## 7 <br> USING COLOR TO ENHANCE SIGNAGE

## Lesson overview

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

- Understand color modes and the main color controls.
- Create, edit, and paint with colors using a variety of methods.
- Name and save colors, and build a color palette.
- Work with color groups.
- Use the Color Guide panel.
- Explore the Edit Colors/Recolor Artwork features.
- Copy and paint appearance attributes from one object to another.
- Work with Live Paint.

This lesson takes approximately 90 minutes to complete. Please log in to your account on peachpit.com to download the lesson files for this chapter, or go to the "Getting Started" section at the beginning of this book and follow the instructions under "Accessing the lesson files and Web Edition."

Your Account page is also where you'll find any updates to the chapters or to the lesson files. Look on the Lesson \& Update Files tab to access the most current content.


Spice up your illustrations with colors by taking advantage of color controls in Adobe Illustrator CC. In this information-packed lesson, you'll discover how to create and paint fills and strokes, use the Color Guide panel for inspiration, work with color groups, recolor artwork, and more.

## Starting the lesson

- Note: If you have not already downloaded the project files for this lesson to your computer from your Account page, make sure to do so now. See the "Getting Started" section at the beginning of the book.
- Note: If you don't see Reset Essentials in the menu, choose Window >
Workspace > Essentials before choosing Window > Workspace > Reset Essentials.

In this lesson, you'll learn about the fundamentals of color by creating and editing colors for an art store sign and logo, using the Color panel, Swatches panel, and more.

1 To ensure that the tools function and the defaults are set exactly as described in this lesson, delete or deactivate (by renaming) the Adobe Illustrator CC preferences file. See "Restoring default preferences" in the "Getting Started" section at the beginning of the book.

2 Start Adobe Illustrator CC.
3 Choose File > Open, and open the L7_end.ai file in the Lessons > Lesson07 folder to view a final version of the artwork.

4 Choose View > Fit All In Window. You can leave the file open for reference or choose File > Close to close it.


5 Choose File > Open. In the Open dialog box, navigate to the Lessons > Lesson07 folder, and select the L7_start.ai file on your hard disk. Click Open to open the file. This file has all the pieces already in it; they just need to be painted.

6 Choose View > Fit All In Window.


7 Choose File > Save As. In the Save As dialog box, navigate to the Lesson07 folder, and name it ArtSign.ai. Leave the Format option set to Adobe Illustrator (ai) (macOS) or the Save As Type option set to Adobe Illustrator (*.AI) (Windows), and click Save.

8 In the Illustrator Options dialog box, leave the options at their default settings and then click OK.

9 Choose Window > Workspace > Reset Essentials.

## Exploring color modes

There are many ways to experiment with and apply color to your artwork in Adobe Illustrator CC. As you work with color, it's important to keep in mind the medium in which the artwork will be published, such as a print piece or a website. The colors you create need to be described in the correct way for the medium. This usually requires that you use the correct color mode and color definitions for your colors. The first part, color modes, will be described next.

Before starting a new document, you should decide which color mode the artwork should use, CMYK or RGB.

- CMYK-Cyan, magenta, yellow, and black are the colors used in four-color process printing. These four colors are combined and overlapped in a screen pattern to create a multitude of other colors.
- RGB - Red, green, and blue light are added together in various ways to create an array of colors. Select this mode if you are using images for onscreen presentations, the Internet, or mobile apps.

When creating a new document by choosing File > New, each profile has a specific color mode. For instance, the Print profile uses the CMYK color mode. You can easily change the color mode by making a selection in the Color Mode menu.


When a color mode is selected, colors in the document are displayed in the selected color mode. You can change the color mode of a document, after a file is created, by choosing File > Document Color Mode and then choosing either CMYK Color or RGB Color in the menu.

Tip: To learn more about color and graphics, search for "About color" in Illustrator Help (Help > Illustrator Help).

## Working with color

In this lesson, you'll learn about the traditional methods of coloring (also called painting) objects in Illustrator using a combination of panels and tools, such as the Properties panel, Swatches panel, Color Guide panel, Color Picker, and the paint options in the Tools panel.

In previous lessons, you learned that objects in Illustrator can have a fill, a stroke, or both. At the bottom of the Tools panel (on the left), notice the Fill and Stroke boxes. The Fill box is white (in this case), and the Stroke box is Black. If you click those boxes one at a time, you'll see that whichever is clicked is brought in front of the other (it's selected). When a
 color is chosen, it is applied to the fill or stroke, whichever is selected. As you explore more of Illustrator, you'll see these fill and stroke boxes in lots of other places like the Properties panel, Swatches panel, and more.

As you will see in this section, Illustrator provides a lot of ways to arrive at the color you need. You'll start by applying an existing color to a shape and then work your way through the most widely used methods for creating and applying color.

## Applying an existing color

Every new document in Illustrator has a series of default colors available for you to use in your artwork in the form of swatches in the Swatches panel. The first method of working with color you'll explore is to paint a shape with an existing color.

1 Click the ArtSign.ai document tab at the top of the Document window, if you did not close the L7_end.ai document.

2 Choose 1 Art Sign from the Artboard Navigation menu in the lower-left corner of the Document window (if it's not chosen already) and then choose View > Fit Artboard In Window.

