

Adobe®

Illustrator cs2

Classroom in a Book™ Instructor Notes



Adobe

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Adobe® Illustrator® CS2 Classroom in a Book® for Windows® and Mac OS

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Adobe Press books are published by Peachpit, Berkeley, CA. To report errors, please send a note to errata@peachpit.com.

Printed in the USA

ISBN 0-321-32183-9

9 8 7 6 5 4 3 2 1

Introduction

The *Adobe® Illustrator® CS2 Classroom in a Book™* course presents students with tips, techniques, and solutions for using the Adobe Illustrator software.

The Instructor Notes are intended to complement the information in the *Adobe Illustrator CS2 Classroom in a Book®*. The information is organized to follow the sequence of instruction in each lesson.

About the workbooks

It is recommended that each student in the class have an individual copy of the *Adobe Illustrator CS2 Classroom in a Book*. Students will use this book as you lead them through projects. Additionally, the book can be used as a self-paced tutorial.

You can buy more copies of the *Adobe Illustrator CS2 Classroom in a Book* for your students, or you can refer them to a local bookseller to purchase the book. For more information, call Pearson Education at 800-922-0579.

Course strategy

If you're teaching a 16-week course, you can teach approximately one chapter of this book per class. The book numbers 15 lessons plus an introductory tour.

As an instructor you may want to refer to new updated features. Read "What's New in Adobe Illustrator CS" to discover the newest features and references to those features in the book.

We recommend that, at an absolute minimum, you teach the Quick Tour and Lessons 1 through 6. Most of the basic Adobe Illustrator features and the Illustrator work environment are covered in these lessons. These aspects of Illustrator need to be understood by all students.

In addition to using *Adobe Illustrator Classroom in a Book* to teach beginning and intermediate Adobe Illustrator classes, you can use individual lessons to teach specific topics, as suggested below:

To focus on drawing, use Lessons 4 and 10.

To focus on basic color patterns, fills, and strokes, use Lesson 5.

To teach appearance and effects use Lessons 11 and 12.

To teach about integration with other applications use Lesson 13.

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 name's) Lessons, 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.

Additional resources

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

Illustrator Help

The Illustrator Help installed with Illustrator contains a complete description of all features. You can view online Help by choosing Help > Illustrator Help. (In Windows, you can also press F1 to get online Help.)

Application CD

The Adobe Illustrator application CD contains additional information, such as the Adobe Technical Info folder and the Adobe Illustrator CS2 Software Development Kit for experienced programmers.

Adobe Web site

The U.S. Adobe Web site at <http://www.adobe.com> contains a variety of Illustrator training and support resources. Many step-by-step tutorials are available at the Adobe Web site, and the User-to-User Forums are a great place for students to learn from more experienced users.

Adobe Certified Expert (ACE) program

This program is designed to validate an expert skill level of Adobe Illustrator CS2. Careful testing of candidates ensures that each ACE has demonstrated expert product knowledge of the current release of Adobe Illustrator, resulting in increased marketability and an added credential.

Training for the ACE program is available through Adobe Authorized Learning Providers (AALP) and self-study. For more information about this program, send e-mail to certification@adobe.com or visit the Adobe Web site at <http://www.adobe.com>.

Several resources mentioned here are available directly from the Help menu in Illustrator, such as Illustrator Help.

A Quick Tour of Adobe Illustrator

This lesson introduces students to many key features of Adobe Illustrator CS2, including some of the new features such as Live Paint and Live Trace. Even experienced users should follow the Tour Lesson, as it will introduce them to the Control palette and new methods for accessing palettes. By the end of the tour, students should be able to:

- Place images onto an Illustrator Artboard.
- Create basic blends
- Understand the new Photoshop import options that relate to layer comps.
- Use the new Live Trace feature.
- Comfortably use the new Control palette.
- Create text outlines.
- Apply live effects and understand the relationship with the Appearance palette.
- Create a clipping mask.

Creating a basic blend

Page 15 Creating a blend is simple. If the student cannot get this tool to work correctly, make sure that both rectangles are selected. You can also use the tool by

selecting both the rectangles and using the key command Ctrl+Alt+B (Windows) or Command+Option+B (Mac OS).

If the result of a blend is unexpected, make sure that there is no stroke on the rectangles and that they are filled correctly.

Placing a Photoshop image

Page 18 New in Illustrator CS2, you can place a layered image onto the artboard. To recognize Photoshop layers, the image must have saved Layer Comps created in Photoshop. It is important to pay attention to this part of the lesson, as it is easy to select the wrong layer comp. Note that placed images fall directly on top of each other. If a student is not following the steps correctly, they assume that there is only one image on the page.

Alignment

Page 19 Use the Align feature to keep your images flush left and evenly spaced apart from each other. If you want to lock one item down before aligning or distributing, simply click on the item before using the Align palette.

Using Live Trace

Page 21 The default setting works well with the sample image, but have students experiment with their own images on a separate document.

Show what “live” means by having the students edit the original placed image. The trace updates along with the image in Illustrator.

Using the Control palette for typesetting

Page 23 New users will probably adapt to using the new Control palette before those more experienced, and used to using palettes. Urge your students to maximize their capabilities by performing typesetting using only the Control palette.

Using the Appearance palette

Page 26 The Appearance palette can be used for applying simple fills and strokes as well as complex Live Effects. You may want to practice with the students on a separate document to show how to create and stroke items as simple as dashed lines and arrows and save as a Graphic Style.

It is important to understand that any edits or changes on objects that have Live Effects applied, should be done only through the original Effect dialog box. Re-open the Effect dialog box by

double-clicking on the listed Effect in the Appearance palette.

Using Live Paint

Page 29 In this tour, a simple Live Paint group is used. If students experiment with their Live Paint Group at this stage they may experience difficulties. Read Lesson 5, “Color and Painting” to learn how to use more of the Live Paint features, such as Gap detection.

Creating a Clipping mask

Page 31 Make sure students understand that when the clipping mask feature is used, it automatically uses the object on top of the painting order.

Lesson 1: Getting to Know the Work Area

The first lesson introduces the work area of the Adobe Illustrator application.

