

HTML5

Evolution not a Revolution



The web went through many versions html 2.0 → html 4.0 with not too much changing
Last release html 4.0 was in 1999!

Then W3C abandoned HTML and introduced xhtml or eXtensible html that was much stricter
(little bit too strict)

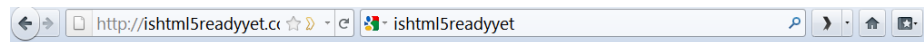
There was a split of interest and a group of independent developers from Apple, Mozilla, and Opera formed WHATWG- (Web Hypertext Application Technology Working Group)

The WHATWG developed a different markup language -Web Applications 1.0

Finally the W3C agreed with WHATWG and they all went forward together with HTML5

HTML5 is Still Evolving

BUT you can start using it NOW



NO



... to go until the HTML5 specification is final. www.ishtml5readyyet.com

Wont be “complete” until 2022 but you can still use a lot of it now

Some parts are more “mature” than others

Browser and Devices support is Increasing

HTML as a Brand

A Lot of Hype = A Lot of Confusion



www.wpclipart.com



What it IS:

- Evolution of the Browser into a Programming Platform
- Built in API's to Assist in Web Applications
- Reduces the Need for Plug-ins (like Flash)
- Support for Video & Audio
- New Features Based on HTML, CSS, DOM, and JavaScript
- More Markup to Replace Scripting
- Removal Or Redefinition of Presentational Markup
- HTML5 Should be Device Independent
- Development Process Should be Visible to the Public
- Backwards Compatible
- Better Error handling

What it is NOT:

- CSS Transitions
- Web Sockets
- Geolocation
- SVG
- CSS3 @font-face

Browser Features such as:

- Moz-transform-origin
- O-transform-origin
- Webkit-transform-origin

Where is HTML5 supported

Still Changing! So Check Often!

Browser Support

HTML5 is not yet an official standard, and no browsers have full HTML5 support. But all major browsers (Safari, Chrome, Firefox, Opera, & Internet Explorer) continue to add new HTML5 features to their latest versions.

HTML5 `<aside>` Tag

Example

```
<p>My family and I visited The Epcot center this summer.</p>
<aside>
<h4>Epcot Center</h4>
The Epcot Center is a theme park in Disney World, Florida.
</aside>
```

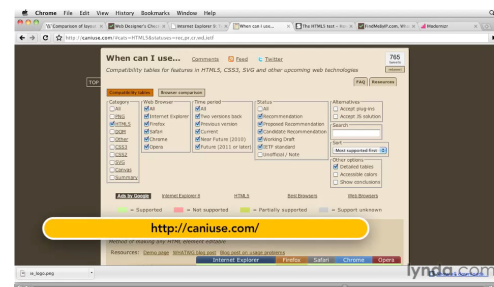
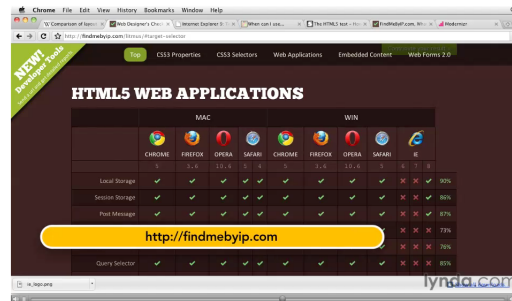
[Try it yourself »](#)

Browser Support



The `<aside>` tag is supported in all major browsers. www.w3schools.com

***You can check these websites to see if
The feature you want to use is supported-
And if so- where?**



Semantic HTML

Structure and Content

HTML was designed to distinguish clearly between the documents **hierarchical outline structure** and its visual presentation.

Browsers can distinguish the **order and importance** of the text and what lines are related to each other through the tags used to “mark” them up

```
<h1>This is the most important headline</h1>
<p>This is ordinary paragraph text within the body of the document, where certain
words and phrases may be <em>emphasized</em> to mark them as
<strong>particularly important</strong>.</p>
<h2>This is a headline of secondary importance to the headline above</h2>
<p>Any time you list related things, the items should be marked up in the form of a list:</p>
<ul>
<li>A list signals that a group of items are conceptually related to each other</li>
<li>Lists may be ordered (numbered or alphabetic) or unordered (bulleted items)</li>
<li>Lists may also be menus or lists of links for navigation </li>
<li>Cascading Style Sheets can make lists look many different ways</li>
</ul>
```

Ex. Of Structure: headline 1 (h1), headline 2 (h2), paragraph (p), list (ol)

Ex. of Presentation: boldface (b), italics (i), font (font)

However, HTML is now being used more and more for purely structure and content

- This is called **semantic**.
- This is much more efficient for information architecture, search engine visibility, and display flexibility.