3 With the Selection tool ( $N$ ), click to select the large red shape in the background.
4 Click the Fill box in the Propertiespanel ( $\square$ ) on the right to reveal a panel. Click the Swatches option (圖) in the panel, if it isn't already selected, to show the saved default swatches. Position the pointer over a swatch in the list to reveal a tooltip with the swatch name. Click to apply the blue swatch named "Sign Bg" to change the color of the fill for the selected artwork.


5 Press the Escape key to hide the panel.

## Creating a custom color

There are lots of ways to create your own custom colors in Illustrator. Using the Color panel (Window > Color) or Color Mixer, you can apply color to an object's fill and stroke and also edit and mix colors using different color models (CMYK, for example). The Color panel and Color Mixer display the current fill and stroke of the selected content, and you can either visually select a color from the color spectrum bar at the bottom of the panel or mix your own colors, changing the color values in various ways. Next, you'll create a custom color using the Color Mixer.

1 With the Selection tool ( $\boldsymbol{\lambda}$ click the gray ellipse below the word "ART," toward the top of the artboard.


2 Click the Fill box in the Propertiespanel ( $\square$ ) on the right, to reveal a panel. Select the Color Mixer option ( ) in the panel that appears.

3 Click in the light-green part of the color spectrum to sample a light-green color and apply it to the fill.

Since the spectrum bar is so small, you most likely won't achieve the same color as I did. That's okay, because you'll edit it shortly to match.


If artwork is selected when you create a color this way, the color is automatically applied.

Tip: Each CMYK value is a percentage of 100 .

Tip: Naming ф can be an art form. You can name them according to their value (C=45, ...), appearance (Light Green), or description like "text header," among other attributes.

4 In the Color Mixer panel, type the following values in the CMYK fields: $\mathrm{C}=52, \mathrm{M}=0, \mathrm{Y}=100, \mathrm{~K}=0$. This ensures that we are all using the same green.

Colors created in the Color Mixer panel are not saved anywhere except for in the fill or stroke of the selected artwork. If you want to easily reuse the
 color you just created elsewhere in this document, you can save it as a swatch in the Swatches panel. All documents start with a default number of swatches, as mentioned earlier. Any colors you save or edit in the Swatches panel are available to the current document only (by default) since each document has its own defined swatches.

## Saving a color as a swatch

You can name and save different types of colors, gradients, and patterns in the document as swatches so that you can apply and edit them later. Swatches are listed in the Swatches panel in the order in which they were created, but you can reorder or organize the swatches into groups to suit your needs.

Next, you'll save the green color you just created as a swatch so you can easily reuse it.
1 Click the Fill box in the Properties panel ( $\square$ ) on the right to reveal apanel. Click the Swatches button at the top of the panel to see the swatches. Click the New Swatch button (回) at the bottom of the panel to create a swatch from the fill color of the selected artwork.


2 In the New Swatch dialog box that appears, change the following options:

- Swatch Name: Light Green
- Add To My Library: Deselected (In Lesson 13, "Creating Artwork for a T-Shirt," you'll learn all about Libraries.)

Notice the "Global" option that is selected by default. New swatches you create are global by default. That means, if you later edit this swatch, everywhere it is applied, regardless of whether or not the artwork is selected, is updated.

3 Click OK to save the swatch.

Notice that the new Light Green swatch is highlighted in the Swatches panel (it has a white border around it). That's because it is applied to the selected shape automatically. Also notice the little white triangle in the lower-right corner of the swatch. This indicates that it's a global swatch.


4 Leave the Light Green filled shape selected for the next section.

## Creating a copy of a swatch

One of the easiest ways to create and save a color as a swatch is to make a copy of a swatch and edit the copy. Next, you'll create another swatch by copying and editing the Light Green swatch.

1 With the shape still selected, click the Fill box in the Properties panel ( $\square$ ) on the right to reveal a panel. Click the Swatches button at the top of the panel to see the swatches, if they aren't showing. Once again, you should see that the Light Green swatch is highlighted because it's applied to the shape.

2 Choose Duplicate Swatch from the panel menu (目).

This creates a new swatch from the fill color of the selected artwork (the Light Green swatch) that is now applied to the selected shape.

3 Click to apply the original Light Green swatch to the selected shape.

4 With the Selection tool $)$, click the gray ellipse below the word "FINE" to select it.

5 Click the Fill box in the Properties panel, and double-click the green swatch copy to both apply it to the selected artwork and edit the color settings.


- Note: The figure shows where to click to show the panel menu.

Tip: In the Options dialog box, the Color Mode menu lets you change the color mode of a specific color to RGB, CMYK, Grayscale, or another mode when you create it.

6 In the Swatch Options dialog box, change the name to Orange; change the values to $\mathrm{C}=\mathbf{6}, \mathrm{M}=\mathbf{5 1}, \mathrm{Y}=\mathbf{8 9}, \mathrm{K}=\mathbf{0}$; and make sure that Add To My Library is deselected. Select Preview and then click OK.


Make sure the new Orange swatch is applied to the selected shape.

## Editing a global swatch

Next, you'll save a color as a swatch and learn about global color. When you edit a global color, all artwork with that swatch applied, regardless of whether it's selected, is updated.

1 With the Selection tool ( $)$, click to select the gray ellipse below the orange ellipse you just applied the Orange swatch to.

