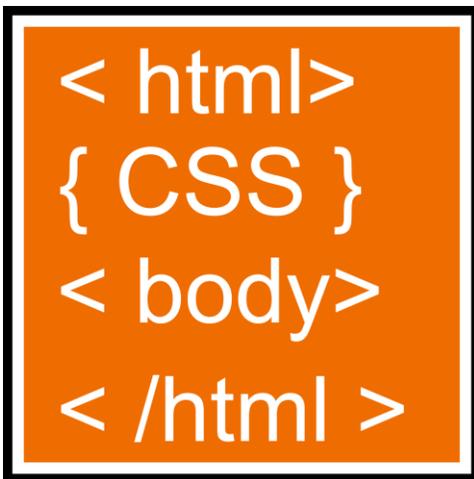


TECHNOHTML5

Teacher Guide

Lessons for Middle and High School Students



Technology Project using
HTML and CSS

Become a web designer.

In this project, students become web designers, using HTML and CSS. To start, students are introduced to the history of the Internet and HTML language. Next, they manipulate source code to discover the function of common tags and CSS attributes. This knowledge is applied to construct a web page. Throughout the design process instructions explain how to style text, graphics, and hyperlinks to produce an informative web page. For those in need of an extra challenge, extension activities encourage students to create a list, apply a picture background, customize hyperlinks, employ CSS classes, insert animated text or images, and build tables. Upon completion, the files are uploaded to the Internet.

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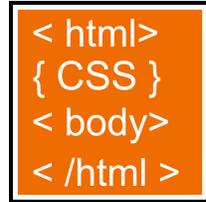
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TechnoHTML5 Overview

In this project, students became web designers, using HTML and CSS. To start, students are introduced to the history of the Internet and HTML language. Next, they manipulate source code to discover the function of common tags and CSS attributes. This knowledge is applied to construct a web page. Throughout the design process instructions explain how to style text, graphics, and hyperlinks to produce an informative web page. For those in need of an extra challenge, extension activities encourage students to create a list, apply a picture background, customize hyperlinks, employ CSS classes, insert animated text or images, and build tables. Upon completion, the files are uploaded to the Internet.



Students complete the following tasks:

- In Session 1, students gain an understanding of the Internet and HTML. To begin they learn some basic terminology and consider the importance of the Internet in their lives. Afterwards, they read about key events in the development of this amazing technology. Once familiar with the history, students learn about the World Wide Web and use a web browser to view web pages. They are introduced to HTML and its importance in the world today. Afterwards, they view the source code for web pages and decode the meaning. Upon completion of this session, students should have a basic understanding of Internet terminology and HTML code.
- In Session 2, students learn about the function of HTML tags and CSS attributes. To start, they open a web page and edit coding for the title, headings, paragraph, line break, horizontal rule, image, and hyperlink. Once familiar with basic elements, they explore how to format a web page. Using a sample file, they edit the CSS to alter color, width, font, font size, line height, alignment, and padding. Once students understand the structure of an HTML document and source code, they plan the design of their personal web page. They get organized by searching for information, pictures, and interesting hyperlinks using the Internet. This provides them with the material they need to start building their web page in the next session.
- In Session 3, students begin to construct their web page. To start, they form the structure of the HTML document. They then add the title, heading, several paragraphs, and a horizontal rule. Upon completion the web page is saved as index.html. Next, students format each element using CSS. They set the color, width, position, font family, font size, text alignment, padding, and line height. Tips are offered to help students improve the appearance of their web page. As well, coding challenges are included for those daring to test their new skills.
- In Session 4, students continue to design their web page. To start, they study their saved pictures to make sure they are appropriately named and resized. Once their images are prepared, students use HTML to insert the pictures and format the style using CSS. Next, students create hyperlinks to three websites. Additional styling challenges are included in the extension activities.
- In Session 5, students are introduced to meta tags. They explore how search engines and social media services use this information. Description and keyword meta tags are inserted into their HTML document. Next, students examine their web page using a checklist to highlight areas that may require improvement. If time permits, additional challenges are in the extension activities including how to insert animated text, animated gifs, and tables.
- In Session 6, the class has an HTML Developers Conference in which they view each other's web pages and write compliments about the sites.

Implementation and Technology Integration Ideas

Foster a love of programming. Understanding how to code is an important skill used in many professions. For example, HTML and CSS are used by web designers to construct web pages, marketers to create mail blasts, and by bloggers to post unique content. Knowing how to write code promotes critical thinking, communication skills, and problem solving. Include the activities into curriculum to prepare your students for the workplace and higher learning.