Because the **content and structure are separate from the presentation** single web pages can be used a cross a number of different browsers, screen readers, and mobile devices, **significantly increasing the HTML's usability.**

What is html Again?

Hyper Text Markup Language

A simple Text file with html tags

Html is a mark up language that uses tags to format text in a universal way that can then be interpreted and displayed by the browser.

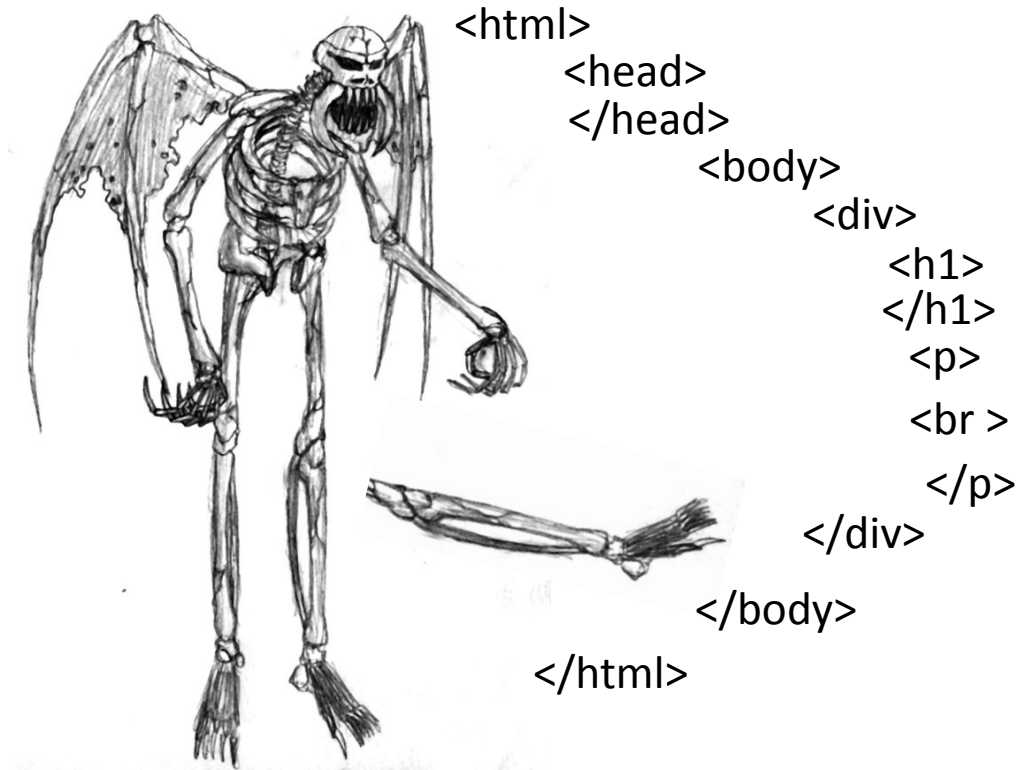
The 4 or 5 refers to the current version that is (or will be) in use

IT IS a Mark Up language – controls how the browser “marks up” or displays the text on the screen

HTML

The Skeleton/Bones

Basic Structure/How it's Formed



skeleton daemon- Lo ha



www.officespam.chattablogs.com

Elements = Tags

Always the Same - Just used in Different Combinations

What is a Tag or Element?

Opening and Closing

<html> </html>

Opening tag Closing tag

*Mostly in Pairs but not always
There ARE exceptions

These tags surround the content and tell the Browser how to interpret it.

