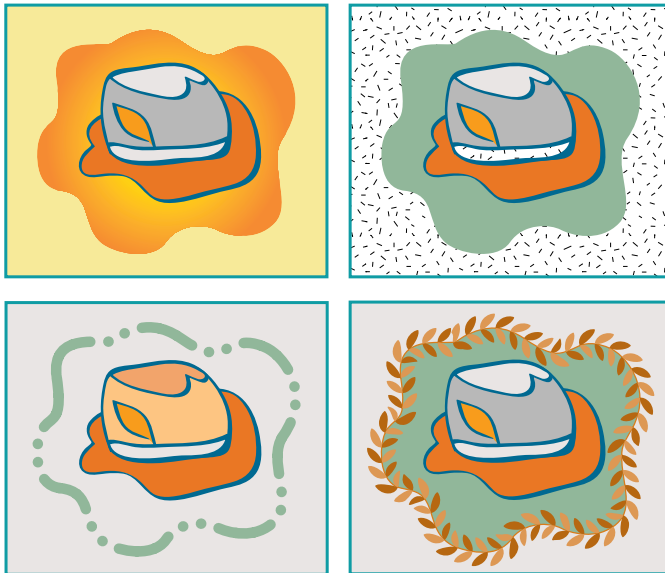


Painting



The Color and Swatches palettes let you apply, modify, and save colors in your artwork. You can paint with HSB, RGB, or CMYK colors, grayscale, global process and spot colors, patterns, and gradients of blended colors. With the new Brushes palette, you can apply art or patterns to the path of an object.

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

- Paint with, create, and edit colors
- Name and save colors, and build a color palette
- Copy paint attributes from one object to another
- Adjust the saturation of a color
- Paint with gradients, patterns, and brushes

Getting Started

In this lesson, you'll learn about the variety of paint options in the Adobe Illustrator® program as you paint an illustration of four hats. Before you begin, you'll need to restore the default preferences for Adobe Illustrator and then you'll open the finished art file for this lesson to see what you'll be creating.

1 To ensure that the tools and palettes function exactly as described in this lesson, delete or deactivate (by renaming) the Adobe Illustrator 8.0 preferences file. (See “Restoring default preferences” in Appendix A, “Improving Performance,” of the *Adobe Illustrator 8.0 User Guide*.)

2 Start Adobe Illustrator.

3 Choose File > Open and open the finished art file, *02_b.ai*.

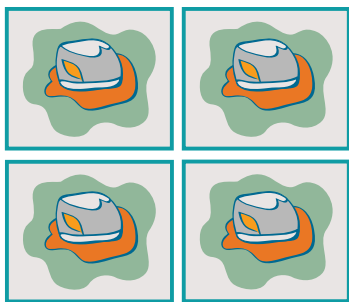
(The path to the file is: Adobe Illustrator 8.0 application folder > Training > Tutorial > AI_02 > 02_b.ai.)

4 If you like, choose View > Zoom Out to make the finished artwork smaller 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.

Now open the start file to begin the lesson.

5 Choose File > Open and open the start file, *02_a.ai*.

(The path to the file is: Adobe Illustrator 8.0 application folder > Training > Tutorial > AI_02 > 02_a.ai.)



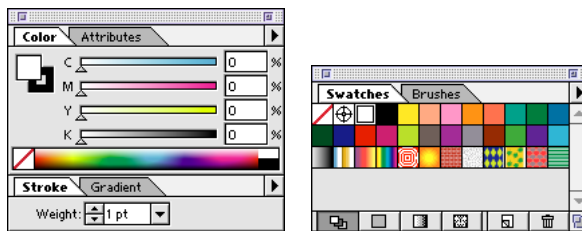
6 Choose File > Save As, name the file **Hats.ai**, and click Save. In the Illustrator Format dialog box, select version 8.0 of Illustrator and click OK.

Filling with color

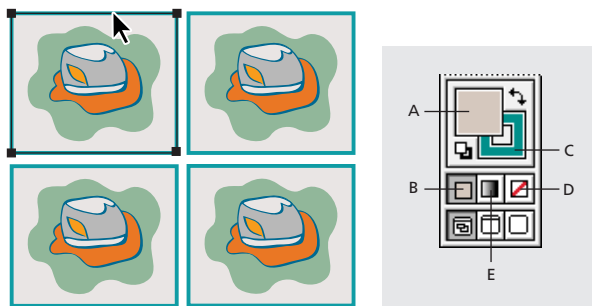
Painting objects with colors, gradients, or patterns is done using a combination of palettes and tools—including the Color palette, the Swatches palette, the Gradient palette, the Stroke palette, and the paint buttons in the toolbox, which let you select and change an object's paint and line attributes.

