

# Project 1

# Widgets

Timing: 8 to 12 hours

## Project overview

In this project, students will use their knowledge of design principles, HTML, and CSS to customize an existing widget. Through analyzing widgets and websites, they will learn to identify purpose and audience and to use design principles to emphasize purpose and audience. They will also learn about the phases of web production and about publishing web projects.

The main focus of this project is for students to learn and understand how CSS is used to create consistency and allow for easy site-wide changes. The emphasis is on employing their understanding of design principles to inform the modifications and customizations they make to the widget's Cascading Style Sheet.

*Student product:* Customized widget

**Note:** Portions of the Widget project align to the Adobe Certified Associate, Web Communication objectives. Within the instruction steps and technical guides, the specific learning objectives for the exam are referenced with the following format: <sup>1.1</sup>

## Project objectives

At the completion of the project, students will have developed the following skills:

### Project management skills

- Designing for a specific audience and purpose
- Understanding the phases of web development

### Design skills

- Designing for their audience(s)
- Applying design principles
- Creating wireframes
- Creating design comps
- Learning basic HTML
- Understanding CSS
- Applying design aspects such as color, design, layout, contrast, and composition
- Integrating images and text
- Planning graphics based on needs and audience

### Research and communication skills

- Understanding the role and purpose of widgets
- Analyzing and critiquing widgets and websites
- Evaluating and analyzing content validity
- Evaluating and analyzing website navigation
- Understanding copyright issues and fair-use guidelines
- Advocating and practicing legal use of images
- Collecting and analyzing audience needs and purpose to inform design
- Participating in a peer review
- Communicating and presenting design decisions
- Giving feedback on a project

### Technical skills

#### *Fireworks*

- Understanding the Fireworks workspace

- Creating a wireframe
- Creating design comps
- Preparing images

#### *Photoshop*

- Understanding the Adobe Photoshop interface
- Resizing, rotating, and cropping images
- Correcting color
- Retouching images
- Generating multiple file formats

#### *Dreamweaver*

- Understanding the Dreamweaver workspace
- Creating a new document
- Using the Insert panel
- Inserting images
- Inserting text
- Using the Widget Browser
- Inserting a widget into an HTML web page
- Editing and customizing CSS rules
- Using the CSS Styles panel
- Publishing web files

### **Project materials**

- Adobe Fireworks CS6 installed on all machines
- Adobe Photoshop CS6 installed on all machines
- Adobe Dreamweaver CS6 installed on all machines
- Digital cameras
- Presentation: Introduction to design principles
- Presentation: Introduction to page design principles
- Worksheet: Analyzing websites
- Presentation: Introduction to HTML and CSS
- Guide: Introduction to HTML and CSS
- Presentation: Web project production phases
- Fireworks guide: Overview of Adobe Fireworks CS6 workspace
- Fireworks guide: How to create a wireframe
- Electronic file: slideshow\_widget\_wireframe.fw.png
- Electronic file: sry\_slideshow\_widget\_comp1.fw.png
- Electronic file: sry\_slideshow\_widget\_comp2.fw.png
- Fireworks guide: How to create a design comp
- Guide: Peer review
- Guide: Introduction to digital photography
- Guide: Principles and rules of copyright
- Photoshop guide: Overview of the Adobe Photoshop CS6 workspace
- Fireworks guide: How to prepare photographs
- Photoshop guide: How to resize, rotate, and crop images
- Photoshop guide: How to correct color
- Photoshop guide: How to retouch photos
- Photoshop guide: How to generate different file formats
- Dreamweaver guide: Overview of Adobe Dreamweaver CS6 workspace
- Dreamweaver guide: How to use the Adobe Dreamweaver Widget Browser
- Dreamweaver guide: How to work with text and images
- Dreamweaver guide: The Dreamweaver Insert panel
- Dreamweaver guide: How to create and edit a CSS rule
- Dreamweaver guide: How to publish web files

## Background preparation resources

- [Technical and content information](#)
- [Key terms](#)
- [ISTE NETS\\*S Standard for Students](#)
- [Adobe Certified Associate, Web Communication objectives](#)

## Project steps

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1. Introduce students to the goals of the project.
  - Introduce design principles
  - Introduce HTML and CSS
  - Analyze widgets and websites
  - Introduce wireframing and design comps
  - Select and prepare images
  - Edit and customize CSS rules
  - Add a widget to an HTML web page

### Introduction to design principles

(Suggested time: 50–100 minutes)

2. Introduce the concept of using design principles to evaluate and inform web design. Use the following presentation to introduce specific design principles.