2 Click the Fill box () in the Properties panel, and click the New Swatch button (回) at the bottom of the panel.

3 In the New Swatch dialog box, change the following options:

- Swatch Name: Pink
- Global: Selected (the default setting)
- Change the CMYK values to $\mathrm{C}=5, \mathrm{M}=100, \mathrm{Y}=60, \mathrm{~K}=0$
- Add To My Library: Deselected

4 Click OK.


Notice that the new swatch is in the same row as the gray color swatches. When you selected the shape, it was filled with a gray swatch, which was selected in the Swatches panel. When you click the New Swatch button to make a new color, it duplicates the selected swatch and puts the new swatch next to the original in the Swatchespanel.


5 Drag the Pink swatch to the right of the Orange swatch to keep them together.


6 With the Selection tool, click the ruler shape at the bottom of the artboard. Click the Fill box in the Properties panel, and select the newswatch named "Pink."


7 With the ruler shape still selected, click the Fill box ( $\square$ ) in the Properties panel. Double-click the swatch named "Pink." In the Swatch Options dialog box, change the Y value (Yellow) to 30, select Preview to see the changes (you may need to click in another field to see the change), and then click OK.


All of the shapes with the global swatch applied are updated, even if they weren't selected.

## Editing a non-global swatch

The default colors that comes with Illustrator are not saved as global swatches by default. That means that editing one of those color swatches will not update artwork that uses the color, unless that artwork is selected. Next, you'll apply and edit a swatch that was not saved as a global swatch.

1 With the Selection tool ( selected, click to select the large blue shape in the background that you first applied a fill color to.

2 Click the Fillbox ( $\square$ ) in the Properties panel and then click the green color swatch with the tooltip that shows as " $\mathrm{C}=75 \mathrm{M}=0 \mathrm{Y}=75 \mathrm{~K}=0$ " to apply it.


You can tell that the green color swatch you applied is not a global swatch because it doesn't have the small white triangle in the lower-right corner of the swatch in the Swatches panel.

3 Choose Select > Deselect.
4 Choose Window > Swatches to open the Swatches panel as a separate panel. Doubleclick the swatch you just applied to editit.

Most of the formatting options you find in the Properties panel can also be found in a separate panel in the Window menu. Opening the Swatches panel, for instance,
 can be a useful way to work with colors without having to select artwork.

5 In the Swatch Options dialog box, change the name to Background and the values to $C=80, M=10, Y=45, K=2$, and select Preview.


Notice that the color of the background shape doesn't change. That's because the swatch is not a global swatch (global is not selected in the Swatch Options dialog box for the swatch). Only selected shapes with the swatch applied will change if you edit a non-global swatch.

6 Click OK. Click the $X$ at the top of the Swatches panel group to close it.
7 Click to select the background shape. Click the Fill box ( $\square$ ) in the Properties panel, and notice that the green color swatch is no longer applied.

8 Click the green Background swatch you just edited to apply it again.


- Note: You can change an existing swatch into a global swatch, but it requires a bit more effort. You either need to select all of the shapes with that swatch applied before you edit the swatch and make it global, or you edit the swatch to make it global and then reapply the swatch to the content.

Tip: You can b change the color spectrumyou seeby selecting $\mathrm{H}, \mathrm{S}, \mathrm{B}, \mathrm{R}, \mathrm{G}$, or B.

## Using the Color Picker to create color

Another method for creating color is to use the Color Picker. The Color Picker lets you select a color in a color field and in a spectrum either by defining colors numerically or by clicking a swatch, and it is found in other Adobe applications like InDesign and Photoshop. Next, you will create a color using the Color Picker and then save that color as a swatch in the Swatches panel.

1 With the Selection tool ( $\boldsymbol{l}$, click the gray ellipse to the right of the brown end of the paintbrush.

2 Double-click the gray Fill box at the bottom of the Tools panel, to the left of the document, to open the Color Picker.


In the Color Picker dialog box, the larger color field shows saturation (horizontally) and brightness (vertically). The color spectrum bar to the right of the color field shows the hue.

3 In the Color Picker dialog box, click and drag up and down in the color spectrum bar (labeled " B " in the following figure) to change the color range. Make sure that you wind up with the triangles in a blue color (it doesn't have to be exact).

4 Click and drag in the color field (labeled "A" in the following figure). As you drag right and left, you adjust the saturation, and as you drag up and down, you adjust the brightness. The color you create when you click OK (don't yet) appears in the New color rectangle, labeled "C" in the figure. Don't worry about matching the color in the figure yet.


Drag in the color spectrum bar.


Drag in the color field.

5 In the CMYK fields, change the values to $\mathrm{C}=\mathbf{9 0}, \mathrm{M}=\mathbf{1 5}, \mathrm{Y}=\mathbf{0}$, and $\mathrm{K}=\mathbf{0}$.
6 Click OK, and you should see that the blue is applied to the fill of the shape.
7 Click the Fillbox ( $\square$ ) in the Properties panel to show the swatches. Click the New Swatch button (回) at the bottom of the panel, and change the following options in the New Swatch dialog box:

- Swatch Name: Blue
- Global: Selected (the default setting)
- Add To My Library: Deselected

8 Click OK to see the color appear as a swatch in the Swatches panel.
9 Choose Select > Deselect and then choose File > Save.