You'll begin by filling an object with color. Filling an object paints the area enclosed by the path.

- 1 If the Color and Swatches palettes aren't visible, display them by choosing Window > Show Color and Window > Show Swatches.



- 2 Click the close boxes or choose Window > Hide Layers and Window > Hide Transform to close the Layers palette and the Transform palette. You won't need these palettes for this lesson.
- 3 Choose File > Preferences > General, deselect the Use Bounding Box option, and click OK. The bounding box is useful for moving and resizing objects. You won't need this option for this lesson.
- 4 Select the selection tool (⬚) in the toolbox, and then click the rectangular border around the top left block in the artwork to select the object.



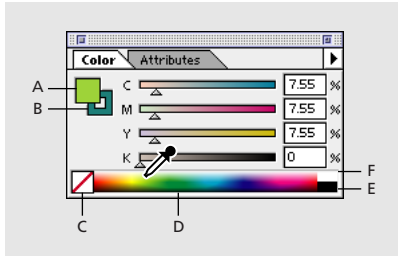
The selected object's paint attributes appear in the toolbox.

A. Fill **B.** Color **C.** Stroke
D. None **E.** Gradient

By default, the Fill box in the toolbox appears in the foreground, indicating that it is selected. The box has a fill of a warm gray color. The Color button appears depressed, indicating that it is selected. In the background behind the Fill box, the Stroke box has a turquoise outline, indicating that the rectangle is outlined in turquoise. When the Stroke box or Fill box is in the background, its color is not the current selection.

The Color palette displays the current color for the fill and stroke as well, and its CMYK sliders show the color's percentage of cyan, magenta, yellow, and black. At the bottom of the Color palette is the color bar. Now you'll use it to select a fill color of yellow.

5 In the Color palette, position the eyedropper pointer over the color bar. Hold the mouse down and drag the eyedropper across the colors. As you drag, the color updates in the Fill boxes in the toolbox and Color palette.



A. Fill box B. Stroke box C. None button
D. Color bar E. Black color box F. White color box

The color bar lets you quickly pick a fill or stroke color from a spectrum of colors and select colors visually. You can also choose white or black by clicking the white color box or black color box on the right end of the color bar.

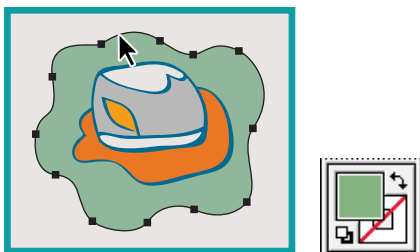
6 Now, click a yellow color in the color bar to select the color. You can adjust the color by dragging the CMYK sliders in the Color palette. (We selected a yellow color with these values: C = 3.53%, M = 4.31%, Y = 48.63%, and K = 0%.) The color is updated in the Fill boxes in the toolbox and the Color palette, and in the artwork.

The paint attributes you choose are applied to all new objects you create until you change the attributes again. Depending on the last paint attribute applied, either the Fill box or the Stroke box appears selected and frontmost in the toolbox.

Stroking with color

Next, you'll outline the squiggly area around the bottom left hat. Painting just the outline of an object is called *stroking*.

1 Using the selection tool (⬅), click the squiggly shape around the hat in the bottom left rectangle to select it.



Select squiggly shape in bottom left rectangle.

The Fill box in the toolbox displays a pale green color. The Stroke box in the background has a red slash, indicating the squiggly shape's stroke is unpainted (a stroke of "none").

You'll start by swapping the fill color with the stroke color.

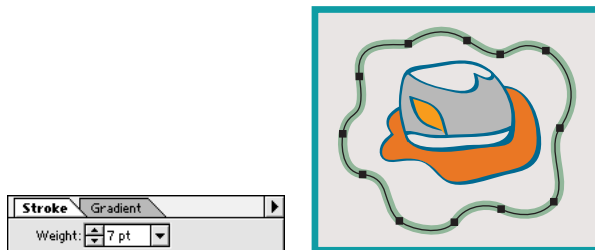
- 2 Click the Swap Fill and Stroke button to reverse the colors of the selected object's fill and stroke.



The Fill box now has no fill (a fill of “none”) and the Stroke box has a pale green color. (The color will become apparent in the next step.) With a fill of none, you can see through to the fill underneath—in this case, the gray color of the rectangle's fill.

