

Fundamentals of Web Design Curriculum Design

Power Standards Web Page Design

1. Develop communication skills needed in the technological and global workplace.
2. Design graphic enhancement for Internet related applications.

Power Benchmarks Web Page Design

1. Utilize HTML to create and edit web pages.
2. Utilize tables in web page design.
3. Demonstrate the use of Cascading Style Sheets.
4. Demonstrate a client's style guide when designing a web page
5. Design a user-friendly, functional navigation system.
6. Create an animated SWF.
7. Create an image/graphic using Photoshop.
8. Use a multimedia application to demonstrate basic animation tasks.
9. Demonstrate accommodations for disabilities in web design.
10. Publish and edit a web site to the World Wide Web.

Fundamentals of Web Design Curriculum Design

Students will be able to:

1. Develop communication skills needed in the technological and global workplace.
 - Utilize HTML to create and edit web pages. (1)
 - Design a user-friendly, functional navigation system. (5)
 - Demonstrate accommodations for disabilities in web design. (9)
 - Publish and edit a web site to the World Wide Web. (10)

2. Design graphic enhancement for Internet related applications.
 - Utilize tables in web page design.(2)
 - Demonstrate the use of Cascading Style Sheets. (3)
 - Demonstrate a client's style guide when designing a web page. (4)
 - Create an animated SWF. (6)
 - Create an image/graphic using Photoshop. (7)
 - Use a multimedia application to demonstrate basic animation tasks. (8)

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

Power Standard 1: Develop communication skills needed in the technological and global workplace.

Power Benchmark/Competency # 1:

Utilize HTML to create and edit web pages.

Estimated Timeline: 4 days and on-going

Place 'X' in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Global & Cultural	Personal Responsibility
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
		X		X

Understandings:

Students will understand that...(sentence):

- HTML is an acronym for Hyper Text Markup Language, which allows all types of computers to interpret information on the Web in the same way.
- HTML is a series of tags that surround text that is being coded for special treatment.
- Attributes, or properties, allow for further specification of how the tags display the information on a web page.
- Any word processor or text editor can be used to type an HTML document.
- HTML tags are enclosed in brackets (< >), and usually occur in pairs.
- The ending tag differs from the beginning tag: it contains a slash (/) as the first character within the brackets.
- HTML documents have the ability to go from one web site to another or to display a different page by having the user click a link, or hyperlink, that is displayed in a different color on the page.

Essential Questions:

- What is the origin of HTML?
- How does HTML control the structure and layout of a web page?
- How is HTML able to be created and read on any type of computer platform?
- Where can you find more information about HTML topics, such as accessibility, privacy, internationalization, and new Web development languages and techniques?

Students will: (know)... (Include vocabulary)

- Enter the four initial tags common to all web pages: <HTML>, <HEAD>, <TITLE>, and <BODY> and their corresponding ending tags.
- Distinguish between the six heading tags used to change text size.
- Choose the appropriate tags that control the spacing of text and layout of text in lists, including: <P>,
, , , and <DL>.
- Utilize the attribute for changing the background color of a web page, BGCOLOR.
- Utilize the attribute for alignment, ALIGN.
- Apply the tag for horizontal rules, which are graphical images that act as dividers, <HR>.
- Apply the tags for a hyperlink, <A HREF>, .
- Apply the tags for a table including, <TABLE>.

Students will be able to (i.e. do)...(Include vocabulary)

- Create a basic HTML web page in a text editor that includes the four common tags.
- Enhance a web page by using optional tags and attributes.
- Create a basic HTML table on a web page.
- Create links to other pages using HTML coding.

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<p><TR>, <TD>.</p> <ul style="list-style-type: none">○ Hypertext Markup Language, tags, attributes, links	
Stage 2 – Assessment Evidence	
<p>Performance Tasks: (i.e. Assessment used to determine proficiency on competency)</p> <ul style="list-style-type: none">➤ Create a simple web page using HTML	<p>Key Criteria: (Rubric)</p> <ul style="list-style-type: none">➤ Webpage must include correct and efficient coding.➤ Webpage must produce accurate results.➤ Student must include a user-friendly navigation.