There are A LOT of tags

Too many to go over in lab

Visit



w3schools.com

For a complete list (with definitions!)

http://www.w3schools.com/html5/html5_new_elements.asp

HTML5 Tags

<!-->	<caption>	<figure>	<legend>	<q>	<td>
<!DOCTYPE>	<center>			<rp>	<textarea>
<a>	<cite>	<footer>	<link>	<rt>	<tfoot>
<abbr>	<code>	<form>	<map>	<ruby>	<th>
<acronym>	<col>	<frame>	<mark>	<s>	<thead>
<address>	<colgroup>	<frameset>	<menu>	<samp>	<time>
<applet>	<command>	<h1> - <h6>	<meta>	<script>	<title>
<area>	<datalist>	<head>	<meter>	<section>	<tr>
<article>	<dd>	<header>	<nav>	<select>	<tt>
<aside>		<hgroup>	<noframes>	<small>	<u>
<audio>	<details>	<hr>	<noscript>	<source>	
	<dfn>	<html>	<object>		<var>
<base>	<dir>	<i>		<strike>	<video>
<basefont>	<div>	<iframe>	<optgroup>		<wbr>
<bdo>	<dl>		<option>	<style>	<xmp>
<big>	<dt>	<input>	<output>	<sub>	
<blockquote>		<ins>	<p>	<summary>	
<body>	<embed>	<keygen>	<param>	<sup>	
 	<fieldset>	<kbd>	<pre>	<table>	
<button>	<figcaption>	<label>	<progress>	<tbody>	
<canvas>					

We will review some now...

```
<head>
```

```
<meta name="description" content="Demonstrate the head tag" />
```

<!doctype html>

Simple, Short & Sweet!

Before

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

After

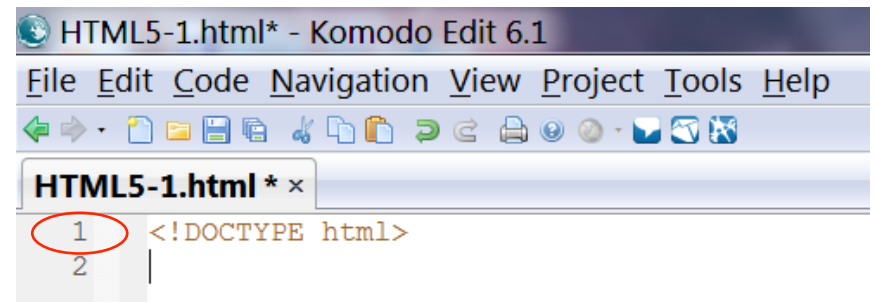
```
<!doctype html>
```

Definition and Usage:

The <!DOCTYPE> declaration must be the very first thing in your HTML5 document, before the <html> tag. **** Make sure no white space on top.****

Note: The <!DOCTYPE> tag does not have an end tag.

Tip: The <!DOCTYPE> declaration is NOT case sensitive



The doctype declaration is not an HTML tag; It is an instruction to the web browser about what version of the markup language the page is written in. **It is important that you specify the doctype in all HTML documents, so that the browser knows what type of document to expect.**

<html></html>

All other Tags Nest Inside the html Tags

Every HTML web page is enclosed inside <html>...</html> tags to notify the browser that the enclosed is HTML and not XML (or anything else).

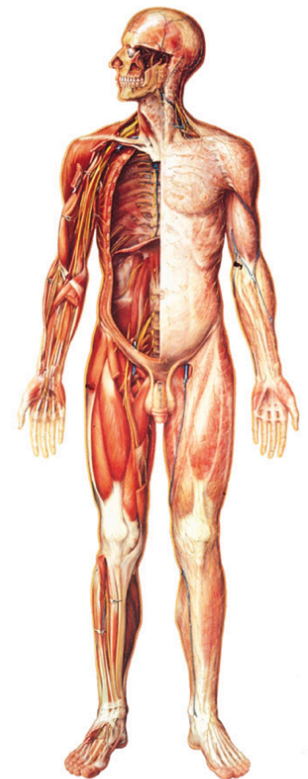
No matter how long or short your HTML document is
Everything Including the head and body and everything in-between goes inside these tags.

Within the <html> tags all the page content is contained inside two other basic tags:

<head>...</head>

<body>...</body>

```
<html>  
  <head>  
  .....  
  </head>  
  <body>  
  .....  
  </body>  
</html>
```



<head></head>

Processing Information



www.fundraw.com

The head element is a container for all the head elements.