## Using Illustrator swatch libraries

Swatch libraries are collections of preset colors, such as Pantone and TOYO, and thematic libraries, such as Earthtone and Ice Cream. Illustrator has default swatch libraries that appear as separate panels when you open them, and these cannot be edited. When you apply color from a library to artwork, the color in the library becomes a swatch that is saved in that document only and appears in the Swatches panel. Libraries are a great starting point for creating colors.

Next, you will create a spot color using a Pantone Plus library, which prints using a spot ink. You will then apply that color to artwork. When color is defined in Illustrator and later printed, the appearance of the color may vary. This is why most printers and designers rely on a color-matching system, like the PANTONE system, to help maintain color consistency and, in some cases, to give a wider range of colors.

## Adding a spot color

In this section, you'll see how to open a color library, such as the PANTONE color system, and how to add a PANTONE MATCHING SYSTEM (PMS) color to the Swatches panel.

1 Choose Window > Swatch Libraries > Color Books > PANTONE+ Solid Coated.

The PANTONE+ Solid Coated library appears in its own panel.

2 Type 137 in the Find field. As you type, the list is filtered, showing a smaller and smaller range of swatches.


- Note: The Color Swatches button in the Color Picker shows you the swatches in the Swatches panel and the default color books (the sets of swatches that come with Illustrator), and it lets you select a color from one. You can return to the color spectrum by clicking the Color Models button and then editing the swatch color values, if necessary.
- Note: Sometimes it's practical to use process (typically CMYK) and spot inks (PANTONE, for instance) in the same job. For example, you might use one spot ink to print the exact color of a company logo on the same pages of an annual report where photographs are reproduced using process color. You can also use a spot-color printing plate to apply a varnish over areas of a process color job. In both cases, your print job would use a total of five inks-four process inks and one spot ink or varnish.

3 Click the swatch PANTONE 137 C, beneath the search field to add it to the Swatches panel for this document. Click the X to the right of the search field to stop the filtering.

4 Close the PANTONE + Solid Coated panel.


- Note: If you exit Illustrator with the PANTONE library panel still open and then relaunch illustrator, the panel does not reopen. To automatically open the panel whenever Illustrator opens, choose Persistent from the PANTONE+ Solid Coated panel menu (目).

5 With the Selection tool ( $\boldsymbol{N}$, Shift-click the three white pencil shapes under the letter "S" in "ARTISTRY."

6 Click the Fillbox ( $\square$ ) in the Properties panel to show the swatches and select the PANTONE 137 C swatch to fill the shapes.


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

## PANTONE swatches vs. other swatches in the Swatches panel

In the Swatches panel, you can identify spot-color swatches by the spot-color icon (圆) when the panel is in List view or by the dot in the lower corner ( D $_{\text {) }}$ when the panel is in Thumbnail view. Process colors do not have a spot-color icon or a dot.

## Creating and saving a tint of a color

A tint is a mixture of a color with white to make the color lighter. You can create a tint from a global process color, like CMYK, or from a spot color. Next, you'll create a tint of the Pantone swatch you added to the document.

1 With the Selection tool ( $\boldsymbol{N}$ ), click the middle, yellow pencil shape.
2 Click the Fill box in the Propertiespanel ( $\square$ ) on the right. Click the Color Mixer button ( ङ) at the top of the panel that appears.

In the section "Creating a custom color," you created a custom color using the Color Mixer sliders. In that section, you were creating a custom color from scratch-that's why there were CMYK sliders. Now you will see a single slider labeled "T" for tint. When using the color mixer for a global swatch, you will create a tint instead of mixing CMYK values.

3 Drag the tint slider to the left to change the tint value to $\mathbf{7 0 \%}$.


4 Click the Swatches option (圖) at the top of the panel to show the swatches. Click the New Swatch button (回) at the bottom of the panel to save the tint.

5 Position the pointer over the swatch icon to see its name, which is PANTONE 137C 70\%.


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

- Note: Currently, Convert to RGB in the Edit Color menu is dimmed (you cannot select it). That's because the Document Color Mode is CMYK. To convert selected content color to RGB using this method, first choose File > Document Color Mode > RGB Color.

Tip: You can helick the Eyedropper tool in the Tools panel, before sampling, to change the attributes that the Eyedropper picks up and applies.

## Converting colors

When working with colors, Illustrator offers Edit Colors commands (Edit > Edit Colors) that allow you to convert colors between color modes, blend colors, invert colors, and much more, for selected artwork. Next, you'll change the pencil with the PANTONE 137 C color applied to use CMYK colors instead of Pantone.

1 Choose Select > All On Active Artboard to select all artwork on the artboard, including the shapes with the Pantone color and tint applied.

2 Choose Edit > Edit Colors > Convert To CMYK.
Any colors in the selected shapes that had Pantone applied as a spot color are now composed of CMYK. Using this method for converting to CMYK does not affect Pantone color swatches (PANTONE 137 C and the tint, in this case) in the Swatches panel. It simply converts the selected artwork colors to CMYK. The swatches in the Swatches panel are no longer applied to the artwork.

## Copying appearance attributes

At times you may want to simply copy appearance attributes, such as text formatting, fill, and stroke, from one object to another. This can be done with the Eyedropper tool ( and can really speed up your creative process.

1 Choose Select > Deselect.
2 Using the Selection tool ( $)$, select the last gray ellipse.
3 Select the Eyedropper tool ( ) in the Tools panel on the left. Click the yellow/orange of the pencil (not the tint). See the figure.

