**WEB DESIGN NOTE:**

**HTML Introduction**

Def: HTML is the standard markup language for creating Web pages.

**What is HTML?**

* HTML stands for Hyper Text Markup Language
* HTML is the standard markup language for creating Web pages
* HTML describes the structure of a Web page
* HTML consists of a series of elements
* HTML elements tell the browser how to display the content
* HTML elements label pieces of content such as "this is a heading", "this is a paragraph", "this is a link", etc.

Simple HTML Document

Example

<!DOCTYPE html>  
<html>  
<head>  
<title>Page Title</title>  
</head>  
<body>  
  
<h1>My First Heading</h1>  
<p>My first paragraph.</p>  
  
</body>  
</html>

Example Explained

* The <!DOCTYPE html> declaration defines that this document is an HTML5 document
* The <html> element is the root element of an HTML page
* The <head> element contains meta information about the HTML page
* The <title> element specifies a title for the HTML page (which is shown in the browser's title bar or in the page's tab)
* The <body> element defines the document's body, and is a container for all the visible contents, such as headings, paragraphs, images, hyperlinks, tables, lists, etc.
* The <h1> element defines a large heading
* The <p> element defines a paragraph

What is an HTML Element?

An HTML element is defined by a start tag, some content, and an end tag:

<tagname> Content goes here... </tagname>

The HTML element is everything from the start tag to the end tag:

<h1>My First Heading</h1>

<p>My first paragraph.</p>

|  |  |  |
| --- | --- | --- |
| **Start tag** | **Element content** | **End tag** |
| <h1> | My First Heading | </h1> |
| <p> | My first paragraph. | </p> |
| <br> | *none* | *none* |

Some HTML elements have no content (like the <br> element). These elements are called empty elements. Empty elements do not have an end tag!

**Web Browsers**

The purpose of a web browser (Chrome, Edge, Firefox, Safari) is to read HTML documents and display them correctly.

A browser does not display the HTML tags, but uses them to determine how to display the document:

The <!DOCTYPE> Declaration

The <!DOCTYPE> declaration represents the document type, and helps browsers to display web pages correctly.

It must only appear once, at the top of the page (before any HTML tags).

The <!DOCTYPE> declaration is not case sensitive.

The <!DOCTYPE> declaration for HTML5 is:

HTML Headings

HTML headings are defined with the <h1> to <h6> tags.

<h1> defines the most important heading. <h6> defines the least important heading:

HTML Paragraphs

HTML paragraphs are defined with the <p> tag:

Example

<p>This is a paragraph.</p>  
<p>This is another paragraph.</p>

[Try it Yourself »](https://www.w3schools.com/html/tryit.asp?filename=tryhtml_basic_paragraphs)

HTML Links

HTML links are defined with the <a> tag:

Example

<a href="https://www.w3schools.com">This is a link</a>

The link's destination is specified in the href attribute.

Attributes are used to provide additional information about HTML elements.

<a href=”the Link”>the link name</a>

HTML Images

HTML images are defined with the <img> tag.

The source file (src), alternative text (alt), width, and height are provided as attributes:

Example

<img src="w3schools.jpg" alt="W3Schools.com" width="104" height="142">

<img src=”image file.jpg” alt=”image description” width=”No” height=”No”>

How to View HTML Source

Have you ever seen a Web page and wondered "Hey! How did they do that?"

View HTML Source Code:

Right-click in an HTML page and select "View Page Source" (in Chrome) or "View Source" (in Edge), or similar in other browsers. This will open a window containing the HTML source code of the page.

Inspect an HTML Element:

Right-click on an element (or a blank area), and choose "Inspect" or "Inspect Element" to see what elements are made up of (you will see both the HTML and the CSS). You can also edit the HTML or CSS on-the-fly in the Elements or Styles panel that opens.

**Nested HTML Elements**

HTML elements can be nested (this means that elements can contain other elements).

All HTML documents consist of nested HTML elements.

<body>  
  
<h1>My First Heading</h1>  
<p>My first paragraph.</p>  
  
</body>

The <body> element defines the document's body.

It has a start tag <body> and an end tag </body>.

Then, inside the <body> element there are two other elements: <h1> and <p>:

Never Skip the End Tag

Some HTML elements will display correctly, even if you forget the end tag:

HTML is Not Case Sensitive

HTML tags are not case sensitive: <P> means the same as <p>.

The HTML standard does not require lowercase tags, but W3C recommends lowercase in HTML, and demands lowercase for stricter document types like XHTML.

**HTML Attributes**

HTML attributes provide additional information about HTML elements.

HTML Attributes

* All HTML elements can have **attributes**
* Attributes provide **additional information** about elements
* Attributes are always specified in **the start tag**
* Attributes usually come in name/value pairs like: **name="value"**

The href Attribute

The <a> tag defines a hyperlink. The href attribute specifies the URL of the page the link goes to:

Example

<a href="https://www.w3schools.com">Visit W3Schools</a>