Using the basic commands, tools, and palettes, your students will learn general techniques for understanding where they are, how to get information about the drawing, and how to select the tools or enter the values needed to change the drawing.

The Illustrator environment

You may want to introduce students to the Illustrator environment by providing a general tour of the screen. 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 page icons, the palettes, and the toolbox. (Even if you won't use all the tools in the first few lessons, you may wish to identify them briefly as an introduction to Illustrator.)

Getting started

Page 33 Each lesson has students restore the default preferences to ensure that

the steps and artwork match what the students will encounter.

Point out that the solid and dotted lines that indicate the printable areas of the page are determined by the printer driver in use. You can demonstrate how changing the printer driver or even the paper size will change the printable area display on the page.

Welcome Screen

Page 34 Explain to students that they can check the box in the lower left to cause the Welcome screen to NOT open. The Welcome screen, if needed, can be opened using the Help menu.

Using the Illustrator tools

Page 39 The toolbox diagram on this page can be quite overwhelming to students, but, when broken down into its useful sections, it can be quite easy to understand. Explain to students that the tools will be discussed in more detail as they progress through the lessons. But give them a run-down of the various sections, such as drawing and object creation tools, transformation tools and editing tools.

Page 39, step 1 Students may 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 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 keeps the mouse pointer directly over the part of the image that's being edited, because you don't have to move the pointer back and forth between the image and the toolbox or menus.

The keyboard shortcut Ctrl+0 (Windows) or Command+0 (Mac OS) is stressed because of the rather large pasteboard in Illustrator. By using this Fit in Window Keyboard shortcut, the student can always get back home, and have their artwork centered on the screen.

Using the View commands

Page 41 Direct students to the Info bar at the lower left corner of the Adobe Illustrator window to check the percentage of the artwork's actual size. Point out that it's important to be familiar with the actual size and its relation to magnified views, because the actual size is what's printed out. Savvy students may notice, however, that the View > Actual

Size command does not often produce a display that's precisely actual size. The true size displayed depends on the monitor resolution setting.

Scrolling through a document

Page 44 Either here or in a lesson when editing type, you may want to caution students about using single-key shortcuts when entering text. For example, when the text insertion point is active, pressing the spacebar will not activate the Hand tool, but will type a space character. In such a case, students can press the Esc key to leave text-editing mode, press the key they want, and then press T to get the Text tool back.

Working with palettes

Page 46 You may want to point out the two reasons why the Tab keyboard shortcut is so useful. Hiding and showing all palettes instantly allows quick evaluation of images without the distraction of palettes, and when working on a small screen it more easily allows use of the entire screen for image editing.

Let students know that they can save their customized palette positions by making a copy of the Adobe Illustrator CS2 Prefs file. Palettes may be reset after applying program updates or system changes, and

it can be annoying to spend a bit of time customizing the palettes.

Try to persuade students to use the new Control palette whenever possible.

About the Control palette

Page 48 The Control palette allows easy access to most of the popular palettes, such as Stroke, Swatches, and Transparency. You will find that by urging your students to use the Fill and Stroke boxes on the Control palette, they will be more likely to color the Fill and Stroke more accurately.

Using and saving workspaces

Page 48 With addition of the Save Workspace feature, Illustrator has become more consistent with the other products in the Adobe Create Suite. You may want students to experiment with different production workspaces. For example, the Minimal workspace was created for those using drawing tablets.

Using context menus

Page 49 Demonstrate how context menus change depending on the content under the pointer. Right-click (Windows) or Control-click (Mac OS) over a selected path or selected text.

If your students use graphics tablets, encourage them to program their stylus button to display context menus.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 What do you do if you can't find a tool that you know exists?
- 2 How can you find out the keyboard shortcut for a tool without opening the Illustrator Help?
- 3 How can you instantly hide or show all palettes?
- 4 What's the quickest way to go to a specific zoom percentage?

Review answers

- 1 The tool you want may be a hidden tool. Check the tools that are related.
- 2 To see the keyboard shortcut for a tool, hold the pointer over the tool until the Tool Tip appears containing the keyboard shortcut for that tool.
- 3 To instantly hide or show all palettes, press the Tab key (when you're not editing text).
- 4 You can type a zoom percentage into the Navigator palette.

Lesson 2: Selections and Shapes

Think of Lesson 2 as a primer for the rest of the book. There are many selection techniques that are available, but many students may not realize the “You have to Select it” motto. These simple techniques should be ingrained in them before progressing into the rest of the lessons.

Understand that these techniques do not yet involve layers, since layers are not discussed until Lesson 7.

The drawing section of this lesson teaches how to be creative as well as precise when creating shapes in Adobe Illustrator. In this section students learn fundamental skills for manipulating shapes, including selection, painting, and resizing.

Urge students to reference the new Control palette to enter specific values as much as possible.

Using the Selection Tool

Page 58 Make the investment in time to show the students the differences between the Selection and Direct Selection tools. The time spent will pay off in future lessons. You may want to remind students of the keyboard shortcuts to access the Selection tool, V, and A for the Direct Selection tool.

Marquee select

Page 60 Have students practice this selection technique. It may seem awkward at first, but clicking and dragging with the mouse to encompass objects that you want to select is one of the most productive methods to use.

Grouping Items

Page 61 It is important to remind students that for every group they create, they will have to ungroup. In other words, if they group several objects together and then group those items with additional objects they will have to ungroup twice to release all items.

Hiding selections

Page 65 This simple method for hiding selections can keep students from selecting the wrong object. Remind and get students to use the keyboard shortcuts Ctrl+3 (Windows) or Command+3 (Mac OS) to hide a selection. Ctrl+Alt+3 (Windows) or Command+Option+3 (Mac OS) to Show All the Hidden objects.

If students don't want to show all hidden objects at once, suggest that they use layers, and reference Lesson 7.

Select Same

Page 66 Show this useful feature to students by demonstrating with line widths and colored illustrations. It can be a tremendous time saver, and also keep artwork consistent.

Creating Basic Shapes

Page 67 For students concerned with creating precise artwork, you can point out some helpful Illustrator features. When the rulers are displayed, their origin—where the rulers' 0 points intersect—appear in the Transform and Info palettes as the relative point from which to measure the pointer's position. The ruler origin also affects the tiling of patterns and the bounding box information for the Separation Setup command.