The head of the document contains:

- The page title
- Links to Cascading Style Sheets, JavaScript and/or links to JavaScript
- Metadata
- Description, keywords, author, content-type

```
<head>
  <meta name="description" content="Demonstrate the head tag" />
  <meta name="keywords" content="HTML,CSS,JavaScript" />
  <meta name="author" content="John Doe" />
  <meta http-equiv="Content-Type" content="text/html; charset=ISO-8859-1" />
  <link href="default.css" rel="stylesheet" type="text/css" />
  <script src="main.js" type="text/javascript"/>
  <title>Applied Web Design</title>
</head>
```

The following tags can be added to the head section:

<base>, <link>, <meta>, <script>, <style>, and <title>.

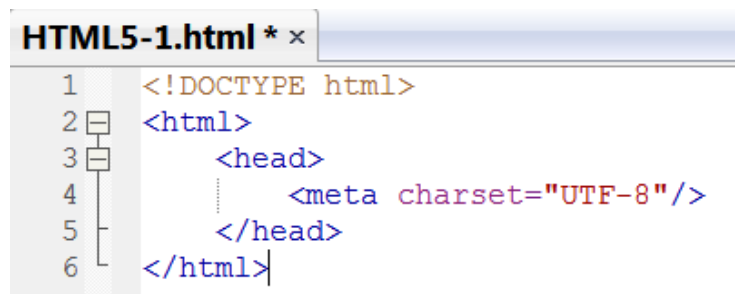
The <title> tag defines the title of the document, and is the only required element in the head section.

<meta charset =“UTF-8” />

So humans can read it

Before <meta http-equiv=“Content-Type” content=“text/html; charset=UTF-8” />

After <meta charset=“UTF-8” />



```
HTML5-1.html * x
1 <!DOCTYPE html>
2 <html>
3   <head>
4     <meta charset="UTF-8"/>
5   </head>
6 </html>
```

*How your browser takes binary code info and translates it into character encoding that you see on the screen

Examples

Define keywords for search engines:

```
<meta name="keywords" content="HTML, CSS, XML, XHTML, JavaScript" />
```

Define a description of your web page:

```
<meta name="description" content="Free Web tutorials on HTML and CSS" />
```

Define the last revision of your page:

```
<meta name="revised" content="Kai Jim Refsnes, 13/01/2011" />
```

Refresh page every 5 seconds:

```
<meta http-equiv="refresh" content="5" />
```

Metadata is data (information) about data.

The <meta> tag provides metadata about the HTML document.

Metadata will not be displayed on the page, but will be machine parsable.

Meta elements are typically used to specify page description, keywords, author of the document, last modified, and other metadata.

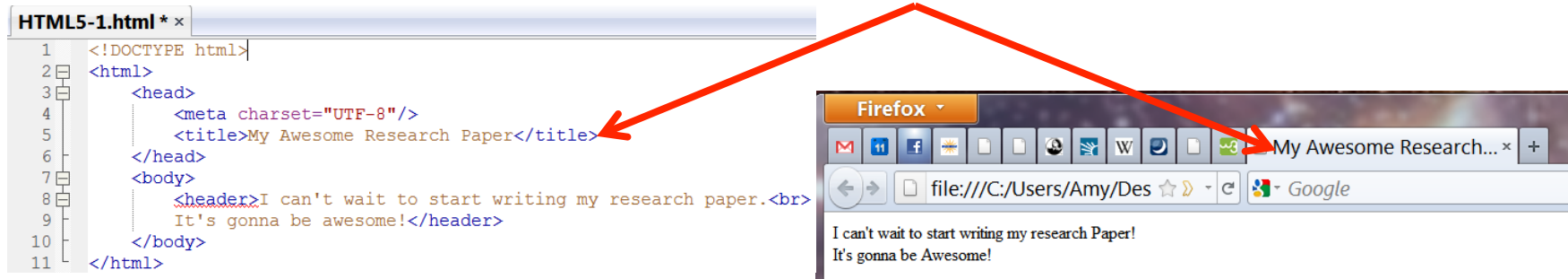
The <meta> tag always goes inside the head element.

The metadata can be used by browsers (how to display content or reload page), search engines (keywords), or other web services.

