CLASSROOM IN A BOOK
The official training workbook from Adobe
Instructor Notes
INSTRUCTOR NOTES

Introduction

The Adobe Dreamweaver CC 2014 Classroom in a Book course provides students with techniques, tips, and solutions for using HTML, CSS, and Adobe Dreamweaver CC (2014 release) software. These instructor notes are intended to complement the information in the Adobe Dreamweaver CC 2014 Classroom in a Book and to provide insights and behind-the-scenes information specifically for classroom instructors. The information in these notes is organized to follow the sequence of instructions in each lesson.

About the Classroom in a Book

It is recommended that each student in the class have an individual copy of Adobe Dreamweaver CC 2014 Classroom in a Book. Students will use this book as you guide them through the lessons. You can buy copies of the Adobe Dreamweaver CC 2014 Classroom in a Book for your students, or you can refer them to a local bookseller to purchase the book.

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Course strategy

The book consists of 13 printed lessons. If you complete one or two lessons per week, students will have time at the end of the semester to work on their own to construct a complete site using the Dreamweaver tools.

The lesson exercises are designed to introduce students to the Dreamweaver tools and functions, as well as important concepts in web design.

While performing the exercises, students create a complete website for a fictitious community association and learn how to use and modify a custom CSS layout, based on one of Dreamweaver’s built-in starter files.

You can evaluate each student based on the student’s weekly completion of the lesson exercises. Requiring students to design and build an original website is a good culmination activity and could serve as the final exam.
Managing student projects

One way to simplify file storage and cleanup in the classroom is to instruct students to create a main folder on their hard disk named [Student’s Name]-web that will contain all their websites. Then, create a DWCC2014 folder in this student folder to contain all the lesson content. Keeping all the files in this folder will make cleaning up the files easier when the course is complete.

The recommended method for completing the course

The book is staged to allow the students to learn the process and procedures for building an entire website by completing the lessons in sequence. Each lesson introduces new concepts and builds on the topics and skills introduced in prior lessons. Normally, an actual web designer would build the assets and pages needed in turn when building a site from scratch. However, this method can be difficult and prone to error for students and beginners, because it relies on the successful completion of each page, component, and asset as the students build the site. Incomplete or incorrectly built components from one lesson may adversely affect a subsequent lesson or actually cause it to fail.

Therefore, to simplify the learning process, each lesson folder is treated as a complete website that includes all pages and assets needed to complete the specific requirements or goals of the lesson. Each element is at a stage of completion that is needed to begin each lesson properly.

This method also allows students to repeat a specific lesson or topic with which they may be having difficulty. When following this method, pages and assets from one lesson folder should not be used in another lesson, unless so directed by the instructions within the lesson itself.

Using this method, each lesson folder will be defined in Dreamweaver as a stand-alone website. Therefore, at the end of the course, the student may have defined up to 13 websites, one for each lesson.

Additional resources

*Adobe Dreamweaver CC Classroom in a Book (2014 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, refer to these resources:
Adobe Dreamweaver Learn and Support: helpx.adobe.com/dreamweaver.html (accessible in Dreamweaver by choosing Help > Help And Support > Dreamweaver Support Center) has comprehensive content you can search or browse, provided by Adobe. This includes hands-on tutorials, answers to common questions, troubleshooting information, and more.

Dreamweaver Help: helpx.adobe.com/dreamweaver/topics.html is a reference for application features, commands, and tools (press F1 or choose Help > Help And Support > Dreamweaver Online Help). You can also download Help as a PDF document optimized for printing at helpx.adobe.com/pdf/dreamweaver_reference.pdf.

Dreamweaver Forums: forums.adobe.com/community/dreamweaver lets you tap into peer-to-peer discussions and questions and answers on Adobe products.

Adobe Creative Cloud Learn & Support: helpx.adobe.com/support.html provides inspiration, key techniques, cross-product workflows, and updates on new features.

Resources for educators: www.adobe.com/education and edx.adobe.com offer a treasure trove of information for instructors who teach classes on Adobe software. You'll 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.

Also check out these useful links:

Adobe Add-ons: creative.adobe.com/addons is a central resource for finding tools, services, extensions, code samples, and more to supplement and extend your Adobe products.

Adobe Dreamweaver CC product home page: www.adobe.com/products/dreamweaver has more information about the product.

**Getting Started**

Instructors should read this section carefully before conducting any training. This section details the activities, materials, and equipment that must be present and set up prior to any lesson. It discusses the conventions used in the book and differences between Windows and OS X versions of Dreamweaver.

**Conventions used this book**

This section describes specific usages of fonts and formatting to indicate the proper creation and editing of HTML and CSS code.

**Program and lesson files**

The most important preparation for any class is to download and install the latest version of Dreamweaver and lesson files for the Classroom in a Book. The program can be obtained from Adobe.com or from the Adobe Creative Cloud desktop app installed on each computer. You will need a valid Creative Cloud account and login to download and install the program. The time it takes to download and install the software varies based on the specific computer and Internet connection, so this step should be started and completed well before the beginning of the class.

Be aware that Creative Cloud applications are updated periodically to fix bugs and add new features. At times, existing features may be removed from the program. The lessons and lesson files were created for Dreamweaver CC (2014 release). Updates to Dreamweaver may invalidate certain files or lessons provided. Before installing any updates, Instructors should check the nature of the update and confirm that lessons or the support files are not affected.

Lesson files are not provided with the book itself. They must be downloaded separately and should be set up on each classroom computer prior to the class. Files are zipped and should be decompressed before using them. It is recommended that the lesson files be backed up as an archive on each computer or on the classroom network server, if possible. This will allow students or instructors to replace damaged or missing files when necessary. Lesson files should always be replaced with fresh versions prior to subsequent classes.
Defining a site and the Dreamweaver workspace

Steps are described for defining a website within Dreamweaver. Each lesson is completed independently of all others. Each set of lesson files includes all assets needed to complete the goals of the lesson. A quick description of the available and recommended workspaces is given.

Additional resources

This section provides links to resources that support Adobe Creative Cloud, Dreamweaver, and classroom instruction. Remind students that the answers to many questions as well as additional training can be obtained from the Dreamweaver online support and other Adobe forums.
Lesson 1: Customizing Your Workspace

In Lesson 1, students are exposed to the Dreamweaver program interface and are familiarized with program commands and conventions. The lesson explores the various tools, document windows, and program panels that allow students to create and edit webpages and content. Students experiment with customizing toolsets and their own workspaces and are shown how to create a custom keyboard shortcut.

