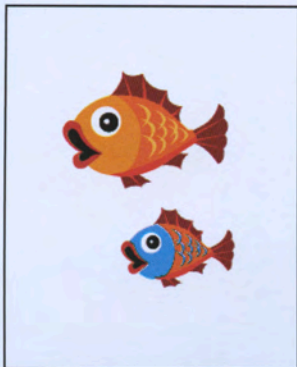


The layer in the Layers panel.

## Cutting and pasting objects

You will now open another document and cut and paste artwork from one Illustrator file to another.

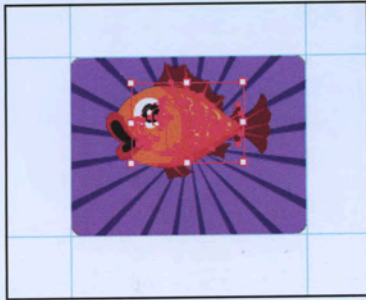
- 1 Choose File > Open. In the Open dialog box, navigate to the ai03lessons folder and double-click on the file named ai0304.ai. Artwork of two fish appears.



*The fish artwork.*

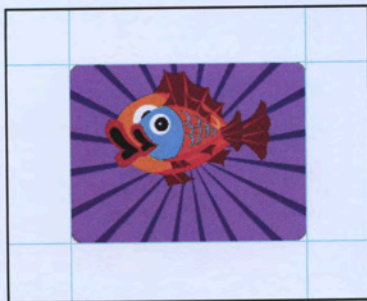
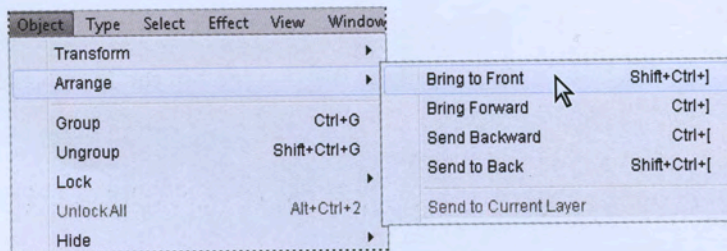
- 2 Use the Selection tool (⌘) to click once on the larger of the two fish, then Shift+click on the second fish to add it to the selection.
- 3 Choose Edit > Cut, or press Ctrl+X (Windows) or Command+X (Mac OS), to cut the fish.
- 4 Return to the work file by choosing Window > ai0303\_work.ai. Choose Edit > Paste, or press Ctrl+V (Windows) or Command+V (Mac OS), to paste the fish onto the artboard. The fish are pasted onto the Fish layer, which is the active layer.
- 5 Press Shift+Ctrl+A (Windows) or Shift+Command+A (Mac OS), or click on a blank area of the artboard, to deselect the fish.

- 6 Activate the Selection tool; click on the smaller of the two fish and drag it to a spot on top of the larger fish. Notice that the smaller fish disappears behind the larger fish. The order in which artwork appears is based on the order in which artwork is created. Newer artwork is placed higher in the object stacking order, which can be changed using the Arrange feature.



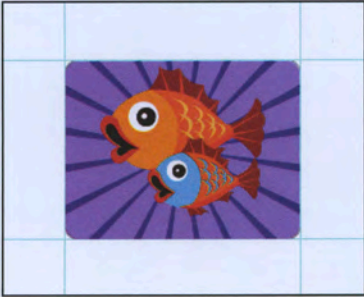
*The smaller fish falls behind the larger fish in the stacking order.*

- 7 With the smaller fish still selected, choose Object > Arrange > Bring to Front.



*Choose to bring the small fish to the front, then view the result.*

- 8 Select the smaller fish and reposition it so that it slightly overlaps the bottom of the larger fish.



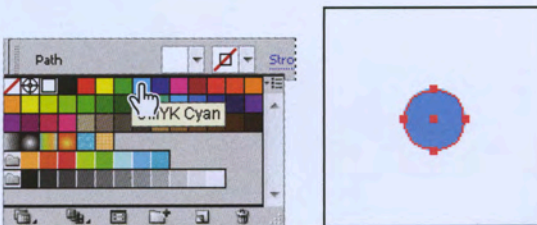
*Reposition the smaller fish to overlap the larger fish slightly.*

- 9 Choose File > Save. Keep this file open for the next part of this lesson, but close ai0304.ai. When asked if you'd like to save the changes made to the document, choose No (Windows) or Don't Save (Mac OS).