*Presentation:* Introduction to design principles<sup>2.3</sup>

3. Show students at least two websites, one that is well designed and one that is not, and discuss them in relation to consistency and visual hierarchy. Ask students to identify the design elements on the sample websites. Identify visual elements on some of the web pages that can support content hierarchy, such as navigation scheme, the use of color, text headings, fonts (color, emphasis, and size), indentation and alignment, paragraph headings, and lists.

*Presentation:* Introduction to page design principles<sup>2.3</sup>

4. Time permitting, discuss some or all of these design tips from *Don't Make Me Think: A Common Sense Approach to Web Usability*, by Steve Krug (Que Books, 2005):
  - Make the most important things prominent: larger, bolder, near the top, with more white space.
  - Relate similar content visually: grouped by heading, lined up, with similar look or size, grouped in an area.
  - Nest content visually: use boxes in boxes, have headings and indented subheadings to show elements as parts of groups.

## How to analyze a widget

(Suggested time: 50–100 minutes)

5. Now that students have an understanding of design principles, introduce the use of widgets on web pages. Have a class discussion on the role and purpose of widgets, especially within a larger website. Because widgets vary in kind and definition, some guiding discussion points are:
  - Widgets are useful applications that can be embedded on a web page, blog, or social media page to perform a specific function. They display information and invite users to act in a number of ways.
  - A widget is a piece of self-enclosed code (usually a combination of HTML, CSS, and JavaScript) that is often created by reusing existing code or HTML Snippets.
  - Some widgets are simple and provide an enhanced user experience. Examples include accordions, tabbed panels, buttons, dialog boxes, pop-up windows, selection boxes, toggle switches, and slide shows.
  - Some widgets are small applications that open up to a larger application. Examples of this kind of widget include stock quotes and news; search boxes for Google, eBay and other popular search-based websites; clocks and counters; games; feeds; and more.
6. Show students a variety of widgets and help them identify the specific purpose and functionality of each.<sup>1,2</sup> Discuss the following:
  - What is the purpose of the widget?
  - What is its functionality?
  - Who is the audience?
  - Who created the widget?

**Note:** You might gather some popular widgets showing various functionalities and purposes. The Adobe Dreamweaver Widget Browser includes a variety of widgets to show your students. To access the Widget Browser in Dreamweaver, create a new HTML document and, under Insert, select Widget and then select Widget Browser in the dialog box. The Widget Browser is an Adobe AIR application you will be required to install on your computer. You will need to create a free Adobe ID to access the Widget Browser and download widgets. Student computers will need access to the Widget Browser for this project, so take the installation and Adobe ID requirements into consideration when you are preparing to teach the project.

## How to analyze websites

(Suggested time: 50–100 minutes)

7. Now that you have discussed widgets, explain that you will now look at websites. Begin with a general class discussion about the purpose and audience of a website. Identify the kind of information that determines purpose, audience, and audience needs. Focus the discussion on websites that have sections targeted to a variety of audiences. For example, you might contrast the PBS site for adults, [www.pbs.org](http://www.pbs.org), with their site for kids, [www.pbskids.org](http://www.pbskids.org), discussing the following:
  - Purpose of the site
  - Audience for the site
  - How the site uses design principles to emphasize purpose and audience
8. Demonstrate website analysis techniques.<sup>2,1</sup> Criteria for evaluating sites might include the following:
  - Design

- Visual layout
- Consistency structures
- Color scheme
- Visual hierarchy elements
- Content
- Bias
- Currency
- Source
- Ability to corroborate information

9. Divide the class into small groups and ask each group to evaluate your school’s website for design and content.

*Worksheet:* Analyzing websites <sup>1.1, 1.2, 1.3, 1.5, 2.3</sup>

**Note:** If your school does not have a website or the website is not conducive to this activity, you can use another website that is relevant to your students.

10. When students have finished evaluating your school’s website for design and consistency elements, open the website in a web browser, select Source (or Page Source) from the View menu, and show students the source code. Briefly explain what HTML is and how it works. Briefly explain Cascading Style Sheets and why it is important to use CSS when creating designs.