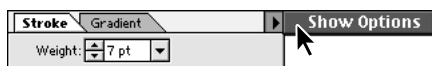
Now you'll change the weight of the line that you just stroked using the Stroke palette. *Stroke weight* is the thickness of a line. In the Stroke palette (below the Color palette), the line has a weight of 1 point.

- 3 In the Stroke palette, type 7 in the Weight text box and press Enter or Return to change the stroke weight to 7 points. The squiggly line now stands out.



Next, you'll use the Stroke palette's options to change the line from solid to dashed.

- 4 First, move the Swatches palette down away from the Stroke palette. Then position the pointer on the triangle in the upper-right corner of the Stroke palette and choose Show Options from the pop-up menu.



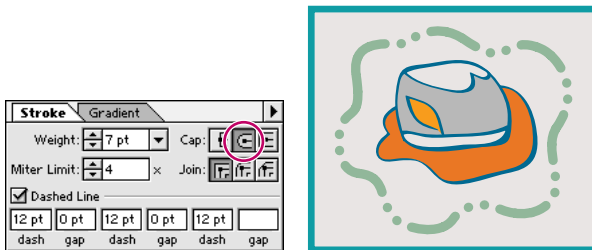
You use the Stroke palette options to specify how to cap the ends, join the corners, and make lines dashed or dotted.

- 5 In the Stroke palette, select the Dashed Line option. The Dash and Gap text boxes become active. To create a dashed or dotted line, you specify the size of the length of the dash (or dot) and then the gap, or spacing, between the dashes. You can create a dashed or dotted line with as few as two values or as many as six values. The more values you enter, the more complex the pattern.

6 Type the following values in the Dash and Gap text boxes: **12, 0, 12, 0, 12**. Leave the last Gap box empty. Press Enter or Return to apply the change.

Now you'll select a cap for the lines to create a dotted-line effect.

7 In the Cap options area of the Stroke palette, click the Round Cap button (the middle button).



For examples of other effects you can create and information about stroking lines, see “Using the Stroke palette” in Chapter 7, “Working with Color,” of the *Adobe Illustrator 8.0 User Guide* or in online Help.

You can select objects by a common paint attribute (such as their stroke color or weight) and change them all at once.

8 Select the border of one of the rectangles and click the Stroke box in the toolbox to select the rectangle's stroke.

9 Choose Edit > Select > Same Stroke Weight to select the strokes of all the objects that have the same stroke weight in the artwork (in this case, all of the rectangles).

10 In the Stroke palette, type **2** in the Weight text box and press Enter or Return to globally change the stroke weight to 2 points.

11 Click away from the artwork to deselect it and choose File > Save.

Building a custom palette

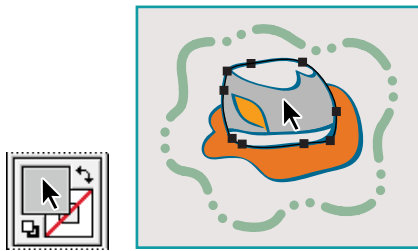
Now you'll learn how to create your own custom palettes by mixing colors, naming them, and saving them in the Swatches palette.

Mixing your own color

You'll start to create a custom palette by mixing a color using the CMYK sliders in the Color palette. First you'll mix a fill color.

1 In the toolbox, click the Fill box to make it active.

- 2 Using the selection tool (⌘), click the middle of the hat in the bottom left rectangle to select it.

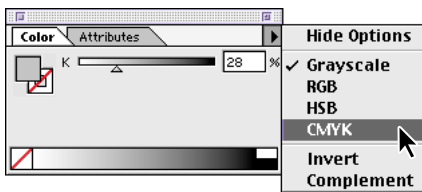


Select middle of hat in bottom left rectangle.

In the Color palette, notice that the hat color is grayscale—that is, a percentage of black—and only a K (black) slider shows a value. The color bar changes to display a scale ramp from white to black.

Now you'll change the color model to CMYK so that you can mix colors.

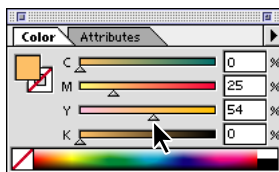
- 3 In the Color palette, choose CMYK from the pop-up menu.



The Color palette lets you edit and mix colors—either colors that you create or colors that you have selected from the Swatches palette, from an object, or from a color library. In this case, you're choosing colors using the CMYK color model.

