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• Adobe  
**Illustrator CC**  
2015 release

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## CLASSROOM IN A BOOK®

The official training workbook from Adobe  
INSTRUCTOR NOTES

Adobe® Illustrator® CC Classroom in a Book® (2015 release)

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# INSTRUCTOR NOTES

## Getting Started

The Adobe Illustrator CC Classroom in a Book™ (2015 release) course presents students with tips, techniques, and solutions for using the Adobe Illustrator CC software. The Instructor Notes are intended to complement the information in the Lessons. The information presented here is organized to follow the sequence of instruction in each lesson.

## About the workbook

It is recommended that each student in the class have an individual copy of the Adobe Illustrator CC Classroom in a Book (2015 release). Students will use this book as you lead them through projects. Additionally, the book can be used as a self-paced tutorial. There are separate lesson files that are available to those who purchase the book as well, and those are separate from the lesson files supplied with these instructor notes. Purchasers will find instructions for accessing the lesson files in the Getting Started section of the book, in “Accessing the Classroom in a Book files”

## Web Edition

This book comes with a free Web Edition that enhances the instructional value of the book itself and can be accessed from any device with a connection to the Internet. The Web Edition contains the complete text of the book, plus hours of instructional video keyed to the text and interactive quizzes. In addition, the Web Edition will be updated when Adobe adds significant feature updates between major Creative Cloud releases. See the “Web Edition” section in the book’s Getting Started section for more information.

## Course strategy

If you’re teaching a 12-session class, you can teach approximately one lesson of this book per class. The book contains 15 lessons (plus the Quick Tour lesson), some of which may take a while to complete. If you are teaching a 10-session class, you may want to combine some of the lessons into a single class. For example:

- 1** Lessons 2, 3, 4, and 5 are focused on different aspects of creating and editing shapes and other content.
- 2** Lessons 7 and 10 are both focused on working with different aspects of color.

We recommend that, at an absolute minimum, you teach Lessons 1 through 9 along with 12 (Lessons 10–11 and 13–15 cover more special-purpose features). The majority of the basic Adobe Illustrator features and the Illustrator work environment are covered in these lessons. However, completing all the lessons makes a far superior introduction. Before beginning a lesson, encourage students to browse through it, and read any sidebars.

 **Note:** Make sure that all Notes found in the text and in the sidebar are read! They can contain helpful, even problem-solving information.

## Enhanced/new features

Below is a short list of the new and improved features in Illustrator CC and where they are covered in the book.

- 1 In Lesson 1, pages 47–48 I introduce zooming using animated zoom. This is a feature of GPU Performance. See the sidebar on page 48 entitled “GPU Performance.” If the machines students are working on do not support GPU Acceleration, the animated zoom found in step 6 on page 48 will not work. Instead, a marquee will be drawn that becomes the zoom area. On page 56, in the sidebar entitled “Data Recovery,” you’ll see that Illustrator now recovers applicable documents if a crash occurs.
- 2 In Lesson 1, on page 54 in Lesson 1, I mention that on Mac “all the workspace elements are grouped in a single, integrated window that lets you treat the application as a single unit.” This is called the Application Frame (Window > Application Frame) and is now on by default on Mac.
- 3 In Lesson 2, is the first occurrence of smart guides. The Smart Guides are now magenta in color by default. In previous versions of Illustrator, the Smart Guides were aqua in color.
- 4 In Lesson 3, on page 85, step 9, I introduce a new feature in Smart Guides—equivalent gaps. Throughout lesson 3, we discuss a series of new features related to live shapes including transformation options.
- 5 In Lesson 3, on pages 94–97, I introduce the Shaper tool.
- 6 In Lesson 13, pages 370–371, students will learn about the new feature called “Dynamic” symbols.
- 7 In Lesson 13, pages 378–383, there is a new section on working with Creative Cloud Libraries.
- 8 In Lesson 15, starting on page 446, students will learn about the new SVG export functionality.

## Managing student projects

One way to simplify file storage and retrieval in classroom situations is to ask students to create a folder on their hard disks, name it [Student's] Lessons (substituting the student's actual name for "Student"), and then copy each project folder into the main Lessons folder. Having students keep all their working files in their own Lessons folder makes it easy for you to clean up files when a class is over.

This method for organizing folders is also discussed in the Getting Started section at the beginning of the book.

## Additional resources

Instructors and users of Adobe Illustrator rely on a variety of resources to supplement their knowledge of the program. You may find the following resources useful to explore.

*Adobe Illustrator CC Classroom in a Book (2015 release)* is not meant to replace documentation that comes with the program or to be a comprehensive reference for every feature. Only the commands and options used in the lessons are explained in this book. For comprehensive information about program features and tutorials, please refer to these resources:

**Adobe Illustrator Help and Support:** <http://helpx.adobe.com/illustrator.html> is where you can find and browse Help and Support content on Adobe.com. Adobe Illustrator Help and Adobe Illustrator Support Center are accessible from the Help menu in Illustrator CC (2015 release) or by pressing F1.

**Adobe Creative Cloud Learning:** For inspiration, key techniques, cross-product workflows, and updates on new features, go to the Creative Cloud Learn page at <http://helpx.adobe.com/creative-cloud/learn/tutorials.html>. This learning content is available to all.

**Adobe Forums:** <http://forums.adobe.com> lets you tap into peer-to-peer discussions, questions, and answers on Adobe products.

**Adobe TV:** <http://tv.adobe.com> is an online video resource for expert instruction and inspiration about Adobe products, including a How To channel to get you started with your product.

**Adobe Inspire:** [www.adobe.com/inspire.html](http://www.adobe.com/inspire.html) offers thoughtful articles on design and design issues, a gallery showcasing the work of top-notch designers, tutorials, and more.

**Resources for educators:** [www.adobe.com/education](http://www.adobe.com/education) and <http://edex.adobe.com> offer a treasure trove of information for instructors who teach classes on Adobe software. Find solutions for education at all levels, including free curricula that use an integrated approach to teaching Adobe software and can be used to prepare for the Adobe Certified Associate exams.

# A QUICK TOUR OF ADOBE ILLUSTRATOR CC (2015 RELEASE)

This lesson is for those users who wish to explore the major features that Illustrator has to offer. For an introductory course, this may be useful if time is short and a lot of ground in the program needs to be covered. Know that this lesson is a cursory overview that references the lessons in the book for more information on the topics learned.

It may be helpful to point out a few sections that students may need a bit more assistance with.

## **Editing Strokes**

In this section, I tell students to press the Escape key in step 3. As students will learn quickly, if values are typed into fields, invariably the last value typed in before pressing Escape may not be captured. Have students press Enter or Return to accept the last typed value AND close the panel.

## **Drawing with the Pencil tool**

When the students draw the path with the Pencil tool, make sure that they don't draw it too large. I mention looking at the rulers to get a sense of scale.

## **Drawing with the Shaper tool**

On pages 19–20, students are asked to draw a series of circles. Make sure that those shapes overlap each other (like in the figures). Also, make sure students know that they can undo if needed.

On page 20, step 10, students may need to deselect the selected shape BEFORE dragging, otherwise they may only drag the one shape. This functionality changed after the book went to press.

## **Creating and editing gradients**

Pages 22–23: The white to black gradient (blend of colors) that students are asked to apply to the lettering can also be applied in the Fill color of the Control panel. I have them apply it in the Gradient panel because we also need to edit the gradient and it is done in the panel as well.

## **Working with Type**

On pages 23–25, when students work with type, they are asked to sync a Typekit font. This requires an Internet connection. Students do not have to use a Typekit font if they don't want to or don't have access to them. A suitable sans serif font could be Myriad Pro Black, for example.

## **Working with Symbols**

On page 28, students type in CMYK values. They are asked to press the Escape key in step 11 to close the panel. This is a good time to discuss entered values and pressing Escape. The last value is dismissed usually. Students can click in another field or press Enter or Return to accept the last value and close the panel.

# LESSON 1: GETTING TO KNOW THE WORK AREA

This lesson provides an overview of the work area and basic functionality of Illustrator. By the end of the lesson, students should understand how all the basic Illustrator elements work together to create page layouts. They should also understand the overall interface of Illustrator, including how to access panels, where tools are located, and how to navigate documents.

If your machine (Mac OS or Windows) supports it, depending on the machine and graphics card used, students may see a “compatible GPU” message appear after wiping Illustrator preferences and opening an initial file. This is used for a GPU accelerated Preview mode that enables rendering of the artwork in Illustrator on the graphics processor.

## Introducing Adobe Illustrator

Page 32: To show the differences between bitmap and vector, you may want students to create a circle in Adobe Illustrator, then choose View > Pixel Preview. Have them toggle the view on and off by using the keyboard shortcut Alt+Ctrl+Y (Windows) or Option+Command+Y (Mac OS). Zooming in on the artwork will help to see the differences as well.

## Finding tools in the work area

You may want to introduce students to the Illustrator environment by providing a general tour of the workspace. This helps orient the students and provides a review of the names of the elements on the screen. For example, you may point out the title bar and remind the students that it indicates which publication is currently active. Then point out the menu bar, the rulers, the tool icons, and the panels.

Students may already be used to keyboard shortcuts as a simple alternative to using the mouse. Illustrator and other Adobe products are designed to allow keys to be used simultaneously with the mouse. A common working technique used by many Illustrator professionals is to keep one hand on the mouse, and the other hand over the keyboard to switch tools and modes. You may want to demonstrate how this method allows the mouse pointer to remain directly over the part of the image that's being edited, since you're not always having to move the pointer back and forth between the image and the toolbox or menus. You don't have to encourage students to work this way in the beginning. They probably won't be ready to use the shortcuts until they have a good understanding of when they'll want to use each tool. With the introduction of touch-enabled devices (like the Microsoft Surface, for instance), the Illustrator user will work with the application in a different way. Later, in notes for this lesson, I'll dive into the touch workspace a bit more.

## **Understanding the workspace**

Page 35: One thing worth noting is that there is now little difference between Windows and Mac OS. The major difference now, on Windows the application menus are in the Application bar, whereas on Mac OS, the menus are above the Application bar. New in Illustrator CC (2015), the Application frame is always on for both platforms (Mac OS and Windows) (Window > Application Frame).

## **The Tools panel**

Pages 35–37: Many of the tools have popup options, which means that tools you need to access may be hidden beneath other tools. All the tools and all the popups are shown on page 35. The tool tips for each tool display its name and single-letter shortcut. Unfortunately, after going to press, the Illustrator team changed the shortcut for the Shaper tool. In the book, the shortcut shows as Shift+Z, when it is now Shift+N.

The Tools panel can be configured in various ways, including horizontally. You can also dock a floating tools panel in the workspace. Encourage students to explore the tools, since they will be using them a lot.

The figures for the lessons in this book were taken using Windows. For the book figures, the odd lessons are Windows, and the even lessons are Mac OS. We mention this because the Windows OS displays the Tools panel as a double-column and the Mac OS displays it as a single column (using the default screen resolution for each). Make sure that students read the notes available in each lesson, since they can lead to information on finding options in their workspace.

## **Panels and workspaces**

Pages 38–44: With the proliferation of panels in Illustrator, it's important to keep the workspace neat and organized. Encourage students to learn to open, close, dock, float, collapse, expand, and group panels to meet specific needs—then save that panel configuration as a workspace.

Hiding and showing all panels instantly allows quick evaluation of images without the distraction of panels, and when working on a small screen this practice more easily allows use of the entire screen for image editing. Let students know that they can save their customized panel positions by saving their workspace.

## **Resetting and saving your workspace**

Page 44: In Illustrator CC, in order to reset a workspace, you choose Window > Workspace > Reset workspace name, instead of choosing the name of the workspace. Throughout the workbook, there are notes telling users to reset the workspace, but in order to reset a workspace, it needs to first be selected (if it isn't already).

## Using panel menus

Page 45: Make sure students know that panels have menus that provide additional features and panel-customization options.

## Context menus

Page 45, step 6: Context menus are widely used throughout Illustrator—for example, you can modify an object's stroke weight from a context menu or perform a transformation. To display context menus, right-click on objects, within text, on artboards, and more. These helpful menus provide quick access to frequently used features.

Make sure that students understand that they are called contextual menus because what they are right-clicking determines what appears in the menu.

## UI Brightness

Page 46 (sidebar): Users can use the adjustable UI brightness to set their working preference for every day or for a particular project. Some students may find that they would like to lighten or darken the UI overall. The figures in the Classroom in a Book were taken using the default Medium Dark setting for the UI.

## Changing the view of artwork

Pages 48–51: While the Zoom tool works well, you can work more efficiently by holding down the modifier keys to temporarily activate the Zoom tools. Press Command+spacebar (Mac OS) or Ctrl+spacebar (Windows) to temporarily activate the Zoom tool, which allows you to quickly increase your magnification without having to switch tools. You can find other zoom controls in the View menu and on the Application bar.

On page 48, step 6: If students machines don't support GPU Acceleration, dragging will not animate the zooming. You can click the GPU Performance option (the rocket ship icon) in the Control panel to open Illustrator preferences and see if the machine supports it.

## Scrolling through a document

Page 49: Since Illustrator has the ability to create multiple artboards, navigating and scrolling are important. You can use the spacebar to temporarily activate the Hand tool to scroll through a document. When entering text, use the Alt (Windows) or Option key (Mac OS) to temporarily access this tool, rather than switching to using the Tools panel.

Another shortcut option is simply to use Option+spacebar (Mac OS) or Alt+spacebar (Windows) any time, no matter what context. Since there is the

possibility for multiple artboards, it is important to learn the Window > Fit Artboard In Window and Window > Fit All In Window commands.

## The Navigator panel

Page 51 (sidebar): The Navigator panel may become more important to users as they navigate multiple artboard documents. Tell students that when dragging the slider in the Navigator panel, they need to be patient. On some machines, the view seen in the panel may need to “catch up” with the dragging.

## Navigating Artboards

Pages 51–53: Other shortcuts that students may find useful are Ctrl+F6 (next document), Ctrl+Shift+F6 (previous document) (Windows) and Cmd+` (next document), and Cmd+Shift+` (previous document) (Mac OS).

Make sure that students utilize the Artboards panel for navigating, editing, naming, and more. In order to navigate to another artboard, make sure that students are not double-clicking the name of the artboard in the Artboards panel, but rather, double-clicking the number to the left or to the right of the artboard name.

## Arranging multiple documents

Pages 53–55: It is important to note that new windows are not the same as new documents. You can create multiple views of the same document, opening new windows as necessary. Each window is simply a separate view of the same document. The Application bar displays across the top of the screen by default, but can be hidden to save screen space (Mac OS only). The Control panel also displays across the top of the screen; most users keep it open but you may wish to move it to the bottom of the screen.

## Review questions

- 1 Name two ways that you can switch to another workspace.
- 2 If you are looking for a tool and it is not visible, where might it be located?
- 3 Name three things that can be done to the document using the Artboards panel.

## Review answers

- 1 By choosing either Window > Workspace > name of workspace, or choosing the workspace name from the workspace switcher in the Application bar.
- 2 Some tools are nested, as they are located behind other tools. You must click and hold down on a tool to select any tools that are nested behind it.

- 3** Utilizing the Artboards panel, you can: Add, reorder, rearrange, and delete artboards; reorder and renumber artboards; select and navigate through multiple artboards; specify artboard options such as presets, artboard size, and relative artboard position.

## Exploring on your own

You will open a sample file from Adobe Illustrator CC to investigate and use some of the navigational and organization features learned in this lesson.

- 1** Open the file named L1\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2** Perform the following on this document:
- 3** Practice zooming in and out. Notice that at the smaller zoom levels some text may be “greeked,” appearing as though it is a solid gray bar. As you zoom in closer, the text can be viewed more accurately.
- 4** Save zoomed-in views using View > New View for different areas, such as artboard 1 and artboard 2.
- 5** Create a zoomed-in view of the “fiber” logo on artboard 1 in Outline View.
- 6** Enlarge the Navigator panel and use it to scroll around the artboards and to zoom in and out.
- 7** Navigate between artboards using the Artboard Navigation menu and buttons in the lower-left corner of the Document window.
- 8** Navigate between the artboards using the Artboards panel.
- 9** Create a Saved workspace (Window > Workspace > New Workspace) that shows only the Tools panel, Control panel, and Layers panel.
- 10** Choose File > Close without saving.

# **LESSON 2: TECHNIQUES FOR SELECTING ARTWORK**

This lesson provides an overview of selecting objects and anchor points as well as the different ways to align them. By the end of the lesson, students should have a better understanding of what shapes are composed of (anchor points) and how to select, move, group, and align them.

## **Using the Direct Selection tool**

Page 62: It is really important that students understand the base functionality difference between the Selection and Direct Selection tools. When working with these tools, it may become easier to access the tool shortcuts (V-Selection tool or A-Direct Selection tool).

Smart guide measurement labels are also briefly discussed. Smart guides may be a bit overwhelming since they are turned on by default. Throughout the book we attempt to have users turn them on when necessary and turn them off otherwise.

## **Selection and anchor point preferences**

Page 63: Making the points larger and the handles a different icon can go a long way toward helping users select content and understand a drawing.