By default, the ruler units of measure are points. The units of measure can be set for all documents (using the Preferences > Units & Undo command) or for individual documents (using the File > Document Setup command). Illustrator allows converting a unit other than the preset unit to the set unit, and allows performing mathematical operations in any text box that accepts numeric values. These features are useful when students want to work with a unit value other than that displayed; when mixing values (for example, 2 in + 2 pts); and for specifying

relative values, for example, to the ruler origin or to another point in the artwork.

Drawing the pencil shape

Page 73, step 16 Point out to students that when drawing any polygon, they can press the Down or Up arrow key to decrease or increase the number of its sides. However, holding down a Down or Up arrow key or pressing it too quickly may subtract or add more sides than expected.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 When you have multiple objects selected, how do you deselect just one item?
- 2 What can you do if you are selecting an item, but the wrong object becomes selected instead?
- 3 What can you do to stretch a rectangle either horizontally or vertically, but not both at the same time?
- 4 How do you control whether a shape is drawn from a corner or from the center?
- 5 How can you create an octagon interactively (without opening the Polygon tool's dialog box)?

Review answers

- 1** To deselect an object, Shift-click on the object.
- 2** To keep unwanted selections from occurring used Object > Lock, or Object > Hide.
- 3** To stretch any object's shape, you can use the bounding box and grab the middle handle. If you grab the corner, both the vertical and horizontal shape is changed simultaneously.
- 4** Shapes are drawn from their top left corner by default. You can draw them from the center by pressing Alt (Windows) or Option (Mac OS).
- 5** As you drag the Polygon tool, press the Up Arrow or Down Arrow key until the polygon has the number of sides you want (in the case of an octagon, eight sides).

Lesson 3: Transforming Objects

Transformations are changes to an object's overall size, proportions, or orientation. In Illustrator, transformation can affect position, size, rotation, and shearing (slanting). Students will find that each kind of transformation can be executed in more than one way, depending on the situation and the amount of precision required. In addition, in this lesson students will learn how to combine transformations with duplication, to achieve a step-and-repeat effect.

Scaling objects

Page 81 Point out the ruler origin—the 0 point on the horizontal and vertical rulers—to students. These appear by default at the lower left corner of the page. Both the Transform and Info palettes use the ruler origin as the relative point from which to measure the pointer's position.

Page 84, step 12 Remind students that locking (or hiding) objects protects them from being selected or changed. Objects can be locked in many ways—using the Lock and Hide commands in the Object menu, or using the Layers palette (either its edit column or palette menu commands). Students can safely edit artwork layered behind other artwork using the Lock/Hide > All Artwork Above command. The Hide command makes objects temporarily invisible, and thus may speed performance when working on large or complex artwork.

Page 85 At the end of the “Scaling objects” section, review with the students that three different methods were used to scale. You may have the class discuss why each of them is useful:

- The Transform palette is best for scaling with numerical precision. Let students know that they can click on the X or Y link in the Control panel to open the Transform palette.
- The Bounding Box is a convenient and intuitive way to scale because it doesn't require using any special tools or palettes.
- 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 will be available for the other transformation that will be covered.

Rotating objects

Page 85 If students ask how to rotate with the bounding box, you can show them. Select an object with the Selection tool, then position the pointer slightly outside a handle until you see the rotation pointer, then drag. This isn't a high priority to mention unless asked, because it will be covered in the topic "Using the Free Transform tool" on page 211.

Positioning objects precisely

Page 94 Illustrator allows entering or combining different units of measure in any text box that accepts numeric values. Have students note the unit of measure conversion that occurs when they enter 0.25 in. in the text box.

Changing the perspective

Page 96 This operation is sufficiently subtle that even experienced users may have trouble with it. If it isn't working, check for the following two things:

The Free Transform tool must be selected in the toolbox for the modifier keys to work. If the Selection tool is active, the bounding box of the selected orange slice will look exactly the same as when

the Free Transform tool is active, but the modifier keys will not distort the object.

Students must press the mouse button and begin dragging before they press any modifier keys. Distortion won't work if the keys are pressed before the mouse button is down.

Making multiple transformations

Page 101 Actually, it isn't necessary to use the Transform Each command to move all objects a uniform amount; the Move command or the Transform palette would do this just as well.

You may want to demonstrate a more effective example of the Transform Each command—rotating a row of triangles. With the entire row of triangles selected:

Using the Rotate tool, Free Transform tool, or Transform palette would change the positions of the triangles.

Using the Rotate option (and no others) in the Transform Each dialog box would rotate each triangle without changing its position.

Exploring on your own

Page 104 The Variables feature is more complex than many students may be ready for after completing a basic lesson on transformations. Those interested in trying out the robust and sophisticated

Variables feature can work through this section on their own by editing existing artwork that serves as a template and using the Variables palette to designate key elements as variables.

Creating a template for dynamic data-driven graphics in Illustrator is a powerful way to combine visual design with automated production. At its simplest application, this feature could be used for different iterations of a design—for example, to show off color choices or tag line changes in various design iterations for a client. A more complex application could combine the Variables feature with a data base of names and addresses, for example, to update business cards or to prepare a direct-mailer, and might require collaboration between designers and developers to generate highly formatted graphics automatically. For example, a designer could create a basic design to use as a template, assign variables to objects in the template, and create a data set to capture the changeable data. The final artwork could then be generated; or the variable library could be exported, linked to a database, and then rendered using a batch process.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 What are three ways to transform a selected object (for example, scaling)?
- 2 If you enter coordinates into the Transform palette and the object moves to an unexpected position, what are two things to check?
- 3 What command lets you replicate selected objects using the last transformation you applied?
- 4 What is the main benefit of using the Transform Each command?

Review answers

- 1 You can transform a selected object using a transformation tool, the Free Transform tool, or the Transform palette. (Other acceptable answers are: the Transform Each command, the Distort filter, the Distort and Transform effect; or for scaling and rotation, an object's bounding box).
- 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 Object > Transform > Transform Again command uses the most recent transformation when duplicating objects.
- 4 The Transform Each command applies transformations individually

to objects within a selection. Other transformation commands treat objects within a selected group as a single selection when applying transformations.