If time permits, this lesson can be conducted as a hands-on exercise to familiarize students with the Dreamweaver interface.

Review questions

2. What is the difference between grouping and stacking panels?
3. What are the purposes of the HTML and CSS modes in the Property inspector?
4. What do you need to have or set up before you can access the new Extract functionality?
5. What file type does Extract use to create web assets and styling?

Review answers

1. Code view gives you direct access to the HTML code for review and editing. Design view allows you to see an approximate preview of the completed web content. Live view previews the final web content and supports interactive and dynamic content elements, such as hyperlinks, video, and audio.
2. When panels are grouped, only one panel is visible at a time. When panels are stacked, all panels can be seen at the same time.
3. The HTML mode in the Property inspector provides access to HTML-based tagging and attributes for page content. The CSS mode enables you to access, create, and edit CSS formatting for page content.
4. You need to know or set up your Adobe ID. Extract is a cloud-based functionality, and you must be online and logged into Creative Cloud to access it.
5. Extract uses a Photoshop Document to produce web assets and styling from various image layers and effects.
Lesson 2: HTML Basics

Students explore HTML theory and application. They are shown how to create HTML code and a basic webpage by hand in a text editor, exposing them to the language and basic coding techniques. The same webpage is then re-created in Dreamweaver. By learning how to write HTML by hand, the students will lose their fear of coding in general and can easily compare both methods of code creation, getting a better understanding of the productively gains they will experience using Dreamweaver.

Students also review the history of HTML and its future. The lesson includes a table of the most frequently used HTML tags and important background information. Finally, students are introduced to the latest version of the language: HTML5. The concept of semantic web design is described, and several of the new elements are listed. In fact, the subsequent exercises and examples will be based on these new elements and structures. This lesson is an essential foundation for all web design and development.

It's important to emphasize that webpages are simply a collection of code elements deciphered and rendered by a browser application and that the goal in web design is to produce clean and efficient code to meet your needs.

Review questions

1. What are the advantages of using Dreamweaver over hand-coding?
2. What tag can be used to apply formatting inline, within another element?
3. How is an entity used in HTML?
4. What is the purpose of HTML5 semantic markup?
5. What are some of the advantages and disadvantages for using HTML5 over HTML 4 markup?

Review answers

1. Dreamweaver provides numerous productivity enhancements over hand-coding, such as code hints, a WYSIWYG interface, and debugging features to mention a few.
2. The <span> tag is intended for applying formatting inline.
3. An entity allows you to enter characters that are not mapped directly to the keyboard, such as ©, ®, and ™.
Semantic tags, such as `<header>`, `<article>`, and `<section>`, convey the meaning or purpose of the webpage content directly. These tags will enable advanced functionality in the future by identifying specific content elements for search engines and other types of applications.

HTML5 has been designed specifically to support mobile devices, smartphones, and other emerging technologies. The specification has not been fully adopted yet and may not function properly in older browsers or devices.
Lesson 3: CSS Basics

Lesson 3 provides an overview of Cascading Style Sheets (CSS). Students should be aware that a movement was made over a decade ago to separate the structure and content of webpages from its formatting. CSS was the technology that sprang from that endeavor. This lesson gives students an essential understanding of this important language.

CSS is a simple topic in concept, but very difficult in execution. You can implement it in many ways, and you can break it in many ways. The best way to convey these concepts is through hands-on exercises, teaching basic concepts and then more complex notions. On the surface, the subject seems simple: Write a rule, and format an element. But, the topic can quickly get muddied by the interplay of different elements, devices, and resolutions as well as the conflicts that occur between different CSS rules. In the end, no web designer can be successful without a complete and intimate knowledge of CSS.

HTML vs. CSS formatting

The discussion begins with an overview of how HTML was previously styled. Students compare and contrast formatting applied via HTML and CSS. This exercise demonstrates the advantages of CSS-based formatting over HTML-based formatting. This helps to illustrate how web design differs from other types of design. Students may be familiar with using MS Word, Adobe InDesign, Illustrator, or other similar design tools. In the beginning, web design started in the same way: Each line or paragraph was selected and formatted individually. CSS was created to break this model and revolutionize how documents are styled.

HTML defaults

It is vital that students appreciate the concept that HTML exists complete and apart from CSS. HTML elements possess built-in formatting that frequently must be overridden by CSS. This exercise describes how HTML default formatting can affect web design.

HTML5 has broken from this concept of default formatting. At the time of this writing, there was no default style sheet for HTML5 elements. This means in the future HTML elements may not exhibit any intrinsic formatting at all. For the time being, browser vendors are continuing to support the default style sheet for HTML 4.01, even for pages using HTML5 code and structures. Students should not assume that HTML will always display default styles.
CSS box model

An essential concept to CSS is the box model; it is the basis for all webpage formatting and construction today. To achieve a successful outcome for page design and development using CSS, students must understand how this model works and is applied. This concept is a difficult one for most people. You may want to create additional exercises to help develop this understanding. The lesson provides several hands-on files that will demonstrate this and other CSS concepts.

Previewing the completed file

In most lessons, you will preview the completed webpage(s) to establish the expectations of the lesson with the students. Be sure to point out the important aspects of the file and the content that they will work on in the lesson. This is a good point at which to identify areas that have caused problems in the past or with which they may experience difficulty now.

Formatting text

This exercise provides an in-depth exploration of CSS-based text formatting. It defines and describes the proper construction of CSS rules and how CSS formatting is applied and affected by cascade, inheritance, descendant, and specificity theories. Students are also introduced to the Code Navigator and the CSS Designer to learn how to check and troubleshoot CSS formatting.

CSS rule syntax: write or wrong

This sidebar calls the student’s attention back to the role that the CSS code plays in formatting the content and structure of each webpage. Code is very sensitive to even small errors in punctuation or spelling. Even the lack of a single period or colon can cause a rule or even the entire style sheet to malfunction. Remind students constantly to be on the lookout for such errors. When an error does occur, call the attention of all students to it, and reiterate the importance of clean and accurate code. This is a good point at which to emphasize that Dreamweaver will write most of the HTML and CSS code for them, but that the program is not perfect and may cause errors of its own.