## **Creating selections with a marquee**

Pages 63–64: A problem may arise when users attempt to create a marquee and they inadvertently drag an object. Explain that this method of selection is not always the best solution. For instance, in artwork that contains a lot of objects, dragging a marquee may select too much. Mention to students that you can also Shift-drag across selected content to deselect it.

## **Selecting similar objects**

Page 65: Due to the fact that screen resolution may be different on monitors, the Select Similar Objects button may be hidden in the Control panel. You can always guide students to the menu items (Select > Similar > command).

The Select Similar commands are very similar to the Magic Wand tool in Illustrator. Double-click the Magic Wand tool and you get the Magic Wand panel full of selection options.

## **Selecting in Outline mode**

Page 66: Using Outline mode for selection can be very useful. Tell students of the

keyboard shortcuts associated with this command: (Ctrl+Y [Windows] or Cmd+Y [Mac OS]). While in Outline mode, one of the easier methods of selection is dragging a selection marquee since fills are not an issue.

## Aligning objects

Pages 67–69: Once again, most of the features such as align options, select similar, etc. are found in the Control panel when contextually necessary for what is selected on the artboard. You will find that smaller resolution monitors place shortcuts in the Control panel for align options (the word Align) rather than the align options themselves. In the early lessons, we remind students several times to look for either option (depending on their screen resolution). In later lessons, it is assumed that they are familiar with this.

In the “Aligning anchor points” section (page 68), make sure that students understand that the last point selected is the key object (there is no real visual feedback indicating this). The “Aligning to the artboard” section (page 69) describes the Align To Selection button and the Align To Artboard button as ways to tell whether or not the align to artboard function is active. If students don’t see those buttons, once again, they may need to click the word Align in the Control panel to see it in the Align panel.

Also, make sure to emphasize that aligning multiple objects as one object to the artboard can be tricky if they are not first grouped.

## Working with groups

Pages 70–72: Isolation mode has gotten better and better over the versions of Illustrator. Even if users do not like working in Isolation mode, it is very useful to see what it is in case they ever enter the mode accidentally. Also, in most cases, the Escape key exits Isolation mode.

## Exploring object arrangement

Pages 72–74: It is useful to understand that in order to select behind objects (“Selecting objects behind” on pages 73–74), you need to ensure that the pointer is positioned over the overlapping content of the objects that are on top of each other. That is why it can be helpful to press Ctrl+Y (Windows) or Cmd+Y (Mac OS) to enter Outline mode, see where the object underneath is located, position the pointer over it, then press Ctrl+Y (Windows) or Cmd+Y (Mac OS) to exit Outline mode and follow the steps to select behind the object.

## Hiding and locking objects

Page 74: This simple method for hiding selections can keep students from selecting the wrong object. Remind students to use the keyboard shortcuts Ctrl+3 (Windows) or Command+3 (Mac OS) to hide a selection. Use Ctrl+Alt+3 (Windows) or Command+Option+3 (Mac OS) to Show All of the Hidden objects. If students don't want to show all hidden objects at once, suggest that they use layers, and reference Lesson 9, "Organizing Your Artwork with Layers."

## Applying selection techniques tip

Page 74: The tip towards the top of page 74 directs users to a PDF named "Selections.pdf" in the Lesson\_extras folder in the Lessons folder. This is content that is simply extra practice, or can be used as a separate lesson if you like.

## Review questions

- 1 When you have multiple objects selected, how do you deselect just one item?
- 2 Explain why a group might be useful.
- 3 What happens when you double-click a group?
- 4 Explain what a key object is.

## Review answers

- 1 To deselect a single object from selected objects, Shift-click the object you wish to deselect.
- 2 Groups are useful for simple organizing artwork, applying appearance properties as a whole to artwork, transforming artwork as a whole, and much more.
- 3 When you double-click a group with the Selection tool, the group enters Isolation mode, which temporarily ungroups and isolates the grouped objects.
- 4 When aligning objects or anchor points, a key object is the object or anchor point that other selected objects or anchor points align to.

## Exploring on your own

For those of you who have used the Illustrator CIB instructor notes for at least a few versions will probably recognize this lesson file. I like it so much that it may stay forever.

- 1** Choose File > Open, and open the L2\_explore.ai file.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>.

- 2** Experiment by cloning a star several times, using the Option (Mac OS) or Alt (Windows) key.
- 3** Select one of the stars, and then choose Select > Same or the Select Similar Objects button in the Control panel to select the other stars with similar appearance attributes.
- 4** Select three stars and arrange them, trying some of the distribute objects options in the Align panel options of the Control panel.
- 5** Select three stars and click one of them to set it as the key object. Align the other selected stars to the key object using the Align options in the Control panel.
- 6** With the stars still selected, choose Object > Group.
- 7** With the Selection tool, double-click one of the stars in the group to enter Isolation mode. Resize several of the stars by dragging each star's bounding box. Then press the Escape key to exit Isolation mode.
- 8** Close the file without saving.

# LESSON 3: USING SHAPES TO CREATE ARTWORK FOR A POSTCARD

This lesson provides an overview of creating shapes. By the end of the lesson, students should have a better understanding of what types of shapes they can create, as well as understand the ins and outs of Live Shapes. They will also leave with an understanding of how to trace raster images to create vector content.

## Creating a new document

Pages 78–79: Multiple artboards are covered in several different lessons. In this lesson, a new document with multiple artboards is created. In Lesson 5, “Transforming Artwork,” students will learn how to edit those artboards.

Point out that artboards can be edited later on and that you can have from 1 to 100 artboards in a given document. It is also helpful at this point to describe why multiple artboards can be useful. For instance, a designer needs to create several pieces for a client, including a business card and a postcard mailer. It is usually easier to create both pieces in one document using multiple artboards so that you can more easily organize content and share content between pieces.

## Working with basic shapes

Pages 80–94: By default, Smart Guides are turned on. Throughout this section, they are turned on and off. They are introduced on page 80, step 1 (bottom of the page), using the measurement labels. One thing worth noting is that as you drag to create shapes, and measurement labels appear, you achieve smaller increments if you are zoomed in closer to the artwork.

Also, the measurements (sizes) that are given in this lesson can be used as a guide. Remind students that artwork created can be precise or more organic.

On page 81, step 3, students are introduced to Live Shapes. Live Shapes, which now include rectangles, rounded rectangles, ellipses, and polygons, are editable after the fact—without switching from the drawing tool.

In step 3, point out the importance of working with Smart Guides in certain situations. Smart Guides can be a nuisance at times, but if students learn the shortcut for turning them on and off (Ctrl+U [Windows] or Command+U [Mac OS]), it will save them time and then maybe they’ll use them!

On page 81, step 4: Releasing the mouse button and then a modifier key or keys will be a recurring theme throughout the lessons in this book and one that should be learned early on.

## Rounding Corners

Pages 82–83: There are several ways to round the corners of shapes. For instance, in step 5 on page 83, they are asked to select a corner and set the radius to 0 (zero). They can also simply drag each corner widget all the way to the corner of the bounding box to set the radius to zero.

## Creating a rounded rectangle

On page 84, step 2, when students are rounding the corners of the shape, they may need to press the Down Arrow key many times to see a change. If they press and hold the Down or Up Arrow as they drag, it will change faster.

Page 84, step 4: Students are asked to click the Corner Type button in the Control panel. They may not see that depending on the resolution of their screen. You may find it interesting too, but in the Transform panel, where those options also appear, you cannot change the type of all 4 corners at one time, just the radius.

Page 85, step 9: Students may not see the equivalent gap hints if they drag the shape from the center.

## Creating and editing an ellipse

Pages 86–87: Ellipses are now Live Shapes which means you can edit them in many different ways after drawing it, without switching from the Ellipse tool. In this section, we also rely on Smart Guides quite a bit, so ensure that they are on.

## Creating and editing a circle

Pages 87–88: For the longest time (and it is STILL the case), in order to make a perfect circle, we would hold down the Shift key. I wanted students to know what the crosshairs were that appear in this section WITHOUT holding down the Shift key. Those are a part of the Smart Guides. They are a bit particular and require the pointer to be in the right position to create a circle, whereas the Shift key forces the ellipse to constrain.

## Creating and editing a polygon

Page 88, step 5: I have students press the letter D from time to time to set the default fill and stroke. It is faster and a shortcut I use all of the time. Let them know that it is only the keyboard modifier for the Default Fill And Stroke button found towards the bottom of the Tool panel (below the Fill and Stroke boxes).

Page 89, step 9: To me (and possibly you) it's really odd that the measurement label that appears when changing the radius of a polygon does not include a unit (like "in" for inches). Know that the unit is points and will not change in the current build even if you change the units for the document. You can see the radius in the

Transform panel (Window > Transform) at the correct unit.

Page 89, step 10: After the book was sent to press, the Illustrator team moved a few of the Live Shape “widgets” used to edit properties like number of sides on a polygon. In the figure for step 10, the widget is in the (now) wrong position. Students, in this instance, will most likely see it on a different side of the triangle.

## Drawing lines

Page 92: Step 7: Have students read the note BEFORE completing this step. The pattern can be transformed, and if they want it to appear the way it does before step 7, they should select Transform Patterns to see what happens.

## Creating a star

On page 93, step 4, have students take it slow. Creating a star with keyboard shortcuts can be a little rough at first. Remind them that they should not release the mouse button until the text in the step tells them to! To make things more confusing, if they make a mistake and wish to start again, the Star tool preferences will have changed, so they will be starting from where they left off. Before they continue, have them click the artboard with the Star tool selected and set the following in the Star dialog box: Radius 1: 25 pt, Radius 2: 50 pt, Points: 5. Click OK (those are the Star tool defaults). Delete the star that appears, and then try drawing it again. What you see in the Star dialog box are the settings for the tool.

Another way to create the star shape in this step is to click the artboard with the Star tool and set options in the Star dialog box that appears. Once the star is created, students will need to resize the star, possibly using the Transform panel. It can be a little overwhelming to attempt to use keyboard commands to set the difference in star radii in this step.

## Working with the Shaper tool

Pages 94–97: The Shaper tool is a whole new way to work in Illustrator and a favorite of mine. It’s intended for touch enabled devices and allows you to create gestures that are converted to live shapes. It can be a bit tricky to work with when using it with a mouse, so remind students they can always undo.

## Drawing shapes

Page 95, step 5: Students don’t need to scribble across the entire shape to remove it, only a portion of it. Use figure 4 as a guide for how large to make the initial ellipse.

## **Editing Shapes with the Shaper tool**

Page 95, step 2: When editing shapes with the Shaper tool, the Smart Guides don't play a large role. For simple dragging and resizing, most of the time, you won't see a measurement label, for instance. This can make it tricky to match the figures in the book. That's why in step 3 on page 96, I gave a bit of reference by mentioning the Transform panel.

## **Combining shapes with the Shaper tool**

Page 96, step 3: Make sure that students do not scribble into the larger circle, beyond the border of the smaller circle. This may yield unexpected results. If this happens, have them choose Edit > Undo and try again.

Page 97, step 10: Working with the individual shapes with the Shaper tool can be a bit tricky. For instance, if students attempt to click on one of the smaller circles that has been removed from the larger circle, the entire Shaper Group object may become deselected.

## **Working with Draw Behind mode**

Pages 98–99: Make sure that the students select the Draw Normal mode when they are done drawing objects behind!

## **Using the Draw Inside mode**

Pages 99–100: The Draw Inside mode can be a bit tricky. Essentially the large ellipse becomes a clipping mask for the smaller ellipse. All of the same rules apply as working with clipping masks. Take students through how to double-click the clipping object (the ellipses) to enter Isolation mode, and practice selecting content. Students need to pay attention to what is selected—either the clipping path or the contents—when attempting to select anything.

## **Using Image Trace**

Pages 101–102: Image Trace can be a system-intensive operation, so it's a good idea to mention that before attempting it on a larger, more complex raster image. Also, talk about the benefits of linking to an image when placed, then tracing it. If the original image is edited in Photoshop, for instance, then the Trace object is updated when the image is updated in Illustrator.

If students attempt to trace an image that is pixelated or fuzzy (looks bad), then Image Trace will most likely have a hard time. If students want to, they can take images into Photoshop and increase the contrast (levels) on an image just to make it easier for Illustrator to trace the edges of an object.

## Review questions

- 1 Describe a few ways in which Smart Guides can be useful.
- 2 Name three ways to create a perfect circle with the Ellipse tool.
- 3 Explain what expanding an image tracing object does.
- 4 What purpose does the Shift key serve when drawing shapes?

## Review answers

- 1 Smart Guides let you align content, see measurement information in the measurement label, snap to content, and more.
- 2 To create a perfect circle with the Ellipse tool, you can click on the artboard and define the settings, draw with the Shift key pressed, or dragging (with Smart Guides enabled) until you see the crosshairs.
- 3 Expanding tracing objects enables you to divide a single object into multiple objects that make up its appearance. A tracing object would be expanded into the vector artwork that it contains.
- 4 By pressing the Shift key when drawing most shapes, you constrain the shape. For instance, pressing the Shift key when drawing with the Ellipse tool will create a perfect circle.

## Exploring on your own

Now you'll experiment with a few of the tools you learned in this lesson.

- 1 Open the L3\_explore.ai file.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 Experiment with shapes by creating the lamp shade (labeled "B") and the entire lamp labeled "A."
- 3 Drag the lamp shade (labeled "B") and the entire lamp labeled "A" onto the left artboard.
- 4 On the artboard on the right, select the "The LAMP SHOP" raster logo and trace it. Choose a preset from the Tracing Preset menu in the Control panel to make it look its best (and in color). Have students open the Image Trace panel and experiment with the settings. Make sure that they select the "Ignore White" option in the Advanced settings of the Image Trace panel.
- 5 Expand the traced artwork, scale it smaller, and drag it onto the artboard on the left.
- 6 Choose File > Close without saving the file.

# LESSON 4: EDITING AND COMBINING SHAPES AND PATHS

This lesson takes students beyond creating shapes. By the end of the lesson, students should have a better understanding of the ins and outs of selecting and editing. I really felt this content warranted a large part, that's why it's in a new lesson by itself this edition. One a side note, I really want to thank Dan Stiles (<http://www.danstiles.com/>) for supplying the artwork for this lesson!

## Cutting with the Scissors tool

Page 107, step 8: When you cut a path, it separates the single path into 2 open paths. That means two anchor points. If the students select the wrong anchor point somehow, they may accidentally drag the top part of the path, rather than the bottom.

## Joining Paths

In this section, we discuss the tried and true method of joining paths using the Join command. The Join tool is another method for joining paths that will be discussed in detail in Lesson 6.

## Using the Eraser tool

Pages 111–112: There are two things to point out with the Eraser tool. The first is that if nothing is selected, it erases whatever is in its path (unless it's locked or raster content). Just like with other tools, you can double-click the Eraser tool in the Tools panel and set some erasing properties, like size, if you like.

## Working with the Shape Builder tool

Page 113–114: There are several shortcuts for working with the Shape Builder tool, including Shift-dragging across selected artwork to combine them or Option+Shift-dragging (Mac OS)/ Alt+Shift-dragging (Windows) across selected artwork to create a marquee around paths to be deleted.

## Shape modes in the Pathfinder panel

Page 116, step 9: One question that lots of students ask is when should they (or do they ever need to) expand a compound shape as on page 105, step 11. A good rule of thumb is when you need to edit the shape further by combining it with other shapes or you need to be able to edit the anchor points of the combined shape, it's

a good idea to expand. Other reasons may include applying certain effects, creating a compound shape with another object, or creating slices for a web project from the content bounding box, for example.

## Using the Width tool

Pages 119–121: The Width tool can be tricky at times, especially when you work with width points that are close together. Have students zoom in closely to the path they edit. Take the students through the basics of working with the tool. Make sure to note that in order to create a new width point, you don't have to drag with the Width tool from the stroke of the original line. If you drag away from a stroke and create a curved shape, you could add another width point by dragging anywhere on the new curved stroke shape towards or away from the original line.

## Outlining strokes

Pages 121: Outlining strokes is a great way to turn a stroked line into a closed path. Make sure that students note that if the line initially has a color fill, a more complex group is created when you choose Outline Stroke.

## Finishing up the illustration

Pages 122: This section just gives students a brief opportunity to practice a bit of what they've learned in the past lessons—dragging and resizing artwork.

## Review questions

- 1 Describe what happens to an open path when you cut it with the Scissors tool.
- 2 What purpose does selecting artwork before erasing with the Eraser tool serve?
- 3 What is the difference between Shape Modes and Pathfinders in the Pathfinder panel?
- 4 What happens when you expand artwork in the Pathfinder panel?

## Review answers

- 1 Cutting an open path with the Scissors tool will split the path and create two open paths.
- 2 By selecting artwork before erasing with the Eraser tool, you define what can be erased. Whatever is selected can be erased.
- 3 They perform the same types of operations by default, but the shape modes can turn objects into compound shapes when a keyboard modifier is used.
- 4 Expanding artwork by clicking the Expand button in the Pathfinder panel commits to the pathfinder operation applied. The underlying artwork is affected.

# Exploring on your own

Now you'll experiment with a few of the tools you learned in this lesson.