Now you'll select an orange color for the middle of the hat.

- 4 In the Color palette, drag the CMYK sliders to select a light orange color or type values in the % text boxes and press Enter or Return to apply the changes. (We specified 0% cyan, 25% magenta, 54% yellow, and 0% black.)



You can use the different color models in conjunction with the Color palette sliders to select a color precisely by its different color values. However, we recommend that you don't mix color models (such as CMYK and RGB) in the same file. For information on the color models that Illustrator uses, see Chapter 7, "Working with Color," in the *Adobe Illustrator 8.0 User Guide*.

- 5 Click away from the artwork to deselect it and choose File > Save.

Saving colors


The Swatches palette stores the colors, gradients, and patterns that have been preloaded into Adobe Illustrator as well as those you have created and saved for reuse. New colors added to the Swatches palette are saved with the current file. Opening a new artwork file displays the default set of swatches that comes with the Adobe Illustrator program.

You'll add the light orange color you just mixed to the Swatches palette so it will be stored with this artwork file. You can select a color to add from either the Fill or Stroke boxes in the toolbox, or from the Color palette. Even though you deselected the artwork, the light orange color is still the current color in the Fill box in the toolbox and in the Color palette.

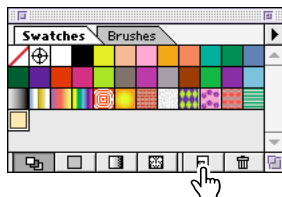
1 Drag the orange color from the Fill box and drop it in the Swatches palette. It appears in the first empty spot in the palette.

As you drag a color into the Swatches palette, an outline appears around the palette, indicating that it is active and that you are about to drop the color.

Now you'll add another color to the Swatches palette.

2 Using the selection tool () , select the top left rectangle that you painted with a yellow fill.

3 Make sure the Fill box is selected in the toolbox and then click the New Swatch button at the bottom of the Swatches palette to store the color.



You can make your own custom set of swatches for the file by deleting swatches from the Swatches palette that you don't use.

4 Click away from the artwork to deselect it and then click the black swatch (C=0, M=0, Y=0, K=100) in the Swatches palette to select it. Click the Delete Swatch button at the bottom of the Swatches palette and then click Yes in the warning dialog box to delete the swatch.

If you want to add a color back into the Swatches palette, you can drag the color directly from the Color palette or from the Fill or Stroke boxes in the toolbox. You can also restore the default set of colors to your artwork.

5 Choose Window > Swatch Libraries > Default to retrieve the default set of swatches.

6 Drag the Default palette away from the other palettes in the window.

7 In the Default palette, select the black color swatch you deleted in step 4 and then choose Add to Swatches from the Default palette's pop-up menu to copy the selected swatch back to your customized Swatches palette. The color appears in the top left corner of the Swatches palette.

You can add swatches from any color library palette to the Swatches palette.

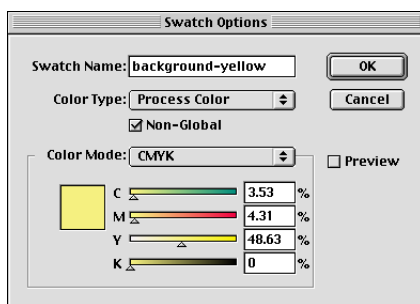
8 Click the close box of the Default palette to close it and choose File > Save.

Naming a color

You can name colors and refer to that name as you paint. All colors—whether process colors or spot colors—can be named while still retaining all of the characteristics of the color mode (for example, RGB, HSB, or Grayscale modes).

1 Double-click the yellow swatch you saved in the Swatches palette or select it and choose Swatch Options from the Swatches palette menu.

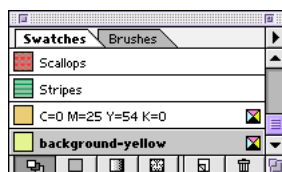
2 In the Swatch Options dialog box, name the color (for example, “background-yellow”) and click OK.



The Swatches palette lets you name, store, and select three types of colors: individual and global process colors (these include grayscale and CMYK, RGB, and HSB color models), and global spot colors. Spot colors are special premixed colors used instead of, or in addition to, process color inks, and require their own separations and their own plates on press.

Now you’ll change the display of the Swatches palette so that you can locate the color by its name.

3 Choose Name from the Swatches palette menu to display the swatches by name and see the swatch you just named.



You can change how swatches are displayed in the palette—as large or small swatches, or by name. When you display swatches by name, the Swatches palette also displays icons indicating the color model and color type (individual process color, global process color, or global spot color).

