



Introduction to Web Design Curriculum Sample

Thank you for evaluating our curriculum pack for your school!

We have assembled what we believe to be the finest collection of materials anywhere to teach basic web design to high school students.

We believe - as many technology instructors do - that the optimal way for students to learn basic web design skills is to learn how to hand-code valid HTML and CSS, without the use of advanced tools such as Dreamweaver. Should students go on to attain advanced knowledge and skills in the web design field, we know that this foundational understanding of basic coding will serve them well.

Purchasers of the curriculum download the entire course as a single ZIP file, which then unzips to the following logical directory structure:

- **Handouts** - Materials for students to use for practice or reference but which are not graded. Provided in both PDF and MS Word format.
- **Lesson Plans** - Weekly lesson plans, divided by day, for teachers to use as a guide. MS Word format.
- **Presentations** - Slideshow presentations that represent the heart of the actual course instruction. MS PowerPoint format.
- **Projects and Rubrics** - Hands-on class projects which include step-by-step student instructions and accompanying grading rubrics. MS Word format.
- **Source Code Examples** - Correctly worked code examples for each class project. Plain text XHTML and CSS files, along with image files as necessary.
- **Tests and Quizzes** - Weekly quizzes and one midterm exam. MS Word format.

This sample packet contains one example file from each of the above folders, combined into this single PDF document. To help clarify the transitions, we have added introductory pages between the different materials.

Unlike this preview format, the actual course files are unlocked and fully editable. This is intentional, as we encourage teachers to customize the course to best fit their own classroom environments and teaching styles.

We have heard from dozens of teachers who have found this curriculum pack to be a highly effective way to teach web design in the classroom, and we hope you feel the same way.

If you have any questions or comments, please call us toll free (USA, Canada) at 1-888-552-1323 or send us an email at support@highschoolwebdesign.com.

To purchase the curriculum for your school, please visit our website at <http://highschoolwebdesign.com>.

Thank You,

The HighSchoolWebDesign.com Team



The following 8 pages are:

**Presentation from Week 3
(MS PowerPoint Document)**

Basic Tables



The <table> Element

The <table> element is a powerful tool for web designers:

- Tables allow us to display information in a predictable and uniform fashion on a web page.
- Tables are well suited for presenting data that conforms to rows and columns.
- Content in table cells is easy to format consistently.

In the past, tables were often used to lay out and organize an entire web page. This was a misuse of the <table> element, which should be used only to present specific information within a page's overall content.

Rows and Columns

Row →

Column ↓

This simple table has two columns and three rows.

Building an XHTML Table

```
<table>
  <tr>
    <td></td>
    <td></td>
  </tr>
  <tr>
    <td></td>
    <td></td>
  </tr>
  <tr>
    <td></td>
    <td></td>
  </tr>
</table>
```

<table> </table> Establishes the table on the web page.

<tr> </tr> Defines a new table row, which spans the available width of the table.

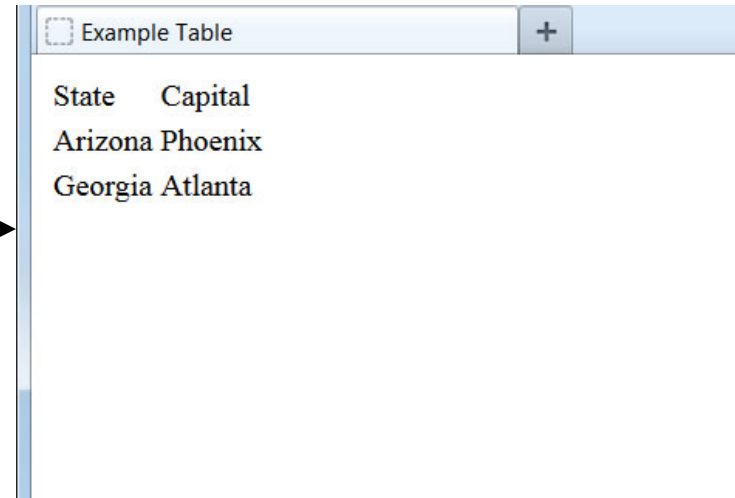
<td> </td> Defines a cell of table data within a row. The <td> cells will evenly share the horizontal space in a row. If there is just one <td> element in a row, it will use the entire width available.