Ideas for Implementation

The TechnoHTML5 project is primarily a STEM project that teaches coding. However, the activities also integrate into other areas of curriculum. Select the option that works best for you and your students:

- *Computer Science Unit:* Teach an HTML and CSS unit. This project is designed for beginners. The activities establish a foundation for future learning. Students learn the basics including document structure, page layout options, text and image formatting, working with hyperlink states, and creating a table.
- *Web Page Design:* Have students design their own web page without requiring expensive software or a subscription service. Incorporate elements and principles of design into learning. Emphasize the importance of design decisions when setting CSS property values.
- *Integrated Studies:* Construct a web page about a topic that students are studying in another subject area such as language arts, history, social studies, science, art, or geography. This is a great way for students to demonstrate their knowledge as a culminating project at the end of a unit of study.
- *Coding Activity:* Host an event, such as an Hour of Code, to encourage an interest in programming. Teach Assignments 6 and 7. In these activities, students edit HTML and CSS to develop an understanding of the meaning of tags and style properties.

Technology Integration Suggestions

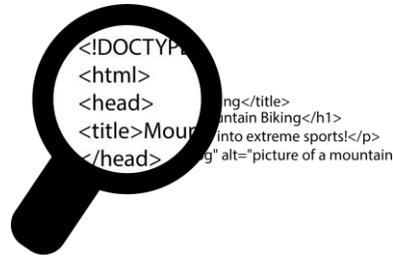
Topic Selection

You may want to set the topic or have students pick their own idea. Below are suggestions:

- *Area of Interest:* Build a web page about a topic that students find personally interesting such as a hobby, sport, pet, or famous person. Students demonstrate their expertise and build self-esteem. This is a good choice if there is limited time for research.
- *Public Awareness Campaign:* Inform the world about an important issue. It may be school related, community based, or global. The topic could be about health, safety, or the environment. What do people need to know more about?
- *Celebrate a Champion:* Research the contributions of a significant person and design a web page about their accomplishments. The biography could be a historical figure, philanthropist, scientist, personal hero, athlete, musician, or celebrity.

Assignment 5 Seeking the Source

When you first look at the source code of a web page it can look confusing. Do not worry! The source code is going to start to make sense. HTML code is written using tags. The tags are surrounded by angle brackets < > and are usually in pairs.



You are going to view a sample web page about mountain biking. You will answer questions about the source code. This will help you to make connections between the content of the web page and the HTML. After completing this assignment, you will start to understand the structure of a web page document.

View a Web Page Using a Web Browser

- ▷ Open the *HTML5* folder and the *Mountain Biking* folder.
- ▷ Right click the index file.
- ▷ From the menu, click *Open with*. Choose a browser.



View the HTML Source Code

- ▷ Right click on a blank area on the page and select *View source* or *View page source*.
TIPS:
 - Do not right click on a link or a picture.
 - If you cannot see the source code, press CTRL + U.

```

1 <!DOCTYPE HTML>
2 <html>
3 <head>
4 <title>Mountain Biking</title>
5 </head>
6 <body>
7 <h1>Experience Mountain Biking</h1>
8 <p>Whether you're into extreme sports or just want to get outside and hang out with your friends, mountain bikes are the way to go!</p>
9 
10 <h2>Who Can Mountain Bike</h2>
11 <p>Young or old, guys or girls, trick bikes or plain, anyone can enjoy the thrills of mountain biking. Off road is the only way to ride! You can jump, you can race, you can start a mountain biking club, or you can just ride buff single track in the woods.</p>
12 <hr>
13 <h2>Learn More About Mountain Biking</h2>
14 <p>The International Mountain Bicycling Association is one of the many sites on the Internet where you can find out about getting started, bikes, gear, safety, and lots more.</p>
15 <hr>
16 <a href="http://en.wikipedia.org/wiki/mountain_bike"></a>
17 <p>Click on this picture to go to another site with lots of introductory information. This site also has links to other sites about racing, mountain unicycling, and bike manufacturers.</p>
18 <p>So put on your skid lid, get tricked out and dialed in, and let's go bash around in the woods!</p>
19 </body>
20 </html>

```

- ▷ Adjust the size of the source code pane, if necessary.

Explore the Code

Skim through the source code to answer the questions.

1. The first line of code tells a web browser that it is an HTML document.

What is the first line of code? `<!DOCTYPE HTML>`

2. All code for the web page goes between two HTML tags. These are placed at the start and end of the HTML document.

a. What opening tag is on the second line at the start of the document?

`<html>`

b. What closing tag is on the last line at the end of the document?

`</html>`

3. The head of the HTML document has information about the web page. Look at the code. What is the title of the web page?

`<title>` `</title>`

4. The body of the HTML document contains the content of the web page such as the heading, paragraphs, and images.

a. Look for the opening tag `<body>`. Is it above or below the `</head>` tag?

`below`

b. Look for the closing tag `</body>`. Is it above or below the `</html>` tag?