Test students on these aspects, and stress their importance since the students will be more directly responsible for the code construction in Dreamweaver CC 2014.

You should create several test webpages with intentional errors inserted in the cascading style sheet, and at the end of this lesson, have the students troubleshoot these pages to find the errors.
Multiples, classes, and IDs, oh my!

CSS rules can be built in a variety of ways. You can target single HTML tags, classes, or ids. Or you can combine multiple tags (compound) and custom classes and ids into a selector to target formatting to a specific instance of an HTML tag or specific element in context. This concept is essential to a complete understanding of CSS and the pivotal role it now plays in web design and development today. This exercise also covers CSS shorthand notation and the strategies for creating class and id attributes.

Before proceeding to subsequent lessons, you might need to repeat these examples and test the students’ understanding. Be prepared with your own examples of CSS-based formatting using compound selectors, classes, and ids.

Formatting objects

In the past, most webpage layouts were built using tables. These techniques have been replaced with layouts based on `<div>` and other CSS formatted elements. These hands-on exercises take the students through this process step by step, illustrating the important concepts of CSS-based layout. Students will learn how CSS can control the width, height, borders, backgrounds, margins, padding, and positioning of HTML elements.

CSS3 overview and support

This section introduces students to the advances that are being incorporated in the new version of CSS. Students are also apprised of the usability of CSS3 today. A sample file illustrates just a few of the amazing new features.

Review questions

1. What is a disadvantage of using HTML-based formatting?
2. What theory decides what formatting wins when two CSS rules collide?
3. How can you judge whether one rule is more specific than another?
4. What’s the difference between margins and padding?
5. What advantages does the CSS Designer have over the Code Navigator in troubleshooting CSS styling?
Review answers

1 HTML-based formatting must be applied to each element and page manually, which decreases productivity.

2 Specificity is the theory that decides which rule wins during a conflict.

3 You can assign numeric values to each component in a selector name to determine whether one rule is more specific than another. Tags get 1 point each, classes 10 points, ids 100, and inline-style attributes 1000. The selector with the higher total value typically wins. If two rules are equal in value, the cascade position will determine the winner. Even when one rule wins, properties can still be inherited from the other rules and style sheets.

4 Margins add space outside the element border; padding adds space inside the element border.

5 The CSS Designer can display CSS styling applied inline. It can also show you the COMPUTED, or accumulated, value of all the CSS rules applied to a selected element. And, it allows you to edit the specifications live.
Lesson 4:  
Web Design Basics

In Lesson 4, students are walked through the steps needed to design and develop their own website from scratch.

Working with thumbnails and wireframes

Students are given a broad overview of all the concepts that must be considered in a comprehensive site design. Reinforce the notion that a website design must consider multiple aspects, including site purpose, customer demographics, and accessibility.

Have the students choose a basic site theme, such as entertainment, information, sales, or other, and then conduct a search for two or more sites serving this need using a search engine, such as Google or Bing. Have them analyze the design and content of each site and compare and contrast them. Finally, have the students, individually or as a whole, rate the site’s success or failure at achieving its goal.

Give the students sheets of blank paper. First, have them make an inventory of the pages and page components they will need for their site. (Note that the list may vary from page to page.) Then, have students sketch out their own design concepts, incorporating the previously listed components. Have each student produce at least two variations on their basic designs. Discuss the advantages and disadvantages of each concept.

If there is time, you might want to demonstrate how to use Adobe Fireworks, Adobe Photoshop, or Adobe Illustrator to create a mockup or proof-of-concept for a student’s design. Since the students may not have the skills or understanding of these products, you might want to perform this demonstration yourself.

Mockups can be simple graphical treatments or fully fledged design concepts that you can use to extract web-compatible assets. Graphical treatments are a fast way to test design ideas. The finished layout can be exported to a JPEG or PNG and previewed directly in a browser. Building a complete concept with layers and live text takes longer but results in usable assets.

Creating web assets using Adobe Generator (optional)

This exercise explores the integration of Adobe Photoshop with the web design process. Building webpages in Dreamweaver or from scratch using just code is time consuming and very tedious. Using Photoshop you can quickly create complex webpage designs, and then export various web-compatible page assets using Adobe
Generator. A completed Photoshop layout is provided in the lesson files to allow you to demonstrate and experience this feature.

If you have the time, you can have the students make minor changes to the layers or colors to experience this technique more fully. Once the assets are generated, be sure to identify them when they are used in later lessons.

Review questions
1. What actions can you perform in the Welcome screen?
2. Where would you find information on how many and what types of people are visiting your website?
3. What accommodations could you make for specific types of people who visit a specific site?
4. What is responsive web design?

Review answers
1. You can re-open recent files, create new web-compatible files and assets and access various help and support files at Adobe.
2. Demographic or web traffic statistics can be derived from tracking code that is inserted within each page and then analyzed by a third-party service, such as Google Analytics.
3. You can increase font sizes for older visitors or add bright colors and more interactivity for younger ones.
4. Responsive web design is a technique used to create webpages that can adapt automatically to various types of desktop and mobile screen types.
Lesson 5: Creating a Page Layout

In this lesson, students will be guided through the process of building their basic site layout. To increase productivity and create an overall cohesive theme, they will develop one layout and convert it into a Dreamweaver template.

Previewing your completed file

Students will open a file that has been completed according to goals within the lesson or exercise and saved in the lesson folder.

In many exercises, these completed files are provided, usually saved within the specific lesson folder, to provide an example of the goal of the lesson or exercise. Briefly describe the concepts and goals that will be taught in the lesson while the completed file is open. You might want to leave this file open during the entire lesson so the students can refer back to it. In most cases, the completed file should not be used in place of the final page.

Working with predefined layouts

Dreamweaver CC (2014 release) offers a variety of pre-defined CSS and starter layouts. Explain that these layouts are a recommended starting point for all beginning web designers, since the basic structure and CSS is already built and tested. If there is time, explore other CSS layouts, and provide suggested uses for some.