**1** Open the L4\_explore.ai file.

This file is included in the instructor notes Zip file you downloaded from here:

<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

**2** On artboard 2 Apple, use the Knife tool to cut the apple shape and the leaf shape and change the color fills (see the existing apples on 1 Main Artwork).

**3** On artboard 3 Bird, have students do the following:

- Cut the path with the Scissors tool (labeled “A”). The point to cut has a red circle around it. Separate the points that are created at the cut and move the bird tail onto the main bird shape.
- Using the Eraser tool, erase part of the circle (labeled “B”) to create an eye. Drag the “eye” into position on the rest of the bird artwork.
- Group all of the artwork on that artboard.

**4** On artboard 4 Butterfly, have students do the following:

- Combine the paths labeled “A.” Duplicate and reflect that shape (Object > Transform > Reflect) to create two sets of wings for the butterfly. See the finished butterfly on the right side of the artboard.
- Copy the circle labeled “B” and paste a new one in the same position (on top of the existing circle). Make it smaller and create a compound path from the two circles (Object > Compound Path > Make). Change the color fill. Copy the compound path several times onto the wings of the butterfly.
- Drag the orange shape (labeled “C”) into the center of the butterfly.
- Group all of the artwork on that artboard.

**5** On artboard 5 Bird 2, have students do the following:

- Create the tail (labeled “A”) using the blue path and the Width tool. The tail should look something like the gray path to the right of the blue path.
- Group the tail with the blue bird body labeled “B” above it.
- Rotate the bird body and move it into position with the rest of the artwork on artboard 5.
- Group all of the artwork on that artboard.

**6** Drag all artwork from artboards 2–5 into position on artboard 1 Main Artwork (wherever the students like). Students may need to rotate/resize some of the artwork to fit.

**7** Choose File > Close without saving the file.

# **LESSON 5:** **TRANSFORMING ARTWORK**

This lesson provides an overview of the various transformation commands that can be used for editing content. By the end of the lesson, students should have a better understanding of the various methods for manipulating content by resizing, moving, rotating, skewing, and more.

## **Adding artboards to the document**

Pages 127–128: Multiple artboards are covered in several different lessons. This section introduces adding and editing artboards to an existing document. It's a good idea to let students know that the Artboard tool allows them to draw artboards, but they don't have to draw them. By choosing File > Document Setup or clicking the Document Setup button in the Control panel (with nothing selected on the artboard), you can also create artboards of preset sizes and more.

## **Editing artboards**

Pages 128–129: Illustrator provides several ways to edit artboards, including the Artboard tool, the Artboards panel, and using the artboards options in the Control panel. It is important to remember which artboard is selected when making edits. This is indicated by the number in the corner and the dark outline around the perimeter of the artboard in the Document window, as well as the highlighting of the artboard name in the Artboards panel.

## **Reordering artboards**

Pages 130–131: It is important for students to understand that the order in the Artboards panel only changes the order in which artboards are navigated when using the next or previous artboard commands. The order in the Artboards panel doesn't actually move the artboards in the document.

## **Working with rulers and guides**

Pages 132–134: As mentioned earlier, the zero, zero point is located in the upper-left corner of the active artboard. Guides can also be hidden by choosing View > Guides > Hide Guides. When working with documents that have different units on the rulers, users can right-click (Windows) or Control-click (Mac OS) on a ruler and choose a different unit from the context menu that appears.

A guide shortcut that we didn't reveal in the lesson is to press the Ctrl (Windows) or Cmd (Mac OS) key and drag from the upper-left corner of the rulers (where they meet) (like on page 133, step 8), onto the artboard. This creates a vertical and horizontal set of guides.

Page 134, step 10: Remind students that they can Shift-double-click the ruler at approximately 1/4 inch. They can then change the Y value of the guide to -.25 in. (with it still selected) in the Control panel (or Transform panel).

## Positioning objects precisely

Pages 135–136: Throughout this section students must select the correct artboard in order to position content to the upper-left corner of each using the Transform panel operations relative to the selected artboard. Good practice for getting used to transforming relative to an artboard.

## Scaling objects

Page 137, step 1: When users set the reference point locator, Illustrator remembers it for the next transformation. If the Transform panel were used again (before resetting program preferences), the reference point locator would need to be addressed.

At the end of the “Scaling objects” section, review with the students that several different methods can be used to scale. You may have the class discuss why each of them is useful:

- The Transform panel is best for scaling with numerical precision. Let students know that they can click on the X, Y, W, or H link in the Control panel to open the Transform panel.
- The bounding box is a convenient and intuitive way to scale, because it doesn't require using any special tools or panels.
- The Scale tool is a visual tool that allows precision, because you can scale by dragging, yet the center point and scale percentages can be set precisely if needed. Then point out that the same flexible range of choices is available for the other transformations that are covered later.

## Distorting objects with effects

Pages 139–141: The reason why a circle is selected along with the triangle, in step 5, is because rotating the triangle alone would not rotate it around the center point. By adding a circle to the mix, the artwork is rotated around the center.

## **Rotating objects**

Page 141–142: Before rotating selected artwork with the Rotate tool, users may click and set the rotation point. To clear the rotation point and reset it in the center, you can select another tool and then select the Rotate tool again.

After rotating content, the bounding box will be rotated as well (for circles and other shapes and artwork). Sometimes you want to reset the bounding box. You can do this by selecting the rotated content and then choosing Object > Transform > Reset Bounding Box.

## **Shearing objects**

Pages 143–144: Shearing can also be accomplished numerically in the Transform panel.

## **Transforming with the Free Transform tool**

Pages 145–147: While using the Free Transform tool, users don't have to use keyboard commands to apply the different types of transformations. The widget that appears when the Free Transform tool is selected also allows users that are on a touch-enabled device to easily transform content.

It is really important to pay attention to the pointers that appear when the student positions the pointer over different parts of the selected artwork. Also, have them pay close attention to dragging either the left or right direction handles of the selected artwork vs. dragging the top or bottom.

## **Creating a PDF**

Page 148: Make students aware that PDFs can be opened directly in Illustrator. If the PDF was created in Illustrator, and the “Preserve Illustrator Editing Capabilities” option was selected, the artwork will still be editable in Illustrator. If the PDF was created from another application or “Preserve Illustrator Editing Capabilities” was deselected, some editing features may be disabled when the PDF is opened in Illustrator.

## **Review questions**

- 1** How can you reset the ruler origin for an artboard?
- 2** If you enter coordinates into the Transform panel and the object moves to an unexpected position, what are two things to check?
- 3** What is the reference point locator used for?
- 4** Name three ways to scale an object.

## Review answers

- 1 To reset the rule origin, you double-click in the upper-left corner of the Document window where the rulers intersect.
- 2 When an object doesn't move as expected, make sure the point of origin and ruler origin are where you expect them to be. Objects are transformed relative to their point of origin, and object positioning occurs relative to the rulers' zero point.
- 3 The reference point locator lets you specify the reference point when you perform a transformation.
- 4 Scale can be accomplished using the Transform panel, the bounding box, and the Scale tool.

## Exploring on your own

- 1 Open the L5\_explore.ai file.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 In the project, on the “Card-front” artboard, transform the wheel logo so that it's 2 inches wide and resizes from the upper-left corner.
- 3 Copy the bike off the right edge of the “Card-back” artboard onto the “Card-back” artboard, and resize it using another method.
- 4 Position the larger image off the right of the “Card-front” artboard into the upper-left corner of the “Card-front” artboard, and ensure that it is behind the rest of the artwork on the artboard.
- 5 Try flipping the wheel in the logo on the “Card-front” artboard by double-clicking the logo to enter Isolation mode and selecting just the wheel (not the text).
- 6 Rename a few of the artboards and add another for the back of the envelope.
- 7 Rotate the RE-CYCLE IT logo on the Flyer artboard.
- 8 Close the file without saving.

# LESSON 6: CREATING AN ILLUSTRATION WITH THE DRAWING TOOLS

In the Illustrator Tools panel, the Pen tool serves an important purpose—to draw paths precisely, especially smooth curves. The Pen tool does this much more effectively than more natural drawing tools such as the Pencil tool. It isn't easy to learn the Pen tool. Students may be intimidated by it, and some may question whether it's worth the effort. In fact, proficiency with the Pen tool and the Bezier curve editing techniques associated with it are key career skills for digital artists. They're useful in a wide variety of situations, because they make quick work of complex curves that would take forever to draw precisely using other tools.

The Pen tool appears across the Adobe product line. It's essential for creating clipping paths and complex selections in Adobe Photoshop. In Adobe After Effects, Premiere, and InDesign, Bezier curve editing forms the basis for animation motion paths. The Pen tool is featured in the Adobe InDesign Tools panel for its utility in creating layout elements and clipping paths.

Luckily, there are alternatives to the Pen tool, including the Pencil tool (which allows you to create straight and curved lines), as well as the Curvature tool for drawing with more precision.

## An intro to drawing with the Pen tool

Pages 142–153: Use this section for a warm-up for teaching the fundamentals of the Pen tool, which can get lost when working directly on a project. Practice with the students on these specially designed exercise files to build their foundational skills before using the Pen tool for actual shape creation. Stress that students, while trying to draw on the templates and match them, should be focusing on understanding how the Pen tool works. Precision will come with practice!

## Drawing straight lines with the Pen tool

Page 156—157: When just starting with the Pen tool, it's usually best to turn off Smart Guides. In this section, students will see what it's like to draw with Smart Guides on. It can be a bit frustrating, especially setting the first point! It won't go where you click, most likely, since it's snapping to other content.

## Introducing curved paths

Page 157–158: Caution students about creating curves by creating more anchor points than necessary. This can cause jagged edges and increase file size. As long as

students remember to drag in the direction of the curve, the path should fall into place.

Remind students that if they make a mistake to NOT delete the point, but to use Edit > Undo Pen (or whatever undo command is showing) instead. This leaves the path active so that they do not accidentally create a new one.

Page 161, step 6: This important technique is much more effective when the keyboard is used to change the curved point to a corner point or vice versa. Show the students the effect by creating a square and selecting the Pen tool. Hold down Alt (Windows) or Option (Mac OS) to change the Pen tool to the Convert Anchor Point tool. Have the students click on a corner of the rectangle to see it change into a curved path, and click again to change it back into a corner point. Also, for those that do not like to use keyboard shortcuts, you can show them the Convert Selected Anchor Points To Smooth button and the Convert Selected Anchor Points To Corner button in the Control panel.

## **Creating artwork with the Pen tool**

Pages 165–169: As students move through this lesson, they may find curve drawing to be challenging, particularly the placement of points. Sometimes an analogy can help. For example, drawing paths can be like making curved shapes out of pushpins and wire. The best place to put the pushpins is at the points where each curve segment begins and ends. Then you shape the wire around the pushpins. Also, remind students to zoom in and out when necessary.

Page 167, step 6: This step shows the students how they can edit a path while still drawing a path with the Pen tool. It's important that students feel comfortable with the fact that they can edit while they draw or after they have finished drawing the path. It doesn't need to be perfect on the first attempt.

For most of the steps in this lesson, students may want to practice zooming to make it easier to see.

## **Drawing with the Curvature tool**

Pages 170–172: This section seems a little mean at first look. They just learned the basics of the Pen tool and may even be feeling a bit comfortable with it. Then we go and introduce a new drawing tool that produces exacting paths like the Pen tool, but with different techniques.

The Curvature tool is a “less demanding” tool than the Pen tool because it does not force you to deal with direction lines like the Pen tool. This can be a little limiting (to those of us used to the Pen tool), but it is meant to simplify path creation, enabling you to create, edit, add/remove, and toggle between smooth and corner points with the same tool.

If you want students to simply have more practice with the Pen tool, you can use it to create the dish instead. Some students may find the Curvature tool more intuitive and easier to work with.

Page 158, step 14: When students add the final point at I, where they place it may affect the next section when they join paths. If the points (A and I) aren't aligned with each other, the spoon they create may look off.

## Reflecting the spoon shape

Page 172: We added this section so that users could become familiar with drawing artwork that is completely symmetrical.

Page 172, step 5: This method is a faster way to set a reference (reflect around) point and open the Reflect dialog box. If students attempt to just click the anchor point in step 5 (without the key held down), and then double-click the Reflect tool or choose Object > Transform > Reflect, the reference point will be reset to the center.

Page 172, step 7: When students reflect the path (and copy it), then join the two halves of the spoon, the bottom of the spoon may not look right. Since the students reflect by selecting the top point of the spoon, the bottom point may not be horizontally aligned with the top point. This sounds confusing, but have students undo, align points A and I with each other horizontally, then try again.

## Editing paths and points

Pages 173–174: In the first few steps of this section, students copy just part of a closed path (the coffee cup). This can be a bit confusing. Remind students that when they drag across anchor points with the Direct Selection tool, they select the anchor points within the marquee selection along with the paths between those anchor points. Usually selecting in this way will lead to an open path.

## Deleting and adding anchor points

Page 175: Adding and deleting points can be frustrating. It's best to zoom in closely into the artwork. Students find that they accidentally click and create new points and/or paths. If this happens, encourage students to try and clean up their work by choosing View > Outline to see all of the stray points they may have accidentally added (and then select and delete them). They can also choose Select > Object > Stray Points to select all of the anchor points they may have created when they clicked off of the selected path. They can then delete them.

## Converting between smooth points and corner points

Page 176: There are several ways to convert between smooth and corner points as students will learn in this section. One of the harder things to do is to select the

point(s) that need to be converted. A best practice for selecting a single anchor point, when you don't know where all of the anchor points are, is to click the path with the Direct Selection tool to reveal all of the points, then either drag a marquee across or click the anchor point you need to select.

Page 163, step 5: Simply dragging the direction lines to sort of "match" is not going to make for the same curve on both sides on the bottom of the coffee cup. If precision is necessary, you could cut the bottom part of the cup and reflect/join the halves.

## **Adding arrowheads to a path**

Page 179: The book says that the arrowhead appears at the start of the line, the first anchor point added. The use of arrowheads is one instance in which path direction matters. In other words, if a student applies a Start arrowhead and it appears on the wrong end, that simply means the start of the path (the first anchor point drawn) is really the other end.

## **Working with the Pencil tool**

Pages 180–182: The Pencil tool is much more free-form than the Pen tool and can be a bit of a relief at times. Remind students to watch the Pencil tool pointer and make sure that an asterisk appears when they want to create a new path, rather than edit an existing one.

Page 181, step 9: When editing with the Pencil tool, the shape may change too drastically, depending on the settings in the Pencil Tool Options dialog box and how zoomed in the student is to the artwork. If they find that it keeps redrawing the entire shape, they can zoom in further, and bring the smoothness down in the Pencil Tool Settings dialog box.

## **Joining with the Join tool**

Pages 183–184: The Join tool is so much smarter than just the typical join command (Object > Path > Join). Make sure that students understand that. It doesn't make much sense to use the Join tool when the Join command will suffice. In this section, we only cover a few uses of the Join tool. Another potential use it to close the gap between two paths.

Now that students have experience with the Pen, Curvature, and Pencil tools, and ways to edit paths, you can suggest that they don't have to get locked into drawing specific types of paths with specific tools. They can start with any tool—the Pen, Curvature, Pencil, or a basic shape—and then fine-tune the path using any path-editing techniques they want. For example, they might sketch out a path by clicking corner points with the Pen tool, smooth it out with the Pencil tool or Smooth tool, and then use any combination of the Pen and point-editing tools to refine the path.

## Review questions

- 1 What are the different levels at which a path can be selected?
- 2 When drawing a path with the Pen tool, how do you know when clicking will close a path?
- 3 Which selection tool selects the entire path?
- 4 When drawing with the Pencil tool, what does an asterisk (\*) next to the cursor indicate?
- 5 Name two ways to split an existing path.
- 6 Briefly describe the difference between the Pen tool and the Curvature tool.

## Review answers

- 1 On a single path, you can select the entire path, one or more segments of a path, or one or more points on the path.
- 2 When the pointer is within the snap-to range of a path's starting point, you'll see a small circle next to the pointer. This means the path will close when you click.
- 3 The Selection tool always selects an entire path. (Alt/Option-clicking the path with the Direct Selection tool is also an acceptable answer.)
- 4 The asterisk (\*) next to the cursor indicates that a new path is going to be created.
- 5 Using the Scissors tool to click and split the path; or selecting a point and clicking the Cut Path At Selected Anchor Points button in the Control panel.
- 6 The Pen tool is meant for drawing precise paths using smooth and corner points. With the Pen tool, you will edit direction handles to dictate the direction and amount of the curve. You will also employ a host of other tools and keyboard shortcuts to perform operations like converting anchor points, etc. The Curvature tool is a "less demanding" tool than the Pen tool because it does not force you to deal with direction lines like the Pen tool. This can be a little limiting (to those of us used to the Pen tool), but it is meant to simplify path creation, enabling you to create, edit, add/remove, and toggle between smooth and corner points with the same tool.

## Exploring on your own

For additional practice with the Pen tool, try tracing over images with it. As you practice with the Pen tool, you'll become more adept at drawing the kinds of curves and shapes you want.