Lesson 4: Drawing with the Pen Tool

In the Illustrator toolbox, 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 Bézier curve editing techniques associated with it are key career skills for digital artists. It's useful in a wide variety of situations, because it makes 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, Bézier curve editing forms the basis for animation motion paths. The Pen tool is featured in the Adobe InDesign toolbox for its utility in creating layout elements and clipping paths. Students will find variations on the Pen tool in graphics programs throughout the digital graphic arts.

Paths are the foundation of all shapes in Illustrator and other graphics programs,

and path editing gives students total control over this universe. This alone should motivate students to master the Pen tool.

Getting started

Page 115 Use the Getting started section for a warm-up for teaching the fundamentals of the Pen tool that can be sometimes lost when applied directly to a project. Practice with the students on these specially designed exercise files to build the foundation before using the Pen tool for actual shape creation.

Creating curved paths

Page 119 Caution students about creating curves by creating multiple anchor points. This can cause jagged edges and will increase the 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 use Edit > Undo instead. This will leave the path active so that they do not accidentally create a new one.

Curves and corner anchor points

Page 125 This important technique is much more effective when the keyboard is used to change the curved point to a corner point or visa versa. Show the students the effect by creating a square and selecting the Pen tool. Hold down the 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, click again to change it back into a corner point.

Creating the arrow

Page 129, step 3 If a student's line isn't straight, they may have dragged accidentally, instead of clicking. A good habit for drawing straight segments is to consciously bring the mouse to a stop before clicking.

If the caret doesn't appear, the pointer was probably moved away from point B. The caret appears only when the pointer is within snap-to distance of the point.

Page 130, step 4 Of all the ways to deselect an object, the safest way is the Select > Deselect command or its keyboard shortcut, Ctrl+Shift+A (Windows) or Command+Shift+A (Mac OS). The reason is that if a large filled object is behind the path, there may not be an

empty area to click, and the larger object may become selected.

Splitting a path

Page 130 If appropriate, you may want to discuss and compare the Scissors tool to the Knife tool:

The Scissors tool is useful for making a single cut.

The Knife tool can slice across multiple segments and create entire closed paths from them.

Adding arrowheads

Page 131, step 2 The book says that the arrowhead appears at the end of the line, the last anchor point added. Arrowheads are one of the situations 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.

Drawing curves

Page 132 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 push pins and wire. The best place to put the push

pins is at the points where each curve segment begins and ends. Then you shape the wire around the push pins.

Selecting a curve

Page 132 The results students get from editing a path can vary dramatically depending on what's selected. Make sure that students understand the distinctions among the different levels of selection possible for a path: an entire path, a segment, or a point can be selected. For example:

- If you select a point and press Delete, the two segments on both sides of the point are erased.
- If you select a segment and press Delete, the segment is erased.
- If you select the entire path and press Delete, the entire path is erased.
- You can instantly erase half of a path by selecting half of its points and pressing Delete.

Exploring on your own

Page 142 Encourage students to learn the keyboard shortcuts for the Pen tool and path drawing. Keeping one hand over the keyboard for tool switching and the other hand on the mouse can facilitate efficient, uninterrupted drawing. The most important shortcut to learn is the Ctrl (Windows) or Command (Mac OS) key

for temporarily switching to the Selection or Direct Selection tool.

Page 142 Now that students have experience with the Pen tool 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, the 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

The following questions are not in the student's *Classroom in a Book*.

- 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?

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.)

Lesson 5: Color and Painting

In this lesson, students study painting techniques in more depth. Students will study Illustrator's color controls, color types, and patterns.

Using Live Trace

Page 146 The Live Trace feature is an incredible feature that is worthy of experimentation. You may want to have your students create their own sketches and scan them in. Then have them try to achieve the look of a digital sketch.

Some images, no matter what setting, are difficult to trace. In this case you might want to recommend placing the image as a Template, then manually tracing with the Pen tool.

Using Live Paint

Page 149 You may want the students to investigate the Live Paint further, as it is just touched upon in this lesson.

Learn that 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.

Color Mode

Page 153 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 will be 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 palette menu for specifying color.

Understanding the color controls

Page 153 The Illustrator user interface for color is deep and powerful. It's designed for maximum flexibility, but features so many color-related palettes that beginners may have difficulty determining how to use these palettes, 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 box.

You can help simplify Illustrator color for your students by breaking out appearance attributes into a hierarchy:

While students should study the Color and Swatches palettes together, the simplest possible way to apply color is with the Color palette alone.

The Swatches palette provides storage for commonly used colors (as well as patterns and gradients). Students only need to use this palette to use an existing swatch or to make a new one. Students should begin using this palette within the first few projects of their own.

The Transparency palette controls the opacity and blending mode of an object. These represent another layer of attributes associated with color. Students should apply color first, then transparency.

The Appearance palette displays and controls all the above attributes along with effects, with additional powerful options for objects, such as multiple fills

and strokes. However, the Appearance palette can be confusing unless a student understands how all of the above palettes feed into it. The Appearance palette is covered in more detail in Lesson 11.

The Graphic Styles palette provides storage for commonly used collections of Appearance attributes, and is covered in detail in Lesson 11.

Copying attributes

Page 157 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, from a paint swatch, or from anywhere on the desktop, including from another application. The Paint Bucket tool then can apply the current attributes to an object.

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

Using the Appearance palette for strokes and fills

Page 159 The Appearance palette can be used for the simple fills and strokes. The benefit is that the user can better identify

attributes that have been applied to an object, and easily convert those attributes into Graphic Styles.

You may want to create an exercise that relies heavily on using the Appearance palette to develop the habit of using it on a regular basis.

Building your own custom color

Page 161, step 3 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 because this job is targeted to a printing press.

Naming a color

Page 161 To name a color as it's being added to the Swatches palette, students can hold down Alt (Windows) or Option (Mac OS) as they click the New Swatch button.

If you have time, you can have your class discuss the relative merits of the color types, especially the difference between global and nonglobal process colors. Although the name is unfamiliar, global process colors work just like paragraph styles in a word processor; 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 Patterns

Page 164 Students should think of applying pattern and gradient swatches 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.