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Stage 1 – Desired Results:

<p>Power Standard 1: Design graphic enhancement for Internet related applications.</p> <p>Power Benchmark/Competency # 2: Utilize tables in web page design.</p> <p>Estimated Timeline: 2 days and on-going</p>	<p>Place ‘X’ in square if goal addresses Essential/Content Standard(s).</p> <table border="1" style="width: 100%; text-align: center; border-collapse: collapse;"> <tr style="background-color: #ffffcc;"> <th style="padding: 2px;">Career</th> <th style="padding: 2px;">Technology</th> <th style="padding: 2px;">Critical Thinking</th> <th style="padding: 2px;">Personal Responsibility</th> <th style="padding: 2px;">Global & Cultural</th> </tr> <tr> <td style="padding: 2px;">X</td> <td style="padding: 2px;">X</td> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> <tr style="background-color: #ffffcc;"> <th style="padding: 2px;">Math</th> <th style="padding: 2px;">Science</th> <th style="padding: 2px;">Reading</th> <th style="padding: 2px;">Social Responsibility</th> <th style="padding: 2px;">Communication</th> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> </table>	Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural	X	X	X		X	Math	Science	Reading	Social Responsibility	Communication			X		X
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X	X	X		X																	
Math	Science	Reading	Social Responsibility	Communication																	
		X		X																	
<p>Understandings: <i>Students will understand that...(sentence):</i></p> <ul style="list-style-type: none"> ➤ A table is a way of organizing information on a web page. ➤ A table can be used to control the layout of a web page. ➤ A table should be sketched on paper first in order to determine how many rows and columns it should contain. 	<p>Essential Questions:</p> <ul style="list-style-type: none"> ➤ What is the purpose of using a table in a web page? ➤ What factors determine whether a table should be created using a percentage of the window size or using fixed measurements? 																				
<p>Students will: (know)... (Include vocabulary)</p> <ul style="list-style-type: none"> ➤ Determine the number of rows and/or columns needed in a table in order to organize and arrange data. ➤ List the types of items that can be placed in a cell. ➤ Specify table properties, such as border, cell padding, and cell spacing. ➤ Determine whether a table size should be specified either as percentages of the width of the screen or as a fixed pixel size. <ul style="list-style-type: none"> ○ Cell, row/column, cell padding, cell spacing 	<p>Students will be able to (i.e. do)... (Include vocabulary)</p> <ul style="list-style-type: none"> ➤ Organize data into a table format. ➤ Plan the layout of a table including number of rows, columns, and properties. ➤ Create a table on a web page using HTML and HTML editor software. ➤ Designate table properties. ➤ Insert text and graphics into a table cell. ➤ Create a table within a table cell. 																				
<h2 style="margin: 0;">Stage 2 – Assessment Evidence</h2>																					
<p>Performance Tasks: (i.e. Assessment used to determine proficiency on competency)</p> <ul style="list-style-type: none"> ➤ Create a basic table using HTML or Dreamweaver. 	<p>Key Criteria: (Rubric)</p> <ul style="list-style-type: none"> ➤ Student must produce accurate results. ➤ Student must be able to use correct formatting. ➤ Correct HTML tags must be used for table design. 																				

Fundamentals of Web Design Curriculum Design

Stage 3 – Learning Plan:

Utilize tables in web page design.

Power Benchmark/Competency: #2

Learning Activities:	Resources:
Teacher handouts	REVEALED, The Web Collection
Table Tutorials	New Perspectives, Dreamweaver CS3
	Shelly Cashman, Dreamweaver CS3

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

Power Standard 2: Design graphic enhancement for Internet related applications.

Power Benchmark/Competency # 3:
Demonstrate the use of Cascading Style Sheets.

Estimated Timeline: 2 days and on-going

Place 'X' in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
		X		X

Understandings:

Students will understand that...

- CSS are a collection of formatting rules that control the appearance of content in a Web page.
- With CSS, you can update the formatting one time across many Web pages.
- A style is a rule describing how a specific object is formatted.
- CSS provide the Web site developer with more precision and control over many aspects of page design.

Essential Questions:

- How can Cascading Style Sheets be utilized in the creation of a web page?
- What are the differences between HTML style and Cascading Style Sheets?
- How is a custom style created?
- How do you access a full view of the attributes in the CSS Styles panel second column?
- How can you remove a style?

Students will: (know)... (Include vocabulary)

- You can use CSS styles to format text, images, headings and tables.
- CSS styles provide the user with greater flexibility and control over the appearance of the web page.
- Cascading refers to the capability of applying multiple style sheets to the save Web page.

Students will be able to (i.e. do)...(Include vocabulary)

- Utilize Cascading Style Sheets in the creation of a web page.
- Create and use a custom style.