A responsive starter layout is supplied for the lesson, which was adapted from one of the existing CSS layouts. Point out how the layout supplied by Dreamweaver itself is similar, but is not responsive. At this point, CSS and responsive design is still a new and partially understood subject for the students. The more they play with the layout and observe how it adapts to different screen sizes the better they will accept the concepts. Point out how the underlying code does not change, that it is only the CSS that dictates how the page is displayed.

During this lesson, the students will learn more about the new movement toward semantic web design, or using new HTML5 elements built specifically for certain purposes such as navigation menus and text content. At this time, however, HTML5 is not the adopted standard and is not fully implemented in every browser. Always remind students that HTML is not supported identically in every browser or device.
Working with the CSS Designer

The techniques of working with and modifying CSS have not been fully explored yet. The CSS Designer is the primary tool students will use in Dreamweaver to create and edit their CSS rules and style sheets. This exercise is designed to familiarize the students with the proper use and operation of the CSS Designer.

The CSS Designer is a complex tool that functions in various ways depending on the screen size, insertion point, and selected element. These will all be new concepts for the students, and you should emphasize all these points throughout the training.

As the rules and style sheets become more complex, it will be easy to insert rules into the wrong style sheet or to create rules targeting the wrong elements or structures. As each rule is created, call the students’ attention to the proper syntax of the selector. Explain the purpose of each part of the selector name whenever possible, and quiz students on how the structure of the name or the position of the rule in the style sheet can change how it functions.

Rules of order

It’s easy to insert rules into the wrong style sheet or media query. Learning and using the proper technique to create and position CSS rules early on will ensure students achieve successful results each time. This sidebar introduces a foolproof method for creating CSS rules that ensures they are inserted in the proper style sheet or media query. Have the students bookmark this page and refer back to it from time to time when they have problems creating rules.

Working with content and formatting

The students work step by step through the process of building a complete webpage design. They learn how to modify an existing webpage, insert a background graphic, and create boilerplate text elements. They will learn how to modify the basic page structure by changing the properties in an existing CSS rule. Refer back to what they learned in Lesson 3 regarding formatting objects with CSS and how it relates to the current layout.

When the students modify the horizontal menu, have them switch to Code or Split view to examine the structure of the code. If necessary, refer them back to Lesson 2, regarding the basic structure of an HTML unordered list and how it relates to the menu structure.
Introducing web hosted fonts

The latest innovation on the web surrounds the use of web-hosted fonts. This has opened the possibility for amazing designs and customizations. No longer are web designers limited to the list of web-compatible fonts installed on each visitor’s computer. Now they can choose from thousands of different designs and styles. Web-hosted fonts are available from Adobe and other services.

Inserting placeholder text

Students start to build their site template by inserting placeholder elements for pictures and text. Explain how these elements allow them to structure and style the page even before the content is ready for the site.

Validating HTML code

Reinforce the previous concept of proper HTML page structure and potential coding errors. The students will check the validity of their completed layout with an external validator. Note that you must have Internet access to complete this exercise. Once the page is checked, Dreamweaver will display a list of errors within the page. If the instructions were followed correctly, there should be only one error. In this case, the error that should be reported in the current lesson refers to the use of more than one `<h1>` element on the page.

Explain to the students that this error was common to HTML4-based pages but should not necessarily apply to HTML5-based layouts. Note how HTML5 is still new and the proper use of headings has not been formalized, yet.

If students report other errors, take time to evaluate the error messages, and walk them through possible ways to correct the errors. Refer back to Lessons 2 and 3 as necessary for the proper construction of HTML and CSS.

Review questions

1. What type of starter layouts does Dreamweaver provide and why should you consider using them?
2. How can you create a hyperlink placeholder?
3. What is an image placeholder?
4. What’s the advantage to using Edge Web Fonts over other web-hosted fonts?
Review answers

1. Dreamweaver provides two fixed-width HTML5-based CSS layouts, a fluid grid framework, and five responsive starter layouts. These layouts allow you to get started quickly on a page design with code and CSS that is fully tested to function properly in various browsers and devices.

2. Insert the hash (#) mark in the hyperlink URL field to create a hyperlink placeholder.

3. An image placeholder is an element that Dreamweaver can insert into the layout to hold the spot for an image that may not be available at the moment.

4. Edge Web Fonts are available for free to all Creative Cloud members and are closely integrated in the Dreamweaver interface.
Lesson 6: Designing for Mobile Devices

In Lesson 6, students will be guided through the process of working with media queries and responsive elements and structures to support smartphones and mobile devices.

Responsive design

In this section, the students are introduced to the concept of mobile design, media types, and media queries. This technique is a new concept that was developed with the rise in popularity of smartphones and tablet computers.

Make students aware that the older technique of media types was intended more for fixed-format devices that conform to a recognizable standard, such as print and projection devices. The introduction of a raft of phones and mobile devices that could access the Internet upset this established standard.

Originally, the idea to adapt existing fixed-width websites to fixed-width devices was a simple and straightforward accommodation. But the new mobile devices come in a variety of widths and heights and can often view webpages in both portrait and landscape modes. The media type property was never designed to deal with multiple devices or orientations.

The development of media queries was an answer to the limitations of the media type property. Media queries work in tandem with the browser. The browser interrogates the display device to determine the actual width and height of the viewport. Once the dimensions are established, the browser checks if there is a media query designed to meet those specifications. If there is one, the browser loads any CSS styling contained within the media query.

Media queries can be written to target specific media types, dimensions, and even orientations. Queries can be used to load separate style sheets, or simply to reset specific rules in the default style sheet.

Discuss with the students their own experiences using the Internet on mobile devices. If possible, have students use their own phones and devices to access the Internet in class. Have them browse to their favorite sites using their devices and their desktop computers, if possible. How do these websites respond to each environment? How do different devices display the targeted websites? Do specific devices display the websites differently? Have the students compare, contrast, and describe the different methods.
Make sure you have a few websites in mind to demonstrate how different companies deal with mobile users. Identify sites that provide a custom mobile experience and ones that do not. If possible, find sites that actually default to a separate mobile app. Compare and contrast the difference between mobile-ready sites and sites that provide a completely separate experience. For example, membership or subscription services such as Facebook and Netflix offer separate mobile apps that can be used on tablets and smartphones.

**Previewing your completed file**

The finished layout is previewed to identify the elements and structures you will adapt on the page. It may be helpful to have the student layout open at the same time and switch between them to highlight the differences first hand.