`above`

5. HTML elements are usually written in pairs. The opening tag is in brackets `<code>` and the closing tag has a slash `</code>`. Look at the code. What pairs can you find?

`<html></html>` `<head></head>` `<title></title>` `<body></body>`

`<h1></h1>` `<h2></h2>` `<p></p>`

6. Some HTML elements are not written using pairs. For example, `<hr>` is an element that has no closing tag. What does the code `<hr>` make on the web page?

`horizontal line or horizontal rule`

7. HTML uses tags that make sense. For example, `<p>` stands for paragraph. Look at the code. Can you find the `<p>` `</p>` tags?

How many paragraphs are in this web page?

`5`

8. Look at the code. What do you think `img src` stands for?

`Image Source – It is the tag that inserts a picture.`

Close the Browser

Assignment 6 Edit an HTML Document

You are going to learn how to make changes to source code that has already been written. You will begin to discover the basics of creating your own web page each time you make small adjustments to the HTML code and notice the results on the web page in a web browser.



View a Web Page and Its Source Code



You are going to open the index file in the web browser. This will let you see what the web page looks like.

- Open the HTML5 folder.
- Open the *Sample File* folder.
- Right click the *index* file. From the menu, click *Open with*. Choose a browser.

Keep the web browser open.

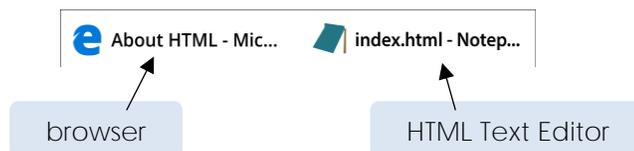


You are now going to open the index file in Notepad or another HTML text editor. This program will let you edit the code.

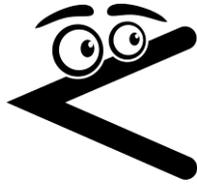


TIP: If Notepad is not in the list, select *Choose Another App*. Select *More Apps*, and then choose Notepad or the HTML editor of your choice. Click OK.

- Use the taskbar to toggle back and forth between the browser and HTML Text Editor.



Look at the Code in the HTML Document



The first line `<!DOCTYPE HTML>` tells the web browser the file is an HTML document.

The second line is `<html>` and the bottom line is `</html>`. All code must go between these tags.

▷ Look at the HTML document:

The body has the text, pictures, and links.

```

<!DOCTYPE HTML>
<html>
<head>
<title>About HTML</title>
</head>
<body>
<h1>Learning How to Build a Web Page</h1>

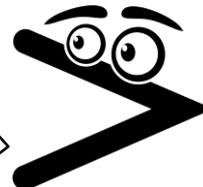
<p>You are going to learn how to build a web page.</p>
<p>When you are learning how to build a web page it takes time. It is often difficult to have patience, as you want to get started typing right away. It is a good idea to first learn about HTML tags. This will make it easier for you when you make your own web page.</p>
<hr>
<h2>Parts of an HTML Document</h2>
<p>An HTML document is divided into parts. The head has information about the web page. The body has the words, pictures, and links.</p>
<h2>Getting Started</h2>
<p>In this assignment, you are going to learn how to add text including headings and paragraphs. You will also edit code to insert pictures and hyperlinks. When you are finished you should have a better understanding of HTML code.</p>
<p>There are many free sites that can help you build your website.</p>
<p>For example, you can use a <a href="http://textanim.com">free text animator</a> to make a title for your web page.</p>

<p>There are also websites where you can download <a href="http://gifgifs.com">animated gifs</a>, which are pictures that move.</p>
<a href="http://gifgifs.com"></a>
<p>Does this web page seem a bit plain? In the next assignment, you will learn how to add CSS, which is Cascading Style Sheets to make the background, text, and images look great!</p>
</body>
</html>
    
```

The head has information about the web page.

Edit the Title in the Head

A web page is divided into parts. The `<head>` `</head>` tells the web browser information about the web page. Edit the title in the head.



▷ Look at the source code that has the title:

```

<head>
<title>About HTML</title>
</head>
    
```

▷ Now look at the taskbar. Notice the browser button reads About HTML which is the page title. Click *About HTML*.



▷ Now look in the web browser window. Notice that the page tab reads About HTML.



- ▷ Toggle back to the index.html document.



- ▷ Change the title from *About HTML* to: `<title> Editing a Web Page </title>`
- ▷ Select Save from the File menu.
- ▷ Toggle back to the browser.



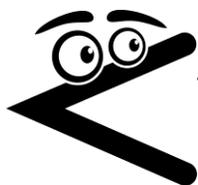
- ▷ Click *Refresh*  or press F5 on the keyboard to reload the web page with the changes.