In this code, we have created a table and defined three table rows, each with two cells of table data (i.e. two columns).

If we loaded this in a browser, nothing would show on the page, as we have only created the structure of the table but haven't yet populated the table with any data.

Adding Table Data

```
<table>
  <tr>
    <td>State</td>
    <td>Capital</td>
  </tr>
  <tr>
    <td>Arizona</td>
    <td>Phoenix</td>
  </tr>
  <tr>
    <td>Georgia</td>
    <td>Atlanta</td>
  </tr>
</table>
```

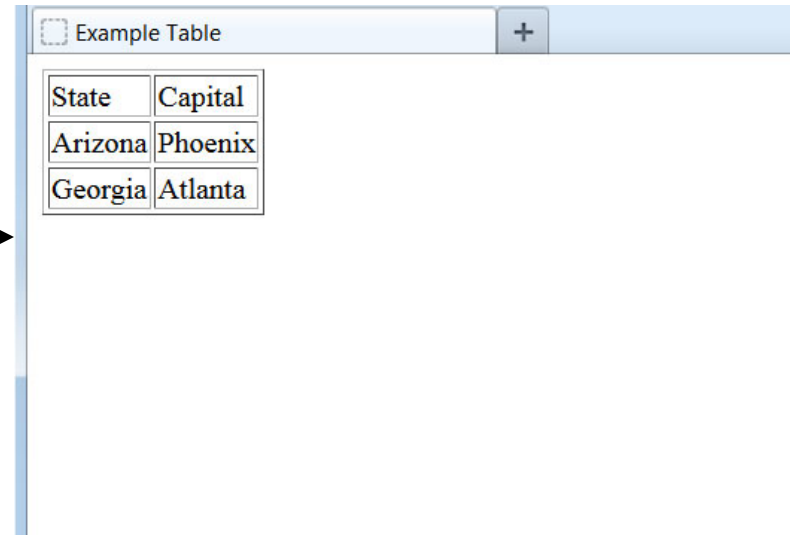


State	Capital
Arizona	Phoenix
Georgia	Atlanta

Here we have added meaningful data to the table and it is displayed on our web page, though the table is not very visually appealing.

Defining a Border

```
<table border="1">
  <tr>
    <td>State</td>
    <td>Capital</td>
  </tr>
  <tr>
    <td>Arizona</td>
    <td>Phoenix</td>
  </tr>
  <tr>
    <td>Georgia</td>
    <td>Atlanta</td>
  </tr>
</table>
```

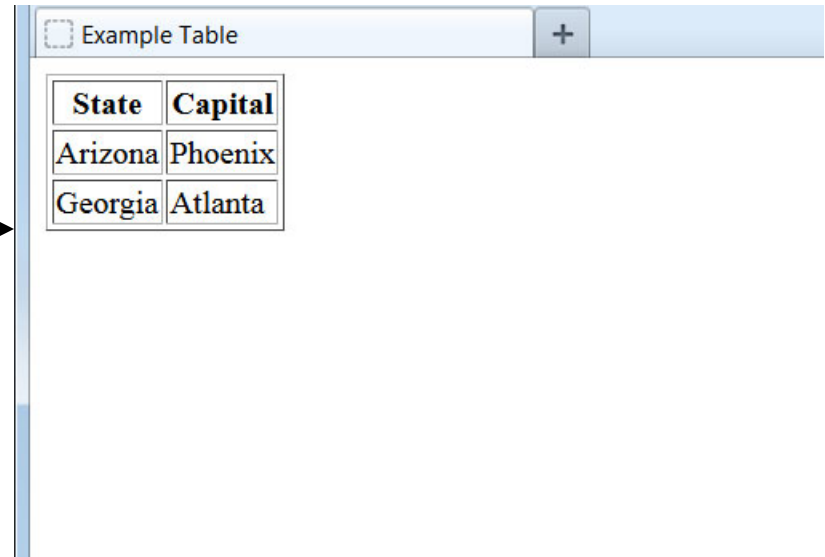


State	Capital
Arizona	Phoenix
Georgia	Atlanta

By adding the **border="1"** attribute to the table element, browsers will display the table with vertical and horizontal borders around each cell. This makes the table a bit easier to view.