<title></title>

Title

<title>Title of the document</title>



*Different from the Header of your Page!
The Title is not visible on the web page itself

The <title> tag defines the title of the document and is **required** in all HTML documents.

The title element:

- Defines a title in the browser toolbar
- Provides a title for the page when it is added to favorites
- Displays a title for the page in search-engine results

<link >

Linked files

```
<head>
<title>Personal Daily Horoscope - Astrodienst </title>
<link rel="stylesheet" type="text/css" href="/h/astrodienst110526.css" media="screen">
<link rel="stylesheet" type="text/css" media="print" href="/h/print100219.css">

  <script type="text/javascript" src="/h/highslide.js"></script>
  <script type="text/javascript" src="/h/highslide.config.js"></script>
  <link rel="stylesheet" type="text/css" href="/h/highslide.css">
  <link href="/im/favicon.ico" rel="shortcut icon" type="image/x-icon">
  <script type="text/javascript" src="/h/jquery.js"></script>
  <script type="text/javascript" src="/h/menu.js"></script>
  <script type="text/javascript" src="/h/astrodienst02.js"></script>
  <meta http-equiv="Content-Language" content="en">
  <meta name="language" content="en">
  <meta name="distribution" content="global">
  <meta name="google-site-verification" content="vgh_SFgUOEzn8qLyJQEzrCzlcqBZvF-W5i7-r20Ffg" >
  <meta name="robots" content="noarchive">
  <meta http-equiv="pragma" content="no-cache">
  <meta name="description" content="The outstanding Daily Horoscope by Astrodienst describes your individual topics for ea
  <meta name="keywords" lang="en" content="daily horoscope, personal horoscope, free, horoscope, horoscopes, astrology, ro
</script type="text/javascript">
<!--
window.name='astro';
var sw = screen.width; var dx = 0;
function hwin_open (hwin_wid, hwin_hgt, hwin_url) {
  if (msg && ! msg.closed) { msg.focus(); return; }
  if (!hwin_url) hwin_url = "";
  var dy = 0;
  dx = sw - hwin_wid - 10;
  msg=open(hwin_url,"help","toolbar=no,location=no,directories=no,status=no,menubar=no,scrollbars=yes,resizable=yes,width="
  msg.focus();
}
function hwin_close () {
  if (msg && ! msg.closed) msg.close();
}
msg = 0;
//-->
</script>
</head>
```

The <link> tag defines the relationship between a document and an **external resource**.

The <link> tag is mostly used to link to CSS style sheets.

Note: The link element is an empty element, it contains attributes only.

Note: This element goes only in the head section, but it can appear any number of times.

Ex. Link to external CSS style, JavaScript, Ajax elements, or other programming techniques

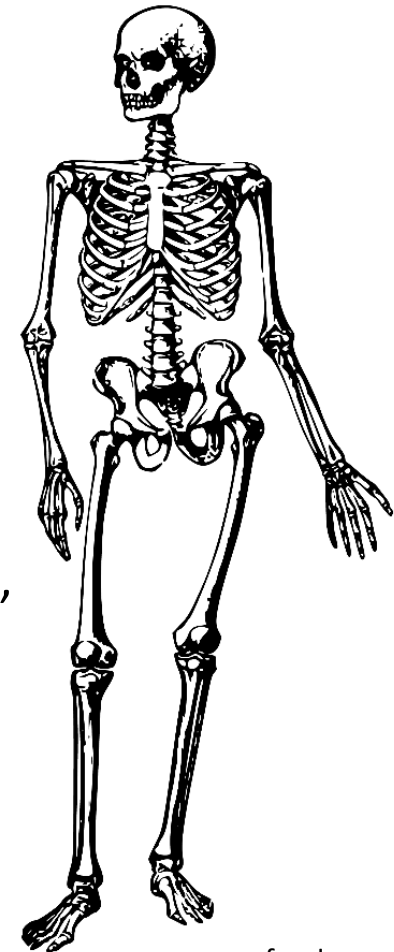
<body></body>

Body

The <body> tags define the document's body.

The body tags contain all the **CONTENT** of the web page

Including: text, headings, paragraphs, links, images, form tags, lists, links to audiovisual content (gif, jpeg, or png graphics, video files, audio files or other media files), etc...