- ▷ Look at the taskbar button. It has also changed. Toggle back to the index.html document. You should be looking at the source code.



Edit the Heading and Insert a Subheading in the Body



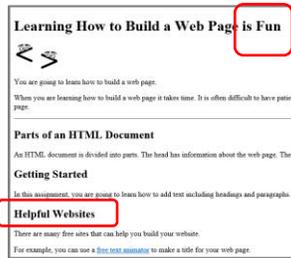
The code to display text, pictures, and links goes in the body of the html document between the `<body>` `</body>` tags.

Heading tags are used to create headings and subheadings. The main heading should use a `<h1>` tag. A subheading should use a `<h2>` tag. A sub-subheading should use a `<h3>` tag.

There are six heading tags: `<h1>` `<h2>` `<h3>` `<h4>` `<h5>` `<h6>`. Each has a different font size, with h1 being the largest and h6 being the smallest.

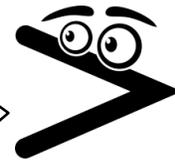
- ▷ Edit a heading and add a subheading:
 - Add text to the main heading: `<h1>Learning How to Build a Web Page is Fun</h1>`
 - Add a new subheading:
 - Look halfway down the document.
 - Position the cursor before the paragraph `<p>There are many free sites that can help you build your website.</p>` Press ENTER.
 - In the blank space, type `<h2>Helpful Websites</h2>` .
- ▷ Select Save from the File menu.

- ▷ Toggle to the browser.
Click *Refresh* or press F5 on the keyboard to reload the changes.

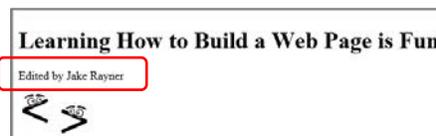


Add a New Paragraph to the Body

The tags `<p>` and `</p>` are used to create paragraphs. Most tags are written in pairs with opening and closing tags (with a few exceptions). Add your own paragraph using HTML.



- ▷ Toggle back to the *index.html* document.
- ▷ Add your name to the HTML document:
 - Near the top of the page, position the cursor at the end of the `</h1>` tag. Press ENTER.
 - In the blank space, type `<p> Edited by Student Name </p>`.
- ▷ Save the changes and then view them in the browser.



Add a Line Break to Force Text to a New Line



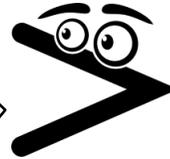
To have text move to a new line in a word processing document you would press the ENTER key. To do the same thing in an HTML document, you need to add a break or `
`. This tag is not written in pairs; no end tag is needed.

- ▷ Toggle back to the *index.html* document.
- ▷ Add a line break:
 - Position the cursor at the end of the sentence *When you are learning how to build a web page it takes time*. Press ENTER.
 - Type `
`
- ▷ Save the changes and then view them in the browser.



Create a Horizontal Rule to Divide the Content

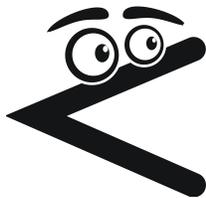
You can add a line or *horizontal rule* `<hr>` to the web page. This is used to divide the content into themes or topics. Similar to the line break `
` it does not have a closing tag.



- ▷ Toggle back to the *index.html* document.
- ▷ Add a horizontal rule:
 - Look near the bottom of the document.
 - Position the cursor before the paragraph `<p> Does this web page seem a bit plain? Press ENTER.`
 - In the blank space, type `<hr>`.
- ▷ Save the changes. View them in the browser.



Replace a Picture



You can add images to a web page. You must know the picture name and picture type to write the code. As well, the picture should be placed in the same location as the *index.html* file.

```

```

- ▷ Examine the image tag.

```

```

IMG SRC stands for *image source*. An image is any picture on the web page.

htmlfaces.gif is the filename of the picture. Notice the name of the picture is *one word and has no capitals*.

Also, notice that the file type is a gif. When you add a picture to a web page you must include the file type with the name.

ALT stands for *alternate*. The code places alternate text onto the web page while the picture is loading. This text should describe the image.

Why use alternate text?
Screen readers read the alt text for people with visual impairments.

- ▷ Toggle back to the *index.html* document.

There are several pictures in the Sample File folder where the *index.html* file is located. Replace *htmlfaces* with *htmlcomputer*.



- ▷ Edit the tag: `` with ``

- ▷ Save the changes and view them in the browser.