- 1 Open the L6\_explore.ai file.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 Select the Pen tool and start using the techniques you learned throughout this lesson to re-create the S shape on the artboard on the right.
- 3 Create 2 copies of the shape and paste them onto the violin artwork on the left artboard. One of them will need to be reflected by selecting the shape and double-clicking the Reflect tool in the Rotate tool group in the Tools panel.
- 4 Using the Curvature tool or the Pen tool (whichever tool you want to focus more attention on), draw the “neck” of the violin on the right artboard (to the left of the “S”).
- 5 Choose File > Save, and then close all open files.

# LESSON 7: USING COLOR AND PATTERNS TO ENHANCE SIGNAGE

In this lesson, students study painting techniques in more depth. Students will study what color is, the different types of color controls and color types.

## Exploring color modes

Page 189: Make sure that students are aware of the color modes in an Illustrator document. Have them choose File > Document Color Mode and note that a document can be in CMYK Mode or RGB Mode. Students should set a document's color mode to match the medium in which the artwork will be published—CMYK for print or RGB for online display. For example, a web designer should work in RGB mode; in CMYK mode, colors for web documents are limited.

The color mode determines the color model used to display and print Illustrator files. Illustrator bases its color modes on three color models—HSB (for hue, saturation, and brightness), RGB, and CMYK—and the Grayscale (black and white) model. These color models also appear as options in the Color panel menu for specifying color. When creating a new document, a New Document Profile can help you decide which color mode to use based on what it is you are creating (web, print, etc.).

## Working with color

Page 190: The Illustrator user interface for color is deep and powerful. It's designed for maximum flexibility, but features so many color-related panels that beginners may have difficulty determining how to use these panels, and in what order, to achieve a particular effect. For example, some controls appear in more than one place, such as the Fill and Stroke boxes.

## Applying an existing color

Pages 190–191: This introductory section just gives students a flavor of applying color to a fill. It's something they've already done in previous lessons. It's an important step to learning how color is applied in Illustrator, especially using the Control panel vs. applying color in a panel like the Swatches panel.

## Creating and saving a custom using the Color panel

Pages 191–192: There are so many ways to work with the Color panel and so many shortcuts associated with it. For instance, if you Shift-drag a slider (one of the

CMYK sliders, for instance) you can edit them together. If you Shift-click the color spectrum area at the bottom of the panel, you can cycle between the different color modes available.

## Saving a color as a swatch

Page 192, step 2: If your class includes many web design students, you may need to point out that the only reason a CMYK color is being mixed here is that this job is going to a printing press. Also, the reason that color is sampled in the Color panel and then numeric values are entered for CMYK is to give the students the idea that they can create colors using more visual or precise methods. Of course, it is important, in relation to printing, to also mention that what they see on their screen may not be what they get on their printer or on press.

Also, new in this version of Illustrator, is the ability to add a new swatch to an existing Creative Cloud Library. This isn't something we discuss at this point only because we don't work with CC Libraries until Lesson 13.

Page 193, step 5: Applying color in the Swatches panel can be trickier than students expect. That's because for the selected artwork, the stroke or fill needs to be selected first. This is something that students trip over all of the time.

## Editing a swatch

Page 194: To name a color as it's being added to the Swatches panel, students can hold down the Option (Mac OS) or Alt (Windows) key as they click the New Swatch button.

## Creating and editing a global swatch

Pages 194–196: Although the name is unfamiliar, global process colors work just like paragraph styles in InDesign or Illustrator; updating the color swatch changes all applied instances of the color throughout the document. Some students may want to plan their documents around this feature since it makes it easy to change many instances of a color instantly. This might also be a good time to ensure that students understand the difference between spot and process colors.

Additionally, it may be helpful to point out that out of all the color types in Illustrator, only spot and process colors are actual techniques for printing color. All the other color types are Illustrator-specific concepts invented to manage colors more easily. In other words, students may find that their print service provider may not have heard of “global process colors.”

## Using the Color Picker to create color

Pages 196–197: The Color Picker is usually familiar to Adobe Photoshop users and

may be familiar to InDesign users. The Color Picker can show color in several ways, including CMYK, RGB, and HSB. To change the way color appears in the Color Picker, select a different color such as G for Green. It might be important, once again, to point out to students that what they see in the Color Picker dialog box may not necessarily be what they see when the artwork is printed.

## **Adding a spot color**

Page 198: The Pantone color book panels in Illustrator CC are from the PANTONE+ library. When you open one of the books (panels), it will not remain open the next time Illustrator is launched. You may wish to point out that the panel can be docked into the workspace and that the panel can be made to open the next time Illustrator opens by choosing Persistent from the panel menu.

## **Creating and saving a tint of a color**

Pages 199–200: It's important to emphasize what tints are and that you can create a tint from a global swatch, but not from a non-global swatch. Also, a tint does not simply contain less ink than a typical swatch; rather, a tint is a mixture of color with white that makes the color lighter.

## **Adjusting colors**

Page 200: When students convert using the Edit Colors menu commands, they are not changing the swatch, but rather, the color that's applied to the artwork. That may come as a surprise the next time they update a swatch and it doesn't update their artwork!

## **Copying appearance attributes**

Page 200: If you have time, have students double-click the Eyedropper tool to view the attributes that can be copied from one object to another with it.

The Eyedropper tool can copy appearance and color attributes—including transparency, live effects, and other attributes—from any object in an Illustrator file.

You can restrict which attributes the Eyedropper tool can copy. You can also use the Eyedropper tool to copy and paste type attributes.

## **Creating a color group**

Page 201: Students should think of color groups not only as a way to organize colors, but also a way to edit colors as a color group using the Edit Color/Recolor Artwork feature. This way, a group of colors for a logo, for instance, can all be converted to shades of a single spot color.

## Creative inspiration with the Color Guide panel

Pages 202–203: To me, the Color Guide panel should be a place for exploration. Have students explore and experiment with colors.

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

Pages 204–206: In step 1, page 204, make sure that students do not have artwork selected. The Edit Colors/Recolor Artwork dialog box switches between editing and recoloring, depending on whether or not artwork is selected when it's open. On step 2, students may not have the group folder selected, so it's a good thing to check. Also, when you open the Edit Colors/Recolor Artwork dialog box, there is no undo function. If a student makes a misstep, it is usually best to cancel the operation and open the dialog box again.

Page 205, step 5: I ask the students to drag the blue marker just a little bit. If they want, they can match the color values found in the figure.

## Editing colors in artwork

Pages 207–208: The Color Group Storage area is hidden because there can be too much to look at right away. Break down the Edit Colors/Recolor Artwork dialog box into its main parts for the students so as not to overwhelm them. The left side of the dialog box is for editing colors, while the right side is for viewing the color groups that show in the Swatches panel and saving those colors as a color group.

## Assigning colors to your artwork

Pages 209–211: Remember that with the Recolor Artwork dialog box, like the Edit Colors dialog box, there is no undo function. Students can click cancel to begin again or simply use what they have. Obviously, the idea is not to match exactly what appears in the lesson colors, but rather, to understand how the dialog box works.

One thing that we do not go into in the Recolor Artwork dialog box is changing the number of colors assigned to artwork. Above the New column (see step 11 on page 211 for reference), you will see the “Colors” option. By clicking the arrow to the right, revealing the menu, you can see how many colors are already in the selected artwork. You can choose fewer colors to apply, effectively merging some of the colors into the same color. For instance, if you choose 1 from the menu, the entire tree logo would only have one color applied. Each of the original colors would become tints of that one color.

Also, if in the Recolor Artwork dialog box, the student makes a mistake, you can always have them click the Get Colors From Selected Art icon (the eyedropper in the upper-right corner of the dialog box) to get the original colors back in the panel.

## Working with Live Paint

Pages 212–214: The paintable parts of Live Paint groups are called edges and faces. An edge is the portion of a path between where it intersects with other paths. A face is the area enclosed by one or more edges. You can stroke edges and fill faces. Note that modifying the paths in a Live Paint group modifies existing faces and edges, and can create new ones as well. When you edit a path, Illustrator attempts to color the modified or new faces and edges to get the results you expect. If the results are not what you expect, you can reapply the colors you want.

Page 213, step 3: Step 3 is simply meant to show that you can either apply a swatch to artwork by selecting it in the Cursor Swatch Preview (the 3 colors above the pointer) or by selecting a swatch and clicking to apply it.

Page 214, step 6: Make sure that, before clicking the stroke, students hide the Swatches panel in the Control panel. That is something that students will battle every time they make a selection from a panel in the Control panel. Until that panel is hidden, they can't make a menu item selection or click.

## Review questions

- 1 How do you know whether a swatch is about to affect a fill or a stroke?
- 2 What is the difference between a global and non-global swatch?
- 3 What is meant by a spot color?
- 4 How do you open libraries of color swatches?
- 5 What are color groups useful for?
- 6 Why is Live Paint called “Live”?

## Review answers

- 1 Before applying a color, check the Tools panel to see whether the fill or stroke box is in front. It may be easier to simply use the Control panel to avoid this confusion.
- 2 A global swatch is a swatch saved in the Swatches panel and if you modify the swatch of a global process color, all objects using that color are updated. Non-global process colors do not automatically update throughout the document when the color is edited. Process colors are non-global by default.
- 3 A spot color is a pre-mixed ink that can be used in your artwork in conjunction with or instead of process colors.
- 4 To open a library of color swatches, click the Swatch Libraries Menu button in the Swatches panel and choose a library or choose Window > Swatch Libraries, and choose a library from the submenu.

- 5** Color groups are an excellent way to organize colors to edit color groups as a whole.
- 6** The “Live” in Live Paint refers to the state of the object. If the image that was traced and painted in Illustrator were to be updated, the trace and paint would update as well.

## Exploring on your own

- 1** Open the file named L7\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2** On the left artboard, using the Selection tool, select the letters in the center of the poster.
- 3** Fill the letters with a color from the Fill color in the Control panel, and then save the color as a swatch in the Swatches panel by Ctrl-clicking (Windows) or Command-clicking (Mac OS) the New Swatch button. Name the color text.
- 4** With the swatch applied to the text fill, create a tint of the text color, and then save it in the Swatches panel.
- 5** Apply a 3 pt stroke to the text and paint the stroke with the saved tint, making sure that the fill of the text is just the text color, not the tint.
- 6** Select the Ellipse tool in the Tools panel and create a circle on the artboard. Select a swatch from the Fill color in the Control panel. Create a pattern out of the circle you drew and edit that pattern by adding another shape in Pattern Editing mode.
- 7** Apply the pattern to the “star” shape behind the text.
- 8** Edit the pattern and resize the pattern fill in the star shapes by double-clicking the Scale tool.
- 9** On the right artboard, select all of the artwork and recolor the artwork by clicking the Recolor Artwork button in the Control panel. Have students change each color individually or together using the Edit options in the Recolor Artwork dialog box.
- 10** Choose File > Close without saving.

# **LESSON 8: ADDING TYPE TO A POSTER**

Adobe Illustrator provides enough control over type that it's often used for complete page layouts. Illustrator includes precise spacing controls and the ability to have type follow a path, or wrap around objects. Graphically, students are free to work with type much as they would with the paths they draw. They can apply colors, gradients, patterns, and effects to the fill or stroke of type, or even change the character outlines.

## **Adding type to the poster**

Pages 219–224: The first few pages of this lesson are devoted to discussing and showing the differences between point and area type. It's very beneficial to students to point out why you would create one over the other. For instance, when creating a brochure with several columns of text, area type is more beneficial. When creating labels or headline text, point type can make it easier to edit the appearance.

## **Working with Auto Sizing**

Page 221: The Autosizing feature is off by default, but you can turn it on in the preferences. By choosing Illustrator > Preferences > Type (Mac OS) or Edit > Preferences > Type (Windows) and then selecting the “Auto Size New Type Area” option, it will be turned on by default for all new area type.

## **Importing a plain text file**

Pages 223–224: Note that you cannot adjust the proportion of the type area as you draw it (like InDesign). Also, as a tip, if students decide not to place text and they already have the text in the loaded text pointer, they can press the Escape key to remove the text from the pointer.

If you have more time, you may want to create Microsoft Word documents and experiment with placing them using different import options. By placing Word documents, students can choose to remove text formatting or keep it (the default setting).

## **Threading text**

Pages 224–225: For step 1 on page 225, it can be tricky sometimes to click the red plus sign that appears in the out port, especially because the edge of the type area is on a guide. Students can zoom in further to click if needed or hide the guides temporarily (View > Guides > Hide Guides).

## Formatting type

Pages 226–235: Font, Recent Fonts, and Size are also available from the context menu that appears when students right-click text selected with the Type tool. It is worth taking the time to explain how character and paragraph formatting affect the text differently (character affects selected text, and paragraph formatting affects the entire paragraph(s)).

## Sync Typekit fonts

Pages 226–228: This section includes Typekit font integration with Illustrator. In order to work with the Typekit fonts, first off, you need to have access. Proxy servers or firewalls (purposely or not) may block access to Typekit fonts. In that case, have students simply choose another font in their font list. Illustrator no longer installs with a large listing of fonts—access to the Typekit library is the replacement. The Creative Cloud Desktop application should be running (open) and Typekit also needs to be turned on in the application (it is now by default).

Page 227, step 5: Students, after clicking the Add Fonts From Typekit button, will be taken to the Typekit.com website in their default browser. The font library (list of fonts) should be what they see in the browser. If not, they might see the Typekit.com home page. In that case, check to make sure that they were logged in with their Adobe ID (this SHOULD happen automatically). If they are logged in, click the “Browse Fonts” button to go to the library of fonts.

For your own information (as well as for troubleshooting), check out the following help articles:

- <https://helpx.adobe.com/illustrator/using/typekit-fonts.html>
- <http://www.adobe.com/products/type/creative-cloud-fonts.html>
- <http://help.typekit.com/customer/en/portal/articles/1145956-how-to-sync-fonts-to-your-desktop>

Here's an interesting article on managing the fonts synced:

- <http://help.typekit.com/customer/en/portal/articles/1146001-managing-your-synced-fonts>

## Illustrator Package (File > Package) and Typekit fonts

Page 230 (sidebar): This sidebar is pretty important for those of us that want to hand an AI file with a specific font used, off to someone else. Know that if the AI file is later opened and the user is a Creative Cloud subscriber, the fonts will be able to be synced to their machine and they can keep working. Other ways around this issue is to save as a PDF since the fonts can be embedded, converting the text to outlines, or simply selecting another font.

## **Resizing and reshaping type objects**

Pages 235–236: Step 9, page 236, make sure that students select the anchor point first, before dragging. I am guilty of this myself, but lots of new users will click and drag in one motion. This may move the entire type area instead of the one anchor point.

## **Creating columns of text**

Pages 236–237: You might point out that the type containers are actually paths that hold text. In other words, their shapes can be edited freely using the Pen and other tools. If you want, you can demonstrate adding a point or two to a text container, and showing how changing the container shape reflows the text.

Also note that the Autoresizing does not currently work with type areas that have multiple columns.

## **Modifying text with the Touch Type tool**

Pages 237–238: The first thing to note about the Touch Type tool is that this tool is simply a visual way of editing baseline shift, kerning, horizontal and vertical scale, and rotation. Students will run into limitations with the tool, such as dragging a character left or right. The limitations are due to the range of kerning values (for instance).

This entire section, like most of the rest of the lessons, gives students values to apply. But they can experiment as much as they like; it really doesn't matter if their work perfectly matches the lesson file. They may even make it look better.

## **Creating and applying text styles**

Pages 239–242: Encourage students to use the style features, as they save time when creating or updating text attributes.

Page 242, step 1: Some students may need to select the font family first before selecting Regular. This could be because they didn't choose Italic from the Font Style menu on page 241, step 4.

## **Sampling text formatting**

Page 242: This exercise shows that the Eyedropper works just as well on text as it did on graphics in previous lessons. To view the attributes that can be copied and pasted using the Eyedropper tool, double-click the tool in the Tools panel to display its options dialog box. You can choose to sample certain types of text formatting.

## **Wrapping text around an object**

Pages 242–243: Caution students to avoid text wraps that result in lines of text that are too short. Several short lines in a row can lead to unattractive spacing and hyphenation. Also, text wrap does not like grouped objects, as you will see if you attempt to wrap text around a group of objects.

## **Warping text**

Pages 243–245: Encourage students interested in more practice with warps to create their own object to use for the text. Note that the text engine only requires that the object you want the text to run around be selected. Remind students that when editing warped objects, it is important to have the correct button selected: Edit Contents or Edit Envelope.

## **Working with type on a path**

We copy the path on page 245, step 2 because when you click on a path to apply text, the formatting of the path is removed.

Page 245, step 3: Make sure that students click at the same position as in the figure because the text will start from where they click. They can also, of course, drag the starting position of the text on the line as shown on page 246 in step 9.

As was noted in the lesson, if the text looks different than what is seen in the figures, that means that the character style is still applied. Have students select the text using the Select > All command (with the cursor in the text). Then press the Alt (Windows) or Option (Mac OS) key and click the [Normal Character Style] in the Character Styles panel.

Page 247, step 8: Clicking on the path near the leaf shape may insert the cursor on the leaf. This may be a good time for students to utilize their lock/unlock knowledge to lock the leaf temporarily so that it's not selected.