HTML Document Structure

More Tags

These tags can be on their own
within the `<body>` tags
or
contained within the appropriate
container tags.

<p></p>

Paragraph Tag

The <p> tag defines a **paragraph**.

The p element automatically creates some space before and after itself. The space is automatically applied by the browser, or you can specify it in a style sheet.

<p>Serif typefaces have small slabs at the ends of letter strokes. In general, serif fonts can make large amounts of text easier to read.</p>

<p>Sans-serif fonts do not have serif slabs; their strokes are square on the end. Helvetica and Arial are examples of sans-serif fonts. In general, sans-serif fonts appear sleeker and more modern.</p>

<p></p>

What Using Paragraphs Looks Like

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>Paragraphs Example</title>
</head>
<body>
  <h2>With p Tags</h2>
  <p>
    Lorem ipsum dolor sit amet, con-
    Fusce sit amet ligula vitae urna
    vitae cursus diam sodales ut.
    Suspendisse potenti.
  </p>
  <p>
    Donec ornare velit ac nunc sag-
    pulvinar scelerisque. Mauris v-
    varius velit orci ac nibh. Viv-
    Pellentesque non nisl sem, eget
  </p>
  <p>
    Pellentesque augue lectus, eu-
    volutpat eu mauris. Suspendiss-
    feugiat imperdiet nisl eget ma-
    Aliquam tempor aliquet facilis
    Phasellus eget diam magna.
  </p>

  <h2>Without p Tags</h2>
  Lorem ipsum dolor sit amet, conseq-
  Fusce sit amet ligula vitae urna p-
  vitae cursus diam sodales ut. Sed
  Suspendisse potenti. Donec ornare
  pulvinar scelerisque. Mauris vulpu-
  varius velit orci ac nibh. Vivamus
  Pellentesque non nisl sem, eget la-
  volutpat eu mauris. Suspendisse ve-
  feugiat imperdiet nisl eget mattis
  Aliquam tempor aliquet facilisis.
  Phasellus eget diam magna.

</body>
</html>
```

With p Tags

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi feugiat scelerisque bibendum. Fusce sit amet ligula vitae urna placerat vehicula id vel lectus. Proin lobortis faucibus elit, vitae cursus diam sodales ut. Sed quam nunc, sagittis id convallis a, congue ac felis. Suspendisse potenti.

Donec ornare velit ac nunc sagittis pretium. Sed ut eros eget enim pulvinar scelerisque. Mauris vulputate, arcu in vulputate tempus, lacus elit ultricies enim, ut varius velit orci ac nibh. Vivamus a ante quis nisi placerat lobortis facilisis et erat. Pellentesque non nisl sem, eget laoreet dui.

Pellentesque augue lectus, euismod eu tempus nec, volutpat eu mauris. Suspendisse velit justo, accumsan id dignissim eu, congue eu est. Quisque feugiat imperdiet nisl eget mattis. Proin id purus a urna elementum adipiscing eu ut ipsum. Aliquam tempor aliquet facilisis. Integer nulla justo, blandit id hendrerit in, iaculis eu nunc. Phasellus eget diam magna.

Without p Tags

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi feugiat scelerisque bibendum. Fusce sit amet ligula vitae urna placerat vehicula id vel lectus. Proin lobortis faucibus elit, vitae cursus diam sodales ut. Sed quam nunc, sagittis id convallis a, congue ac felis. Suspendisse potenti. Donec ornare velit ac nunc sagittis pretium. Sed ut eros eget enim pulvinar scelerisque. Mauris vulputate, arcu in vulputate tempus, lacus elit ultricies enim, ut varius velit orci ac nibh. Vivamus a ante quis nisi placerat lobortis facilisis et erat. Pellentesque non nisl sem, eget laoreet dui. Pellentesque augue lectus, euismod eu tempus nec, volutpat eu mauris. Suspendisse velit justo, accumsan id dignissim eu, congue eu est. Quisque feugiat imperdiet nisl eget mattis. Proin id purus a urna elementum adipiscing eu ut ipsum. Aliquam tempor aliquet facilisis. Integer nulla justo, blandit id hendrerit in, iaculis eu nunc. Phasellus eget diam magna.

<h1>-<h6>

Header 1- Header 6

<h1>.....</h1>

<h2>.....</h2>

<h3>.....</h3>

<h4>.....</h4>

<h5>.....</h5>

<h6>.....</h6>

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>Headings Example</title>
</head>
<body>
  <h1>Type Design</h1>

  <h2>Serif</h2>

  <p>Serif typefaces have small slabs at the ends of letter strokes. In general, serif fonts can make large amounts of text easy to read.</p>

  <h3>Baskerville</h3>

  <h4>Description</h4>
  <p>Description of the Baskerville typeface.</p>

  <h4>History</h4>
  <p>History of the Baskerville typeface.</p>

  <h3>Georgia</h3>
  <p>Description and history of the Georgia typeface.</p>
</body>
</html>
```