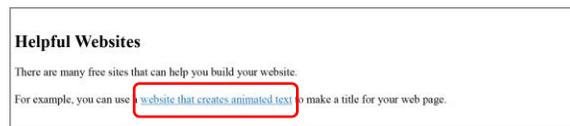
Edit Text in a Hyperlink



Hyperlinks are used to connect web pages together. A hyperlink can be text or a picture. Edit the text used for the hyperlink.

```
<a href="http://www.domain.com">Text that is a hyperlink.</a>
```

- ▷ Look at the hyperlink below the *Helpful Websites* heading. You are going to change the words *free text animator*.
- ▷ Toggle back to the index.html document.
- ▷ Edit the tag: `website that creates animated text`
- ▷ Save the changes and view them in the browser.



Edit HTML Code

Use what you have learned to continue to edit the web page.



HTML Code Challenge

- Add a new subheading using `<h2> </h2>`.
 - Add a new paragraph using `<p> </p>`.
 - Move text to a new line using `
`.
 - Insert a horizontal rule to separate paragraphs using `<hr>`.
 - There is a picture named *devices* in the Sample File folder. Change the picture `htmlcode.gif` to `devices.gif`.
 - Add the word *free* to the hyperlinked text *website that creates animated text*.
- ▷ Save the changes.
 - ▷ View them in the browser.

Close Open Programs

Session 2 Review: About HTML and CSS

Circle the best meaning that fits each HTML code.

1. `<!DOCTYPE HTML>`
 - a) places the HTML heading on a web page
 - b) tells the web browser the file is an HTML document
 - c) last line in an HTML document used to end the file
2. `<head> </head>`
 - a) contains information about the web page such as style
 - b) contains tags for the text and images on a web page
 - c) contains the headings on a web page
3. `<style> </style>`
 - a) tells the web browser the file is an HTML document
 - b) inserts multiple images
 - c) sets the formatting of elements on a web page
4. `<body> </body>`
 - a) contains tags for the text and images on a web page
 - b) contains the Cascading Style Sheet for a web page
 - c) contains the body of a web browser
5. `<h1> </h1>`
 - a) create a horizontal rule
 - b) make a hyperlink
 - c) add a heading
6. `<p> </p>`
 - a) add a page
 - b) create a paragraph
 - c) insert a picture
7. `<hr>`
 - a) add a heading row
 - b) measure the width of the page
 - c) break paragraphs into themes or topics with a horizontal rule
8. ``
 - a) add an image
 - b) make text italic
 - c) link to Internet
9. `
`
 - a) change background color
 - b) insert a browser link
 - c) insert a line break
10. `</html>`
 - a) make a hyperlink using html
 - b) first line of code in an HTML document
 - c) last line of code in an HTML document

/10

Circle the correct code to do the task.

11. You want to set the heading to use the font Arial.
 - a. `h1 { font-family: arial; }`
 - b. `h1 { font: arial; }`
 - c. `heading 1 { font-family: arial; }`

12. You want to set the background color of the web page to red.
 - a. `body background-color red; }`
 - b. `body { background-color: red; }`
 - c. `body { background: red; }`

13. You want to set the width of a horizontal rule.
 - a. `50px`
 - b. `50mm`
 - c. `50inches`

14. You want to align all images to the right.
 - a. `text-align: right;`
 - b. `alignment: right;`
 - c. `float: right;`

15. You want to set the font size to 150%.
 - a. `font-size: 150%;`
 - b. `size: 150%`
 - c. `font size: 150`

/5

Select if a statement is true or false.

- | | | |
|---|------|-------|
| 16. You must use web safe fonts when styling text. | True | False |
| 17. Curly brackets { } are used for CSS. | True | False |
| 18. You can only set the style of an element in the head. | True | False |
| 19. The color of text can only be set using hex codes. | True | False |
| 20. CSS is used to create a consistent design. | True | False |

/5

/20

Assignment 9 Start Building a Web Page

You are going to start to build your web page. You will create the structure of the HTML document. Next, you will add a title to the head to provide information about the web page. Afterwards, you will add to the body a heading, several paragraphs, and a horizontal rule to divide the information. You will format the web page in the next assignment.



Open Web Page Using an HTML Text Editor

Create the Structure of the HTML Document

▷ Type in the code:

All code goes between the `<html>` `</html>` tags.

```

<!DOCTYPE HTML> — States that the file is an HTML document.
<html>
  <head>
  </head>
  <body>
  </body>
</html>

```

The head holds details about the web page such as the title, style, and meta tags.

The body holds the content of the web page including text and images.

Add the Title to the Head



The title provides information about the web page. It appears on the page tab of the browser window and on the button in the taskbar. Search engines also use this information when creating their web page directory.

▷ Below the `<head>` type:

```

<head>
<title>Web Page Topic</title>
</head>

```

Add the Heading to the Body

The heading is the first thing that people will see when they view your web page. Use the `<h1>` `</h1>` tags.



▷ Below the `<body>` type:

```

<body>
<h1>Web Page Title</h1>
</body>

```

Add Several Paragraphs to the Body



All paragraphs need to be surrounded by the `<p>` `</p>` tags. Write at least two paragraphs. Each one should have about three sentences.