Saving a Graphic Style

Page 172 Saving a combination of attributes, no matter how minimal, can be an effective method of keeping object attributes consistent and allow for easy updates.

Show students how they can create arrows, dashed lines, or simple fills and strokes and store them as Graphic Styles. Update one and replace it in the Graphics Style palette by holding down the Alt (Windows) or Option (Mac OS) key as you drag the revised style on top of the current Style. All instances are updated.

Show students how they can save custom Graphic styles by loading them into the Adobe Illustrator Startup_CMYK or Adobe Illustrator Startup_RGB file, located in the Plug-ins folder of the Adobe Illustrator CS2 application folder.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 Why are Live Trace and Live Paint called “Live”?
- 2 How do you know whether a swatch is about to affect a fill or a stroke?
- 3 If you don't see the Dashed Line option in the Stroke palette, where is it?
- 4 How do you add libraries of color swatches?

Review answers

- 1 The “Live” in Live Trace and 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.

2 Before applying a color, check the toolbox to see whether the fill or stroke box is in front. It may be easier to simply use the new Control panel to avoid this confusion.

3 The Dashed Line options are part of the Stroke Palette options, which are hidden by default. To display them, choose Show Options from the Stroke palette menu.

4 To add a library of color swatches, choose Window > Swatch Libraries, and choose a library from the submenu.

Lesson 6: Working with type

Adobe Illustrator provides enough control over type that it's often used for complete single-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.

Importing a text file

Page 179 If you have more time, you may want to create Microsoft Word documents and experiment placing them using different import options.

Creating columns of type

Page 180 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.

Working with overflow text and text reflow

Page 184 This topic is worthy of much more exercise time than is allotted in this lesson.

If you have time, have students create a blank document and import text into a text area. Practice what to do when text overflows and how to thread to other text containers.

Changing the text attributes

Page 187 Font and size are also available from the context menu that appears when students right-click (Windows) or Control-click (Mac OS) text selected with the Type tool.

Creating Paragraph and Character Styles

Page 193 Encourage students to use the style features, as they will save time when creating or updating text attributes. If you have time, you may want to show them how to store commonly used styles in the Adobe Illustrator Startup_CMYK and or Adobe Illustrator Startup_RGB file stored in the Plug-ins folder inside the Adobe Illustrator CS2 application folder.

Sampling text

Page 195 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 and Paint Bucket tools, respectively, double-click either tool in the toolbox to display their Options dialog box.

Wrapping text around a graphic

Page 196 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.

Reshaping text with an warp

Page 198 Encourage students interested in more practice with warps to create their own object to use for the text. Note that the new text engine only requires that the object you want the text to run around be selected. You will see a warning message if you select both the object and the text container before choosing Object > Text Wrap > Make Text Wrap.

Creating text on paths and shapes

Page 202, step 11 You can demonstrate sliding the type all the way around both

sides, the path, and flipping it across the path, simply by dragging it as in this step.

Be careful not to confuse the new and out ports on the sides of the text path with the I-bar used for repositioning text on a path.

Creating text outlines

Page 202 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. This way they can access the text later.

Review questions

The following questions are not in the student’s *Classroom in a Book*.

- 1 How can you copy type attributes from one type object to another?
- 2 When type has been converted to outlines, why must you use the Group Selection tool to select individual characters?

Review answers

- 1 The Eyedropper tool copies type attributes as well as fill and stroke attributes.

2 Type is converted to outlines as a compound path. The Group Selection tool lets you select individual characters (paths) that make up a compound path.

Lesson 7: Working with Layers

Layers are useful for organizing a document. They maintain the stacking order of objects, such as 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.

Creating layers

Page 211 The Layers palette 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 palette 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.

Moving objects and layers

Page 213 Students should be advised to develop the habit of dragging precisely in palettes like the Layers palette. 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 palette they start dragging, they may experience unexpected results.

Locking layers

Page 215 It might be helpful to mention that although a locked layer can't be edited directly, if objects on the layer use named swatches or styles, editing the named swatches or styles will change the object on the locked layer.

Viewing layers

Page 218, step 8 In an illustration with a large number of objects, displaying some layers in Outline mode can also speed up screen redraw.

Creating clipping masks

Page 222 A clipping mask makes a handy cropping tool. It's useful for trimming objects that extend beyond the page edge or bleed area.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 How can you tell which layers contain selected objects?
- 2 How do you create a sublayer?
- 3 What does a layer clipping mask do?
- 4 How do you merge layers?

Review answers

- 1 Layers with selected objects display a selection indicator, a small square at the right edge of the Layers palette.
- 2 To create a sublayer, click the Create New Sublayer button at the bottom of the Layers palette.
- 3 A layer clipping mask hides objects and portions of objects that are both outside the clipping mask and are on the same layer as the clipping mask.

- 4 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 palette menu.

Lesson 8: Blending Shapes and Colors

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.

Creating a gradient fill

Page 236, step 5 Remind students to click precisely in the Gradient palette. For example, if they slightly miss the gradient stop, a new gradient stop will be created.

Students can easily get lost among the three palettes required to make this exercise work.

If needed, review with the class the usage order of all the color-related palettes for this exercise:

The fill/stroke box in both the toolbox and the Color palette 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. As long as a gradient stop icon appears below the fill/stroke box in the Color palette, the student is editing a gradient stop.

If a student edits a color when a gradient stop icon is not displayed in the Color palette, whatever they do will replace the gradient. Also, clicking a swatch will replace the gradient.

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

Here's an example of how confusion can occur. While editing the gradient color, a student may accidentally wipe out the gradient, finding that the gradient has been replaced with a solid color. If this happens, the student may not have selected a gradient stop in the Gradient palette. (It's also possible that a different swatch was applied, which deselects all gradient stops.) The triangular tip of a gradient stop must be selected (appear solid) in order to edit that gradient color. To fix this, the student should:

- 1 Return to the Gradient palette and reapply the gradient (click the gradient

button). The last gradient used will be re-applied.

- 2 In the Gradient palette, select a gradient stop.
- 3 In the Color palette, edit the color.