The gray ellipse has the attributes from the pencil shape applied, including a 1-pt black stroke.

4 Click the Stroke color (ㅍ) in the Properties panel, and change the color to None ( $\boxed{\square}$ ).

5 Select the Selection tool ( $\boldsymbol{\perp}$ ) in the Tools panel.
6 Choose Select > Deselect and thenchoose File > Save.


## Creating a color group

In Illustrator, you can save colors in color groups, which consist of related color swatches in the Swatches panel. Organizing colors by their use, such as grouping all colors for a logo, can be helpful for organization and more, as you'll soon see. Color groups cannot contain patterns, gradients, the None color, or Registration color.

Next, you'll create a color group of some of the swatches you've created to keep them organized.

1 Choose Window > Swatches to open the Swatches panel. In the Swatches panel, click the swatch named "Sign Bg" to select it. Holding down the Shift key, click the swatch named "Blue" to the right to select five color swatches.

2 Click the New Color Group button ( $\square$ ) at the bottom of the Swatches panel. Change Name to Palette Colors in the New Color Group dialog box, and click OK to save the group.

Note: If objects are selected when you click the New Color Group button, an expanded New Color Group dialog box appears. In this dialog box, you can create a color group from the colors in the artwork and convert the colors to global colors.

3 With the Selection tool $(\boldsymbol{\rightharpoonup})$ selected, click a blank area of the Swatches panel to deselect all in the panel.

Each swatch in a color group can still be edited independently by double-clicking a swatch in the group and editing the values in the Swatch Options dialog box.


Tip: You may o drag the bottom of the Swatches panel down to see more of the content.

4 Click and drag the swatch named "Sign Bg" in the color group to the right of the PANTONE 137 C 70\% swatch. Leave the Swatches panel open.


Tip: Aside from dragging colors in or out of a color group, you can rename a color group, reorder the colors in the group, and more.

Tip: You can also choose a different color variation (different from the default Tints/Shades), such as Show Warm/Cool, by clicking the Color Guide panel menu icon (兯) and choosing one.

You can drag colors into or out of a color group. When dragging into a color group, make sure that you see a line appear on the right edge of a swatch within the group. Otherwise, you may drag the swatch to the wrong place. You can always choose Edit > Undo Move Swatches and try again.

## Creative inspiration with the Color Guide panel

The Color Guide panel can provide you with color inspiration as you create your artwork. You can use it to pick color tints, analogous colors, and much more, and then apply them directly to artwork, edit them using several methods, or save them as a group in the Swatches panel. Next, you'll use the Color Guide panel to select different colors for a few pencils that will become part of a logo, and then you'll save those colors as a color group in the Swatches panel.
1 Choose 2 Pencils 1 from the Artboard Navigation menu in the lower-left corner of the Document window.

2 With the Selection tool $(\boldsymbol{N})$, click the darker green pencil body. Make sure that the Fill box is selected in the Tools panel or Swatches panel.

3 Choose Window > Color Guide to open the panel. Click the Set Base Color To The Current Color button ( $\square$ ) (see the following figure).

This allows the Color Guide panel to suggest colors based on the color showing in the Set Base Color
 To The Current Color button. The colors you see in the Color Guide panel may differ from what you see in the figure. That's okay. Next, you'll experiment with colors using Harmony Rules.

4 Choose Analogous from the Harmony Rules menu (circled in the following figure) in the Color Guidepanel.

A base group of colors is created to the right of the base color (darker green), and a series of tints and shades of those colors appears in the body of the panel. There are lots of harmony rules to choose from, each instantly generating a color scheme based on any color you want. The base color you set (green) is the basis for generating the colors in the color scheme.


5 Click the Save Color Group To Swatch Panel button ( [四) at the bottom of the Color Guide panel to save the base colors (the five colors at the top) in the Swatches panel as a group. Leave the panel open.

6 Choose Select > Deselect.
In the Swatches panel you should see the new group added. You may need to scroll down in the panel.

Next, you'll experiment with the colors in the color group that you just created to create an alternate group of colors.

7 In the list of swatches in the Color Guide panel, select the fifth color from the left in the fourth row (see the figure). If the pencil body were still selected, it would now be filled with a yellow/green.


- Note: If you choose a different color variation than the one suggested, your color will differ from those in the rest of this section.

Tip: With no selected, you could also double-click the Color Group icon (the folder) to open the Edit Colors dialog box.

8 Click the Set Base Color To The Current Color button ( $\square$ ) (circled in the following figure) to ensure that all colors that the panel creates are based on that same yellow/green.

9 Choose Triad 2 from the Harmony Rules menu.
10 Click the Save Color Group To Swatch Panelbutton (께) to save the colors as a group in the Swatches panel.


## Editing a color group in the Edit Colors dialog box

When you create color groups in the Swatches panel or in the Color Guide panel, you can edit the swatches in the group either individually (by double-clicking each in the Swatches panel) or together. In this section, you'll learn how to edit the colors of a color group saved in the Swatches panel using the Edit Colors dialog box. Later, you will apply those colors to artwork.

1 Choose Select > Deselect (if it’s available).
Deselecting right now is important! If artwork is selected when you edit the color group, the edits can apply to the selected artwork.

2 In the Swatches panel, click the Color Group icon ( $\square$ ) to the left of the colors in the bottom color group (the one you just saved) to ensure that it’s selected. It's circled in the figure.