*Presentation:* Introduction to HTML and CSS <sup>2.1, 4.1</sup>

*Guide:* Introduction to HTML and CSS <sup>2.1, 4.1</sup>

11. Briefly demonstrate what tags to include on every HTML document (<HTML>, <HEAD>, <TITLE>, <BODY>).<sup>4.1, 5.6</sup>

12. Briefly discuss the importance of CSS as follows:<sup>2.1</sup>

- Simplifies text formatting
- Enables design of consistent-looking pages
- Enables site-wide changes

13. Briefly discuss best practices for using CSS and introduce the three main types of CSS styles: Class, Tag, and ID.<sup>2.1</sup> Using the source code, show students where and how CSS was used on the school’s website.

### **Wireframes, design comps, and customizing a widget**

(Suggested time: 100–150 minutes)

14. Explain that in another project they will go through each phase of the production process. However, for this project they will only be working with wireframes and design comps to assist them in customizing the Spry Image Slideshow with Filmstrip for use on the school’s website.

**Note:** If your school does not have a website or the website is not conducive to this activity, you can add the widget to another website.

**15.** Briefly discuss and define the phases of a web project:

- Define:
  - Goals, target audience, content, and delivery requirements for the project
  - Project plan
  - Content production
- Structure:
  - Information architecture and design document
  - Flowchart to portray the overall structure of the site
  - Wireframes to block out the basic structure of site pages
- Design:
  - Design of comps to provide detailed alternative designs
  - Review of comps with client to ascertain client's design preferences
  - Redesign based on client feedback
  - Production storyboard
  - Prototype
- Build and test:
  - Site production based on storyboards
  - Technical and usability testing, recording bugs and design-change requirements
  - Revision based on test results
  - Technical and usability testing of revised site
  - Final presentation to client and final revision
- Launch:
  - Launch plan

*Presentation:* Web project production phases <sup>1.6</sup>

**16.** Ask students to think about their widget and the design elements that would make it consistent. Some guiding questions:

- What font will you use for titles or headings?
- What color will you use for titles or headings?
- What font will you use for descriptions?
- What color will you use for the description font?
- How will your navigation bar and text navigation help visitors know where they are?

**17.** Introduce students to the interface, terminology, and basic panels and tools in Adobe Fireworks CS6. Briefly demonstrate how to create a wireframe in Fireworks, explaining that students will re-create a wireframe of their school's website, showing where the widget will be placed on the page. A wireframe of the Spry Image Slideshow widget is included for students to use in this exercise.<sup>2.5</sup>

*Fireworks guide:* Overview of Adobe Fireworks CS6 workspace

*Fireworks guide:* How to create a wireframe

*Electronic file:* slideshow\_widget\_wireframe.fw.png

18. Allow students time to re-create a wireframe of the home page on their school website.
19. Introduce the concept of a design comp, an electronic drawing that shows a detailed design of a web page or project. Show a sample design comp to discuss and emphasize the following.<sup>2.4</sup>
- **Mood:** A comp is the first impression of what a project will really look like. The comp should immediately convey an appropriate message, such as fun, serious, youthful, organized, trendy, or family-oriented.
  - **Color:** Colors should be well coordinated, fit the mood and tone of the project, and provide enough contrast for legibility. Discuss web-safe colors and decide whether it's appropriate for students to design only with web-safe colors. Time permitting, show Adobe Kuler (<http://kuler.adobe.com>) to students and explain how they can use this web service to create and save custom color palettes for any visual design project.
  - **Fonts:** Vary fonts sparingly to be effective; consider how size and weight draw attention. Most web-based projects are designed with one or two fonts, using size, color, and boldface for further distinction. Make sure the contrast between the font and background colors is adequate to make the text legible. Discuss which fonts are common on Windows and Macintosh operating systems.
  - **Images:** Images reflect content and mood. Photographs should be of highest quality. Text used with an image should be close enough to be visually associated with the image. An organization logo should be properly positioned, sized, and so on.
  - **Text:** Web visitors are more likely to skim than to read carefully. The biggest challenge is to use only as much text as is necessary to convey key messages. Organize the text so visitors can scan it to find relevant information.
  - **Navigation elements:** Buttons, menus, and navigation bars should all reflect the site's mood and integrate effectively with site colors, fonts, and images.