Dragging the starting bracket around the circle to “center” the text is a visual way of centering it. Another way, to be more precise, is to drag a horizontal guide onto the artboard and align the starting and editing text characters on the path to it.

## **Creating text outlines**

Page 248: Once type is converted to outlines, it can no longer be edited with the Type tool. For this reason, in their own projects students may want to get into the habit of keeping a “live” copy of the original type on a separate, hidden layer (or other methods). This way they can access the text later.

## Review questions

- 1 Describe the difference between point type and area type.
- 2 How can you copy type attributes from one type object to another?
- 3 Briefly describe what the Touch Type tool allows you to do.
- 4 What does a red plus sign indicate in relation to a text area or type on a path?

## Review answers

- 1 Point type is a horizontal or vertical line of text that begins where you click and expands as you enter characters, whereas area type is text that is contained within a type area.
- 2 The Eyedropper tool copies type attributes as well as fill and stroke attributes.
- 3 Using the Touch Type tool, you can modify the properties of a character, like size, scale, and rotation, using a mouse cursor or touch controls.
- 4 It usually indicates overflow text, or that text doesn't fit in the type area or on the path.

## Exploring on your own

Experiment with text features by integrating paths with illustrations. Use the files provided in the instructor notes Zip file you downloaded from the Academic Resource Center on peachpit.com.

- 1 Open the file named L8\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 Place the L7copy.txt file in the same zip file as above. Place it within the bounds of the aqua rectangle (guides) toward the bottom of the artboard. Change the columns to 2 and balance the text visually in the type area. Edit the text formatting of the first paragraph and create a paragraph style from the text formatting and apply it to all of the text.
- 3 Apply a text warp to the “AH-CHOO” text on the artboard. Have students try any of the available warp options.
- 4 Add text to the black path above the “AH-CHOO” text. Have students format the text and adjust its position on the path as well.
- 5 Have students apply text wrap to the purple artwork in the lower-right corner of the artboard. Make sure to have them adjust the text (size, leading, etc.) if it doesn’t all fit after wrapping.
- 6 Close the file without saving.

# LESSON 9: ORGANIZING YOUR ARTWORK WITH LAYERS

Layers are useful for organizing a document. They maintain the stacking order of objects, for example, always keeping lakes and rivers below highways and bridges in a map. Layers can also be used for other organizational purposes, such as creating different versions of an illustration or storing annotations that don't print. Stress to your students that spending a little time on layers up front, and along the way, can make it much easier later on to manage and select your content.

Note: This lesson demands a bit more focus simply because of the nature of working with layers. The entire lesson builds on each step, so ensure that students follow along and take their time.

## Understanding layers

Pages 252–253: The Layers panel contains many indicators that can confuse even veteran users. You may want the class to specifically discuss the differences between the active layer, the selected layer, and selected objects on layers, as follows:

The active layer (displaying the small triangle on the right) is currently subject to editing. When more than one layer is selected, the active layer is the one that will be targeted for operations such as merging layers.

A selected layer or object (highlighted) is the layer that is subject to the commands on the Layers panel menu. It's usually the same as the active layer, except when additional layers are selected. Only one layer can be active but more than one layer or object can be selected.

When more than one layer is selected, they are all highlighted. When more than one object is selected, they all have selection indicators with outlines (the small squares at the right edge). It's possible for a selected object to be on a non-selected layer. You might want to demonstrate these distinctions.

Page 253, step 3: If you do not have access to Typekit fonts, feel free to have students either click Find Fonts in the Missing Fonts dialog box and replace the font with a local font or simply click Cancel to ignore the missing font.

## Creating layers and sublayers

Pages 254–256: There are many ways to create layers. The object of presenting several of these methods is not to confuse, but to show that there is more than one method for achieving the same goal. Naming layers inline can pose a bit of an issue for those of us that are used to double-clicking on a layer in the Layers panel

to open the Layer Options dialog box. Double-clicking directly on the layer name does not provide access to that dialog box.

## Editing layers and objects

Pages 257–264: Students should be advised to develop the habit of dragging precisely in panels like the Layers panel.

In this exercise, there's an important distinction between dragging the whole layer (to reorder layers) and dragging the layer indicator (to move an object from one layer to another). In Lesson 11, dragging the appearance indicator moves appearance settings to another layer or to the Trash. If a student isn't paying close attention to where in the Layers panel they start dragging, they may experience unexpected results.

Page 260, step 11: Make sure that students select the “Pattern Front” layer before pasting, otherwise the shirt shape may appear on TOP of the yellow sleeves. In steps 12 and 13, students simply repeat the same procedure for the “Back” shirt. When they paste the back shirt shape (the white shape) it will be on the “Pattern Back” layer, but will be in the same position on the artboard as the shapes on the “Pattern Front” layer.

Make sure that the shirt shape on the “Pattern Front” layer is behind the yellow sleeves before continuing on.

## Duplicating layer content

Pages 261–262: Duplicating layers and sublayers can also be done by selecting the content on the artboard and copying/pasting using menu commands or keyboard shortcuts. In step 5 on page 261, students are aligning the white shirt shape and the yellow sleeves shape on the “Shirt Back” layer.

## Merging layers

Pages 262–264: There are so many ways to merge layers and sublayers in Illustrator. In this section, we have students select a series of sublayers and combine them into a single sublayer. This is mostly for organizing our artwork and making it easier to manage later on. The key here is to ensure that the proper sublayers are selected, otherwise this section and the rest of the lesson won't work properly.

Page 264, step 9: This step will have more impact if students look at the “Front” shirt on the artboard BEFORE and AFTER dragging the <Path> object to the bottom of the <Group>. Tell students that this is the same thing as applying an arrange command.

## Pasting layers

Pages 264–266: IMPORTANT! In step 7 on page 265, the students choose Paste Remembers Layers. Going forward, even in another document, this command is sticky. When students move to the next lesson, they either need to reset the preferences for Illustrator (as stated in the beginning of each lesson) OR deselect that command. If students are working straight into the next lesson, not turning it off may cause an issue.

## Viewing layers

Page 267, step 2: In an illustration with a large number of objects, displaying some layers in Outline mode can also speed up screen redraw and make it easier to select. Just remind students that Outline mode requires you to select strokes, not fills.

## Applying appearance attributes to layers

Pages 268–269: On page 268, step 1, make sure that students click on the target icon (the circle) and not on the selection column to the right of it. If the target column becomes shaded, then it has the new appearance attributes applied.

## Creating a clipping mask

Pages 270–272: A clipping mask makes a handy cropping tool. It's useful for trimming objects that extend beyond the page edge or bleed area. Remind students that the mask is created from the top-most object in that layer and that the layer has to be selected in the Layers panel before clicking Make/Release Clipping Mask.

Page 272, step 11: Students must remember to drag from within the artwork, otherwise they may deselect the artwork. If this happens, have them undo (if necessary) and repeat step 11.

## Review questions

- 1 Describe a situation where using layers in a document may be beneficial.
- 2 How can you tell which layers contain selected objects?
- 3 How do you create a sublayer?
- 4 What does a layer clipping mask do?
- 5 How do you merge layers?

## Review answers

- 1 Suppose that you are designing a new line of men's shirts. You create a series of different shirts in a single document. Later, you want to be able to export each separately for use on a website. Creating layers would let you turn on and off layers that you didn't want to see, as well as lock content so that when you edit one shirt, it can make it easier to select what you want.
- 2 Layers with selected objects display a selection indicator, a small square at the right edge of the Layers panel.
- 3 To create a sublayer, click the Create New Sublayer button at the bottom of the Layers panel.
- 4 A layer clipping mask hides objects and portions of objects that are both outside the clipping mask and on the same layer as the clipping mask.
- 5 To merge layers, Shift-click all the layers you want to merge, making sure that the last layer you Shift-click is the one you want all the other layers to merge into. Then choose Merge Selected from the Layers panel menu.

## Exploring on your own

When you print a layered file, only the visible layers print, in the same order in which they appear in the Layers panel, with the exception of template layers, which do not print even if they're visible. Template layers are locked, dimmed, and non-printing layers. Objects on template layers neither print nor export.

Now that you know how to work with layers, try creating layered artwork by tracing an image on a template layer. For practice, you can use the bitmap photo image of a goldfish, or your own artwork or photo images.

- 1 Open the file named L9\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 Have students create a series of layers to better organize the content in the file. This will give students practice in learning how best to name and organize their artwork with layers.
- 3 Drag the two knobs from off the right edge of the artboard onto the TV and make sure to arrange them using the layers.
- 4 Choose File > Place. Navigate to the file named "L9\_screen.ai" in the same folder. Select all of the artwork in the L9\_screen.ai file and copy it. Have students choose Paste Remembers Layers from the Layers panel menu and paste the copied artwork into the L9\_explore.ai file.

- 5** Have students organize the layers so that the new artwork is behind the white shape in the middle of the TV screen. Use the white shape as a clipping mask to mask the artwork. One thing to note is that the screen artwork is not grouped, so if students deselect and then attempt to move the artwork, it will be more difficult. They can use the layers to select the artwork or group it together.
- 6** Close the file without saving.

# LESSON 10: GRADIENTS, BLENDS, AND PATTERNS

Blends and gradients create transitions between shapes or colors. This gives students the opportunity to go beyond the hard-edged shapes they have created so far. In this version, we've moved patterns into this lesson. Why? The color lesson was *way* too long in previous editions and I felt that patterns fit nicely here. Balancing out the lessons a little more.

## Editing a gradient

Page 278, step 1: Making sure that the Fill is selected (the Fill box), either in the Tools panel, Swatches panel, or in the Gradient panel, is going to be a consistent theme throughout this lesson so that students can learn how to edit a gradient fill using the Gradient tool. On page 277, step 1, remind students to double-click precisely on the color stop in the Gradient panel. For example, if they slightly miss the gradient stop, a new gradient stop is created. To delete a color stop, they can either select the stop and click the trash can icon to the right of the gradient slider or drag the stop away from the gradient slider. Students can easily get lost among the panels required to make this exercise work.

If needed, review with the class the usage order of all the color-related panels for this exercise: The fill/stroke box in both the Tools panel and the Color panel are the same, displaying the current fill and stroke of the selected object, or of the current color if nothing is selected. Editing a selected gradient stop (the tip of a gradient stop is solid) changes the behavior; now the fill/stroke box displays the color of the selected gradient stop. Clicking a swatch in the Swatches or Color panel that appears replaces the gradient altogether.

If a solid color replaces the gradient, the student should:

- Reapply the gradient using steps 1 and 2 at the bottom of page 277.
- Double-click the color stop in the Gradients panel to edit the color.

Even though a gradient swatch may be highlighted in the Swatches panel, editing gradient colors never affects a gradient swatch. The only way to edit a gradient swatch is to drag the Fill or Stroke box out of the Tools panel or Gradient panel, hold down the Option (Mac OS) or Alt (Windows) key, and drop it on the existing gradient swatch in the Swatches panel.

## Saving a gradient

Page 279: There are so many ways to save a gradient as a swatch. You can drag the color box (fill or stroke) from almost anywhere into the swatches area of

the Swatches panel, or simply click the New Swatch button at the bottom of the Swatches panel to capture the currently active color.

## Adjusting a linear gradient fill

Pages 280–282: For another example of adjusting a gradient's direction, you may want to demonstrate the Gradient tool in a separate document that contains nothing but a rectangle and black and white starting and ending gradient colors. Also, show how linear and radial gradients change how the Gradient tool works.

Page 281, step 5: The rotation icon sometimes requires the cursor to be in the “perfect” position in order to appear. If it doesn’t appear, move the cursor closer and farther from the end of the gradient annotator (bar). In step 6, when the students adjust the angle in the Gradient panel, the gradient in the object on the artboard may appear to “shorten” and that’s okay.

Also, if the Gradient tool adjustments are too much, and you don’t want to see all of the “feedback,” you can turn off the extra gradient functionality by choosing View > Hide Gradient Annotator.

## Applying a linear gradient to a stroke

Page 282: Applying a gradient to a stroke can be a great way to add interest to your artwork. As was stated earlier, you cannot edit a gradient on a stroke with the Gradient tool. The editing will occur in the Gradient panel. Have students widely explore this feature. Lots of creative content can easily be created with this.

## Edit a gradient on a stroke

Pages 283–284: In this section, students will learn about adding new color stops to a gradient and duplicating existing color stops. Remind them that they can drag color stops away from the color slider or click the Delete Stop button in the Gradients panel if they make a mistake.

Page 284, steps 7–8: These steps have students duplicating and changing the color of several color stops. If time isn’t on your side, you can skip these steps. Obviously the border of the painting doesn’t have to look exactly like you see in the book.

## Applying a radial gradient to artwork

Page 285: On page 285, step 5, they are asked to make sure that the Fill box is selected in the Gradient panel. Just to reiterate, this is very important so as not to apply the gradient to a stroke by accident.

## **Editing the colors in the radial gradient**

Pages 285–287: Page 284, steps 6–7: Students may need to zoom in a decent amount to the artwork to ensure that they can see the color stops. Also, remind students that you can also edit gradient stops applied to selected artwork in the Gradient panel, rather than on the art like these steps ask them to do.

Page 287, step 7: The gradient color stops are really close together. Trying to drag them that close together can prove difficult. Instead, I will sometimes select each stop and edit the Location at set intervals.

## **Adjusting the radial gradient**

Pages 288–289: Page 288, step 1: Students are asked to drag the end of the gradient annotator only slightly. The whole idea is to make the white area of the gradient show less and there are several ways to achieve this (like moving the color stops).

## **Applying gradients to multiple objects**

Page 290: This is one of my favorite things to be able to do with gradients. This also works if you apply a gradient to multiple type objects!

## **Adding transparency to gradients**

Pages 291–293: The uses for transparency in gradients are limitless and should be fully explored by students. One thing to keep in mind is that, as with other types of gradients, a gradient blend to transparency that covers too long of an area can appear banded when printed. Also, layering multiple blended objects can lead to issues when outputting the file.

Page 291, step 1: The layering in this section is really important. I've seen students jump right past step 1 and start creating the rectangle.

## **Creating a blend with specified steps**

On page 294, step 9: Students are asked to drag the smaller shape on the larger shape. You could also have them align the two blend shapes to each other using the Align commands instead of just dragging. Some of the students may wind up dragging the spine of the blend instead since the shape is so small. Another method would be to drag the larger shape and ensure it's arranged to the back (Object > Arrange > Send To Back) of the smaller shape.

## **Modifying a blend**

Page 297, step 8: This step has the students practice with editing a path using the Pen tool and a keyboard command. This can also be done using any other method that was learned previously. For instance, students could select the path with the

Direct Selection tool and then drag to achieve the same result.

## Creating and editing a smooth color blend

Pages 298–299: The number of blend steps calculated by Illustrator assumes print as the output medium. Also, when creating a blend object, remind students that they can either undo a mistake or, if the blend is already created, they can choose Object > Blend > Release.

## Painting with patterns

Freely experiment with various types of layout or precisely control tiling and overlaps with seamless pattern repeats.

Page 300: Students should think of applying patterns in exactly the same way as they would apply a color swatch. For example, while it may not be obvious, gradients and patterns may be applied to strokes as well as fills. You might have students try applying gradients and patterns to strokes, especially using thicker stroke weights. There are so many patterns that come with Illustrator. They can be a great place to start experimenting since you can edit them once they are in the Swatches panel for the open file.

Page 301, step 3 (note): In this step, there is a note that mentions that a pattern can be composed of other artwork. You can easily create a pattern by adding and manipulating artwork in Pattern Editing mode. Feel free to have students experiment with other types of artwork in their patterns, even adding blending modes, effects, and opacity changes.

## Editing your pattern

Page 304, step 6: You can also select Transform Pattern Only or Transform Both from the Transform panel menu. That way, if you transform the selected artwork (with a pattern fill), it will affect the pattern as well as the artwork.

## Review questions

- 1 When might you want to apply a gradient instead of a blend, and vice versa?
- 2 How do you change the number of steps in a blend?
- 3 Name the two types of gradients that you can create.
- 4 How do you save a blend for reuse?
- 5 How do you apply a color swatch to a gradient stop without removing the gradient?

## Review answers

- 1 Use gradients when either the linear or radial built-in gradients are the blend shape you need. Use a blend whenever you need an irregularly shaped gradient, such as a gradient that follows a path's contours. Also, a blend must be used when creating a transition between two different shapes.
- 2 To change the number of steps in a blend, use the Selection tool to select a blend, and then choose Object > Blend > Blend Options. You can also double-click on the Blend tool to see these options.
- 3 A linear gradient and a radial gradient.
- 4 To save a blend for reuse, drag it from the fill/stroke box in the Tools panel or Gradient panel, and drop it in the Swatches panel.
- 5 To apply a color swatch without removing the gradient, select the object, then select the Gradient tool. Hover over the object with the gradient fill and the color bar should appear.

## Exploring on your own

There are many ways to be creative with gradients and blends. To explore more, you will create a blend for coffee steam. Then you'll create a new document for a more complex path that you will blend.