3 Click the Edit Color Group button (중) at the bottom of the Swatches panel to open the Edit Colors dialog box.

The Edit Color Group button (줭) appears in multiple locations, like the Swatches and Color
 Guide panels. The Edit Colors dialog box allows you to edit a group of colors in various ways or even to create new color groups. On the right side of the Edit Colors dialog box, under the Color Groups section, all of the existing color groups in the Swatches panel are listed.

4 Select the name "Color Group 2" in the field above the Color Groups section if not already selected (circled in the figure), and rename the group Pencil Colors. This is one way you can rename a color group.


Next, you'll make a few changes to the colors in the Pencil Colors group. On the left side of the Edit Colors dialog box, you can edit the colors of each color group, either individually or together, and edit them visually or precisely using specific color values. In the color wheel, you'll see markers (circles) that represent each color in the selected group.

5 In the color wheel on the left side of the dialog box, dragthe blue circle, called a marker, in the lower-left section of the color wheel down and to the left just a little bit.

Moving the color markers away from the center of the color wheel increases saturation, and moving them toward the center decreases saturation. Moving a
 color marker around the color wheel (clockwise or counterclockwise) edits the hue.

6 Drag the Adjust Brightness slider below the color wheel to the right to brighten all the colors at once.

Next, you will edit the colors in the group independently and then save the colors as a new named group.
7 Click the Unlink Harmony Colors button ( ( ®al $^{2}$ ) so it looks like this (\$in the Edit Colors dialog box to edit the colors independently.

< Tip: You'll notice that all of the colors in the group move and change together. This is because they are linked together by default.

- Note: The largest yellow/green marker is the base color of the color group that you set in the Color Guide panel initially.
- Note: You can match the $\mathrm{H}, \mathrm{S}, \mathrm{B}$ (hue, saturation, brightness) values below the color wheel in the Edit Colors dialog box to mimic what you see in the figure, if you want to match exactly the color I achieved.
- Note: The figure shows the result of changing the CMYK values.
- Note: It's okay if the color markers in your Edit Colors dialog box are different from those shown in the figure.

The lines between the color markers (circles) and the center of the color wheel become dotted, indicating that you can edit the colors independently. Next, you'll edit just one of the colors, since they are now unlinked. You will edit that color by using specific color values rather than by dragging the color in the color wheel.

8 Click the Color Mode icon (三) to the right of the H, S, B values below the color wheel, and choose CMYK from the menu, if the CMYK sliders are not already visible.


9 Click to select the top red/purple marker on the right side of the color wheel. Change the CMYK values to $C=29, M=80, Y=100$, and $K=28$.

Notice that the marker has moved in the color wheel, and it's the only one that moved. That's because you clicked the Unlink Harmony Colors button. Leave the dialog box open.

10 Click the Save Changes To Color Group button (这) in the upperright corner of the Edit Colors dialog box to save the changes to the color group.

If you decide to make changes to colors in another color group, you can select the color group you want to edit on the right side of the Edit Colors dialog boxand edit the colors on the left side.


You can then save the changes to the group by clicking the Save Changes To Color Group button（馗）in the upper－right corner of the dialog box．

11 Click OK to close the Edit Colors dialog box．
The changes to the colors in the group should show in the Swatches panel．Don＇t worry if the colors you see don＇t exactly match the figure．

12 Choose File＞Save．


## Editing colors in artwork

You can also edit the colors in selected artwork using the Recolor Artwork command．It＇s really useful when global swatches weren＇t used in the artwork． Without using global colors in your artwork，updating a series of colors in selected artwork may take a lot of time．Next，you will edit the colors for pencil artwork that was created with some colors that were not global swatches．

1 Choose Select＞All On Active Artboard to select all of the artwork．

2 Click the Recolor button in the Properties panel to open the Recolor Artwork dialog box．

The options in the Recolor Artwork dialog box allow you to edit，reassign，or reduce the colors in your selected artwork and to create and edit color groups．You＇ll probably notice that it looks an awful lot like the Edit Colors dialog
 box．The big difference is that instead of editing color and color groups，as well as creating color groups to apply later，you are dynamically editing colors in the currently selected artwork．

3 In the Recolor Artwork dialog box，click the Hide Color Group Storage icon（⿴囗 on the right side of the dialog box（circled in the following figure）to hide the color groups temporarily．

Like in the Edit Colors dialog box，all of the color groups in the Swatches panel appear on the right side of the Recolor Artwork dialog box（in the Color Groups storage area）．In the Recolor Artwork dialog box，you can apply colors from these color groups to the selected artwork．In this part of the lesson，you just need to edit the colors found in the selected artwork．
－Note：If a dialog box appears after clicking OK，click Yes to save the changes to the color group in the Swatches panel．

Tip：You can also choose Edit＞ Edit Colors＞ Recolor Artwork．

Tip：If you want to return to the original logocolors，clickthe Get Colors From Selected Art button
－Note：If you don＇t see the CMYK sliders， choose CMYK from the menu（ of the sliders in the Recolor Artwork dialog box．

4 Click the Get Colors From Selected Articon（ $\Delta$ ）in the upper－right corner of the Recolor Artwork dialog box，to make sure that the colors from the selected artwork are showing in the Recolor Artwork dialog box．