Adjusting the direction of the gradient blend

Page 239 For a clearer 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.

Adding colors to a gradient

Page 242, step 6 Note that Alt/Option-clicking a swatch when a gradient stop is selected applies a color swatch to a gradient stop without replacing the entire gradient.

The text about converting mixed-mode colors to CMYK colors is important. For example, if multicolor gradients and blends are used in a design intended for spot color output, some of the colors created by the gradients and blends may not be printable using the one or two spot colors. In that case, either the job would be retargeted for process colors, or the design would be reworked

to accommodate spot color output.

Encourage students to consider the color implications of blends and gradients they anticipate using, when planning the print production of their artwork.

Creating smooth-color blends

Page 245, step 4 The number of blend steps calculated by Illustrator assumes print as the output medium.

Blending intermediate steps

Page 246, step 4 At this point, you can have the class compare the effects of the two blends they just completed. While both blended color and shape, the results were quite different.

Combining blends with gradients

Page 249, step 4 If previewing from the dialog box doesn't work, the student didn't switch to the Selection tool to activate the blend's bounding box. Have the student close the Blend Options dialog box and switch to the Selection tool, and then they can try again.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 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 How do you save a blend for reuse?
- 4 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.
- 2 Also, a blend must be used when creating a transition between two different shapes.
- 3 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.
- 4 To save a blend for reuse, drag it from the fill/stroke box in the toolbox or Gradient palette, and drop it in the Swatches palette.

To apply a color swatch without removing the gradient, select a gradient swatch and Alt/Option-click a color swatch.

Lesson 9: Working with Symbols

In this Lesson students are given the opportunity to focus specifically on the uses of Symbols.

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 palette can also work as a library to store frequently used artwork.

Creating a Symbol

Page 256 Though the Symbols palette accepts virtually any type of artwork, it will not take artwork that has been placed in Illustrator with the Link box checked. Make sure that students leave the Link box unchecked in the Place dialog box to embed the artwork into the Illustrator file.

Using the Symbolism tools

Page 260 Make sure the students realize that the symbolism tools can change the Symbol's attributes rather quickly. Sometimes it is better to click and release repeatedly to get a slower, more precise, effect on the symbols.

Updating a symbol

Page 262 Remind students that they can also drag symbols out of the Symbols palette 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 palette.

Storing and retrieving artwork in the Symbols palette

Page 264 You may want to inform students that they can save symbols in the Adobe Illustrator Startup_RGB.ai and Adobe Illustrator Startup_CMYK.ai files in the Plug-ins folder (inside the Adobe Illustrator Application folder) to have symbols automatically appear with every new document.

Mapping a Symbol to 3D artwork

Page 266 This is a great feature for students to experiment with. Have them create letters and apply them to building blocks, or create holiday ornaments using this technique. Just make sure that they have the right surface selected, or they may apply artwork to one that is not visible.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 What is the only object that cannot be used as a symbol?
- 2 To effect a symbol instance with the Symbolism tools, what else needs to be selected?
- 3 Can you resize mapped artwork?

Review answers

- 1 The only object that can not be used as a symbol is a linked graphic.
- 2 To effect the Symbol instance with the Symbolism tools, make sure that the symbol is selected in the Symbols palette.
- 3 Yes, you can resize mapped artwork by double-clicking on the listed 3D Effect in the Appearance palette. Choose Map Art and use the handles to resize the placed symbol.

Lesson 10: Working with Brushes and Scribbles

The brushes in Adobe Illustrator are quite 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.

Using the Scribble Effect you can make virtually any object in Adobe Illustrator appear as though it was hand-drawn.

Drawing with the Paintbrush tool

Page 277 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 280, step 1 After students edit the right brush stroke, you can point out that this is the same editing technique they used with the Pencil tool.

Page 282, step 7, second paragraph 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.

Page 282, step 9 This step demonstrates that brushes are applied to strokes in the same manner as a color, gradient, or pattern from the Swatches palette. The only difference is that a brush can't fill a path.

Using a fill color with brushes

Page 291 The illustration at the bottom of page 291 shows an open path that becomes filled. If students haven't compared open and closed filled paths, you may want to discuss this with them. Point out the way an open path will automatically connect the two endpoints, creating a segment without a stroke.

Using Calligraphic brushes

Page 295, step 6 Mention that calligraphic and scatter brushes can be controlled with a pressure-sensitive stylus and drawing tablet. If students aren't aware of them, describe 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.

Creating a Pattern brush from swatches

Page 299 The note at the end of the exercise indicates that the Clouds and Sun brush won't show up in the Brushes palette of other files. Let students know that they can move the brush to another file 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 will be added to the Brushes palette in that file and saved with the file. The object can then be deleted from the file.

Applying the Scribble effect

Page 305 Have students experiment with the options in the Scribble Options window.

Some options may not apply to text, but work well with the grass and water shapes.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 How do you change the brush applied to a path that's already drawn?
- 2 What's required to create your own Pattern brush?
- 3 What's the difference between a Pattern brush and a Scatter brush?

Review answers

- 1 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 palette.
- 2 A Pattern Brush is made up of pattern tiles, so the pattern tiles that will make up the brush have to be present in the Swatches palette. If they aren't, you must create them.
- 3 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.

Lesson 11: Applying Appearance Attributes, Graphic Styles, and Effects

In previous lessons, students have applied color and swatches to fills and strokes in much the same way as in other graphics programs—one color or swatch is applied to a path's fill, and another to its stroke.

Many popular illustration effects consist of stacks of fills, strokes, and effects applied to duplicates of paths. In the past, creating this type of effect required that designers carefully manage multiple objects. In Adobe Illustrator, the Appearance palette lets designers apply multiple fills, strokes, transparency settings, and effects to a single path, greatly simplifying documents and giving designers more precise control over effects.

A related challenge is applying such complex effects identically to multiple objects, and updating multiple objects when an effect needs to be changed throughout a document. Illustrator addresses this challenge with the Styles palette and with live effects.

Students may question the need for such sophisticated and sometimes confusing palettes. If a student's project is simple,

the Appearance and Style palettes may be unnecessary and can be left hidden. But as the student builds more complicated effects and needs to edit and reuse them more often, the Appearance and Style palettes save time.