*Electronic file:* spry\_slideshow\_widget\_comp1.fw.png

*Electronic file:* spry\_slideshow\_widget\_copm2.fw.png

20. Ask each student to make at least one design comp of the Spry Image Slideshow with Filmstrip, using Fireworks.

*Fireworks guide:* How to create a design comp

21. After individuals have completed their comps, ask several students to share their design comps with the class for feedback.

*Guide:* Peer review<sup>2.6</sup>

### **Selecting and preparing images**

(Suggested time: 50–100 minutes)

22. Explain that students need to select images to use in their slide-show widgets.

**Note:** You may want to supply images for students to select from or have students use digital cameras and take photographs of images around the school. You can use the following guides if you are asking students to take their own images:

*Guide:* Introduction to digital photography

23. Emphasize the importance of copyright and protecting one's work by discussing copyright rules, fair-use guidelines, and intellectual property. Instruct the students to investigate whether they need permission to use any of their images. Have them provide the appropriate type of copyright citations and have them copyright their own work.

*Guide:* Principles and rules of copyright <sup>1,3</sup>

**Note:** Depending on your students' knowledge of copyright issues, you might want to discuss some or all of the following: knowing when permission must be obtained; the difference between copyrighted material, fair use, intellectual property, and derivative works; and how to indicate that content is copyrighted.

24. Explain that most images need to be edited. Allow students time to edit their images in Adobe Fireworks CS6 or Adobe Photoshop CS6 and introduce them to the interface, terminology, and basic panels. Discuss and demonstrate the purpose of layers in both Photoshop and Fireworks.

*Photoshop guide:* Overview of the Adobe Photoshop CS6 workspace

25. Using the "I do, we do, you do" method, discuss and demonstrate the following techniques to help students make their pictures the best they can be for their slide shows:
- Navigating images: Demonstrate the tools for navigating images, rotating the canvas, and panning and zooming.
  - Cropping and straightening: Use the Crop tool to remove unwanted elements of a photograph.
  - Resizing: Use the image and canvas size tools to adjust the size of the image.
  - Adjusting color: Use the tools in the adjustment panel to automatically correct color.
  - Retouching: Use the Clone Stamp to remove unwanted elements, use the Spot Healing Brush to touch up small areas, or use the Red Eye tool to remove red eye.
  - Resolution: Use Resolution Check to prepare the image for web output.
  - Experimenting: Experiment and keep track of your changes by using the History panel and remove unwanted steps with the Undo panel.

*Fireworks guide:* How to prepare photographs

*Photoshop guide:* How to resize, rotate, and crop images

*Photoshop guide:* How to correct color

*Photoshop guide:* How to retouch photos

*Photoshop guide:* How to generate different file formats

**Note:** As you demonstrate the editing tools, you may want to discuss the idea of nondestructive editing and emphasize to students the importance of using adjustment layers, filters, and other methods for making edits to their photos without changing the original images.

26. Have students edit and size their images appropriately for both the slide-show images and their respective thumbnail images for the filmstrip. Explain that they also need to choose the order in which their images should appear in the slide show. The required sizes for the Spry Image Slideshow with Filmstrip are:
- Horizontal images: 800 px wide by 533 px high
  - Vertical images: 533 px wide by 800 px high
  - Horizontal thumbnails: 200 px wide by 133 px high



- Vertical thumbnails: 133 px wide by 200 px high

## Editing and customizing CSS rules

(Suggested time: 100–150 minutes)

27. Introduce students to the interface, terminology, and workspaces in Adobe Dreamweaver CS6. Using the “I do, we do, you do” method, discuss and demonstrate the following techniques:
- Identifying elements of the Dreamweaver interface
  - Using the workspace switcher and customizing the Dreamweaver workspace
  - Showing the views: Design, Code, Split, Live
  - Creating a new document <sup>4.3</sup>

*Dreamweaver guide:* Overview of Adobe Dreamweaver CS6 workspace <sup>3.1, 3.6</sup>

28. Introduce the Adobe Dreamweaver Widget Browser. Explain that the Widget Browser is an application that lets you preview and configure widgets using a visual interface. You can use the Widget Browser to add widgets to Adobe Dreamweaver so you can easily insert them in your web pages. Demonstrate how to add the Spry Image Slideshow with Filmstrip to My Widgets. Demonstrate how to save the widget files to a computer. Demonstrate how to insert the Spry Image Slideshow with Filmstrip into a Dreamweaver HTML document and/or open the widget files from the saved location on the computer.