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**Mobile-ready versus mobile-optimized**

This sidebar discusses the difference between two basic techniques for building websites compatible with mobile devices. Explain how making a web design mobile-ready is not the same as making it mobile-optimized. Mobile-ready sites use media queries and responsive images and video. Mobile-optimized sites use more sophisticated methods for adapting a site for mobile users. This can include using JavaScript to load alternative content, all the way to building a second site designed specifically for mobile use.

Some of the factors that determine whether you want to pursue one course or the other include: customer expectations, amount of traffic, type of content, and so on. As your traffic grows and demands increase on the site, the more a mobile-optimized makes sense.

One suggestion is to research and select some existing sites that practice each method. Have the students compare each site and try to identify how one method differs from the other and which one they prefer.

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**Working with media queries**

In this exercise, students are shown the proper techniques for identifying and targeting media queries for styling page elements and structures. Students are shown how the CSS Designer interface adapts automatically to the size of the document window. They learn how to edit and create rules properly in specific media queries and insert them in the correct order.
Troubleshooting styles across media queries

In this exercise, students learn how to test page components across various media queries and troubleshoot and correct CSS problems. It’s important to discuss and highlight how the CSS Designer functions interactively with the media queries and other interface tools, such as the Resolution Switcher.

Using Element Quick View

Elements powered by JavaScript often cannot be styled or tested directly in Dreamweaver’s Live or Design views. This exercise shows students how they can use Element Quick View to select and format elements that may not be visible or selectable.

Adding rules to a media query

Students will start to add new rules to existing media queries. Be sure to remind them to select the media query in the @Media pane of the CSS Designer before creating any rules. Otherwise the rule may be added to the wrong place in the style sheet. You may want to demonstrate what happens if they don’t select the media query first and how they could fix the error without having to delete and re-create the rule.

Emphasize that in this exercise they are adding rules to the existing style sheet. This technique is an efficient way of building mobile designs because they have to reset only a handful of rules to adapt the design to the mobile environment. They should come away understanding that the majority of the default style sheet is still inherited.

Another alternative is to create separate style sheets for each type of device or orientation loaded by custom media queries inserted in the <head> section of the page. In this type of workflow, no styles are inherited, and you must build an entire set of styles to format all aspects of the site.

Edge Inspect

Adobe offers a program named Edge Inspect that enables you to test mobile designs using a plug-in for the Chrome browser and an app you can download to your smartphone or mobile device. Edge Inspect allows you to test your pages on multiple devices at once without having to upload the code to the Internet. Discuss the merits of testing pages locally inside Dreamweaver and using Edge Inspect over uploading pages to a live web server. What are the benefits and detriments of each method?
Edge Inspect currently works only with the Chrome browser. You must download and install Chrome on all student computers, and then obtain the Edge Inspect app for all devices you wish to use in testing. Edge Inspect is only available to subscribers of Adobe Creative Cloud. Check out html.adobe.com/edge/inspect to learn more about Edge Inspect.

**Review questions**

1. For what purpose is the media type property intended?
2. What does a media query do?
3. What special considerations does a designer have to take into account for smartphones that are different in a desktop computer?
4. What special accommodation do some designers make for mobile devices?
5. How can you test media queries and responsive designs?

**Review answers**

1. The media type property is intended to address the use of computer and non-computer devices, such as TVs, braille readers, and others, that can access the Internet.
2. Media queries are used to target specialized CSS styling to specific sizes and orientations of display devices.
3. The screens of smartphones are obviously smaller than those on a desktop computer, but you also have to consider connection speeds, memory restrictions, processor speed, and other compatibility issues.
4. Some designers may build a completely separate mobile site hosted on a subdomain that provides content optimized for smartphones and tablets.
5. Media queries can be tested in Design, Split, and Live view modes of Dreamweaver. Adjust the width of the document window and the media queries will be applied as appropriate to the width and orientation of the screen. Images and video inserted using the “responsive design” technique will be displayed accurately only in Live view. Media queries and responsive design should also work in any modern browser.
Lesson 7: Working with Templates

In Lesson 7, students learn how to increase productivity by creating and using Dreamweaver templates.

Moving embedded CSS to an external file

This is a good time to reiterate how CSS can be implemented in a webpage. Explain how CSS can be created inline, embedded, and stored in external files. Compare and contrast the advantages of each method.

Creating a template from an existing layout

In this exercise, students save their existing layout as a site template. The template file is automatically moved into a templates folder and given the .dwt extension. Point out how Dreamweaver rewrites any of the existing hyperlinks since the file is now stored in a subfolder. Reinforce the concept that pages built from this template can be updated automatically by Dreamweaver whenever any changes are made to the file and saved.

Inserting editable regions

Review the basic design of the site pages based on the completed file provided in the lesson. Identify the editable regions and the areas that are locked and the reasons why.

Inserting metadata

Metadata is vital for search engine optimization (SEO). Some metadata will be included within the template, while other markup should be customized for each page. This exercise shows the students how to insert metadata so that it can be edited.
Producing child pages and updating a template

All pages for the website project will be developed from child pages of this template. Be sure to demonstrate that site templates can be accessed from the Assets panel as well as from the New Page dialog.

Changes made to both editable and locked regions of the template are compared in this exercise. It is important for students to understand that the template will update only areas within locked regions. Content inserted into editable regions of the child pages will not be altered when templates are updated.

Review questions

1. What is an editable region?
2. How many editable regions does a template have automatically?
3. How are child pages updated?
4. Do you have to update child pages each time you save a template?
5. What’s the purpose of adding editable metadata?

Review answers

1. An editable region is a user-designated area of the webpage that is not locked, not updated by the template, and where you can insert unique content on child pages.
2. A template starts off with no editable regions.
3. Child pages can be updated automatically each time the template is changed and then saved. Or, you can manually update child pages.
4. No. You don’t have to update each time you save changes to a template.
5. Metadata is important for SEO. Certain types of metadata should be editable and customizable on each page.
Lesson 8: Working with Text, Lists, and Tables

In Lesson 8, students learn how to add text content to their child pages, including HTML lists and tables.

Creating and styling text

Students learn how to import text content from an RTF file and to apply HTML heading and paragraph tags using the Property inspector. The sample text will be inserted by creating semantic structures. Refer back to Lesson 2, if necessary to emphasize the importance of these structures.