5 Click the Edit tab to edit the colors in the artwork using the color wheel．

6 Make sure that the Link Harmony Colors icon is disabled so that you can edit all of the colors independently．The Link Harmony Colorsicon should look like this：因，not like this：艮．

The lines between the color markers（circles）and the center of the color wheel should be dotted． When you created a color group，you worked with the color wheel and the CMYK sliders to edit color．This time，you will adjust color using a
 different method．

7 Click the Display Color Bars button（四）to show the colors in the selected artwork as bars．

8 Click the darker orange color bar to select it．
9 At the bottom of the dialog box，change the M value（Magenta）to 100．If the Recolor Artwork dialog box isn＇t in the way，you should see the artwork changing．

10 Click the light orange color bar to the right of the currently selected color bar．With the pointer over the light orange color bar，right－click and
 choose Select Shade from the menu that appears． Click in the shade picker，and drag to change the color of the color bar．Click away from the shade menu to close it．


Click the dark orange color bar and edit it．


Choose Select Shade with the light orange color bar selected．


Change the shade．

Editing the colors as bars is just another way to view and edit the colors, and there are so many options for editing. To learn more about these options, search for "Color groups (harmonies)" in Illustrator Help (Help > Illustrator Help).

## Tip: You can save the edited colors as a color group by clicking the Show Color Group ( ( ) on the right side of the dialog box and then clicking the New Color Group button ( $\square$ ).

11 Click OK in the Recolor Artwork dialog box.
12 Choose Select > Deselect and then choose File > Save.

## Working with Adobe Color Themes

The Adobe Color Themes panel (Window > Color Themes) displays color themes you have created and synced with your account on the Adobe Color CC website (https://color.adobe.com/). The Adobe ID used in Illustrator CC is automatically used to sign in to the Adobe Color CC website, and the Adobe Color Themes panel is refreshed with your Adobe color themes.

## Assigning colors to your artwork

In the previous section, you learned that you can edit colors in existing selected artwork in the Recolor Artwork dialog box. You can also "assign" colors from an existing color group to your artwork in the Recolor Artwork dialog box. Next, you'll assign a color group to other artwork.

1 Choose 3 Pencils 2 from the Artboard Navigation menu in the lower-left corner of the Document window.

2 Choose Select > All On Active Artboard to select the colored pencil artwork.

3 Click the Recolor button in the Properties panel to open the Recolor Artwork dialog box.

4 Click the Show Color Group Storage icon (\$) on the right side of the dialog box to show the color groups, if they aren't already showing. Make sure that, in the top left of the dialogbox,
 the Assign button is selected.

On the left side of the Recolor Artwork dialog box, notice that the colors from the selected pencil artwork are listed in the Current Colors (7) column, in what is
 the ordering of the color wheel: red, orange, yellow, green, blue, indigo, and violet.

- Note: If the artwork colors do not change, make sure that Recolor Art is selected in the lower-left corner of the Recolor Artwork dialog box.

5 Under Color Groups in the Recolor Artwork dialog box, select the Pencil Colors color group you created earlier. The selected artwork on the artboard should change in color.


On the left side of the Recolor Artwork dialog box, notice that the colors from the Pencil Colors color group are assigned to the colors in the pencil artwork. The Current Colors column shows what the color originally was in the pencil artwork, and an arrow to the right of each of those colors points to the New column, which contains what the color has become (or has been reassigned to).

- Note: White, black, and grays are typically preserved, or unchanged, when you assign a color group.

6 Click the Hide Color Group Storage icon (\$) to hide the color groups. Drag the dialog box by the title bar at the top so that you can see the artwork.

7 Click the small arrow to the right of the cream-colored bar in the Current Colors column (see the following figure).

This tells Illustrator not to change that color in the selected artwork (the pencil artwork). You can see that reflected in the artwork on the artboard.


You also might not like how the colors in the Pencil Colors group were assigned to your artwork. You can edit the colors in the New column in different ways, even reassigning current colors. That's what you'll do next.

8 Drag the lighter blue bar up, on top of the darker blue bar in the Current Colors column.


Essentially, you just told Illustrator to replace the darker blue and the lighter blue with the magenta (red) color in the New column. Illustrator assigns both colors using the same tint values as the original colors.
9 In the New column, drag the top yellow color box in the column down on top of the blue color and release the mouse button.


This is one way that you can reassign the group colors to the colors in the artwork. The colors in the New column show what you see in the artwork. If you click one of the colors in the New column, notice that the CMYK sliders at the bottom of the dialog box let you edit that one color.

TTip: You can also double-click a color in the New column to edit it in the Color Picker.

- Note: To learn more, search for "Working with color groups" in Illustrator Help (Help > Illustrator Help).

10 Click the burgundy (red) color box in the New column (circled in the figure). Change the Y value (Yellow) to 100, if necessary.

11 Click the Show Color Group Storage icon (Don the right side of the dialog box to show the color groups.

12 Click the Save Changes To Color Group button (离) in the upper-right corner of the Recolor Artwork dialog box to save the changes to the color group without closing the dialog box.


13 Click OK to close the Recolor Artwork dialog box. The color changes that you just made to the color group are saved in the Swatches panel.

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


There are many kinds of color edits that can be made to selected artwork in the Recolor Artwork dialog box, including reducing the number of colors, applying other colors (like Pantone colors), and much more. You can close the Color Guide panel group and the Swatches panel group.