Specifying Table Headers

```
<table border="1">
  <tr>
    <th>State</th>
    <th>Capital</th>
  </tr>
  <tr>
    <td>Arizona</td>
    <td>Phoenix</td>
  </tr>
  <tr>
    <td>Georgia</td>
    <td>Atlanta</td>
  </tr>
</table>
```

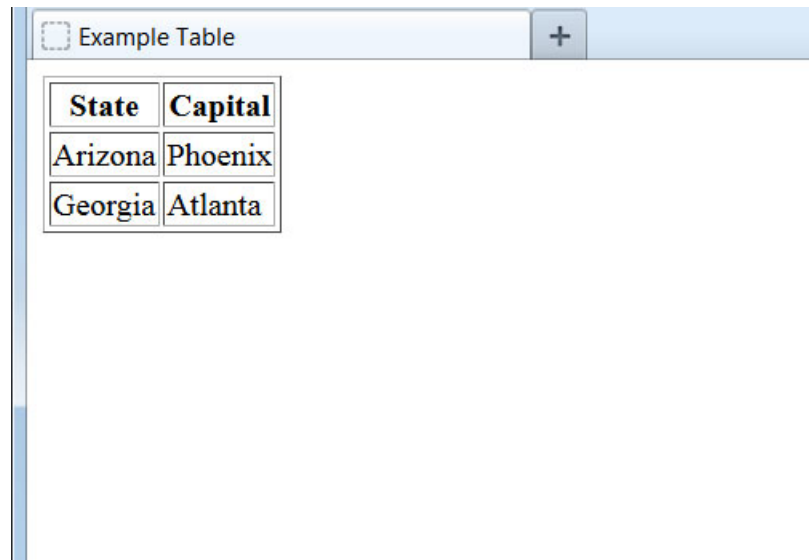


State	Capital
Arizona	Phoenix
Georgia	Atlanta

If the text in our top row is meant to serve as column labels for the data below, we can use the `<th>` ("table header") element instead of regular `<td>` elements. This informs the browser to automatically bold and center the text.

Table headers can also be placed down the first column to label the row contents.

Table Styling



State	Capital
Arizona	Phoenix
Georgia	Atlanta

Though somewhat improved, this table still lacks visual appeal on the page. In order to fully control how the table appears, we will need something more powerful than XHTML. That something is CSS, which we will get our first look at in the next lesson.





The following 3 pages are:

**Student Handout from Week 1
(MS Word Document and Adobe PDF Document)**

Introduction to Web Design

XHTML Reference

Skeleton Page:

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">

  <head>
    <meta http-equiv="content-type" content="text/html; charset=utf-8" />
    <title>Page Title Goes Here</title>
  </head>

  <body>
    <!-- Page content goes here -->
  </body>

</html>
```

Syntax Rules for XHTML:

- All elements must be in lowercase.
- Each element must have an opening and closing tag.
- Self-closing elements must have trailing slash.
- Elements must be properly nested.
- White space doesn't matter.
- Attributes must be in lowercase and values must be enclosed by quotes.

Comment Syntax:

```
<!-- This is an XHTML comment -->
```

Global Attributes:

class - assigns one or more CSS classes to an element for styling purposes.

id - assigns a unique ID to an element for CSS styling or other purposes.

style - defines an inline CSS style for a specific element.

XHTML Page Validation:

<http://validator.w3.org/>



XHTML Element	Description	Important Attributes
<html>	Root element that contains all other elements. Follows the DOCTYPE declaration.	xmlns (required)
<head>	Section that contains information about the web document, such as title, keywords, and description. Can also contain style information and scripts. Follows the <html> element and precedes the <body> element.	
<body>	Section that contains all the content of a web document. Follows the <head> section.	
<meta>	Provides additional information to browsers and search engines about the document, such as character encoding, keywords, description, author, etc. Contained within the <head> section. Self-closing.	content http-equiv
<title>	Defines the title of a web document, which will be used in the browser title bar, to name bookmarks, and as the page title in search engine results. Contained within the <head> section.	
<p>	Defines a paragraph of content with line breaks above and below the content.	

	Forces a line break which ends the current line of text. Does not add spacing above or below. Self-closing.	
<hr>	Separates content by drawing a horizontal line on the page. Self-closing.	
<h1> - <h6>	Headings that describe and group sections of content on the page. <h1> is the main heading and should be used no more than once per page. The higher the heading number, the lower the relative importance.	
	Creates an unordered list of items. By default, shows the items in bullet point. Must contain at least one element.	
	Creates an ordered list of items. By default, shows the items in numerical order. Must contain at least one element.	
	Defines a single list item contained within a or list.	
<a>	Creates a clickable link to another web location, which can be a different website, a different page on the same site, a different location on the same page, or the initiation of a new email message. Four possible states are a:link (unvisited), a:visited, a:hover (moused over), and a:active (being clicked).	href target
	Defines an image. Though the height and width attributes are not technically required, they should always be defined. Self-closing.	alt (required) height src (required) width
<table>	Creates a table of data in rows and columns.	border
<tr>	Defines a row of data in a table. Contained within a <table> element.	

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XHTML Element	Description	Important Attributes
<th>	Defines a header cell of data in a table. By default, centered and bolded. Contained within a <tr> element.	colspan rowspan
<td>	Defines a standard cell of data in a table. By default, left aligned and unbolded. Contained within a <tr> element.	colspan rowspan
<caption>	Creates a table caption. By default, displayed centered and immediately above the table. Not required, but if used, should always be the first element after the opening <table> tag.	
<style>	Creates an internal CSS style sheet. Contained within the <head> section.	type (required)
<link>	Connects the web page to an external resource. Commonly used to load an external CSS style sheet. Contained within the <head> section. Self-closing.	href rel (required) type
	Defines a specific section of content on a page. Has no visible effect on its own, but allows that section to be styled via CSS.	
<div>	Creates a division of a page by grouping multiple elements together. Often used to lay out a web page.	
<sub>	Defines subscript text, which displays half a line below the baseline of characters.	
<sup>	Defines superscript text, which displays half a line above the baseline of characters.	
<iframe>	Inline frame, which embeds other content within a web document. The default way of placing a YouTube video within a web page.	height src width
<form>	Creates a web form for collecting data. Sends data to a web server for processing.	action method
<fieldset>	Groups a set of form elements into a logical section. Contained within the <form> element.	
<legend>	Adds a caption/label to a set of grouped form controls. Contained within a <fieldset> element.	
<input>	Creates a field of input on a web form. Contained within a <form> element. Self-closing.	checked maxlength name size src type value
<select>	Creates a drop-down list of choices on a web form. Contained within a <form> element.	multiple name size
<option>	Defines one choice within a drop-down list on a web form. Contained within a <select> element.	selected value
<textarea>	Creates a text box containing multiple lines on a web form.	cols name rows

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The following 2 pages are:

**Class Project and Grading Rubric from Week 1
(MS Word Document)**

Project 1: Headings, Paragraphs, and Lists

Objectives:

At the end of this project, you will be able to:

- Create a valid XHTML document using proper syntax and all required elements.
- Use headings and paragraphs to organize the content of an XHTML document.
- Present information with ordered and unordered lists.

Instructions:

1. Your instructor will provide you with an XHTML reference sheet to assist you with this and future projects.
2. Place a copy of the skeleton template file (provided by your instructor) into your personal file folder. The skeleton is a basic XHTML file ready to be customized by you. Each time you create a new web page, you will reuse this file.
3. Create a new file folder called "Headings".
4. Make a copy of the skeleton file and place it in the "Headings" folder.
5. Rename this new skeleton file (in the "Headings" folder) to "index.html".
6. Using Notepad (or another text editor approved by your instructor), open the "index.html" file to begin editing it.
7. Change the title of the web page to be "My First Web Page".
8. As the first page content, add an `<h1>` main heading that reads "Hello World!"
9. Below the `<h1>` heading, add a sub-heading `<h2>` that reads, "A place I would like to visit".
10. If you could visit anywhere in the world, where would it be? Using the `<p>` tag, add a paragraph naming this place and describe why you chose it.
11. Add a new sub-heading `<h2>` that reads, "A person I admire (past or present)". Add a new paragraph and name a person you admire and briefly explain why.
12. Add another sub-heading `<h2>` that reads, "Favorite fruits". Create an unordered list of your five favorite fruits.
13. Add a final sub-heading `<h2>` that reads, "Favorite presidents". Create an ordered list of your five favorite U.S. presidents.
14. Save the file.
15. View the file in a web browser.

Rubric 1: Headings, Paragraphs, and Lists

Name: _____

Component	Possible Points	Score
A DOCTYPE is specified before any XHTML elements.	2	
The document contains a proper <html> element immediately following the DOCTYPE declaration and a closing </html> tag.	2	
The document contains a <head> and </head>.	2	
The document contains a properly nested <title> element.	2	
The document contains a <body> and </body>.	2	
The document contains an <h1> and four <h2> headings, each with a correctly placed closing tag.	4	
The document contains at least two paragraphs using the <p> element correctly.	3	
The document contains an ordered list with at least 5 items.	3	
The document contains an unordered list with at least 5 items.	3	
The document was saved as index.html and renders correctly when opened in a web browser.	2	
Total Score	25	



The following 1 page is:

**Source Code Example from Week 1
(HTML Plain Text File)**