Copying paint attributes

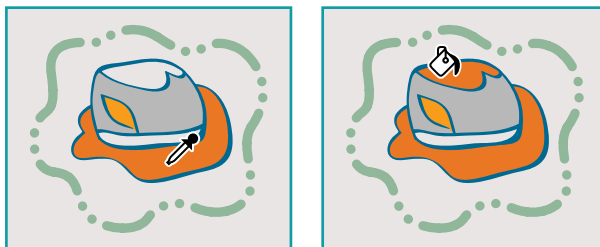
Adobe Illustrator lets you copy paint attributes of objects (such as their fill and stroke color) in a variety of ways and apply the attributes to other objects.

You'll use the eyedropper tool to copy colors from your artwork into the Color palette. Also called *sampling*, copying colors lets you replicate paint attributes even when you don't know their exact values.

- 1 Select the eyedropper tool (👉) in the toolbox.
- 2 In the bottom left rectangle, click the orange brim of the hat to sample its color. This action picks up the fill and stroke attributes of the hat brim and displays them in the Color palette.

By default, the eyedropper tool affects all paint attributes of an object. However, you can restrict which attributes are affected (by double-clicking the eyedropper tool and selecting options in the dialog box). For information, see “Modifying colors” in Chapter 7, “Working with Color,” of the *Adobe Illustrator 8.0 User Guide*.

- 3 To quickly apply the current paint attributes to the top of the hat, hold down Alt (Windows®) or Option (Mac® OS) to temporarily select the paint bucket tool (👉), and then click inside the top of the hat to apply the paint.

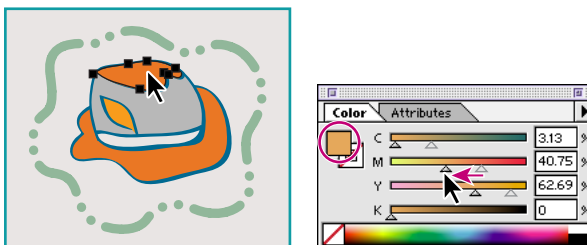


Select attributes with eyedropper. Apply with paint bucket.

Saturating colors

Next, you'll adjust the saturation of the new color you added to the hat's top by changing the percentage of black in the color.

- 1 Select the selection tool (👉) in the toolbox and click the top of the hat in the bottom left rectangle to select it. Make sure that the Fill box in the toolbox is selected.




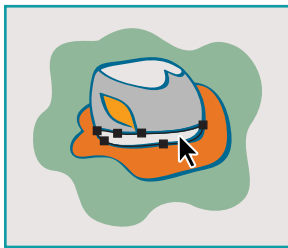
- 2 In the Color palette, hold down Shift and drag the M slider to the left to desaturate the color. Notice that as you Shift-drag, the sliders move in tandem, and the intensity of the color is adjusted. Adjusting the saturation lets you change the strength of a color without affecting the hue. (However, if you drag a slider that is set to 0%, you will change the hue or color rather than the saturation.)

Painting with patterns and gradients

In addition to process and spot colors, the Swatches palette can contain pattern and gradient swatches. Adobe Illustrator provides sample swatches of each type in the default palette and lets you create your own patterns and gradients. For information on how to create patterns and gradients, see Chapter 8, “Using Gradients, Blends, and Patterns,” in the *Adobe Illustrator 8.0 User Guide*.

Now you’ll fill some objects with a pattern.

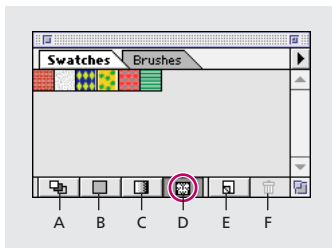
1 Using the selection tool () , click in the center of the inner shape of the hat ribbon in the top right rectangle. The Fill box in the toolbox shows that the shape’s current fill is gray. (The hat ribbon is actually two shapes. Make sure that you don’t select the outer shape, which is filled with a dark blue color.)



Select inner shape of hat ribbon in top right rectangle.

The buttons at the bottom of the Swatches palette let you display swatches grouped as solid colors, gradients, or patterns.

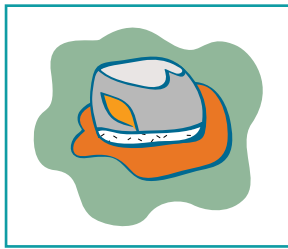
2 In the Swatches palette, click the Show Pattern Swatches button (the fourth button from the left). All of the pattern swatches appear.