Adding Appearance attributes

Page 318, step 5 Targeting the correct component of an object 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 targeted in both the Layers and Appearance palettes.

Reordering appearance attributes

Page 319, step 1 At this point in the lesson, comparisons between the Appearance palette and layers may arise. You may want to discuss the differences between the two. It's possible to use layers to do what the Appearance palette does,

but using the Appearance palette is like letting each object have its own set of appearance layers. And again, only one path is necessary, where using layers would require duplicate paths.

Using Live Effects

Page 321 If students want to use live effects, they must be sure to choose them from the Effect menu, not the Filter menu. As with the Appearance palette, it's an area where students must pay attention.

Creating and saving a Graphic Style

Page 324 In the context of the palette workflow that's been described, the Graphic Styles palette works with the Appearance palette in much the same way that the Swatches palette works with the Color palette. 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 palettes, and the relationship of those two palettes to the other appearance-related palettes.

At this point, students should think of building up appearances and styles using the following palette 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 palette.
 - 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 to the Swatches or Graphics Style palette, respectively.

Applying a Graphic Style to a layer

Page 325, step 1 Point out that the Clear Appearance and Reduce to Basic Appearance buttons in the Appearance palette are handy “reset” buttons for use when a new object assumes a complex default appearance that differs radically from the desired appearance.

Saving and printing files with transparency effects

Page 332 It's important for students to communicate clearly with their print service provider about transparency effects in any Illustrator files that they will send to the printer. Service providers must handle transparency effects properly for their high-resolution output devices.

In general, transparency effects should be flattened using the highest-quality settings that the print service provider's devices can handle.

Additional technical documents about preparing transparency effects for commercial printing are available at the Adobe U.S. Web site, <http://www.adobe.com>.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 How do you change the order in which appearance attributes are applied?
- 2 What's the advantage of creating and applying graphic styles?
- 3 How do you save a graphic style? How do you share styles between documents?
- 4 How can you tell that an item in the Layers palette has a style applied to it?
- 5 How do you control the quality of rasterized transparency effects?

Review answers

- 1 To re-order appearance attributes, drag them up or down in the Appearance palette.
- 2 Graphic styles save time because entire appearance sets can be applied

instantly to objects, and editing the set updates all instances of the style.

3 To save a graphic style, create or edit a graphic style as desired, and then click the New Graphic Style button at the bottom of the Graphic Styles palette. To use a graphic style in another document, apply the graphic style to an object in your artwork, copy and paste that object into the other document, and then add the graphic style to that document's Graphic Styles palette by clicking the New Graphic Style button. You can then delete the object to which the graphic style was applied.

You can also import graphic styles from other files into a palette associated with the current file using the Graphic Style Libraries command. These libraries are stored in the Presets/Styles folder inside the Adobe Illustrator application folder. Use Other to select a file that uses graphic styles.

- 4 Items with graphic styles applied display a shaded sphere in the Layers palette.
- 5 One method to control rasterization quality of effects, is to choose File > Document Setup, then select Transparency from the pop-up menu. Another method is to choose Edit > Document Raster Effects Settings.

Lesson 12: Using the 3D Effect

The 3D effect offers students the ability to create 3D shapes by extruding, revolving and rotating objects. Each of these choices produce very different effects, depending upon the shape of the original object. Make sure that the students follow instructions closely before they start experimenting with their own shapes.

Adobe Illustrator contains tools that can create three-dimensional forms. In this lesson, students learn techniques for creating three-dimensional shapes and mapping artwork to them.

Creating a banner logo with the Warp effect

Page 348 Have students experiment with other warp options to create very different effects.

Using Brushes for Decoration

Page 351 Note to students the wide array of additional brush strokes that are available in Window > Brush Libraries.

Page 352, step 6 You may want to discuss the full implications of the Expand Appearance command used in this step. It can make outlines out of objects that are dynamically generated.

Turning Artwork into symbols

Page 353 Selected objects can also be dragged directly into the Symbols palette. Though this method is faster, it does not allow you to name the new Symbol.

Creating the 3D cylinder

Page 355 Before having the students go through the rest of this lesson, it would do them good to recreate the shapes shown at the bottom of page 428 and apply the 3D effect to them.

Applying a symbol as mapped artwork

Page 358 If this feature is not working, make sure that the students have navigated, using the surface arrows, to the proper surface. If they create their own custom shape they may have additional surfaces that are not visible.

Sometimes, the mapped artwork simply needs to be repositioned in the Map Art preview pane.

Creating a revolved object

Page 360 Selecting the correct Edge to rotate on can dramatically change the results of the 3D Revolve effect.

Make sure that students understand the concepts and imagery on page 434.

Changing the lighting

Page 362 If students are not getting the effect that they are expecting in this section, make sure that they follow the instructions to change the Surface to Diffuse Shading as well as the Ambient Light to 40%.

Creating your own revolved artwork

Page 366 In this section stress that students do not have to create exactly what they see in the book. They should experiment to see the types of results they can achieve with different paths

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 What is the first step to mapping artwork to a 3D object?
2. How do you change the position in space for a 3D object?
3. How do you make a 3D object 2D?

Review answers

- 1 Any object that is to be mapped to a 3D object must first be saved as a Symbol.

2 Always double-click and edit the listed 3D effect in the Appearance palette. Use the preview pane to Rotate the object in space. Do this by clicking and dragging on the cube in the preview pane.

3 To eliminate the 3D effect, drag the listed 3D effect in the Appearance palette to the trash icon at the bottom of the Appearance palette.

Lesson 13: Combining Illustrator CS2 Graphics with the Creative Suite

Adobe Illustrator is a powerful drawing tool, but it isn't designed for editing photographic images at a pixel level. However, Illustrator can easily import and modify images from Adobe Photoshop, giving students the best of both worlds. In this lesson, students will learn how to integrate Photoshop images into Illustrator layouts as well as discover the best way to import graphics into other Creative suite applications.

Vector versus bitmap graphics

Page 376 To show the differences between bitmap and vector you may want the students 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).

Placing an Adobe Photoshop file

Page 379 When preparing a print illustration that will contain a Photoshop

file, students should consult with their print service provider about whether placed images should be linked or embedded for hand-off.