- ▷ Below the heading type several paragraphs about your topic:

```
<body>
<h1>Web Page Title</h1>
<p>My topic is interesting. Here is one fact. Here is another fact.</p>
<p>Did you know this fact about my topic? That is so amazing! I like my topic.</p>
</body>
```

Add a Horizontal Rule to Divide the Paragraphs

A horizontal rule is a line used to divide content into thematic breaks. It is made with an `<hr>` tag.



- ▷ Between any paragraphs, insert a horizontal line.

```
<body>
<h1>Web Page Title</h1>
<p>My topic is interesting. Here is one fact. Here is another fact.</p>
<hr>
<p>Did you know this fact about my topic? That is so amazing! I like my topic.</p>
</body>
```

Save the Web Page as index.html – IMPORTANT STEP!



A home page of a website must be named `index.html`. All web servers display a web page with this name by default when a person visits the website.

- ▷ To save the file, select `Save` from the `File` menu.
- ▷ Go to the `HTML` folder you created in Assignment 8 (it holds the pictures you saved).
- ▷ Double click on the folder to open it.
- ▷ Type `index.html` in the `File name:` box.

File name: `index.html`

- ▷ Click `Save`.

About `index.html`

In Notepad, you **MUST** type `.html` - If you don't the file will be a text `.txt` file and will not display as a web page. If you are using another HTML Text Editor, you may need to select the file type `.html` when saving.

Visit Your Web Page



You are going to view your web page in the browser. This will let you see what it looks like.

- ▷ KEEP YOUR SOURCE CODE OPEN IN THE HTML TEXT EDITOR.
- ▷ Preview your web page. If using Notepad, go to the *HTML* folder in your student folder. Right click the *index* file. From the menu, click *Open with*. Choose a web browser.

Cool Skateboarding Tricks

Skateboarding is a fun way to get around the city. Just jump on your board and ride. However, just gliding can get pretty boring. Mix it up with some tricks. There are several kinds of tricks such as an ollie, grind, or flip.

Did you know that Tony Alva was one of the first skaters to become famous? He started doing tricks in an empty swimming pool in the late 1970's. He was part of the Z-Boys skateboarding team. His aerial was one of the first to be recorded.

Write Information About Your Topic

- ▷ Use your skills to edit the content of your web page.

Task: I want to...	Element
add a heading	<h1> </h1>
add a subheading	<h2> </h2>
start and end a paragraph	<p> </p>
add a line break	
divide content into thematic breaks with a line	<hr>
indent text for a quote	<blockquote> </blockquote>

Web Page Content Checklist

- ▷ Are you finished? Complete the checklist.



Content	
The page title informs viewers about the topic.	
There are three interesting facts about the topic written in paragraph form.	
The web page is informative.	
The content is divided into logical sections with subheadings or a horizontal rule.	
The web page is free from spelling and grammar errors.	

Close Open Windows



Do you have facts you would like to put in a numbered or bulleted list? You can!

Refer to the Session 2 Extension Activity to learn how.

Session 3 Extension Activity: Add a Background Image

Use a Picture as the Background

Web page backgrounds can be plain colors, but they can also be a variety of attractive graphics, photos, or designs.



The background should enhance the web page. The information should be easy to read. Use these to select an image.

- *Respect Copyright Laws:* Not all pictures on the Internet are available to use on your web page. Some images may have their use restricted by the owner of the file. Use an image from the Internet that is royalty-free and labeled for reuse or consider using your own photograph.
- *Bigger is Better:* Look for LARGE pictures - 1920px wide or more. If the image is small it will tile, or repeat itself, as the background. This can be distracting.
- *Use a Subtle Image:* Search for soft, light colored pictures. Remember, this is just the background of your page and should not take the viewer's attention away from your information.
- *Adjust the Image:* If the picture is too bright, you can use a photo editing program to adjust the contrast or transparency level.

Search for a Background Image

1. Search the Internet for a background image.
 - a. In the search engine, click *Images* to find only pictures.
 - b. Use the search term background or texture background.
TIP: Use the Search Tools to filter the images to show only those with a large file size.
2. Save the picture:
 - a. Right click on the image, select *Save picture as* or *Save image as*.
 - b. Save the picture in the same folder as the one in which the index.html file is saved.
 - c. Name the picture background.
3. Find at least 3 background images, so that you can compare their effectiveness. Add a number to each new image: background2, background3.

Add the Background Image

1. Open your web page in an HTML Text Editor.
2. Look at the CSS in the head.
3. Replace background-color with background-image: url("background.jpg");

```
body { background-image: url("background.jpg");
        width: 800px;
        margin: auto;
      }
```

TIP: Type the name of the picture between the brackets.