```
1 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
2 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
3 <html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
4
5 <head>
6 <meta http-equiv="content-type" content="text/html; charset=utf-8" />
7 <title>My First Web Page</title>
8 </head>
9
10 <body>
11 <h1>Hello World!</h1>
12 <h2>A place I would like to visit</h2>
13 <p>I would really like to travel to Australia. It is the only country
that is also a continent. Australia's climate varies from arid, rainy,
tropical, and cold in some areas. Australians speak English, making
communication much easier. Lastly, Australia has unique wildlife that
only exists there.</p>
14 <h2>A person I admire (past or present)</h2>
15 <p>If I could meet someone I admire, it would have to be Michael
Jordan. He is considered by many to be the greatest basketball player
ever to play the game. He helped his team win 6 NBA championships during
the 1990s. Along with numerous accolades in basketball, Michael is also a
successful businessman and one of the most highly marketed athletes in
history.</p>
16 <h2>Favorite fruits</h2>
17 <ul>
18 <li>Apples</li>
19 <li>Oranges</li>
20 <li>Strawberries</li>
21 <li>Grapes</li>
22 <li>Bananas</li>
23 </ul>
24 <h2>Favorite presidents</h2>
25 <ol>
26 <li>Franklin Delano Roosevelt</li>
27 <li>Theodore Roosevelt</li>
28 <li>Abraham Lincoln</li>
29 <li>George Washington</li>
30 <li>John F. Kennedy</li>
31 </ol>
32 </body>
33
34 </html>
```



The following 3 pages are:

**Lesson Plan from Week 1
(MS Word Document)**

Introduction to Web Design

Lesson Plan – Week 1

Objectives

In this week of lessons, students will learn:

- The definition and history of XHTML
- The basic elements of a web page
- How to create a basic web page using the XHTML skeleton
- How to open, edit, and save a web page in Notepad
- How to insert basic elements such as paragraphs, headings, lists, links, and comments into a web page

Required Materials

- Presentations:
 - 1. XHTML Basics
 - 2. Text Elements
 - 3. Links and Comments
- Handouts:
 - 1. XHTML Reference
- Projects and Rubrics:
 - 1. Headings, Paragraphs, and Lists
 - 2. Links and Comments
- Tests and Quizzes:
 - Week 1 Quiz

Assessments

- Grading Rubric for Headings, Paragraphs Project
- Grading Rubric for Links and Comments Project
- Week 1 Quiz

Teaching Procedure

DAY 1

1. Present the PowerPoint: 1. XHTML Basics.
2. Explain the difference between a start tag and an end tag.
3. Make sure the students understand that the file they edit in a text editor and the file they view in the web browser are the same file.
4. Explain the purpose of the skeleton page and how the students will use it as a template for building each new web page.
5. Demonstrate and guide students through the creation of a new web file (generally by copying and renaming the skeleton file).
6. Show students the process of opening, editing, and saving a web file (using Notepad or other basic text editing program).
7. Illustrate how to display a website file in a browser. This is best done by double clicking directly on the .html file in a file explorer application but can also be accomplished from within the web browser itself by choosing File - Open and then navigating to the file to be opened. **(Note: Some lab environments may have computer restrictions that prohibit these functions. Your IT staff may need to make modifications to these restrictions in order for you to follow this curriculum precisely.)**

DAY 2

1. Present the PowerPoint: 2. Text Elements.
2. Explain what an attribute and attribute value are. Confirm students understand that some elements do not have any attributes, while others may have multiple. Cover that some attributes are required for some elements but that most are optional.