About Layer Comps

Page 379 If you have time, and access to the Adobe Photoshop application, allow the students to create their own combinations of layers, perhaps with text, shape or Adjustment layers.

Creating compound path and opacity masks

Page 385 You may want to point out that another way to make a compound path is by right-clicking (Windows) or Control-clicking (Mac OS) the selected checkerboard squares and choosing Make Compound Path from the context menu that appears.

Sampling colors in placed images

Page 389 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.

Exporting a layered file to Photoshop

Page 392, step 4 If the Preserve Text Editability option appears dimmed in the Photoshop Options dialog box, have students verify that the type layer resides by itself on the topmost layer (not nested in another layer) and that the text is monochromatic, and then repeat the procedure.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 When importing a layered Photoshop file, what's the difference between converting it to objects and flattening it into a single image?
- 2 How can you quickly use the most recently applied filter?
- 3 How can you apply a color already present in another object?

Review answers

1 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.

2 Instead of going all the way into the Effect submenu, simply choose Effect > Last Effect, to display the dialog box and settings of the most recently applied effect. To use the same settings, choose Effect > Apply Effect to reapply the most recently applied effect.

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.

Lesson 14: Printing Artwork and Producing Color Separations

Print production is where the electronic paths and colors in an Adobe Illustrator file are translated into actual, physical plates required for printing on a press.

Printing: An overview

Page 397, first paragraph Students should understand the importance of discussing their design jobs with their print service provider. Even if students understand presses, PostScript, and CMYK, not all print service providers work the same way. The purpose of talking with the printer is to make sure the design job is being prepared to run smoothly on their printer's specific workflow, equipment, and press. Printers can sometimes suggest ways for you to get your job done at a lower budget or higher quality.

About printing devices

Page 399 If possible, you may want to have a loupe and samples of printed output available to examine, or have students bring some print samples from the categories listed in “Printing: An Overview” on page 402. The class can compare black-and-white halftone screens to color halftone rosettes, and

to inkjet output (which usually uses a screening process that doesn't use halftone dots). It is also good to have an original continuous-tone (non-halftoned) photograph to compare.

Having actual samples can also be useful for illustrating concepts presented throughout the lesson.

Output device resolution

Page 400 Designers who work mostly in Web design may not be aware of the much higher resolution requirements of print. If your class contains Web designers, make sure that they understand that Web-resolution images can't easily be used in print, and the best solution is to rescan or obtain a version of the original at print resolution.

Soft-proofing colors

Page 407, step 1 You might point out that the term Web in the U.S. Web Coated (SWOP) profile refers to a web offset press, and has nothing to do with the World Wide Web. In fact, during this lesson you may want to introduce students to the most common types of presses.

After students click OK in the Proof Setup dialog box, they may be disappointed in the appearance of the colors. Some colors will probably exhibit a shift or a loss of saturation. You may need to explain that this is an expected consequence of translating RGB colors into a CMYK gamut. It is also a reason why students should design with destination color gamuts in mind.

Selecting a printer description file

Page 410 Students may ask where PPD files can be found. They can be obtained from print service providers or the manufacturers of PostScript output devices. You might also point out that PPDs are not relevant to or available for non-PostScript output devices.

Separating colors

Page 415 If your classroom has no printer or no PostScript printer, but does have Adobe Acrobat, you may be able to demonstrate color separation by targeting Acrobat Distiller as the PostScript printer. Simply print separations to a PDF file, which you can then display to the class on-screen with Acrobat.

Separating spot colors

Page 422, step 1 Point out that if students find more than a couple of spot colors in

the Separation Setup dialog box for one of their files, the color swatches in the file may not be set up correctly.

Creating a trap

Page 423 Students should handle their own traps only after consulting with their printer to determine what amount is appropriate for the press.

Review questions

The following questions are not in the student's *Classroom in a Book*.

- 1 Why is it important to consider resolution when designing for output to a press?
- 2 How are spot colors different than process colors?
- 3 Where can you control specific inks (not colors)?
- 4 How do you overprint a fill or stroke?

Review answers

- 1 Resolution is important for press reproduction because paper reproduces text and images at a much higher resolution than the computer screen. All rasterized effects and imported images must be at a high enough resolution to reproduce well on press.
- 2 Process colors are reproduced on press using a combination of four process

inks, while each spot color is reproduced with its own premixed ink.

3 Choose File > Separation Setup to control how the document will separate into component inks.

4 You can overprint a fill or stroke by using the Attributes palette.

Lesson 15: Working with Adobe Bridge and Version Cue

Using Adobe Bridge

Page 434 Bridge is one of the most significant enhancements to the CS2 applications, including Illustrator. You may actually want to teach this section first, providing students with an overview of this effective way to manage their files. Because Adobe Bridge can be used in place of the traditional File > Open command (or even the traditional File > Place command), it is a unique way for users to work. Create additional exercises where users drag and drop items from the bridge into their layout—such as Photoshop files.

Using Version Cue

Page 436 Version Cue is more appropriate for advanced users who are already familiar with Illustrator essentials and now need to manage their documents and track their revisions. Version Cue and Bridge are separate applications, and do require additional memory and processing power on your computers. Version Cue must be installed as a part of the Creative Suite. If you only installed Illustrator, you will not have access to Version Cue.

If you are teaching in a computer lab with older computers, Version Cue may be too intensive an application to run at the same time as other Creative Suite applications, and you may notice a degradation in performance if it is running. If this occurs, you can turn off Version Cue using the Control Panels (Windows) or System Preferences (Mac OS).

Questions

- 1 When can you use Adobe Bridge?
- 2 When would Version Cue be appropriate?

Answers

- 1 Use Adobe Bridge to find files, import them, and open them. Because Adobe Bridge can also provide preview information and metadata, it is more useful than the traditional File > Open command or even browsing files through the operating system.

2 Version Cue is useful for designers who need to create multiple versions of a document, or when a document is going through multiple revision cycles, and you want to keep past version as a file. You do not need to have multiple users to take advantage of Version Cue—it can be equally as effective for a single designer keeping track of file versions in an involved project.