Type Design ————— h1

Serif ————— h2

Serif typefaces have small slabs at the ends of letter strokes. In general, serif fonts can make large amounts of text easy to read.

Baskerville ————— h3

Description ————— h4

Description of the Baskerville typeface.

History ————— h4

History of the Baskerville typeface.

Georgia ————— h3

Description and history of the Georgia typeface.

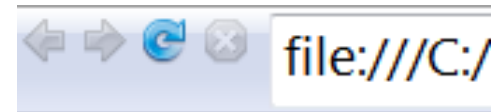
Headings are used to provide **logical hierarchy** or **outline** to a document.

Always start with the first level (h1) and work down in numerical order.

Use level headings consistently throughout your site. For example use h1 for all Article Titles.

Line Break

```
10 <p>  
11 This text contains<br>a line break.  
12 </p>  
..
```



This text contains
a line break.

Because we know that **the browser ignores line breaks** in the source document (unless using pre elements), we need a specific directive to **tell the browser** to **“add a line break here.”**

The
 tag inserts a single line break.

The
 tag is an empty tag which means that it has no end tag.

The br element is an empty element, so it does not have any content.

 or </br>

Line Break

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>Line Break Example</title>
</head>
<body>
  <p>
    Lorem ipsum dolor sit amet, consectetur adipiscing elit. <br /> Morbi feugiat scelerisque bibendum.
    Fusce sit amet ligula vitae urna placerat vehicula id vel lectus. <br /> <br /> Proin lobortis faucibus elit,
    vitae cursus diam sodales ut. Sed quam nunc, sagittis id convallis a, congue ac felis.
    Suspendisse potenti.
  </p>
</body>
</html>
```

Lorem ipsum dolor sit amet, consectetur adipiscing elit.
Morbi feugiat scelerisque bibendum. Fusce sit amet ligula vitae urna placerat vehicula id vel lectus.

Proin lobortis faucibus elit, vitae cursus diam sodales ut. Sed quam nunc, sagittis id convallis a, congue ac felis. Suspendisse potenti.

Insert **
** in your source code wherever you want to **send the text onto the next line.**

Add two **
** **
** in a row to **add a blank line.**

<!--...-->

Comment

<!--This is a comment. Comments are not displayed in the browser-->

Useful for **writing notes to yourself or others** who will be working with your code

And

To comment out certain parts of the code while you are **troubleshooting** 😊

<a>

Anchor

```
<a href="http://www.w3schools.com">Visit W3Schools.com!</a>
```

[Visit W3Schools.com!](http://www.w3schools.com)

The <a> tag defines a **hyperlink**, which is used to **link from one page to another**.

The most important attribute of the a element is the href (hypertext reference) attribute, which indicates the **link's destination**.

By default, links will appear as follows in all browsers:

- An unvisited link is underlined and blue

- A visited link is underlined and purple

- An active link is underlined and red

Images

```

```



The tag defines an **image** in an HTML page.

Notice that images are **not technically inserted** into an HTML page,
images are **linked** to HTML pages.

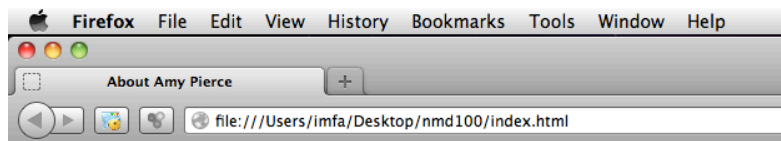
The tag creates a holding space for the referenced image.

The tag has two required attributes: **src (source)** and **alt (alternate)**.

Add An Image