3. Distribute and review the Handout: 1. XHTML Reference. The students may use this throughout the course during projects and as a study aid but not during tests or quizzes. **(Note: This reference sheet lists all the elements covered during the entire course. If you feel it would be a distraction for your students to be exposed to elements and concepts not yet covered, you may edit this handout and create later handouts that include any removed material.)**
4. Distribute and review the Project: 1. Headings, Paragraphs and Lists. **(Note: Included with this curriculum pack is a source code example for each project in the course. Use these as models for correctly completed assignments. You might also wish to show these to students at projects' conclusions as examples of what is expected of them.)**
(Note: You may or may not provide to students the grading rubric that accompanies each project. This is optional and a matter of individual teacher preference.)

DAY 3

1. Support students in completing the project.
2. Describe to students why we named our files "index.html". Explain that it is the standard default file name for a home page and that most web servers will look for that file first if a different file name is not specified.
3. Present the PowerPoint: 3. Links and Comments.

DAY 4

1. Demonstrate syntax for external, internal, bookmark, and email links. Explain the difference among these link types. **(Note: Bookmark links as demonstrated in the PowerPoint presentation are a little outdated. The destination no longer has to be an <a> element, but can be any element with a unique id attribute assigned to it.)**
2. Explain that most links are text links but other content, such as images, can be made into links, as we will see later in the course.
3. Show the students how to "View Source" in each of the different browsers to which you have access. Try viewing the source of some simple websites online.
4. Distribute and review the Project: 2. Links and Comments.
5. Support students in completing the project.

DAY 5

1. Administer the Week 1 Quiz (15 minutes) from the 'Tests and Quizzes' folder. Handouts may not be used.
2. Support students in completing all Week 1 assignments.



The following 3 pages are:

**Quiz and Answer Key from Week 1
(MS Word Document)**

Name: _____

Date: _____

Introduction to Web Design Week 1 Quiz

1. What does HTML stand for?
2. Which file extension is used with standard web pages?
 - a. .doc
 - b. .xhtml
 - c. .txt
 - d. .html
3. What should be the first element in any web page?
 - a. <head>
 - b. <body>
 - c. <html>
 - d. <page>
4. Which is not part of an XHTML element?
 - a. Anchor
 - b. Start tag
 - c. End tag
 - d. Attributes
5. How would you create a link to another web page named "page2.html"?
 - a. Link to Page 2
 - b. Link to Page 2
 - c. Link to Page 2
 - d. <a>Link to Page 2
6. What does the element <p> stand for?
 - a. Paragraph
 - b. Person
 - c. Page
 - d. Presentation

Name: _____

Date: _____

7. What is the syntax for an XHTML comment?
- a. `<comment>This is a comment</comment>`
 - b. `<com: This is a comment>`
 - c. `<!-- This is a comment -->`
 - d. `<comment:"This is a comment" />`

8. What is the start tag for an individual item in a list?
- a. `<list>`
 - b. ``
 - c. ``
 - d. `<item>`

9. Which of the following will create a bulleted list?
- a. `<blist>`
 - b. ``
 - c. `<bullet>`
 - d. ``

10. What is wrong with the following XHTML code?

```
<a href="www.youtube.com">Visit YouTube</a>
```

Name: _____

Date: _____

Introduction to Web Design Week 1 Quiz Answer Key

1. X
2. X
3. X
4. X
5. X
6. X
7. X
8. X
9. X
10. X

ANSWERS BLOCKED FOR THIS CURRICULUM SAMPLE