*Dreamweaver guide:* How to use the Adobe Dreamweaver Widget Browser

29. Explain that students will now insert their images. In Code or Split view, show students the location of the slide-show images. Using the “I do, we do, you do” method, demonstrate how to insert their images into the Spry Image Slideshow with Filmstrip and how to resize their images from within Dreamweaver.

*Dreamweaver guide:* How to work with text and images <sup>4.4, 4.5, 5.4</sup>

*Dreamweaver guide:* The Dreamweaver Insert panel <sup>3.2</sup>

30. Remind students of when they looked at the school’s CSS. Explain that they will now change the font, text, color, borders, and so on in the Spry Image Slideshow with Filmstrip’s CSS style sheet according to their design comp. <sup>5.1</sup>

**Note:** Dreamweaver provides an option for customizing the widget from within the Widget Browser, but by doing so the students will not learn how to make direct changes to a CSS style sheet. You can mention that in the future students can customize the CSS styles in the widget from within the Widget Browser.

31. Demonstrate how to open the widget’s Cascading Style Sheet file (basic\_fs.css) from the CSS styles panel. Using the styles in the CSS file, go through the style features on the CSS Styles panel to show students the types of styles and rules used to create the CSS in the Spry Image Slideshow with Filmstrip widget.

*Dreamweaver guide:* How to create and edit a CSS rule <sup>3.3, 5.1, 5.2, 5.8</sup>

32. Ask your students to customize the `basic_fs.css` file according to their design comps. Ask students to select a style in the CSS Styles panel and make changes to an existing property. Then ask them to make a change to the features of the style to see how the change is implemented on the page. (They can click Apply to see changes without closing the dialog box if they use the Edit Style button.)

**Note:** Time permitting, have students create a new style and add it to the CSS file.

33. Demonstrate how to use Live view to see how their widgets look and function according to changes they make to the CSS file. Encourage them to make any necessary revisions.<sup>5.2</sup>

### **Adding a customized widget to a web page**

(Suggested time: 50–100 minutes)

34. Once the students have finalized their widgets, have them save their widget files. Explain that widgets are saved as Spry folders, with all relevant CSS, JavaScript, images, and so on.
35. Explain that students will now publish and/or display their widgets. Choose from several options, depending on time and resources. Have your students publish and/or display their widgets in one of the following ways:
- If you don't have access to a web server, have students use Preview In Browser to display the HTML page with their widget. Explain that to preview their widget in a web browser, they need to select File > Preview In Browser and select their preferred web browser. If they have not already saved their HTML file, they will be required to do so before previewing it.
  - Have students publish the blank HTML page with the inserted widget to a web server.
  - Obtain the HTML file for your school's home page and have students insert their widgets where they were intended to go based on their wireframes and either preview the home page or publish it to a web server.

*Dreamweaver guide:* How to publish web files <sup>6.5</sup>

**Note:** If you are preparing your students for the Adobe Certified Associate, Web Communication exam, publishing files to a remote server is a certification objective and should be covered here. However, students will also have the opportunity to publish a website in Project 3: Web development and deployment.

### **Presenting their work**

(Suggested time: 30–50 minutes)

36. Ask several or all of your students to present their widgets to the class, explaining where they would place the widget on the school's home page, the reasons for the placement, and what customizations they made and why.<sup>2.6</sup>
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## Extension activities

You can extend the project in the following ways:

- *More design investigation:* Add more graphic design exploration to this activity by having students use the Internet to find examples of each design principle.
- *Research:* To provide students with a deeper foundation in Cascading Style Sheets, you might have teams of students spend some time researching topics and then present their findings to the class. Topics could include the following:
  - The emergence of CSS
  - The current standards around CSS from the W3C
  - The benefits of using CSS
- *Student Seminar Introduction:* You might ask a small student group to review Using Dreamweaver or the online Dreamweaver Support Center (in the Dreamweaver Help menu) to research how to set up the local site and root folder. This group can then report to the class the reasoning for setting up the site and why doing so is important.
- *Reflection supplement:* Ask students to write up the decisions they made in planning their widgets. This document will help students reflect on their process and provide a framework for the next time they plan a website.
- *Interview:* To help students better understand the importance of creating a wireframe for a website, find a web designer students can interview about the planning process.
- *Technical Help in the Classroom:* To encourage students to develop self-sufficiency when seeking help, you can assign a small group or pair of students to research challenging skills and present their findings to the class. Ask them to define key terms (such as optimization) and to explain the relevance of these terms to the task at hand. Then ask students to give a three- to five-minute oral report at the beginning of class, demonstrating the skill and reporting their findings.
- *Fast finishers:* For students who finish early, ask them to export their widget to Flash and build a mobile or tablet widget or have them publish their widget as a mobile application using Dreamweaver and PhoneGap (<http://phonegap.com>).