- 1 Open the file named L10\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 In the file, add a gradient fill to the yellow rectangle shape in the background.
- 3 Change the stroke weight of the white rectangle in the center of the artboard to 10 pt. Add a gradient stroke with more than 2 color stops to the same rectangle to make it look like a wood "picture frame."
- 4 Fill the same rectangle shape with the "painting background" gradient in the Swatches panel and edit the direction of the gradient using any method.
- 5 Using the Blend tool, have students blend the "olives" (the two green shapes) so that a total of four appear on the artboard. Make sure that the blend is set to "Specified Steps" in the blend options.
- 6 Using the Blend tool, create a smooth color blend between the three paths that make up the banana.
- 7 Add a radial gradient to the fill of the black ellipse behind the "banana."
- 8 Close the file without saving.

# LESSON 11: USING BRUSHES TO CREATE A POSTER

The brushes in Adobe Illustrator are somewhat different than the brushes in Adobe Photoshop and other image-editing and paint programs. In Photoshop, a brush lays down a trail of pixels. In Illustrator, a brush leaves behind a set of vector paths; that set of paths follows a path drawn by the Brush or another drawing tool. The Scatter brush is not covered in the lesson, because a better method for applying that type of artwork is a symbol workflow that is sprayed with the Symbol Sprayer tool.

## Using Calligraphic brushes

Page 310, step 4: After students apply the brush in this step, they will notice that the stroke weight for the selected path changes as well. Certain brushes can dictate the stroke weight of the object when applied. They can always change the stroke weight after applying the brush to override the brush stroke weight.

## Drawing with the Paintbrush tool

Pages 310–311: Students will be painfully aware of the note on page 311, step 7. After drawing several times with the Paintbrush tool, they will quickly realize that the brush randomly creates angles on strokes every time they draw.

Also, if appropriate for the class level, you can demonstrate how a brush stroke is really a set of vector paths dynamically associated with the brush stroke's path.

With a brush stroke selected, choose Object > Expand Appearance, and note the points that appear on the brush stroke. (At this point it can no longer be edited as a brush stroke.) You can also choose View > Outline to demonstrate this further.

## Editing paths with the Paintbrush tool

Page 312, step 2: After students edit the brush stroke, you can point out that this is the same editing technique they used with the Pencil tool.

Page 312, step 2, the tip: The text mentions that the Smooth tool and Erase tools can be used on a brush stroke. This reinforces the point that although a brush stroke contains many components, it's treated as a single path until you expand it (if you expand it).

## Removing a brush stroke

Page 314: This may seem trivial, but it can be confusing for new students of Illustrator to figure out how to remove a brush they've applied. After removing a brush stroke from an object, the stroke of the object may look different than before

the brush was applied. Also, setting a stroke weight to 0 doesn't completely remove the brush from a stroke. If students were to change the stroke weight from 0 to another weight, they would see that the brush is still applied.

## **Creating an Art brush using a raster image**

Pages 316–317: Pages 310–311: A few things to note about adding a raster image as an art brush. First, the raster image that is used to create the art brush must be embedded.

Second, if the artwork is too large or of too high a resolution, a dialog box will appear asking the student to fix the image (elsewhere) before using it in the art brush.

Art brushes are a great way to apply transformations to artwork since an Art brush is just artwork applied as a brush along a path (stroke). I know lots of companies that use brushes less for artistic purposes and more for production. Take for example a clothing company that needs to create a series of buttons on a shirt (pattern brush).

## **Edit an Art brush**

Page 318, step 2: Have the students experiment with the different Brush Scale Options in the Art Brush Options dialog box to see how the art brush is changed. When applying raster content to an art brush, you need to be aware of how the raster image is applied to the stroke, since hard angles can distort the brush.

## **Using Bristle brushes**

Pages 319–322: Bristle brushes allow students to use painterly effects in their artwork. Something to mention about the Bristle brush is that the users will have more precision and natural painting options if they are using a Pen tablet, but it's not required.

Also, students can really get carried away with this method of painting. Know that each brush stroke that they create is another path with points, transparency, and more applied. Artwork can quickly become very complex and difficult to print.

Using layers when using a Bristle brush can help make editing and managing your artwork easier later on.

## **Changing Bristle brush options**

Page 319, step 2: Mention that Calligraphic, Bristle, and Scatter brushes can be controlled with a pressure-sensitive stylus and drawing tablet. If students aren't aware of them, explain that with a pressure-sensitive stylus, pressing harder creates a thicker line. Whether or not a Calligraphic brush is pressure-sensitive depends

on the brush settings.

## **Painting with a Bristle brush**

Pages 320–322: In this section, the students will paint with a Bristle brush inside of a shape. You don't have to paint inside of another shape with a Bristle brush. I just wanted to have them create some texture in the shape of smoke. It also makes it easier for those students who don't feel comfortable painting.

Page 320 step 5: This is an important step. If students miss this step, then the brush they select in the next step will be applied to the smoke shape. Also, in this section, remind them not to jump ahead and paint too many paths. Simpler is better. To show them what they are actually creating (paths), they will view the artwork in outline mode later.

At the end of this section, the students may see a dialog box telling them that the paths generated with the Bristle brush may be too many and too complex. They can remove some by selecting and deleting or simplify by selecting and choosing Object > Path > Simplify, or select the paths and rasterize them.

## **Using Pattern brushes**

Pages 322–327: Pattern brushes can be created in two ways: selecting content and creating a Pattern brush, or creating a Pattern brush with nothing selected. In this part of the lesson, students select artwork to create the Pattern brush.

For Pattern brushes, much like symbols, graphic styles, and more, you can also press the Option (Mac OS) or Alt (Windows) key and drag artwork onto the brush in the Brushes panel to replace part of the Pattern brush.

## **Creating a Pattern brush**

Pages 324–325: Let students know that they can move brushes to other files by copying and pasting an object that uses that brush from the file where it was created to another file. As the object is pasted into the second file, its brush is added to the Brushes panel in that file and saved with the file. The object can then be deleted from the file. You can also open another file and click the Brush Libraries Menu button at the bottom of the Brushes panel and choose Other Library to select another Illustrator document to load the brushes.

## **Editing the Pattern brush**

Pages 326–327: Page 327, step 5: I have students edit the life preserver pattern to see that it is a pattern all by itself. Pattern swatches are the only swatches you can apply to a pattern brush in the Pattern Brush Options dialog box.

## Working with the Blob Brush tool

Pages 328–332: The Blob Brush tool behaves in a different fashion from other brushes by creating and editing closed paths. There are several things to look out for when using this tool. First, shapes that have a stroke cannot be edited by the Blob Brush tool. If you create with the Blob Brush tool, the selected stroke becomes the fill and in the absence of a stroke color, the selected fill becomes the fill of the shape.

Page 330, step 2: The note below step 2 is important. Students may find that dragging from one cloud to another will not merge the shapes. This is due to the fact that the strokes and fills of the two clouds may be different. You can either follow the advice in the note on how to remedy this, or you can select the two clouds and click the Clear Appearance button at the bottom of the Appearance panel to remove the formatting and try again. Of course, using the second method, they most likely will need to change the fill color of the cloud.

## Editing with the Eraser tool

Page 331: When the students erase, they may wind up creating “holes” in the cloud. They can either erase those smaller shapes as well, or ungroup the cloud and delete them. Have students adjust the size of the Eraser tool using the keyboard commands ([ and ]).

## Review questions

- 1 Name the five types of brushes.
- 2 How do you change the brush applied to a path that's already drawn?
- 3 What type of path does the Blob Brush tool create and/or edit—open or closed?
- 4 What's required to create your own Pattern brush?
- 5 What's the difference between a Pattern brush and a Scatter brush?

## Review answers

- 1 Calligraphic, Bristle, Scatter, Art, and Pattern.
- 2 A different brush can be applied the same way as changing a color. Simply make sure the path is selected, and click a new brush in the Brushes panel.
- 3 The Blob Brush tool creates and edits closed paths.
- 4 A Pattern Brush is made up of pattern tiles, so the pattern tiles that make up the brush have to be present in the Swatches panel. If they aren't, you must create them.

- 5** While both a Pattern brush and a Scatter brush repeat shapes along a path, Scatter brush shapes can be laid down some distance away from the path itself. The tiles of a Pattern brush follow the path tightly.

## Exploring on your own

There are many ways to be creative with brushes. Try practicing with the Bristle brush next.

- 1** Open the file named L11\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2** Select the smoke shape with the Selection tool.  
**3** Click the Draw Inside button at the bottom of the Tools panel.

Note: If you cannot select Draw Inside, it may be because the cloud is now a group. Choose Object > Ungroup, then choose Select > Deselect. Click the cloud shape again to select it.

- 4** Choose Select > Deselect.  
**5** Click the Brushes panel icon to expand the panel. Click the Brush Libraries Menu button and choose Bristle Brush > Bristle Brush Library from the menu.  
**6** Click a Bristle brush in the Bristle Brush Library panel.  
**7** Select the Paintbrush tool in the Tools panel. Change the Stroke color to a light gray in the Control panel. Practice adding some texture to the inside of the smoke shape.  
**8** Experiment with the Bristle brush settings.  
**9** Choose File > Save, and then File > Close.

Note: A warning dialog box may appear telling you that the document contains multiple Bristle brush paths with transparency. For this lesson, click OK.

Practice applying brushes to paths that you create with drawing tools, just as you applied the Pattern brush to a rectangle earlier in the lesson.

- 10** Choose File > New, and create a document to use for practice.  
**11** Click the Brushes Libraries Menu button in the Brushes panel, and choose Decorative > Decorative\_Scatter.  
**12** Use the drawing tools (the Pen or Pencil tool, and any of the basic shape tools) to draw objects. Use the default fill and stroke colors when you draw.  
**13** With one of the objects selected, click a brush in the Decorative\_Scatter panel to apply the brush to the object's path.

- 14** When you select a Scatter brush, it is automatically added to the Brushes panel.
- 15** Repeat step 4 for each object you drew.
- 16** In the Brushes panel, double-click one of the Scatter brushes that you used in Step 4 to display the Scatter Brush Options dialog box. Change the color, size, or other features of the brush. After you close the dialog box, click Apply To Strokes to apply your changes to the brush in the artwork.

# LESSON 12: EXPLORING CREATIVE USES OF EFFECTS AND GRAPHIC STYLES

You can alter the look of an object without changing its underlying structure by applying strokes, fills, transparency, effects, and more. Those properties can also be saved as graphic styles to be used on other artwork within that document or another document.

Effects in Illustrator are similar to effects in InDesign and Photoshop Smart Filters. Effects apply to an object but don't edit the underlying artwork. The effect is only applied over the top of the object. There are many types of effects, including raster effects such as the Dry Brush Artistic effect. In this lesson, students will gain a better understanding of how to apply and edit all types of effects as we lead them through a series of the most widely used effects.

## Using the Appearance panel

Pages 338–345: The Appearance panel, to me, is one of the most under utilized panels in Illustrator. I find so many Illustrator users that, even after being in the program for awhile, don't discover its power right away. It can take some time to get used to how the panel works, for instance, when it comes to groups. If you select a group, the appearance attributes for the group show in the Appearance panel, but if you edit artwork within the group, you see the appearance attributes for just that artwork. This is confusing at first, but brilliant when you understand what that means later. We can apply appearance attributes in "layers." In other words, we could have individual appearance attributes like stroke and fill on artwork to start. After grouping that artwork, you could apply a drop shadow effect to the group, another appearance.

## Editing appearance attributes

Pages 339–340: Targeting the correct appearance attribute of artwork is a key concept for students to understand when working with complex appearances. If a student applies an appearance attribute to an object and the effect isn't what was expected, the first thing the student should check is what was selected in the Appearance panel.

Page 339, step 2: Using the Appearance panel is just another way to edit the appearance of artwork. In step 2 on page 339, for instance, you could just as easily have edited the fill in the Control or Swatches panels. One of the great things about the Appearance panel is that all of the appearance attributes are together in one location.

Page 340, step 5: In order to hide panels within the Appearance panel, students can also click within the Appearance panel or press Enter or Return. The idea is to hide the panel and keep the artwork selected. Be careful about having students press the Escape key, as I've learned. If they enter a numeric value in a field, then press Escape, that value may be lost.

## Adding another stroke and fill

Page 341–343: Once again the ordering in the Appearance panel is very important. The Appearance panel can become a bit overwhelming for newcomers. When a new stroke or fill is added to the appearance, the new stroke or fill is added above the selected appearance row in the Appearance panel.

Page 342, step 8: It is interesting that how you select content, such as selecting the text with the Selection tool rather than the Type tool allows you to add a new stroke and fill. The further you get into working with the Appearance panel, the more you realize how much the appearance properties that are applied are done so in a specific ordering and can easily “override” or cover other appearance attributes. Such is the case with the “JAZZ” text. The word “Characters” represents the standard stroke and fill formatting of the text. The new fill and stroke will cover up the black color of the text since the stroke and fill are above (on top of) the “Characters” formatting in the Appearance panel.

## Reordering appearance attributes

Pages 344–345: At this point in the lesson, comparisons between the Appearance panel and the Layers panel may arise. You may want to discuss the differences between the two. It's possible to use the Layers panel to apply some of the formatting that the Appearance panel does, but using the Appearance panel is like letting each object have its own set of appearance layers. And again, only one path is necessary, whereas using layers would require duplicate paths.

## Using live effects

Pages 345–350: It's really important to understand the difference between the vector (Illustrator) effects and the raster (Photoshop) effects, not just in what you can do, but what they ultimately do to the inherently vector artwork. Some of us will apply a cool blur or other raster effect and be surprised when the artwork with the blur prints, because maybe it will look rasterized. Make sure to draw the students' attention to the note on page 345, before step 1. The raster effects (and a few vector effects like drop shadow, etc.) owe their resolution to the document raster effects settings.

## **Applying an effect**

Page 346: Effects in Illustrator can be applied in several ways: from the Effect menu or by clicking the Add New Effect button at the bottom of the Appearance panel.

Students may apply them in whatever way they feel comfortable. In some cases it may be easier to apply the effect in the Appearance panel if you are targeting an appearance attribute to apply the effect to.

## **Editing an effect**

Page 347, step 3: Grouping objects is necessary when applying certain effects to more than one object. In this case it is necessary. If you were to apply an effect to a series of selected objects that weren't grouped, the effect would be applied to each object independently.

## **Styling text with a Warp effect**

Pages 348–349: Have students experiment with other warp options to create very different effects. Also, have them edit the text in the warp without turning off the effect in the Appearance panel. It can be a little more challenging.

## **Applying the Offset Path effect**

Pages 349–350: Offsetting paths can be applied to text as well if you apply a new stroke and/or a new fill to the text. It's a great way to create lots of the type effects you see out there that come from Illustrator. Interestingly enough, the Offset Path effect can be used to visually align a stroke to the inside, center, or outside of a path, much like the stroke alignments found in the Stroke panel. The great thing about the Offset Path effect is that it can also be applied to a fill as well (among other appearance attributes, of course).

## **Applying a Photoshop (raster) effect**

Pages 350–351: As mentioned in the first part of this lesson, Photoshop effects, which are found at the bottom of the Effect menu, are raster effects. That means that they will ultimately rasterize the artwork that they are applied to.

## **Applying a 3D Rotate effect**

Page 352, step 4: Like we mention in this section, working with 3D on certain machines can slow things down considerably. If you find that happening, or Illustrator freezing, set the options in the 3D Rotate Options dialog box in this section without Preview selected.

In the 3D Rotate Options dialog box, we also don't get into working with lighting effects (the Surface option). If you want, you can explore the different lighting techniques with students, then continue.

Page 353, step 7: It will be tricky to align the now 3D text like in the figure. It most likely will take several attempts since the original text shows when you drag it (not the text with the 3D rotate applied).

## Creating and applying a graphic style

Page 356, step 2: In the context of the panel workflow that's been described, the Graphic Styles panel works with the Appearance panel in much the same way that the Swatches panel works with the Color panel. An appearance is like a super-fill or super-stroke, and a graphic style is like a super-swatch. You may want to point out these parallels if they help students understand the relationship between the

Graphic Styles and Appearance panels, and the relationship of those two panels to the other appearance-related panels. At this point, students should think of building up appearances and styles using the following panel workflow:

- 1 Create colors, gradients, and patterns, and save them as swatches. Create and save brushes.
- 2 Apply the swatches and brushes to a path, using as many instances of fills and strokes as necessary, and monitoring your work with the Appearance panel.
- 3 Assign transparency as necessary.
- 4 Save the entire appearance as a graphic style. Then, when a swatch or graphic style needs to be updated, Alt/Option-drag the current appearance from the artwork to the Swatches or Graphics Style panel, respectively.

## Updating a graphic style

Pages 358–360: Technically this should be called “replacing” a graphic style since you can't really update a graphic style like a text style. There are two other ways to replace a graphic style:

- Select an object or group (or target a layer in the Layers panel) that has the attributes you want to use. Then Alt-drag (Windows) or Option-drag (Mac OS) the thumbnail at the top of the Appearance panel onto the graphic style you want to replace in the Graphic Styles panel.
- Select the graphic style you want to replace. Then select artwork (or target an item in the Layers panel) that has the attributes you want to use, and choose Redefine Graphic Style “Style name” from the Appearance panel menu.