## Creating bubbles

You will now create a bubble, and then clone it several times to finish the illustration.

- 1 Click and hold down on the last-used shape tool (the Polygon tool) in the Tools panel and select the hidden Ellipse tool (○).
- 2 Click once on the artboard to display the Ellipse dialog box.
- 3 Type .5 into the Width text field, then click on the word *Height*. This enters the .5 value into the height text field as well. Press OK. A small circle is created.
- 4 Click the Fill color swatch in the Control panel and choose the color *CMYK Cyan* from the drop-down swatches menu.



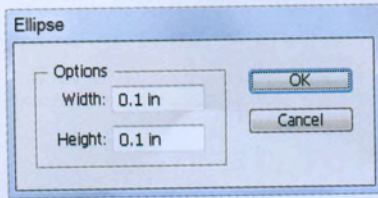
*Change the fill color to CMYK Cyan. The result.*

- 5 If the Stroke is not set to none (☑), choose the Stroke box in the Control panel and choose None from the drop-down swatches menu.

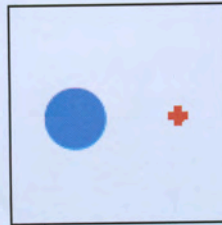
Now you will create a smaller circle to use as a reflection in the circle you already created.

- 6 With the Ellipse tool still active, click once on the artboard.

- 7 In the resulting Ellipse dialog box, type .1 into the Width text field, then click on the word Height to match values. Press OK.

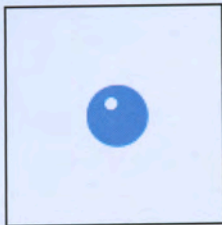


Create a smaller circle.



The result.

- 8 Use the Fill box in the Control panel to select White for the small circle's fill.
- 9 Activate the Selection tool (⌘), then click and drag the smaller circle on top of the larger cyan (blue) circle. Position it anywhere you want on the circle, as long as it looks like a light reflection on the bubble.



Position the smaller white circle on top of the cyan circle.

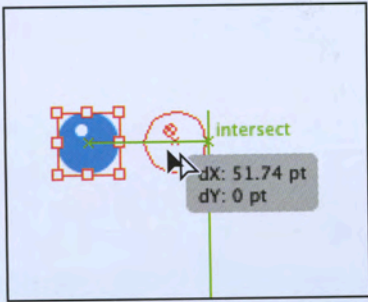
- 10 Shift+click the larger and smaller circles to select them both. Choose Object > Group, or press Ctrl+G (Windows) or Command+G (Mac OS), to group the circles.
- 11 Choose File > Save to save your work.

### Cloning the bubble group

You will now clone, or duplicate, the bubble several times.

- 1 Make sure the bubble group is selected.
- 2 Hover your cursor over the bubble and hold down the Alt (Windows) or Option (Mac OS) key. Note that the icon becomes a double cursor (⌘).

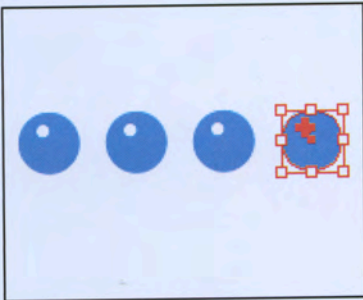
- 3 While holding down on the Alt/Option key, click and drag to the right. Notice that as you drag, the original group of circles remains intact and you create a second group. Release the mouse when you are off to the right and the cloned bubble no longer touches the original.



Hold down the Alt (Windows) or Option (Mac OS) key, then click and drag.

- 4 Press Ctrl+D (Windows) or Command+D (Mac OS) to repeat the duplication. Illustrator remembers the distance and angle of the last movement. You can also perform this function by selecting Object > Transform > Transform Again.
- 5 Press Ctrl+D (Windows) or Command+D (Mac OS) once more to create a total of four circle groups.

If you hold down the Shift key while cloning, you can constrain the cloned objects to move on a straight path, or a 45- or 90-degree angle.



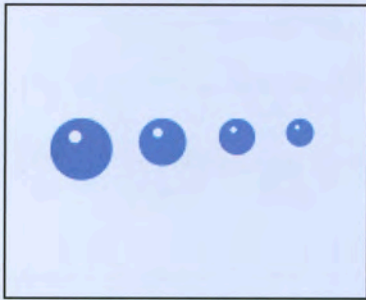
Clone the circle group three times.