## Assessment

- [Project rubric](#)

## Background preparation resources

- Review the student step-by-step guides referenced in this project.
- To view video tutorials aligned with the skills required to complete this project, visit the Digital Design CS6 show on Adobe TV: <http://tv.adobe.com/show/digital-design-cs6/>
- For more teaching and learning resources on widgets and other topics in this project, search for resources from the community on the Adobe Education Exchange: <http://edexchange.adobe.com>
- For an overview of the interface and for more information on the technical aspects of Fireworks, see Fireworks Help.
- For an overview of the interface and for more information on the technical aspects of Dreamweaver, see Dreamweaver Help.

- For an overview of the interface and for more information on the technical aspects of Photoshop, see Photoshop Help.
- If needed, review this site with more information on copyright: <http://fairuse.stanford.edu>.

### Widgets

- Explanation of widgets and free gallery: [www.widgetbox.com/info/widgets/explanation/](http://www.widgetbox.com/info/widgets/explanation/) and [www.widgetbox.com/widgets/](http://www.widgetbox.com/widgets/)
- Introduction to widgets: [www.webopedia.com/DidYouKnow/Internet/2007/widgets.asp](http://www.webopedia.com/DidYouKnow/Internet/2007/widgets.asp)
- Explanation of HTML snippets: [http://support.sitecreator.com/html\\_snippet.html](http://support.sitecreator.com/html_snippet.html)
- Daily listing of free web resources: [www.webresourcesdepot.com](http://www.webresourcesdepot.com)
- Adobe Dreamweaver Widget Browser: <http://labs.adobe.com/technologies/widgetbrowser/>
- How to use the Dreamweaver Widget Browser: [www.adobe.com/devnet/dreamweaver/articles/using\\_widget\\_browser.edu.html](http://www.adobe.com/devnet/dreamweaver/articles/using_widget_browser.edu.html)
- Explanation of the Spry framework: <http://labs.adobe.com/technologies/spry/home.html>

### Photography

- Information on image composition for beginners: [www.connectedphotographer.com/issues/issue200411/00001426001.html](http://www.connectedphotographer.com/issues/issue200411/00001426001.html)
- Tips on digital photography composition: <http://digital-photography-school.com/blog/digital-photography-composition-tips>
- A variety of information about digital cameras: [www.malektips.com/digital\\_cameras\\_help\\_and\\_tips.html](http://www.malektips.com/digital_cameras_help_and_tips.html)
- Links to tips for taking great pictures: [www.kodak.com/ek/US/en/Consumer\\_Products/Tips\\_Projects\\_Center/Tips\\_from\\_the\\_Professionals.htm](http://www.kodak.com/ek/US/en/Consumer_Products/Tips_Projects_Center/Tips_from_the_Professionals.htm)
- Tips for image composition and definitions on the elements of visual design: [http://photoinf.com/General/Robert\\_Berdan/Composition\\_and\\_the\\_Elements\\_of\\_Visual\\_Design.htm](http://photoinf.com/General/Robert_Berdan/Composition_and_the_Elements_of_Visual_Design.htm)

### Key terms

- |                                |             |
|--------------------------------|-------------|
| • Cascading Style Sheets (CSS) | • HTML      |
| • copyright                    | • HTML5     |
| • design comp                  | • widget    |
| • design principles            | • wireframe |

## ISTE NETS\*S Standard for Students

This project is aligned to the ISTE NETS\*S Technology Standards. Depending on the subject and content area the student selects you may research your own state content standards to see how this project aligns to your state requirements.

### ISTE NETS\*S: Curriculum and Content Area Standards – NETS for Students

#### 1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes.
- b. create original works as a means of personal or group expression.

#### 2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. interact, collaborate, and publish with peers, experts or others employing a variety of digital environments and media.

#### 3. Research and Information Retrieval

Students apply digital tools to gather, evaluate, and use information. Students:

- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.