Text will be formatted using HTML elements such as `<h1>`, `<h2>`, and `<p>`. Explain to the students the hierarchy of HTML headings (`<h1>`, `<h2>`, `<h3>`, and so on) and how the number and application of these headings can affect page ranking by search engines.

Demonstrate how Dreamweaver’s ordered and unordered list buttons actually create and apply specific HTML code markup to the text. Have the students experiment applying and removing the list formatting and examining the markup in Code or Split view. You may want to assign an additional activity to make a nested list to see how the markup is modified.

A goal of this lesson is to indent some text content. There are several methods for doing this. Some web designers would use the `<blockquote>` tag to indent the text for the about_us.html page. Discuss how the `<blockquote>` tag has been used incorrectly to indent text in the past, but how it has a specific semantic value for identifying quoted material. If you want to adhere to web standards, `<blockquote>` shouldn’t be used simply to indent text. Evaluate the merits of other methods for indenting text, such as using a custom class or a `<span>` tag, and work the discussion around to web standards and the benefits or detriments in supporting them.

Creating and styling tables

Students learn how to create and format the size and structure of a table. Explain how CSS styling should be used in most instances, but that HTML specifications are still appropriate in limited application. This is a good time to point out that Dreamweaver doesn’t provide all CSS properties within its dialogs, but that you can specify any valid property and value in the CSS Style panel or directly within the CSS file itself. You might want to mention that Dreamweaver code hints work for all valid properties and values.

Additional exercises are included in this lesson to show students how to make tables adapt responsively to mobile devices and smartphones.
Spell checking webpages

The content imported in this lesson contains several words purposely misspelled. Alert the students not to correct these errors manually in this exercise. Mention that misspelled words detract from the professionalism and credibility of a website and its content. Students will learn how to use Dreamweaver’s spell check feature to locate and correct such errors. Describe how they can add specific terms to the Dreamweaver dictionary if they use them on a regular basis, but that they should not do this on the classroom computers in this lesson.

Finding and replacing text

The Find and Replace dialog is one of the most powerful features of Dreamweaver. You should stress that it can be used for more than finding and replacing simple phrases. It can perform complex alterations to code and content. Emphasize its ability to search and replace text, code, and even white space differences across a page, selected pages/folders, and/or the entire site.

Review questions

1. Can Dreamweaver open an RTF or other non-web file types?
2. Why do you need to put extra paragraph returns between paragraphs before copying and pasting text from other programs to Dreamweaver?
3. How many <h1> tags should be used on each page?
4. To create a text indent would you use the <blockquote> tag?
5. If you want the entire column of a table to display at a specific width, do you need to apply a custom class to the entire column?
6. Can you add custom terms to the Dreamweaver dictionary for spell checking?

Review answers

1. No. Dreamweaver can’t open RTF files. But it will launch a compatible program when you double-click a file.
2. If you copy single paragraphs from most programs, they will be inserted into Dreamweaver with break characters `<br />` instead of paragraph `<p>` elements.
3. In HTML4, best practice says only one `<h1>` element should be used per page. The same standard has not been codified for HTML5. Some contend that you should be able to add an `<h1>` to each semantic grouping. But for the purposes of this book the old practice will be continue to be used.
4 No. The `<blockquote>` tag has a specific semantic value to identify quoted text so, to comply with web standards, it should be used only for that purpose.

5 No. Since the entire table column must be the same width, a class needs to be applied to only one cell within the column.

6 Yes. Custom terms can be added to the custom dictionary while spell checking.
Lesson 9: Working with Images

In Lesson 9, students learn essential information about raster and vector image basics. Then they add images to their pages and learn how to position those using CSS classes. Students are also introduced to Adobe Bridge, Fireworks, and Photoshop.

Web image basics

This section is devoted to developing an essential understanding of web images. The most important concept to emphasize is the relationship between image size and resolution to download speed. Explain how increasing image size creates a larger file and that large files take longer to download. You may want demonstrate how selecting different color palettes during optimization can decrease image size but adversely affect quality.

Inserting an image

Students explore multiple methods for inserting raster images into their layouts. Emphasize the use and principles behind writing good Alt (alternative) text. Two helpful resources are “Writing Great Alt Text” (http://tinyurl.com/alternative-text-tips) and “How to Write Good Alt Text for the Images on Your Web Page” (http://tinyurl.com/alternative-image-tips).

Adjusting image positions with CSS classes

This exercise describes the creation and application of CSS positioning with custom classes. Explain how CSS allows you to control the placement of images across the entire site at once. Explain that attributes used for HTML-based positioning have been deprecated in HTML5. Such attributes must be changed one by one directly on the page itself and don't offer any fine control.

Working with the Insert panel and menu

The Insert panel is a productivity tool that has been available in Dreamweaver for a long time. It gives users instant access to important commands for inserting a variety of code and components using a single click. It provides eight preset categories and one that's customizable. Take time to explore all the categories, and demonstrate how the students can add specific selected tools to the Favorites category as desired.
Right size, wrong size

The use and proliferation of mobile devices and high resolution displays has created a variety of challenges for the modern web designer. This sidebar discusses the various options that need to be considered when supplying images to a responsive website.

Working with Photoshop
Smart Objects (optional)

This is an optional exercise, because it requires the installation of Adobe Photoshop. Students are walked through the process of using Photoshop Smart Objects. Students learn that Smart Objects maintain a connection to a copy of the original Photoshop image. Smart Objects allow you to use the same image multiple times at different sizes and configurations and then resize the image live within the layout as desired. One limitation of Smart Objects is that when the original image is changed it will update all versions of that image wherever it appears in the site.

Copying and pasting images from Photoshop

Students explore using multiple techniques for inserting images including copy and paste, and drag and drop. Copy and paste allows you to move individual layers from a Photoshop file to a Dreamweaver layout. It’s probably a good time to discuss the advantages and disadvantages of these various workflows. For example, the speed and convenience of these methods may not outweigh the availability of the full toolset of Photoshop or Fireworks.

Students are also guided through some options and strategies for making images work in a responsive environment. The topic is very complex and can’t be dealt with entirely in a course on how to use Adobe Dreamweaver.