- 6 Choose File > Save to save your work. Keep the file open for the next part of the lesson.

## Repeating a resize transform

You will now use the Transform Again keyboard shortcut to transform the bubbles so they are varying sizes.

- 1 Select the second bubble. You will leave the original bubble at its present size.
- 2 Hold down the Shift key (to constrain the proportions as you resize), and click and drag a corner anchor point to resize the bubble only slightly. An exact amount is not important for this. Once you resize, do not perform any other actions, such as repositioning. The resizing has to be the last action that you performed for the Transform Again feature to work properly.
- 3 Select the third bubble group and press Ctrl+D (Windows) or Command+D (Mac OS). This applies the same transformation to the third bubble. With the same bubble still selected, press Ctrl +D (Windows) or Command+D (Mac OS) again and the resize transformation is applied, making it even smaller.
- 4 Select the last (fourth) bubble and press Ctrl+D (Windows) or Command+D (Mac OS) three times, making this the smallest bubble.

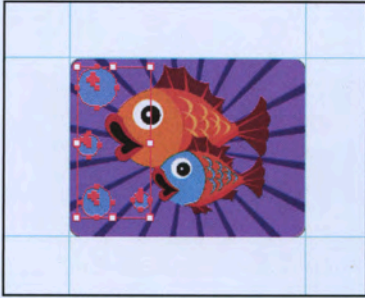


*The bubbles after they have been transformed into differently sized bubbles.*



*Remember that the Transform Again feature (Ctrl+D [Windows] or Command+D [Mac OS]) repeats the most recent transformation, including positioning, that you performed. If you resize and then move an object, the repositioning, not the resizing, is repeated. If this occurs, press Ctrl+Z (Windows) or Command+Z (Mac OS) until you return to the point where all the bubbles are the same size. Then restart at step 1.*

- Using the Selection tool (**V**), click and drag each bubble down and position them around the fish, on top of the rectangle. No exact position is necessary.




*Click and drag the bubbles to reposition them in the artwork.*

- Choose File > Save to save your work. Keep the file open for the next part of the lesson.

### Moving objects from one layer to another


You will now move the bubbles onto Layer 1, under the rays of light.

- Select one of the bubble groups, then Shift+click the remaining three so that all four bubble groups are selected.
- If the Layers panel is not visible, open it by clicking the Layers button () in the dock or by choosing Windows > Layers.

A colored dot appears to the right of the Fish layer in the Layers panel. This colored dot is called the selection indicator. If Illustrator's settings are at their defaults, the indicator is red, matching the layer selection color.



*When something on a layer is selected, the selection indicator appears.*

- Click the padlock icon () to the left of Layer 1 to unlock the layer.



- 4 Click and drag the selection indicator from the Fish layer down to Layer 1. The bubbles are now on Layer 1 instead of on the Fish layer.



*Click and drag the selection indicator to the layer beneath.*

- 5 Click on any one of the triangles that you used to create the rays of light. Because they were grouped earlier, selecting one selects the entire group.
- 6 Choose Object > Arrange > Bring to Front; the triangles are now on top of the bubbles, but not on top of the fish. This is because the Fish layer is higher in the stacking order than anything on Layer 1. You will find out more about layers and the order in which objects appear in Lesson 7, “Organizing your Illustrations with Layers.”
- 7 Choose File > Save, then File > Close.  
Congratulations! You have completed the lesson.

## Self study

Practice will help you to create the shapes that you want. To practice on your own, open the file named ai0305.ai and create the shapes that are locked on the base layer.

## Review

### Questions

- 1 Which selection tool allows you to select an individual anchor point or path segment?
- 2 What key modifier do you hold down to constrain a shape to equal width and height values?
- 3 What are two methods of inputting exact height and width values for shapes?

### Answers

- 1 The Direct Selection tool allows you to select an individual anchor point or path segment.
- 2 Constrain a shape's proportions by pressing the Shift key while dragging the shape.
- 3 You can enter values for shapes by doing either of the following:
  - a. Select a Shape tool and click once on the artboard. This opens the shape options dialog box, in which you can enter width and height values.
  - b. After a shape has been created, choose Window > Transform and enter values into the Width and Height text fields.