Stage 2 – Assessment Evidence

Performance Tasks: (i.e. Assessment used to determine proficiency on competency)

- Dreamweaver website – Tutorial 3 Adding and Formatting Text with CSS Styles
Adobe Dreamweaver CS3 New Perspectives

Key Criteria: (Rubric)

- Students will use correct CSS coding to design styles.

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Stage 1 – Desired Results:

Power Standard 2: Design graphic enhancement for Internet related applications.

Power Benchmark/Competency # 4:

Demonstrate a client’s style guide when designing a web page.

Estimated Timeline: 2 to 3 days.

Place ‘X’ in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
		X		X

Understanding:

Students will understand that...

- All needed materials such as text, logo and branding graphics, photos, illustrations, Flash movies, MP3s, QuickTime videos will appear on the site.
- It’s important that you and your client determine the site’s content needs before you begin working on the design.
- All information must be organized to assist with creating a layout for the site.

Essential Questions:

- What questions might you ask a client to determine their site’s content needs?
- Who will be providing you with all the content needed for the site?
- What legal issues regarding images that will appear on the site do you need to be aware of?
- What is a *wireframe*?
- Who creates the *wireframe*?
- Name the two Meta tags that should be placed on every page of a Web site.
- Describe at least three things that would typically be included in the footer links on a Web page?

Students will: (know)... (Include vocabulary)

- What questions to ask the client before designing the Web site.
- What elements should appear on every page.
- What contents belong on a *wireframe*.
- How to create a *sitemap* from

Students will be able to (i.e. do)...(Include vocabulary)

- Design a small website based on client’s answers to content-gathering questions.
- Design a *sitemap*.

Stage 2 – Assessment Evidence

Performance Tasks: (i.e. Assessment used to determine proficiency on competency)

- Design a site map with included site map elements.

Key Criteria: (Rubric)

- Students will create a site map with correct navigation elements.

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

Power Standard 2: Develop communication skills needed in the technological and global workplace.

Power Benchmark/Competency # 5:
Design a user-friendly, functional navigation system.

Estimated Timeline: 1 day and on-going

Place 'X' in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
		X		X

Understandings:

Students will understand that...(sentence)

- Main pages should be accessible from any other page on the site.
- Subpages that fall logically into a category of one of the main pages and are accessible through some kind of submenu.
- Additional pages that aren't part of the main navigation but are accessible through hyperlinks located in various spots throughout the site, such as in the footer or in the body text area of a page.

Essential Questions:

- How do navigation systems help improve a visitor's experience of a Web site?
- Is it better to develop a wide or a deep navigation system?
- What are the differences between text-only, rollover button, tired JavaScript, and CSS list navigation systems?
- What other types of navigation systems exist?

Students will: (know)... (Include vocabulary)

- Need to consider the general usability of the navigation.
- Consider the audience when choosing a navigation menu type.
- That a *wide menu* refers to a navigation system that lists links to all the main pages on a site in a single horizontal row.
- That a *deep menu* pages are grouped into like categories to reduce that total number of main navigation links.

Students will be able to (i.e. do)...(Include vocabulary)

- Create different types of menus.
- Insert a navigational system into a Web site.

Stage 2 – Assessment Evidence

Performance Tasks: (i.e. Assessment used to determine proficiency on competency)

- Incorporate a navigation system into a web site.

Key Criteria: (Rubric)

- Website must include a user friendly navigation system.
- Website must produce correct links between internal and external links.

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Stage 3 – Learning Plan:

Design a user-friendly, functional navigation system.

Power Benchmark/Competency: #5

Learning Activities:	Resources:
Navigation Tutorials	REVEALED, The Web Collection
Teacher handouts	New Perspectives, HTML, XHTML and CSS.

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

Power Standard 2: Design graphic enhancement for Internet related applications.

Power Benchmark/Competency # 6:
Create an animated SWF (shock wave file).

Estimated Timeline: 2 days and on-going

Place ‘X’ in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
		X		X

Understandings:

Students will understand that...

- There is a difference between a shape tween and a motion tween.
- Movie clip and graphic symbols work differently.
- Symbols needing animation will be included in the library.
- Frames and keyframes are needed for animation.

Essential Questions:

- How does animation work?
- What is the purpose of a timeline?
- What is a scene?
- What is the difference between frames and layers?
- What is a Timeline effect?
- Why is it important to test an animation after you create it?
- What is the purpose of the library panel?