Inserting images by drag and drop

Dreamweaver provides a variety of techniques for inserting images. Users can drag and drop images from the Assets panel. Explain that Dreamweaver also allows them to drag and drop images from the File Explorer (Windows) or Finder (OS X). Warn students that drag and drop is not a very precise method for inserting images and it’s possible to place images in the wrong position on the page or within the code. Special care should be made to check where the images appear and confirm their proper placement.
Optimizing images with the Property inspector

Dreamweaver has a set of built-in graphics tools that can be accessed via the Property inspector. These tools give the user the ability to perform specific image editing tasks, such as cropping, sharpening, and resampling among others, directly within Dreamweaver. You may want to review the basic concepts of raster images described at the beginning of the lesson. Remind the students of the connection between image size, resolution color space, and display quality.

Review questions

1. What vector-based image format is supported on the web?
2. What effect does increasing compression on a JPEG image have?
3. Can you insert a 300 ppi image on your webpage?
4. Can you copy and paste a multilayer Photoshop file?
5. What does it mean if there is a circular arrow in the Property inspector by the image Width and Height values?
6. If you reduce the size of an image using the Resample tool, can you restore the image to its original size later?

Review answers

1. Scalable Vector Graphics (SVG) is the only vector graphic format supported on the web.
2. In most cases, increasing image compression decreases file size. But, it may also decrease image quality.
3. Yes. But the image would be much larger than necessary. The maximum resolution of the web is 72 ppi.
4. By default, you can copy only one layer at a time from Photoshop. To copy more than one layer, merge the layers first.
5. A circular arrow indicates that the displayed dimensions of the selected image are not the same as the actual dimensions.
6. The resample feature permanently changes the quality of an image. The image can be resized, but it will probably display at an unacceptable quality.
Lesson 10:  
Working with Navigation

In Lesson 10, students work with relative and absolute hyperlinks to create both internal and external site navigation. Students will learn how to create various types of hyperlinks including text, image, and email.

Hyperlink basics

Students review the basics of hypertext navigation to learn the differences between internal and external links as well as absolute and relative links. Students learn how to build links as well as what attributes and values can be applied to them.

Creating text and image-based hyperlinks

Students learn how to apply hyperlinks to both text and images. Emphasize to the students that text- and image-based hyperlinks use the same basic code structure.

Setting up e-mail links

Students learn how to create a link to generate a custom e-mail. Be sure to discuss with students the limitations of this method and how it is not a recommended technique because it relies on client-side software that may not be installed as well as user-based actions to send the e-mail.

Targeting page elements

The default behavior of a hyperlink is to replace the existing browser content with the targeted selection. Students are shown how to change this default behavior so that a new window can be opened to load a specific webpage. Take time to remind students why they should use this method to open a separate window for external links. Suggest times when this method would be appropriate.

Students will also be shown how to create hyperlink destinations using unique ID attributes and how to set up links to target these internal destinations.
Checking your page

This exercise allows you to demonstrate some of the other important features in Dreamweaver that help you maintain a website. For example, Dreamweaver has a full set of features that can check links, browser compatibility, and accessibility among other attributes that web designers and developers should master. Be sure that the students know how to use Adobe Online Help for any errors found in the browser compatibility check.

Adding destination links to the same page (optional)

This is an optional exercise to allow the students to build links to specific page elements.

Review questions

1. What does URL stand for?
2. What's the difference between an absolute and relative link?
3. Why should email links be discouraged?
4. Can you apply hyperlinks to images?
5. How can you create navigation to a specific part of a page?
6. What role does an ID attribute play in hyperlink navigation?

Review answers

1. URL stands for Uniform Resource Locator. It contains the file name and the path location where it can be found on the Internet.
2. Absolute links spell out the entire URL address of a link. A relative link contains only the name of the file name and the path information needed to load the image in relationship to its location to the webpage itself.
3. Email links depend on software that is installed on the user's computer. This type of software may not be present and will cause the link to fail automatically.
4. Yes. Just select the image, and enter the URL information into the Link field in the Property inspector.
5. Insert a named anchor at the position you want to jump to. Then, create the hyperlink using the page name (if necessary) and the name of the anchor with a hash (#) in front of it.
6. Since an ID attribute should be unique, you can use it in the same way as a named anchor.
Lesson 11: Adding Interactivity

In Lesson 11, students learn about Dreamweaver behaviors and how to use them within a layout along with jQuery widgets.

Learning about and working with Dreamweaver behaviors

This section gives the students a general background in what behaviors can do and how they work. Behaviors are usually dynamic functions created by predefined JavaScript inserted automatically by Dreamweaver. These functions allow users to add sophisticated actions to their websites without any prior programming or scripting knowledge. Make sure that students know how to pick an appropriate trigger, such as `onClick` or `onMouseOver` and how to edit the parameters of any behavior they use.

Working with jQuery Accordion widgets

Students will insert a jQuery Accordion widget to add an interactive element to the site. Discuss the advantages of using jQuery Accordions to insert large amounts of contents in a page without requiring users to scroll up and down long pages.

Review questions

1. Name two available behaviors.
2. Name two possible triggers for a behavior.
3. When you apply a Swap Image behavior to an item, how do you get the original image to return?
4. What does the “preload images” option do?

Review answers

1. Some of the available behaviors are: opening a browser window, swapping an image, fading images, growing or shrinking graphics, and displaying pop-up messages, among others.
2. Behaviors can be triggered by `onMouseOver`, `onMouseOut`, `onFocus`, and `onBlur`, among others.
3. You need to apply a Swap Image Restore behavior.
4. The “preload images” option downloads the images involved in a behavior when the page is first loaded so that there is no delay in the performance of the behavior.
Lesson 12: Working with Web Animation and Video

In Lesson 12, students learn how to incorporate HTML-compatible animation and video in their site.

Understanding web animation and video

It’s been a while since Apple dropped support for Flash on iOS devices, including the iPhone and iPad. But a new standard workflow has not fully emerged. Work has progressed with various web standards organizations to create non-proprietary methods for delivering animation and video directly compatible with HTML5.

In this lesson, students will be exposed to the current techniques for incorporating HTML5-compatible animation and video within their website. Make the students aware that these methods have not been formally adopted by the industry and may change over time.