## Working with Live Paint

Live Paint lets you paint vector graphics intuitively, by automatically detecting and correcting gaps that might otherwise affect the application of fills and strokes. Paths divide the drawing surface into areas that can be colored, whether the area is bounded by a single path or by segments of multiple paths. Painting objects with Live Paint is like coloring in a coloring book or using watercolors to paint a sketch, and the underlying shapes are not edited.

## Creating a Live Paint group

Next, you will paint artwork using the Live Paint Bucket tool.
1 Choose 4 Live Paint from the Artboard Navigation menu in the lower-left corner of the Document window.

2 With the Selection tool ( $)$ selected, drag across the artwork at the top of the artboard to select it.

The artwork is composed of a shape and three lines that were drawn on top of the shape.

3 Select the Live Paint Bucket tool from the
 Shape Builder tool (Q) group in the Tools panel.

4 Click the Fill box in the Properties panel on the right to reveal a panel. Click the Swatches option at the top of the panel to see the swatches. Click to select the green swatch named "Light Green" in the original Palette Colors color group.

5 Position the pointer over the first part
 of the shape (on the left), and click to convert the selected shapes to a Live Paint group.


You can click any of the shapes to convert it to a Live Paint group, but the shape you click is filled with the green color. Clicking selected shapes with the Live Paint Bucket tool creates a Live Paint group that you can paint with that same tool. Once a Live Paint group is created, the paths are fully editable, but they are treated like a group. Colors are automatically reapplied to new regions created when you move or adjust a path's shape.

- Note: To learn more about Live Paint and all that it can do, search for "Live Paint groups" in Illustrator Help (Help > Illustrator Help).
- Note: You may need to Press Esc to hide the panel.

Tip: You can
selected artwork to a Live Paint group by choosing Object > Live Paint > Make.

Note: As you press the arrow key to change colors, notice, in the Swatches panel, that the color is highlighted. You can press the up or down arrow key, along with right or left arrow keys to select a new swatch to paint with.

Tip: With the live Paint Bucket tool selected in the Tools panel, you can also click the Tool Options button at the top of the Properties panel to open the tool options dialog box.

## Painting with the Live Paint Bucket tool

After objects are converted to a Live Paint group, you can paint them using several methods, which is what you'll do next.

1 Position the pointer over the area to the right of the green area, in the Live Paintgroup.

A red highlight appears around the shape that will be painted, and three color swatches appear above the pointer. The selected color (light green) is in the middle, and the two adjacent colors in the Swatches panel are on either side.

2 Press the right arrow key once to select the orange swatch (shown in the three swatches above the pointer). Click to apply the orange color to the shape.

3 Click the Fill box in the Properties panel on the right and click to select the swatch named "Pink." Click in the area to the right of the orange area. See the following figure.

4 Click the Fill box in the Properties panel on the right and click to select the swatch named "Blue," and then click in the area to the right of the pink area.

By default, you can only paint fills with the Live
 Paint Bucket tool. Next, you'll see how to enable painting of strokes with the Live Paint Bucket tool.


5 Double-click the Live Paint Bucket tool in the Tools panel. This opens the Live Paint Bucket Options dialog box. Select the Paint Strokes option and then click OK.


6 Click the Stroke box in the Properties panel (亘) on the right, and select None ( $\square$ for the stroke color. Press the Escape key to hide the panel.

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7 Position the pointer directly over the path extending beyond the colored areas, as shown in the figure. When the pointer changes to a paintbrush ( . .), click the stroke to remove the stroke color (by applying the None swatch). Do
 the same for the two other strokes extending out.

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


## Modifying a Live Paint group

When you make a Live Paint group, each path remains editable. When you move or adjust a path, the colors that were previously applied don’t just stay where they were, like they do in natural media paintings or with image-editing software. Instead, the colors are automatically reapplied to the new regions that are formed by the intersecting paths. Next, you will edit paths in a Live Paint group.

1 Select the Selection tool ( $)$, and drag across the gray rectangle and brown handle at the bottom of the artboard. See the first part of the following figure.

2 Choose Object > Live Paint > Make.
3 Drag the selected group straight up so that the group and the white rectangle aboveitoverlap.

4 With the Selection tool, Shift-click the white rectangle to select both objects.
5 Choose Object > Live Paint > Merge to add the new white shape to the Live Paint group.


6 Select the Live Paint Bucket tool in the Tools panel. Click the Fill color in the Properties panel and select a lighter gray color. Click to paint the top part of the paintbrush. Click to select a darker gray color for the fill color in the Properties panel and click the overlapping area.


Tip: You could also edit the anchor points of the selected artwork using the Direct Selection tool $\downarrow$ ), for instance. The paths are still editable, and the colors are reapplied to the new regions that are formed by edited paths.

7 Select the Selection tool, and with the Live Paint object selected, double-click the Live Paint object to enter Isolation mode.

8 Click the bottom gray shape (right above the brown "handle"). Drag the top-middle bounding point up to resize it.

Notice how the color fill and stroke changes every time you release the mouse button.


9 Choose Select > Deselect and then press the Escape key to exit Isolation mode.

10 Choose Object > Show All to show the end of the paintbrush that I hid in the file. An arrow is pointing to it in the following figure.

11 Choose View > Fit All In Window.


12 Choose File > Save and then choose File > Close.