Students will: (know)... (Include vocabulary)

- How to create a shape and motion tween.
- How to create a movie clip symbol and a graphic symbol.
- How to use the toolbox controls to draw objects.
- How to use keyframes to incorporate and/or change animation.
- How to use the Transform/Transition effects.
- How to use difference scenes.

Students will be able to (i.e. do)...(Include vocabulary)

- Create frame-by-frame animations
- Create motion-tweened animations
- Work with motion guides
- Create animation affects
- Animate text

Stage 2 – Assessment Evidence

Performance Tasks: (i.e. Assessment used to determine proficiency on competency)

- Create an animation using different affects.

Key Criteria: (Rubric)

- Animation must work correctly with timeline.
- Students must have special affects incorporated.

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Stage 3 – Learning Plan:

Create an animated SWF (shock wave file).

Power Benchmark/Competency: #6

Learning Activities:	Resources:
	New Perspectives Flash CS3
Teacher created handouts	Shelly – Cashman Flash CS3
Teacher demonstration	REVEALED, The Web Collection
Flash Tutorial	

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

Power Standard 2: Design graphic enhancement for Internet related applications.

Power Benchmark/Competency # 7:
Create an image/graphic using Photoshop.

Estimated Timeline: 2 days and on-going

Place 'X' in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
		X		X

Understandings:

Students will understand that...

- Images can be edited and or created in Photoshop.
- Selecting appropriate optimization settings is important for controlling file size and, therefore, download time.

Essential Questions:

- From what sources can you import images into Photoshop for editing?
- As you create and edit an image, why is it important to utilize many different layers?
- Why is it important to optimize images for the web?

Students will: (know)... (Include vocabulary)

- Define the parts of Photoshop work area including a menu bar, a floating toolbox, a tool options bar, floating palettes, and document window.
- Determine whether images should be saved as a .gif or a .jpeg.
- Optimize an image in order to reduce file size.
- Pixels, optimize, .gif, .jpeg

Students will be able to (i.e. do)... (Include vocabulary)

- Select appropriate tools from the toolbox.
- Organize images on layers.
- Create new layers.
- Edit images by manipulating layers including selecting layers, re-ordering layers, applying filters, and deleting layers.
- Select parts of an image using a variety of tools.
- Utilize the text tool to add text to images.
- Determine the appropriate optimization settings when saving an image for a web page.

Stage 2 – Assessment Evidence

Performance Tasks: (i.e. Assessment used to determine proficiency on competency)

- Create a Photoshop image using layers and effects.

Key Criteria: (Rubric)

- Image must use correct layering.
- Image must contain special effects.

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

Power Standard 2: Design graphic enhancement for Internet related applications.

Power Benchmark/Competency # 8:

Use a multimedia application to demonstrate basic animation tasks.

Estimated Timeline: 2 days and on-going

Place 'X' in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
X		X		X

Understandings:

Students will understand that...

- Different steps are necessary importing an animated image into HTML versus Dreamweaver.

Essential Questions:

- What steps are necessary to incorporate an animated image into HTML?
- What steps are necessary to incorporate an animated image into Dreamweaver?

Students will: (*know*)... (Include vocabulary)

- How to import an animated image into HTML and Dreamweaver.
- How to write shockwave code to incorporate an animated image/graphic into HTML code.
- What panels are used to incorporate an animated image/graphic into Dreamweaver.

Students will be able to (*i.e. do*)... (Include vocabulary)

- Incorporate an animated graphic/image into an HTML or Dreamweaver Web site.

Stage 2 – Assessment Evidence

Performance Tasks: (i.e. Assessment used to determine proficiency on competency)

- Teacher will check students HTML or Dreamweaver Web site for animated image.

Key Criteria: (Rubric)

- Animated image must show correctly on web page.
- Correct code must be written for animated image into an HTML code.

Fundamentals of Web Design Curriculum Design

Stage 3 – Learning Plan:

Use a multimedia application to demonstrate basic animation tasks.

Power Benchmark/Competency: #8

Learning Activities:	Resources:
HTML shockwave code	
Dreamweaver software instructions	REVEALED, The Web Collection
	New Perspective, Flash CS3

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

Power Standard 2: Develop communication skills needed in the technological and global workplace.

Power Benchmark/Competency # 9:
Demonstrate accommodations for disabilities in web design.

Estimated Timeline: 2 days and on-going

Place ‘X’ in square if goal addresses Essential/Content Standard(s).

Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural
X	X	X		X
Math	Science	Reading	Social Responsibility	Communication
		X		X

Understandings:
Students will understand that...

- When developing a web site, consideration must be given to adding accessibility standards for disabled users.

Essential Questions:

- What kinds of Web organizations exist to help create Web standards?
- What are accessibility standards and how can you use them to improve a Web site?

Students will: (*know*)... (Include vocabulary)

- People with disabilities make up nearly 10% of all people using the Internet.
- People with disabilities make up a large enough group that you should definitely pay considerable attention to them when designing Web sites.

Students will be able to (*i.e. do*)...(Include vocabulary)

- Follow the guidelines set by online Web standards organizations.
- Visiting the World Wide Web consortium online to learn about Web standards.

Stage 2 – Assessment Evidence

Performance Tasks: (i.e. Assessment used to determine proficiency on competency)

- Students will use “alt tag” command in the creation of a web site.

Key Criteria: (Rubric)

- HTML or Dreamweaver webpage must contain the correct use of Alt tag.

Fundamentals of Web Design Curriculum Design

Stage 3 – Learning Plan:

Demonstrate accommodations for disabilities in web design.

Power Benchmark/Competency: #9

Learning Activities:	Resources:
Teacher demonstration	Web Design, The Express Line to Learning
Teacher handouts	New Perspective, HTML, XHTML, and CSS

Fundamentals of Web Design Curriculum Design

Stage 1 – Desired Results:

<p>Power Standard 2: Develop communication skills needed in the technological and global workplace.</p> <p>Power Benchmark/Competency # 10: Publish and edit a web site to the World Wide Web.</p> <p>Estimated Timeline: 3 days and on-going</p>	<p>Place ‘X’ in square if goal addresses Essential/Content Standard(s).</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr style="background-color: #ffffcc;"> <th style="padding: 2px;">Career</th> <th style="padding: 2px;">Technology</th> <th style="padding: 2px;">Critical Thinking</th> <th style="padding: 2px;">Personal Responsibility</th> <th style="padding: 2px;">Global & Cultural</th> </tr> <tr> <td style="padding: 2px;">X</td> <td style="padding: 2px;">X</td> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> <tr style="background-color: #ffffcc;"> <th style="padding: 2px;">Math</th> <th style="padding: 2px;">Science</th> <th style="padding: 2px;">Reading</th> <th style="padding: 2px;">Social Responsibility</th> <th style="padding: 2px;">Communication</th> </tr> <tr> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> </table>	Career	Technology	Critical Thinking	Personal Responsibility	Global & Cultural	X	X	X		X	Math	Science	Reading	Social Responsibility	Communication	X		X		X
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X	X	X		X																	
Math	Science	Reading	Social Responsibility	Communication																	
X		X		X																	
<p>Understandings: <i>Students will understand that...</i></p> <ul style="list-style-type: none"> ➤ FTP stands for File Transfer Protocol ➤ Using FTP you can download and upload files between your local computer and the remote server ➤ Use special software or some kind of Internet interface to log in and gain access to the remote server 	<p>Essential Questions:</p> <ul style="list-style-type: none"> ➤ What does FTP mean? ➤ What does publishing a site entail? ➤ How do you let the world know the site is online? 																				
<p>Students will: <i>know</i>... (Include vocabulary)</p> <ul style="list-style-type: none"> ➤ FTP refers to a standard TCP/IP internet protocol that allows for the exchange of files between remote computers over the Internet ➤ Browser interfaces such as IE or Firefox 	<p>Students will be able to (<i>i.e. do</i>)...(Include vocabulary)</p> <ul style="list-style-type: none"> ➤ Publish a completed web site to a remote server ➤ Edit the completed web site 																				

Stage 2 – Assessment Evidence

<p>Performance Tasks: (i.e. Assessment used to determine proficiency on competency)</p> <ul style="list-style-type: none"> ➤ Published web site to the World Wide Web 	<p>Key Criteria: (Rubric)</p> <ul style="list-style-type: none"> ➤ All aspects of the website must show and work efficiently. ➤ Users must be able to navigate to the website.
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Fundamentals of Web Design Curriculum Design

Stage 3 – Learning Plan:

Publish and edit a web site to the World Wide Web.

Power Benchmark/Competency: #10

Learning Activities:	Resources:
Teacher demonstration of publishing a web site to a remote server	Free Internet web server