Look inside the HTML folder to find the name of the file and the type, such as gif, jpg, or png

4. Save the changes and then view your web page in a web browser.

Add a White Background over the Picture (Optional)

Background pictures can sometimes be very busy. You can place a white background over top of the background picture to make the information easier to read. Try it!

You are going to use the `<div>` `</div>` tags. They are used to divide an HTML document into sections. You will style the div tag to have a white background, padding, and margins.

Complete the previous steps first!

1. Divide the HTML document into a section:
 - a. Below the `<body>` tag, type `<div>`
 - b. Above the `</body>` tag, type `</div>`
2. Format the div element:
 - a. In the head, above the `</style>` tag, type `div { background-color: white; }`
 - b. Save the changes and view in the browser.

The text goes to the edge. You need padding to add space.



- c. Add the padding attribute. Select an amount that looks good for your web page.

```
div { background-color: white;
padding: 30px;
}
```

TIP: Do you want to add padding to just the top, left, bottom, or right? Or do you want to set a different amount of padding for each side? You can!

```
padding-top: 25px;
padding-left: 50px;
padding-bottom: 25px;
padding-right: 50px;
```

- d. Save the changes and view in the browser.

The divider touches the top of the window. Add a margin to move it down.



- e. Add the margin attribute. Select an amount that looks good for your web page.

```
div { background-color: white;
padding: 30px;
margin: 30px;
}
```

TIP: Do you want to set the margin for just the top, left, bottom, or right? Or do you want to set a different margin for each side? You can!

```
margin-top: 25px;
margin-left: 50px;
margin-bottom: 25px;
margin-right: 50px;
```

- f. Save the changes and view in the browser.

To see a sample, view `index.html` in the Web Pages/Skateboard folder.



TIP: If there is no margin at the bottom of your web page, try to add padding to the body in the CSS. For example, `padding: 50px;`

Assignment 13 Create Hyperlinks

One of the most powerful features of a web page is the ability to connect to other information about your topic. Use the URLs that you recorded in *Assignment 8 Plan a Web Page*. Make a text hyperlink and a hotspot. A *hotspot* is a hyperlink applied to a picture.

[Click here](#)



Study the code used to insert a hyperlink:

```
<a href="http://www.website.com">Visit Website to learn more.</a>
```

a stands for *anchor*.

href stands for hypertext reference.

"http://www.website.com" is the URL for the hyperlink.

Visit Website to learn more is the text that will show as a hyperlink on the web page.

 is the closing tag.

Open Web Page using an HTML Text Editor

- ▷ Open your HTML document in Notepad or another HTML Text Editor.
- ▷ Preview your web page in a browser. Where do you want to add hyperlinks?

Insert a Text Hyperlink

- ▷ View the source code.
- ▷ In the body click the mouse where you want to add the hyperlink. Type:

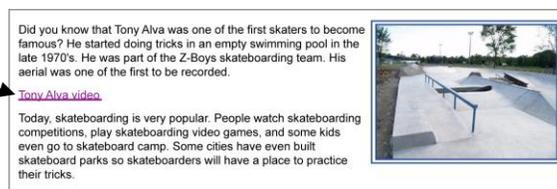
```
<a href="http://www.website.com">Visit Website to learn more. </a>
```

For example:

```
<a href="https://www.youtube.com/watch?v=Mpat0G32gPs">Tony Alva video</a>
```

- ▷ Save the document and view the changes in the browser.

The link will display using the default text.



- ▷ Click the hyperlink to see if it is working. [Tony Alva video](#)
- ▷ Click the browser's *Back* button to return to your web page.

Extra Challenge - Open Hyperlink in A New Tab

To prevent a visitor from accidentally closing your web page after clicking a hyperlink it is a good idea to force the URL to open in a new tab. To do this add the code `target="_blank"` to the hyperlink.

```
<a href="http://www.website.com" target="_blank">Visit Website to learn more.</a>
```

Insert a Picture Hyperlink or Hotspot

- ▷ View the source code.
- ▷ Select a picture that you would like to turn into a hyperlink.
- ▷ In the body, click the mouse in front of the img tag. Type:

```
<a href="http://www.website.com">  </a>
```

- ▷ Save the changes and view them in the browser. Click the hyperlink to see if it is working.



- ▷ Click the browser's *Back* button to return to your web page.



You may want to add text below the picture to let people know to click on it.

Continue to Add Hyperlinks

You should have one more hyperlink left to add to your website. Refer to the list in *Assignment 8*.



TechnoChallenges:

Add a Background Image

Use a picture, graphic, photo, or design to enhance the web page. Do the *Session 3 Add a Background Image* extension activity to place a picture in the background of the web page.