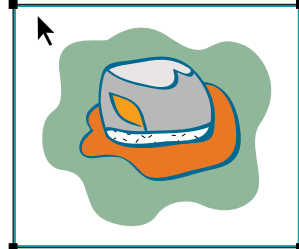
A. Show All Swatches **B.** Show Color Swatches **C.** Show Gradient Swatches
D. Show Pattern Swatches **E.** New Swatch
F. Delete Swatch

3 Click a pattern in the palette to select it and fill the hat ribbon. (We selected the Confetti pattern.)

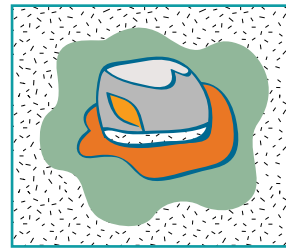
4 Now select the background of the top right rectangle. Make sure the Fill box is selected and paint the rectangle's fill with the same pattern.



Fill hat ribbon with a pattern.



Select background of top right rectangle.



Fill background with same pattern.

Now you'll apply a gradient to the first block in the illustration.

5 In the top left rectangle, select the squiggly line around the hat, and make sure the Fill box is selected in the toolbox.

6 In the Swatches palette, click the Show Gradient Swatches button (third button from the left) to show only gradient swatches in the palette.

7 Click a gradient to apply it to the fill of the squiggly shape. (We selected the Yellow & Orange Radial gradient.)

Painting with a pattern brush

Brushes can be applied to existing paths or objects. There are four types of brushes in the Brushes palette: calligraphic, scatter, art, and pattern. For information on how to create your own custom brushes, see "Using the Brushes palette" in Chapter 4, "Drawing," of the *Adobe Illustrator 8.0 User Guide*.

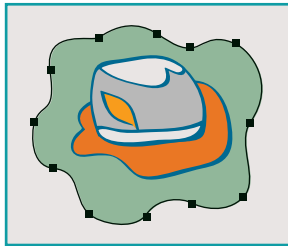
Now you'll paint the stroke of a shape with a pattern brush.

1 Use the selection tool (⌘) to select the squiggly shape around the hat in the bottom right rectangle.

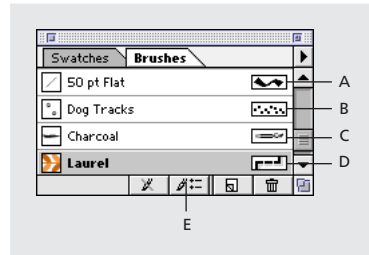
2 Choose Window > Show Brushes or click the Brushes tab behind the Swatches palette to display the Brushes palette.

3 Choose View By Name from the Brushes palette menu and scroll down to see the pattern brushes. Click a name to select a brush and apply it to the squiggly shape around the hat. (We selected the Laurel pattern brush.)

The type of brush (calligraphic, scatter, art, or pattern) is noted by an icon on the right side of the brush name.



Select the squiggly shape in the bottom right rectangle.



A. Calligraphic B. Scatter C. Art
D. Pattern E. Options of Selected Object button

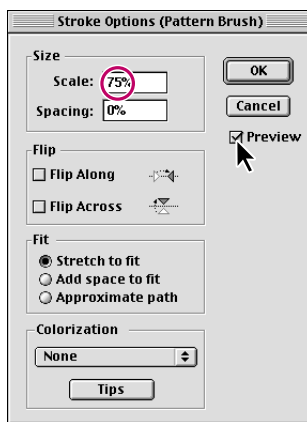


Apply a pattern brush.

You can change the size and other characteristics of the pattern after it is applied to the selected object.

4 With the squiggly shape still selected, click the Options of Selected Object button at the bottom of the Brushes palette.

5 In the Stroke Options (Pattern Brush) dialog box, select the Preview option so you can view different settings applied to the artwork without closing the dialog box.



6 Experiment with different settings to see how they affect the pattern on the squiggly shape. (We entered 75% in the Scale text box.) When you're satisfied with the settings, click OK to apply them to the artwork.

7 Choose File > Save.

You've completed painting the hat artwork using a variety of painting tools.

To learn how to create an airbrush or watercolor effect using the gradient mesh tool, see “Creating multicolored objects with the gradient mesh tool” in Chapter 8, “Using Gradients, Blends, and Patterns,” in the *Adobe Illustrator 8.0 User Guide*.

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