## Scaling Strokes & Effects

Page 362: Scaling Strokes & Effects is one of those options that most of us can't live without—especially when you create artwork larger than its intended use (maybe to add more detail). It is sticky and needs to be turned on and off when you need it. By the way, setting the option in the Transform panel also sets the preference for the program. That's why it's sticky.

## Review questions

- 1 How do you edit an effect applied to an object?
- 2 How can graphic styles be shared among Illustrator documents?
- 3 How can you remove an effect from an object?
- 4 How can you preview a graphic style on a selected object?
- 5 With an object selected, what would Alt-clicking (Windows) or Option-clicking (Mac OS) on a graphic style in the Graphic Styles panel do?
- 6 What is meant by a "live" effect?

## Review answers

- 1 To edit an effect applied to an object, click the effect link in the Appearance panel.
- 2 To share graphic styles with other Illustrator documents, copy and paste the object with the graphic style applied to a new document. The graphic style comes in with it. Another way is to click the Graphic Styles Libraries Menu button at the bottom of the Graphic Styles panel and choose Other Library from the menu that appears.
- 3 In the Appearance panel, drag the effect listed onto the Delete Selected Item button or click the visibility column to hide the effect.
- 4 To preview a graphic style on a selected object, right-click on the graphic style thumbnail (or name) in the Graphic Styles panel.
- 5 It would add the graphic style to the existing style for the selected object.
- 6 Effects are live, which means you can apply an effect command to an object and edit it later on.

## Exploring on your own

Now that you've learned the basic steps for creating and using appearances and graphic styles, you can experiment with different combinations of appearance attributes to fashion interesting special effects. Try combining different styles to produce new ones.

For example, here's how to merge two existing styles to create a brand new style:

- 1 Open the file named L12\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 Apply a Drop Shadow effect to the “cherries” grouped artwork using the Appearance panel. Have students then edit the Drop Shadow effect by clicking the “Drop Shadow” link in the Appearance panel.
- 3 Select the “NET WT. 380 ML—12.6 FL OZ.” text and apply a Warp effect using the Effect menu.
- 4 Select the oval shape behind the text and have students apply multiple strokes to the shape, changing the appearance of each.
- 5 Apply an offset (Effect > Path > Offset Path) to one of the strokes so that it is larger than the shape (outside of the shape).
- 6 Choose Window > Graphic Style Libraries > Illuminate Styles to open the panel. Apply the “Arched Fire” graphic style to the red rectangle behind all other artwork. Have students edit the appearance of the rectangle (fill) in the Appearance panel and then update the graphic style.
- 7 Close the file without saving.

# LESSON 13: CREATING ARTWORK FOR A T-SHIRT

In this lesson students are given the opportunity to focus on the uses of symbols, Creative Cloud Libraries, and perspective. Stress to students that symbols are not only used for application with the Symbol Sprayer tool, but as a method for artwork management. A placed symbol can be updated instantaneously throughout a document. The Symbols panel can also work as a library for storing frequently used artwork. Symbols can also be used in conjunction with Adobe Flash when transferring artwork between the programs.

This edition is the first edition of the book that I explore Creative Cloud Libraries in any detail. If you find that Libraries are difficult to manage in a classroom setting (depending on the Adobe ID(s) being used to sign in), you may decide to skip that section and simply copy/paste the artwork and text (to capture the formatting).

I included perspective in this lesson for a few reasons. First, it is a great feature, but doesn't warrant a whole lesson in a beginner book. Second, from my own experience, perspective is more widely used as a part of a project. For instance, adding a piece of artwork in perspective, like a book, and the rest of the artwork is not—say for a poster.

## Using existing Illustrator symbol libraries

Pages 367–369: Through the Symbols panel, students can access all types of pre-existing symbol libraries. This can be a great source of artwork for those beginners or even those seasoned pros who just don't want to draw that blade of grass again. Students can learn a lot by dragging a symbol instance out and breaking the link to the original symbol. In that way, you can see how the artwork was built by using the Appearance panel. A great way to learn!

## Editing a symbol

Page 369: Remind students that they can also drag symbols out of the Symbols panel to the artboard. They must choose Object > Expand to edit the individual paths in the artwork after it has been placed. This also breaks the connection to the Symbols panel.

Page 369, step 3: Selecting the artwork I suggest may be difficult since the guitar strings are on top. You could solve this using one of several methods already learned in the lessons: Outline mode (View > Outline), zooming in very closely, or clicking through artwork with the Command (Mac OS)/Ctrl(Windows) key held down.

## **Working with Dynamic symbols**

Pages 370–371: New in this release, Dynamic symbols have many uses. Know that the only method for changing the appearance of a dynamic symbol instance (aside from typical transformations) is to select artwork using the Direct Selection tool. This is limited to color, gradient, or patterns. Also, Object level controls are not possible on elements of a dynamic symbol instance. So, scaling, moving, deleting, etc. are not possible. The only transformation possible is for patterns that may have been applied on these elements. Live text is not selectable for coloring or editing over-rides.

Here's a tip: For any symbol instance that has a transformation, or has appearance over-ride, you would notice that 'Reset' button is enabled in Control Panel, and Symbols panel menu. Using this option will reset the instance to its master's appearance and size.

## **Creating a symbol**

Pages 372–373: Though the Symbols panel accepts virtually any type of artwork, it does not take artwork that has been placed in Illustrator with Link selected.

## **Duplicating symbols**

Pages 373–374: Technically this should be called "Duplicating symbol instances." Although duplicating a symbol is almost as easy. To duplicate a symbol in the Symbols panel, you can drag the symbol thumbnail to the New Symbol button or select the symbol thumbnail and choose Duplicate Symbol from the Symbols panel menu (among other methods).

## **Replacing symbols**

Pages 374–375: As was noted in the lesson, when you replace a symbol, the new symbol acquires certain appearance properties of the original symbol instance. This can be good and bad. Sometimes, you want the new symbol to look like it did. In that case, you should simply drag it out of the Symbols panel and delete the original instance you are replacing.

## **Breaking a link to a symbol**

Pages 376–377: Make sure that students understand what this truly means. Once a symbol link is broken, there is really no way to go back.

## **Working with Creative Cloud Design Libraries**

Pages 378–383: This section introduces a rather compelling feature in Illustrator: Libraries. Creative Cloud Libraries are an easy way to create and share stored

content such as images, colors, text styles, Adobe Stock assets, Creative Cloud Market assets, and more between Illustrator projects and in other Adobe desktop apps. You need to be signed in with your Creative Cloud ID.... You can always get an Adobe ID if you don't have one.

If you see an “exclamation icon” in the CC icon in the Libraries panel--click the progress-sync icon in the Libraries panel to sync your Creative Cloud Account.

It may be worthwhile to check out more information on these, if your lesson allows for it:

- <https://helpx.adobe.com/creative-cloud/help/libraries.html>
- <https://helpx.adobe.com/creative-cloud/how-to/creative-cloud-libraries.html>
- <http://tv.adobe.com/watch/learn-creative-cloud/get-started-with-creative-cloud-libraries/>

You can share your libraries with other users for them to view, edit, use, rename, move, or delete the contents of the shared library. If another Creative Cloud subscriber has shared a library with you, you can further share it with other Creative Cloud users.

I realize that not everyone has access to CC Libraries, or even to their own CC Library (perhaps in a classroom setting with shared Adobe IDs). With that in mind, you may want to skip this section, instead simply opening the supplied Sample.ai file in the Lesson13 folder and copy/paste the content into the working Illustrator file.

## **Adding assets to CC Libraries**

Pages 378–380: You can use the default library called “My Library” or you can create your own. To create a new library, you can choose Create New Library from the library menu at the top of the panel. Different libraries can be created for any reason, really—per project, etc. To date, the upper limit on CC Libraries is 100 (so I was told). I've never actually gotten there yet.

Library assets are stored in the Creative Cloud, and when assets are added to the Libraries panel, a sync occurs with the Creative Cloud. You can access content within your CC Libraries even when offline.

When it comes to adding assets, you can follow what we did in the book to add them or you can add them from places like the Swatches panel, the dialog box when creating a paragraph or character style, and much more.

## Using Library assets

Page 381: There are many ways to use library assets. On page 381, step 7, I say to drag the “pick” asset from the Libraries panel into the Document window. In the next section, I show how to embed the artwork since library assets are linked. A shortcut for using a library asset is to hold down the Option (Mac OS) or Alt (Windows) key and drag an asset out. Doing this will automatically embed the asset artwork into the document. I am mentioning this because if you embed a library asset, it will most likely contain a clipping mask (or two).

## Updating a Library asset

Pages 382–383: Library assets are updated using the CreativeSync feature. All assets that were used in Illustrator CC 2014 are unlinked assets. To use the linked assets feature, drag the asset again from the Libraries panel in Illustrator CC 2015.

Page 383, step 10: I added this step because otherwise, when you add artwork after this point it will be on a sublayer and not able to be arranged. Make sure students do this.

## Working with the perspective grid

You can easily draw or render artwork in perspective using the perspective grid. The perspective grid allows you to approximately represent a scene on a flat surface, as it is naturally perceived by the human eye. Working with perspective is not required learning for everyone. The rest of this lesson contains a bit of precision, so it is best to take it slow and pay attention to the features of the perspective grid.

Page 384: The perspective grid is the backbone of drawing in perspective in Illustrator. It is important for students to get used to the different options on the grid. Below step 3, the perspective grid options are labeled. Trying to memorize the different options is unrealistic, so have students refer back to the figure below step 3, when necessary, throughout the lesson.

## Using a preset grid

Page 385: There are three main preset grids to choose from. Each of those grids can be edited and changed in each document. It is important to let the students know that each document can only contain one perspective grid no matter how many artboards the document contains.

## Adjusting the perspective grid

Pages 385–387: The steps in this part of the lesson (adjusting the grid) are important. This sets up the grid for the lesson. Make sure that students follow the steps carefully.

Page 387, step 9: Make sure that students understand that if they change the color of the grid in the Define Perspective Grid dialog box, going forward, it can be confusing when looking at the figures.

To help with some of the grid edits, red Xs have been placed showing where to drag from. We have also included zoomed in portions of the grid so that students can see which part of the grid the step is referring to.

Another helpful reminder when working in perspective is that the grid will look different (have more or fewer gridlines) depending on the zoom view.

## Drawing artwork in perspective

Pages 388–389: Drawing in perspective can be very fun. It is important to remind students that before they begin drawing, they should select the correct grid plane in the Plane Switching Widget, or by using keyboard shortcuts. Also, as students begin to create the shapes, matching the figure measurements is not necessary—as long as they are close.

After drawing the shapes, color fills are added, as in step 4 on page 388. Have the students use the colors listed in the lesson. Later, after the lesson is over, they can go back and adjust the colors however they want.

Also, remind students that the perspective grid will appear to grow and shrink in size (the number of gridlines showing) when they change the zoom level. What they see on the grid may not match the figures because of this. As long as the measurements are correct, it will be okay.

## Selecting and transforming objects in perspective

Page 390, step 3: When you drag objects on the perspective grid, you need to be zoomed in to the grid to see the snapping occur.

Something that students should be made aware of is that, as you click to select content on the grid with the Selection tool, the Plane Switching Widget doesn't change. If you were to click to select content on the grid with the Perspective Selection tool, whatever grid plane the selected object is on, is selected in the Plane Switching Widget. Students should, early on, get in the habit of selecting and dragging content on the grid using the Perspective Selection tool, not the Selection tool. If they drag artwork that is on the grid (attached to a perspective plane), it will become "detached" and a dialog box will appear telling them this.

## Moving planes and objects together

Page 391: In this section, students are shown two ways to move the planes (with or without content). If a more visual approach is necessary, keyboard commands are used when dragging a grid plane control to achieve the same options as those

found in the dialog box when a grid plane control is double-clicked.

## Moving planes and objects together

Page 391, step 2: Students will most likely need to zoom in close to the grid plane controls in order to see which one they need to drag.

## Drawing artwork with no active grid

Page 392: Switching between the different planes for drawing or adding content to the grid can be a bit confusing to new users. Most of the time, a mix of perspective and non-perspective content may be used in a single document, like we are doing in this lesson.

## Adding and editing text in perspective

Pages 392–393: Text can't be typed directly in perspective and must be attached to perspective after it is typed in. You can apply many different effects, such as a 3D effect, when it is attached to perspective.

Have students try different formatting options for the text when in perspective. They may also need to pick a different font if they don't have that font on their system and that's okay.

## Moving objects in a perpendicular direction

Pages 393–394: It can be a little tricky to drag artwork perpendicular to the plane, so have students read the instructions first and then attempt to drag.

Page 394, step 5: Students could also use the align options to align the circle to the rectangle. Know that working with a key object in perspective is difficult to say the least.

## Moving a plane to match an object

Page 395: This section is important because if artwork is moved perpendicular to the grid, for instance, then the artwork is no longer directly on either the left or right grid planes. That means that in order to add content on the same plane as the content you dragged perpendicular to the plane, you need to move the plane to match that content.

You can either follow the steps in the section, moving the grid plane using a menu command, or using a keyboard shortcut to get the grid plane to move to the artwork. If you select a rectangle in step 1 on page 395, you can also select the Perspective Selection tool, press the Shift key and position the pointer over an anchor point of the selected rectangle, and the grid plane will move to match the artwork. This is only temporary, and the grid plane will move back after you edit or

add artwork to the grid.

## Bringing content into perspective

Pages 395–396: Lots of different types of objects can be attached to a grid plane, except for raster images (unless the image is traced). Make sure that when dragging the object so that it attaches to a plane, as in step 3 on page 395, that the correct grid plane is selected first.

The tip on page 395 (at step 2) is a good one. We've found that some people don't like to drag an object to attach it to a grid plane. The tip provides another method for attaching artwork to the perspective grid.

Page 396, step 6: One rather important thing to note about dragging symbols into perspective is that they can change appearance when dragged onto a grid plane if they have effects applied, for instance. Just something to pay attention to.

## Editing symbols in perspective

Pages 396–397: All the rules of what can be added to the perspective grid still apply here. For instance, if you attempt to add a raster image while editing a symbol that is in perspective, a warning dialog box will appear telling you that you cannot.

## Finishing up

Pages 397–398: This section has quite a few little steps. I really just created this section as a method for finishing the artwork.

On a side note, grouping content that is on the grid AND on different planes will not work as expected. If you group two rectangles, one on the left grid and one on the right grid, and then you drag one of them using the Perspective Selection tool, only the one you are dragging will move. Grouping content on the grid can be useful for applying effects or graphic styles, for instance.

Page 398, step 11: Aside from using the menu command (or context menu) to release content from perspective, you can also drag content with the Selection tool (not the Perspective Selection tool) and a dialog box will appear telling you that you are going to move the artwork off of the grid.

## Review questions

- 1** What is the only object that cannot be used as a symbol?
- 2** When you save a symbol in a document, does it appear in other new documents automatically?
- 3** How can you edit the contents of a symbol instance without editing other symbol instances of the same symbol on the artboard?
- 4** What does locking the station point allow you to do to the perspective grid?
- 5** How many perspective grids are allowed per document?
- 6** Name the general steps for adding text to a grid plane.

## Review answers

- 1** The only object that cannot be used as a symbol is a linked graphic.
- 2** No, the symbols created in a document stay in that document by default.
- 3** To edit a single symbol instance, you can break the link to the symbol instance.
- 4** Locking the station point allows you to adjust the left and right vanishing points together.
- 5** Only one perspective grid is allowed per document.
- 6** A. Create the text. B. Select a grid plane to attach the text to. C. Drag the text object onto the selected grid plane with the Perspective Selection tool.

## Exploring on your own

To explore further, you will add a door and window to the gray building.

- 1 Open the file named L13\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:

<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 Select the flower artwork off the right edge of the artboard and convert it to a symbol.
- 3 Add several instances to the artboard using various methods. Have the students explore the symbol libraries (Window > Symbol Libraries) and find (and scale) symbols they want to add to the document. Take it further by having them replace a symbol on the artboard with a new one they found.
- 4 In the Libraries panel, save the text formatting for the “Your gift exclusively from.” Apply that text formatting to the “Order online today at our website.” Save the red color fill from the flower (symbol) and apply it within the artwork.
- 5 Have students show the perspective grid and adjust it to sit in the lower-left part of the artboard (to the left of the product).
- 6 Draw a product box (right, left, and top shapes) on the perspective grid.
- 7 Change the fill and stroke of the new shapes.
- 8 Drag a flower symbol instance onto the product box and scale it using the Perspective Selection tool.
- 9 Choose File > Close without saving the file.

# **LESSON 14: USING ILLUSTRATOR CC WITH OTHER ADOBE APPLICATIONS**

Adobe Illustrator is a powerful vector drawing tool, but it isn't designed for editing photographic images at a pixel level. However, Illustrator can easily import and modify raster images from a program like Adobe Photoshop, giving students the best of both worlds. In this lesson, students will learn how to integrate raster (including Photoshop [.psd]) images into Illustrator layouts, as well as discover a lot of methods for working with raster graphics.

## **Placing an image**

Pages 404–405: When preparing a print illustration that contains a raster image file, students should consult with their print service provider about whether placed images should be linked or embedded for file hand-off. As you go through the sections in this lesson, it is important to pay close attention to whether images are linked when they are placed. Placing linked vs. embedded images can cause different options to appear.