Format the Hyperlink Style

You can format your hyperlinks using CSS. Refer to *Format the Hyperlink Style* extension activity in this Session. It has instructions on how to apply a unique style.

Save Your Work and Close any Open Programs

Assignment 16 Are You Ready to Upload?

Use the checklist to look critically at your web page and make any necessary changes or additions. Show it to a friend. Do they have any ideas on how you can make it EVEN BETTER? If you have time, complete the extension activities in Session 5 to create animated text, insert animated gifs, or make a table.

Web Designer's Name:

Peer Evaluator's Name:

Are You Ready to Upload?	You	Peer
<i>Web Page</i>		
<i>Appearance</i>		
The color theme suits the topic.		
There are three pictures related to the topic.		
Pictures enhance the message in the text.		
Pictures are sized and arranged on the page to create a balanced layout.		
Spacing of elements makes the content easy to read.		
Text formatting makes the information easy to read and looks appealing.		
<i>Content</i>		
The page title informs viewers about the topic.		
There are three interesting facts about the topic written in paragraph form.		
The web page is informative.		
The content is divided into logical sections with subheadings or a horizontal rule.		
The web page is free from spelling and grammar errors.		
<i>Hyperlinks</i>		
There are three hyperlinks to websites related to the topic.		
One of the hyperlinks is a hotspot.		
All the hyperlinks work.		
<i>HTML and CSS</i>		
Document begins <!DOCTYPE HTML>.		
The second line is <html>.		
The last line is </html>.		
The content of the web page is between the <body> </body> tags.		
The head contains a title, meta tags, and style information.		
The title is suitable for the web page topic.		
Meta tags include a description and keywords about the topic.		
Style is set for the body, heading, paragraph, horizontal rule, and images.		
<i>Coding Expertise</i>		
Web page contains code to create a list, background picture, picture border, custom hyperlink, style class, animated image, or table.		

Marking Sheet

<i>Web Page</i>	
<p>Appearance</p> <p>The color theme suits the topic.</p> <p>There are three pictures related to the topic.</p> <p>Pictures enhance the message in the text.</p> <p>Pictures are sized and arranged on the page to create a balanced layout.</p> <p>Spacing of elements makes the web page easy to read.</p> <p>Text formatting makes the information easy to read and looks appealing.</p>	/8
<p>Content</p> <p>The page title informs viewers about the topic.</p> <p>There are three interesting facts about the topic written in paragraph form.</p> <p>The web page is informative.</p> <p>The content is divided into logical sections with subheadings or a horizontal rule.</p> <p>The web page is free from spelling and grammar errors.</p>	/7
<p>Navigation</p> <p>There are three hyperlinks to websites related to the topic.</p> <p>One of the hyperlinks is a hotspot.</p> <p>All the hyperlinks work.</p>	/5
<i>HTML and CSS</i>	
<p>Document begins <!DOCTYPE HTML>.</p> <p>The second line is <html>.</p> <p>The last line is </html>.</p> <p>The content of the web page is between the <body> </body> tags.</p> <p>The head contains a title, meta tags, and style information.</p> <p>The title is suitable for the web page topic.</p> <p>Meta tags include a description and keywords about the topic.</p> <p>Style is set for the body, heading, paragraph, horizontal rule, and images.</p>	/15
<i>Coding Expertise</i>	
<p>Web page contains code to create a list, background picture, picture border, custom hyperlink, style class, animated image, or table.</p>	/5

TOTAL: /40

SKATEBOARDING TRICKS



Don't Just Glide!

Skateboarding is a fun way to get around the city. Just jump on your board and ride. However, just gliding can get pretty boring. Mix it up with some tricks. There are several kinds of tricks such as an ollie, grind, or flip.

How to Manual

The best trick for beginners to learn is how to manual. This trick looks cool and is a great way to learn how to balance.

- Find a smooth surface that is straight and has no obstacles in the way.
- To do a manual put one foot on the tail and put one just behind the front bolts.
- Get on your board and pump your back foot so that you build up speed.
- Lean your body slightly forward, as you apply pressure to the tail using your back foot.
- This will cause the front wheels to rise off the ground.



History of Skateboard Tricks

Did you know that Tony Alva was one of the first skaters to become famous? He started doing tricks in an empty swimming pool in the late 1970's. He was part of the Z-Boys skateboarding team. His aerial was one of the first to be recorded.

Watch the [Tony Alva video](#). It is of Tony skating the bowl just a few years ago. This video proves you are never too old for skateboard tricks!



Today, skateboarding is very popular. People watch skateboarding competitions, play skateboarding video games, and some kids even go to skateboard camp. Some cities have built skateboard parks so skateboarders will have a place to practice their tricks.

Click on the skatepark picture to visit [Skaters for Public Skateparks](#). Learn how you can get a skatepark in your community.