Adding web animation to a page

With the loss of Flash as the de facto standard, Adobe has been working on other methods for delivering high-quality web animation. Adobe Edge Animate is a relatively new application, which promises to provide much of the capabilities of Flash animation using HTML5-compatible files and functionality. Students will learn how to incorporate an Edge Animate deployment file into their site.

Adding web video to a page

Flash video literally revolutionized the delivery of video content on the web. Almost any type of video could be inserted into Flash, saved in the FLV or F4V format, and inserted in a webpage. This ease of use and simplicity vanished with Apple's decision to drop support for Flash on iOS devices. Instead, the industry is almost back to square one with multiple video formats fighting for supremacy in the market.

In this lesson, students will be introduced to a method for incorporating several HTML5-compatible video formats into their website. Make the students aware that this method has not been formally adopted by the standards organizations and may change in the future.
Dreamweaver continues to offer a high degree of integration with Flash components, which still commands over 90 percent installation on desktop systems. Flash video can be used as the alternate content for older browsers that do not recognize the new HTML5 <video> element and most desktop-based systems that still incorporate the Flash Player browser plug-in. Make sure students are aware that when Flash video (FLV) is added to a webpage, specific JavaScript files as well as the SWF installer are required and must be uploaded to the remote site along with the webpage and the FLV files themselves.

The version of Dreamweaver CC available as of this writing does not incorporate the necessary files for fully supporting Flash video automatically. So, the lesson provides the steps to replace the default Flash fallback video format by using the legacy insertion method. Remind the students that Creative Cloud apps are updated on a regular basis and any errors in the program will eventually be corrected.

Don’t forget to remind the students that they can test the video right inside Dreamweaver.

**Review questions**

1. Why shouldn’t users rely on Flash animation for their sites?
2. What type of web animation can be used instead of Flash?
3. Can you still use Flash video?
4. What video format is supported by all devices and browsers?

**Review answers**

1. Flash animation files are proprietary file formats that are not supported by iOS and other mobile devices.
2. Instead of Flash, you can use animation created using native HTML5 elements, JavaScript, and CSS, like that created by Adobe Edge Animate.
3. Yes, you can still use Flash video as alternative content for older browsers and desktop systems that still support the Flash Player. Otherwise, you can insert video using HTML5-compatible structures and resources.
4. Currently, no single video format is supported by every device and browser. Dreamweaver enables you to insert a main format and then one or more fallback formats.
Lesson 13: Publishing to the Web

In Lesson 13, students will be guided through publishing their site online. Most websites use FTP, but RDS and local network connections are also common.

Defining a remote site

Although it is not required for the training, it is highly recommended that some method for establishing a remote site connection be provided. If cost is an issue, you can use the local web server for the remote site.

For the FTP connection, students should know how to fill in the remote site specifications. Tell them that most web hosting companies will provide all this information when an account is opened. If the student is using a company-hosted site, their IS/IT manager will be able to provide the necessary information. In some cases, companies use a staging server to prevent direct access to online content. The students should be aware of all these types of server environments.

Stress that the Put and Get operations overwrite the files at the destination. Students need to be especially careful not to get a file from the server that will overwrite a newer version on the local site. Inform them that the server may be located in a remote location in a different time zone. And, that when files are posted to this server the creation time of the file may be localized. The students should be aware that an older file on the server may actually appear to be newer than the one on the local computer. It should be recommended that local files be backed up separately to prevent data loss.

Cloaking folders and files

Dreamweaver allows you to cloak individual folders and files. Explain to the students that some folders and files may not need to be uploaded to the server, such as template and Library items. Students should also be aware that some items may actually be different on the remote server and should not be updated. This is especially true with data connection files when the connection scripts on the local computer are not the same as the scripts for the server.

Other file types that should be omitted are ones not typically supported by web browsers, such as TIFFs, PSDs, Word documents, spreadsheets, as well as materials that may contain private or sensitive data.
Wrapping things up

The students have created a variety of pages for their final website, but they have not created the site home page. In this exercise, they will create one last page and save it as the site home page. They will learn what such pages can be named.

You may also want to lead the students through the process of performing some final checks on the pages in the site, including code validation, spell checking, and site-wide link checking.

Putting your site online

By this time the site is complete and ready to be published. Stress the point that most if not all the structure of the local and remote sites will be identical once the site is published (with the exception of cloaked files and folders). Make the students aware that certain types of servers use a specific folder to host the live site files. This folder is often named public, public-html, or www. Tell the students to check with the hosting company or their IS/IT manager for the proper name on their own site. This folder name may have to be added to the definition of the remote site. In some cases, the login procedure will target the proper, live folder.

Have students examine the site structure that Dreamweaver creates on the remote site. They should notice folder names in particular. Explain how these folder names become part of the page URL. Look at some actual websites and discuss what a URL, such as www.adobe.com/products/dreamweaver.html, means in terms of site structure. In this example, you can see that the server www.adobe.com contains a folder named “products” that in turn contain a webpage named “dreamweaver.html”.

Students should be advised to minimize the number of subfolders employed and to keep the names of the folders short, if not abbreviated to help pages load faster.

Once the GreenStart site is complete, you may want to ask the students to design and build their own personal site. Allow them to start with one of the responsive starter pages or even the original layout used in this book. One simple technique is to allow them to re-create an existing site using the text and other assets featured within.

Review questions

1. What remote connection option would you select to by-pass firewall restraints?
2. How would you cloak Excel files (.xls) saved inside the website folder?
3. You have cloaked the Templates folder. Can you upload it without uncloaking it?
4 True or False? The edge_assets folder used to enable the Edge Animate composition is uploaded automatically when you upload your site.

5 What happens if you select a file in the Local Site window and click the Get button?

**Review answers**

1 Choose Use Passive FTP to overcome firewall restraints.

2 Open the Site Setup dialog, and select the Cloaking category. Select the options Enable Cloaking and Cloak Files Ending With, if necessary. Enter .xls in the extension field. Separate the entry from any others with a space.

3 Yes, cloaked folders can be uploaded manually. Just right-click the folder, and choose Put from the context menu.

4 True. However, some files within the folder may not be uploaded automatically. Dreamweaver may miss certain JavaScript and CSS files used by certain functions within the animation.

5 The Get button always downloads the selected file from the Remote server regardless of the window in which it is selected.