## **Scaling a placed image**

Pages 405–406: Placed images can be adjusted in many ways. In step 1 on page 405, make sure that students understand the meaning of holding down the modifier keys to resize a placed raster image. The change to the resolution of the image when it is resized is similar to how InDesign handles image size and resolution. The Shift key helps to stop distortion of the placed image when scaling it.

Also, as a side note, it can be difficult to determine how much a placed image has been scaled by looking at it. In order to determine the scale of a placed, linked image, you can select the image on the artboard, then click the blue, underlined name of the image (like "Kayak.jpg") in the Control panel and choose Link Information. This works for linked files.

## **Placing a Photoshop image with Show Import Options**

Pages 406–408: Pay close attention to students, ensuring that they deselect Link in the Photoshop Import Options dialog box. In the later versions of Illustrator, there is now a Show Import Options selection when placing images. This option is very similar to the same option in InDesign.

Also, if you have time and access to the Adobe Photoshop application, allow students to create their own combinations of layers, perhaps with text, shape,

or adjustment layers. Place that image with the Link option selected, and then deselect to see the difference.

## Placing multiple images

Pages 409–410: Remind students that after placing, if the images don't match the figures, they can always adjust the position using the Selection tool.

The tip on page 409, step 4, is a good one. If you are placing multiple images, you can press the Escape key to remove an image from the loaded graphics cursor. One thing to note for InDesign users is that if you click to place an image and then undo the place, the image will be gone. In InDesign, if you undo after placing an image, the image is pulled back into the loaded graphics cursor and can be placed again.

## Applying color edits to images

Pages 410–411: In order to apply color edits like you see in this part of the lesson, the image needs to be embedded when it is placed or after it is in the document. This may not be possible with certain workflows. If the image needs to retain the linking to the original image file so that it will update, then the color edits may need to be done in Photoshop instead.

## Applying a simple mask to an image

Page 412, step 1: The Mask button will create a mask on an image in the shape of the image. Clipping masks are one of those things that everyone wants to eventually know how to do, and there are several ways to approach them. When you apply a mask to an image using the Mask button, a mask the size of the bounding box is added. You can then edit the mask like we do in the next section.

If you require a mask from existing artwork, you will use another method for masking like you see in the “Masking an object with multiple shapes” sidebar on page 415.

## Editing a clipping path (mask)

Pages 413–414: Another way to edit a mask is to treat the masked object like a group. If you double-click the image with the Selection tool, you can then either select the mask or the image in Isolation mode. Since the image and the mask are in a clip group, it treats it sort of like a group.

## Masking an object with text

Page 414: Masking content with text can create some very visually compelling artwork. Another method for achieving similar results is to save the image (in this case) as a pattern swatch, then apply that swatch to a fill of the text.

## **Creating an opacity mask**

Pages 415–416: Have the students try different colors in the masking object using the Swatches panel or Control panel (Fill color) to see the change. This will give them the idea that white is transparent, black is opaque, and shades of gray are somewhere in between.

## **Editing an opacity mask**

Page 417, step 4: It is a bit of a sticking point when students don't click the mask button in the Transparency panel to ensure that the mask is selected.

Page 418, step 6: It's very important to make sure that the Fill box is selected. Otherwise, students will not be able to edit the gradient with the Gradient tool.

Page 418, step 10: This can be a bit tricky since you can't see the image as you drag it. Have the students drag a bit at a time, releasing the mouse button to check their progress. If they accidentally deselect the image, they can always select it again and make sure that the link is broken in the Opacity panel between the image thumbnail and the mask thumbnail.

## **Sampling colors in placed images**

Page 419: Emphasize to students that they must select all the text and apply the same color to it. It's important that the text be only one color, to enable exporting editable text. Also, students can try sampling other colors as well.

## **Finding link information**

Page 420: The Links panel in Illustrator is similar to the Links panel in InDesign. Remind students that when they select an embedded image in the Links panel list, they will not see much in the way of information since the linked content is embedded.

## **Embedding and unembedding images**

Page 421: It may be helpful to explain to students why embedding and unembedding can be important. Suppose you receive an Illustrator document and need to edit an image that is embedded. Unembedding the image data gives you the file to edit if you don't have it and the ability to update it as well.

## **Replacing a linked image**

Pages 421–424: In this section, students will duplicate the kayak image several times and replace the copies with other images. Then they will rotate and space the new images. This section really is just for a bit of practice in dealing with images, so you can either skip it or reduce the number of copies if time is an issue.

## Packaging a file

Page 424: Packaging can save users a lot of time and headache when they need to gather all of the linked content, including fonts, to send the document to a co-worker or perhaps to a service provider for printing. The one question I get all of the time is around Typekit fonts. Since Illustrator won't package them, how do people that I send the file to use them? Illustrator has a Typekit missing fonts workflow, which we cover in detail in several lessons (usually at the beginning of the lesson). If the file is opened on another machine, there is an Internet connection, and the user of that machine is logged in to the Creative Cloud (a subscriber), then they can easily fix the Typekit fonts when the file is opened in Illustrator.

## Review questions

- 1 Illustrator creates (primarily) what type of graphics—vector or raster?
- 2 When importing a layered Photoshop file, what's the difference between converting it to objects and flattening it into a single image?
- 3 How can you apply a color already present in another object?
- 4 Where can you update an image linked to an Illustrator file?
- 5 When looking at the Layers panel, how can you tell if an object is a clipping mask?

## Review answers

- 1 Illustrator is a vector drawing program.
- 2 Converting a Photoshop file to objects preserves the file's layers. The Photoshop file becomes a layer and the Photoshop file's own layers become sublayers in Illustrator. Flattening a Photoshop file merges its layers into a single Illustrator layer.
- 3 To apply a color from another object, select the appearance attribute of the object you want to change, and then click the Eyedropper tool on the color you want.
- 4 Images can be updated in the Links panel.
- 5 In the Layers panel, you can tell that an object is a clipping mask because its name in the Layers panel is underlined and it is called Clipping Path.

## Exploring on your own

Now that you know how to place and mask an image in an Illustrator file, you can place other images and apply a variety of modifications to the images. You can also create masks for images from objects that you create in Illustrator. For more practice, try the following.

- 1** Open the file named L14\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2** In addition to adjusting color in images, apply transformation effects (such as shearing or rotating), filters, or effects (such as one of the Artistic or Distort filters/effects) to any of the images in the file.
- 3** Place the woman.psd image on the artboard.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 4** Have students scale and arrange the image behind the white circle in the lower-right corner of the artboard. Use the white circle as a mask for the woman.psd image. Have students rotate the image after it is masked. You can use that as practice for selecting the clipping path and contents.
- 5** Create large type “FRESH” on top of the “berries” image at the top of the artboard, and use the type as a clipping mask to mask the berries image. You may want to have the students make a copy of the berries image and mask the TOP copy so that it looks like the corn image. Then, they can add a drop shadow to the type. Use the corn image as an example.
- 6** Have the students select the white banner (behind the “MERIDIEN” text) and sample a green color in the corn with the Eyedropper tool to apply the green color as a fill to the banner.
- 7** Have students unembed the corn image and save as a .PSD.
- 8** Choose File > Close without saving.

# LESSON 15: PREPARING CONTENT FOR THE WEB

With so many of us needing to save optimized content from our artwork, we decided it was time to give this content its own lesson. The purpose of the lesson is to show how to prepare and export (save) our Illustrator artwork as optimized content for on-screen display. This could mean a web page or an on-screen presentation.

## Saving content for the Web

Page 429: This section is devoted to prepping, slicing, and saving content for use on a website or on-screen presentation, for instance. It is meant as an overview and does not cover every aspect of the web image-saving process. As you will see, slicing content is not necessarily the best method for saving artwork. Using the CSS generation, you can also export CSS and artwork that is optimized without slicing.

## Aligning content to the pixel grid

Pages 429–431: Aligning to the pixel grid is one of the more important concepts when it comes to preparing web images. Without pixel grid alignment, content like a rounded corner button can appear to have “jagged” or soft edges. Make sure that students set up their documents that are meant for web design with the web profile. If the document already exists, then make sure that they understand that content can be aligned to the pixel grid on a case-by-case basis (in the Transform panel) or for all NEW objects by choosing Align New Objects To Pixel Grid from the Transform panel menu.

It drove me crazy for a while when creating new rectangles that they were NOT snapping to the pixel grid by default even though I had it turned on. Live shapes (rectangles, rounded rectangles, ellipses, and polygons) do NOT snap by default even if the option “Align New Objects To Pixel Grid” is enabled. You can align those objects after the fact if you like.

Page 430, step 6, Tip: The tip next to step 5 is a good one. The pixel grid appears when the user zooms in on the Document window to at least 600%. You can change this value in the program preferences if you don’t want to have to zoom as far, for instance.

## Slicing content

Pages 432–433: When setting up documents whose content is to be used on the Web, you can either create multiple artboards, one for each object, and export each artboard independently; or create a single artboard, say for a page design, and slice

up that content. Both methods are viable, and it just depends on the situation as to which method to use (among others).

Ensure that students account for drop shadows and other effects, like blur, when slicing content. Also, make sure that they understand that the artwork is to be “flattened” and rasterized when you choose the Save For Web command. This means that what shows on the artboard in the slice is saved in the image that is generated.

Another sneaky method for cutting out your Illustrator artwork for optimization is to select the artwork and choose Object > Artboards > Fit To Selected Art. Then you can simply save for web and then undo the artboard sizing to return it to its original size.

## Selecting and editing slices

Pages 433–434: Note that you can also use the Selection tool to select user created slices and edit them. There are also a host of other options available when it comes to editing slices. Have students select a slice with the Slice Selection tool, then choose Object > Slice > Slice Options. The Slice Options dialog box is where you can give the slice a name (if necessary). There are also a lot of other options available that are of no use anymore since Illustrator no longer exports HTML (as of a few versions ago).

## Using the Save For Web command

Pages 434–436: On page 434 step 2 is something to make sure that students understand. Using the Save For Web command will flatten the artwork in the slices. That means that where you want it to be transparent, you need to see the artboard in the slice. This is one of the reasons why, instead of slicing content, some of us will copy the content to a new artboard that is the right size and save from there.

## Creating CSS code

Pages 437–446: In this section, the students will be introduced to the CSS creation features in Illustrator. The interesting part of the CSS creation is that the CSS that is generated is based on the formatting of the artwork. As students will see, not all appearance attributes are included in the CSS style. This is a section that can be skipped or included (much like the previous web sections), depending on the length of the class or the focus. If the course you are teaching is focused on creating artwork for print, then this section may not have relevance.

## Setting up your design for generating CSS

Pages 437–440: One of the major takeaways from this section, aside from learning about the CSS Properties panel, is understanding the difference between named

and unnamed content. As described in the section, only named content (by default) will have CSS styles created. In order to create styles for unnamed content, you need to select Generate CSS For Unnamed Objects in the CSS Export Options dialog box (found on step 9, page 439).

Naming content in the Layers panel is a way to assign a name to the CSS style created for the selected artwork. If you were to choose to stick with named content, you could export only the styles that you've named in the Layers panel. This could be a way of limiting what is exported—maybe allowing you to focus on capturing the CSS styling from a part of your design. Allowing unnamed content to have styles generated could be a way of creating styles for all content (when you export). That way, you could take the styling to your HTML editor and name the generic styles there.

As you'll discover with generating CSS, there is no one workflow for everyone. Suppose you are a designer and you work with a web developer. You might copy and paste certain text styles that the designer created so that you don't have to guess how much leading (line-height on the web) to use, for instance.

Page 438, step 6: Make sure that students pay attention to the note in the left column in step 6. If the name of the object in the Layers panel contains a space, then a number may be appended to the style name in the CSS Properties panel.

## **Working with Character styles and CSS code**

Pages 440–441: Creating CSS for text can be a bit confusing. At first, most people's instinct is to select the text with the Type tool that you want to see the CSS styling for in the CSS Properties panel. However, you need to select the type area that the text is in to see the CSS in the panel.

Also, only character styles that are applied in the document will appear at the top of the CSS Properties panel. Any paragraph styles applied to text will not generate a named CSS style—however, the formatting will be used to create a generic CSS style. The use of character styles for style naming may force some to change their workflow to include character styles rather than paragraph styles.

## **Working with graphic styles and CSS code**

Page 442: Graphic styles that are applied to artwork are listed at the top of the CSS Properties panel, but CSS styles created do not use the graphic style name. That can be confusing. The graphic style is listed in the CSS Properties panel so that you can apply that graphic style to other artwork, or see where the artwork is getting the formatting from (the graphic style). You can only generate a CSS style from artwork with a graphic style applied by either naming the object in the Layers panel or by selecting Generate CSS For Unnamed Objects in the CSS Export Options dialog box.

## Copying CSS

Pages 443–444: There are several methods for actually using the CSS that is generated by Illustrator. In this section, we discuss copying the styling. This can be a fast and precise way of getting the styling for the artwork you want out of Illustrator and into your developer tool of choice. Unfortunately, in the lesson, we don't go to another application to paste the code. Maybe in your lesson, you can go to a program like Adobe Dreamweaver and open a CSS file and paste the code so that students can see exactly what is pasted.

Another important point that step 4 on page 444 raises is that artwork that is not supported (most likely too complex to make out of CSS) is rasterized as a PNG file and saved in the CSS as an image in the background. If students were to copy the CSS in the CSS Properties panel in steps 4 or 5 and paste it into another program, they wouldn't get the PNG image. The PNG image is only created when the CSS is exported.

Page 444, steps 6 and 7: The way that CSS is generated can have an impact on how artwork is created. In these steps, students see that separate objects selected will generate separate styles (and separate images if the CSS is exported).

However, by grouping the objects, a single style (and single PNG if it's exported) will be created. In this case, grouping is the best practice to create a single image.

## Exporting CSS

Pages 445–446: This second method for getting the CSS out involves exporting some or all of the CSS for the artwork. Remind students that in this case, the PNG files for unsupported artwork will be exported and can be used in their web projects. Currently, PNG is the only format that is exported. This is one of my favorite shortcut methods for generating PNG without having to slice.

## Saving artwork as SVG

Pages 446–450: Artwork saved as SVG is used quite a bit these days on websites. Aside from being a smaller file size (usually—not always), it is vector, which means it's scalable and looks great at any size. If you've gone through the first part of this lesson in your class, then this part will most likely be of benefit (especially in a web course).

There is a new SVG export in Illustrator which provides more streamlined SVG output. If you only have time to show one method, choose File > Export. If you choose File > Save As, you can show students the SVG save using that method and point to the note in the dialog box that students can click to go to the Export SVG option instead. The Save As option of creating SVG was left mostly for users that had already implemented it in their workflow.

Page 450, the sidebar: Pay close attention to this sidebar. Fonts in SVG may pose issues, unfortunately. A lot of the time, SVG is used for icons, logos, and page elements that may only contain limited amounts of text. In that case, most of the time, you can let Illustrator outline the fonts. But outlining can cause issues as well, making the text look a bit different in the SVG file than it did in Illustrator.

Make sure to have students open the .svg file that they save in their browser. They can see how it looks and also resize the browser window to see the effect.

## Review questions

- 1 In order to view the pixel grid, what menu command must be selected?
- 2 Describe the method for aligning a single object to the pixel grid.
- 3 Why did we create a layer in the lesson for the slices we created?
- 4 What is the only image file format generated by the CSS Properties panel (or the export to CSS command)?

## Review answers

- 1 In order to view the pixel grid (at 600% zoom or greater), Pixel Preview must be chosen (View > Pixel Preview).
- 2 In order to align a single object to the pixel grid, you need to select the artwork and then select Align To Pixel Grid in the Transform panel.
- 3 When you create slices, they are treated as objects and are listed in the Layers panel and can be selected, deleted, resized, and more. It helps to keep them on their own layer so that you can more easily manage them, but this isn't necessary.
- 4 When exporting to CSS using either the CSS Properties panel or the Export to CSS command (File > Export), the only image file format (currently) is PNG.

## Exploring on your own

- 1 Open the file named L15\_explore.ai.

This file is included in the instructor notes Zip file you downloaded from here:  
<http://www.pearsonhighered.com/educator/product/Adobe-Illustrator-CC-Classroom-in-a-Book-2015-release/9780134308111.page>

- 2 Have students fix any missing fonts.
- 3 Have students turn on Pixel Preview mode.
- 4 Slice different elements using the Slice tools and the Object > Slice menu items.
- 5 Have students save the logo as a PNG file (after slicing and hiding the content under it).
- 6 Select the white rectangle in the lower-left corner of the artboard (beneath the text) and zoom in closely to the edge (past 600%). Have them align the rectangle to the pixel grid (using the Transform panel).
- 7 Have students group the “Toys” content (the text, rattle shape, and circle). Explain why some of the appearance properties disappear (the circle artwork is on a different layer which has a layer style applied). Have them save the CSS using the CSS Properties panel. This will generate a PNG file that can then be used elsewhere. Don’t forget that the CSS content needs to be “generated” since the layers are not named (it’s unnamed content).
- 8 On the second artboard, have students size the artboard to fit the artwork. Then have them export (File > Export) the artwork as an SVG file.