#### 4. Critical Thinking and Problem Solving

Students use critical thinking skills to plan and conduct research, manage projects, solve problems and make informed decisions using appropriate digital tools and resources. Students::

- b. plan and manage activities to develop a solution or complete a project.

#### 5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology.

#### 6. Technology Operations and Concepts

Students demonstrate a sound understanding of technology concepts, systems, and operations. Students:

- a. understand and use technology systems.
- b. select and use applications effectively and productively.

## **Adobe Certified Associate, Web Communication objectives**

- 1.1 Identify the purpose, audience, and audience needs for a website.
- 1.2 Identify web page content that is relevant to the website purpose and appropriate for the target audience.
- 1.3 Demonstrate knowledge of standard copyright rules (related terms, obtaining permission, and citing copyrighted material).
- 1.5 Make website development decisions based on your analysis and interpretation of design specifications.
- 1.6 Understand project management tasks and responsibilities.
- 2.1 Demonstrate general and Dreamweaver-specific knowledge of best practices for designing a website, such as maintaining consistency, separating content from design, using standard fonts, and utilizing visual hierarchy.
- 2.3 Demonstrate knowledge of page layout design concepts and principles.
- 2.4 Identify basic principles of website usability, readability, and accessibility.
- 2.5 Demonstrate knowledge of flowcharts, storyboards, and wireframes to create web pages and a site map (site index) that maintain the planned website hierarchy.
- 2.6 Communicate with others (such as peers and clients) about design plans.
- 3.1 Identify elements of the Dreamweaver interface.
- 3.2 Use the Insert bar.
- 3.3 Use the Property inspector.
- 3.6 Customize the workspace.
- 4.1 Demonstrate knowledge of Hypertext Markup Language
- 4.3 Create, title, name, and save a web page.
- 4.4 Add text to a web page.
- 4.5 Insert images and apply alternative text on a web page.
- 5.1 Set and modify document properties.
- 5.2 Organize web-page layout with relative and absolutely positioned div tags and CSS styles.
- 5.4 Modify images and image properties.
- 5.6 Use basic HTML tags to set up and HTML document, format text, add links, create tables, and build ordered and unordered lists.
- 5.8 Use CSS to implement reusable design
- 6.5 Publish and update site files to a remote server.

## Assessment

	<b>0 - Does not meet expectations</b>	<b>3 - Meets expectations</b>	<b>5 - Exceeds expectations</b>
<b>Website evaluation</b>	Absent or incomplete.	Website evaluation includes visual representation with copyright documentation, analysis of design features, and content validity.	Website evaluation includes visual representation with copyright documentation. Evaluations include a complete analysis of design features and content validity as they relate to effectiveness of site for its audience and purpose.
<b>Widget wireframe</b>	Absent or incomplete.	Wireframe re-creates school website and includes placement of widget. It is based on design principles and includes information on placement and navigation choices. Students clearly explain design decisions for the widget.	Wireframe re-creates school website and includes placement of widget. It is based on design principles and includes information on placement and navigation choices. Students clearly explain design decisions for the widget. Explanations also include synthesis of information from widget and website analysis.
<b>Design comp</b>	Absent or incomplete.	Student's design comps accurately reflect audience, goals, color choices, mood, images, text, and navigation choices. The selected comps reflect a variety of approaches to the design. The design comps match the overall design of the website the widget is designed for.	Student's design comps accurately reflect audience, goals, color choices, mood, images, text, and navigation choices. The selected comps reflect a variety of approaches to the design. The design comps match the overall design of the website the widget is designed for and the students can clearly articulate the ways the design principles are implemented to impact the audience.
<b>Image manipulation</b>	Absent or incomplete.	Student correctly uses color correction, selection tools, and retouching tools to manipulate images and focus the composition on the subject. Alterations to the image support the original meaning of the image.	Student correctly and appropriately uses color correction, selection tools, and retouching tools to manipulate images and focus the composition on the subject. Alterations to the image support the original meaning of the image.

	<b>0 - Does not meet expectations</b>	<b>3 - Meets expectations</b>	<b>5 - Exceeds expectations</b>
<b>Widget</b>	Absent or incomplete.	Student understands CSS styles and uses them to customize a widget. Student creates CSS styles, using a combination of redefined styles and new styles. Students publish their widgets on an HTML web page.	Student understands and clearly articulates CSS styles and their uses in customizing a widget. Student creates CSS styles, using a combination of redefined styles and new styles. Students publish their widgets on the school website.