```
  
</body>
```


Add An Image



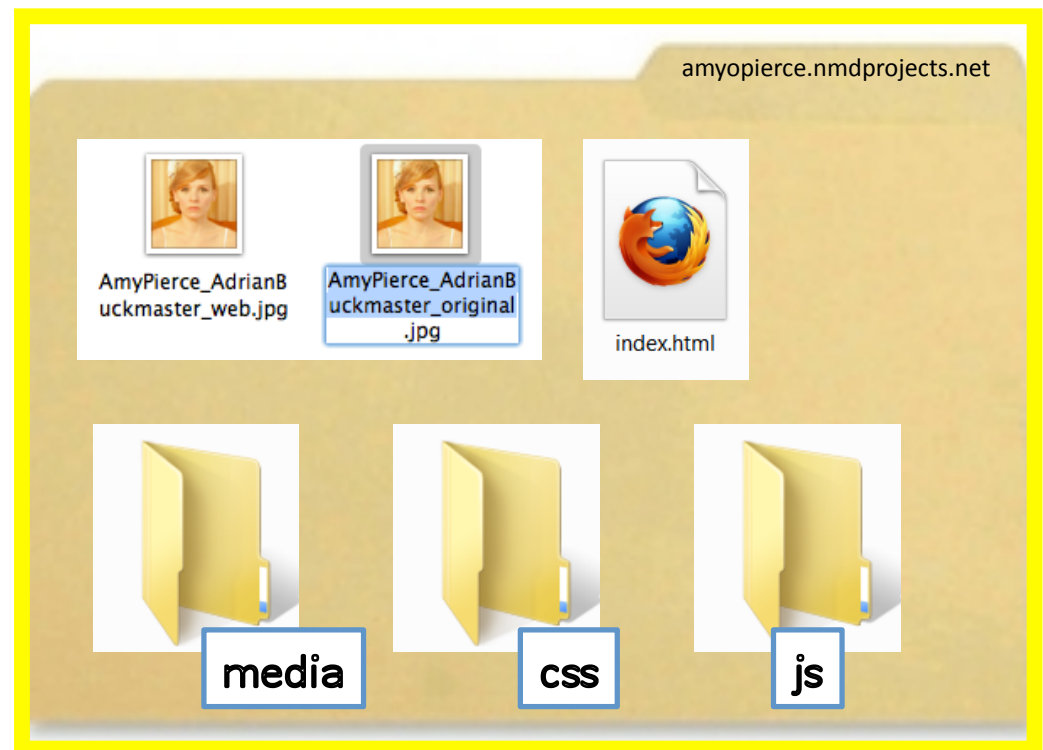
Everything you've always wanted to know about Amy Pierce

Bio

Amy Pierce was born in Yonkers, New York where she made movies with her sisters, the family video camera, and loads of fake blood. Later she moved to Connecticut where she got made fun of following she was off to New York City where she started her own business and worked as a commercial and editorial photographer for over 10 years, while simultaneously developing her artist. She has continued to shoot and publish work for clients that include: AT&T, BBDO, Anglo Irish Bank, Phillips de Pury & Co., Random House, Pantheon Books, Gianluca Isola, Tishman Speyer. She has had photographs exhibited in group shows throughout the New York area, including one at the Brooklyn Museum and the Museum of Sex in New York City. Her short film, Maypole, was engaging in new creative territory.

Creative Statement

As an interdisciplinary artist I investigate the complex cultural customs surrounding rites of passage and transformational moments. By reframing components of popular and often unquestioned rules society and self play in constructing identity and to rethink established conventions that are blindly transmitted and reinforced through ritual behavior. Through my in depth investigation of the wedding ritual, I raise questions about the expectations of perfection that are feverishly propagated by the wedding industry and eagerly consumed and that often ensues as brides straddle public and private life, struggling to find a balance between personal decisions and societal expectations.



The Link will Work BUT the image is not in the right folder
It is ok now- but once we start adding a lot of media it will become an organizational problem!
So we must move the file into the media folder

Attributes

```
<element attribute name = "value">Content</element>
```



```

```

Attributes **define desired behavior or indicate additional element properties.**
Most attributes require a *value*.

Add the alt attribute

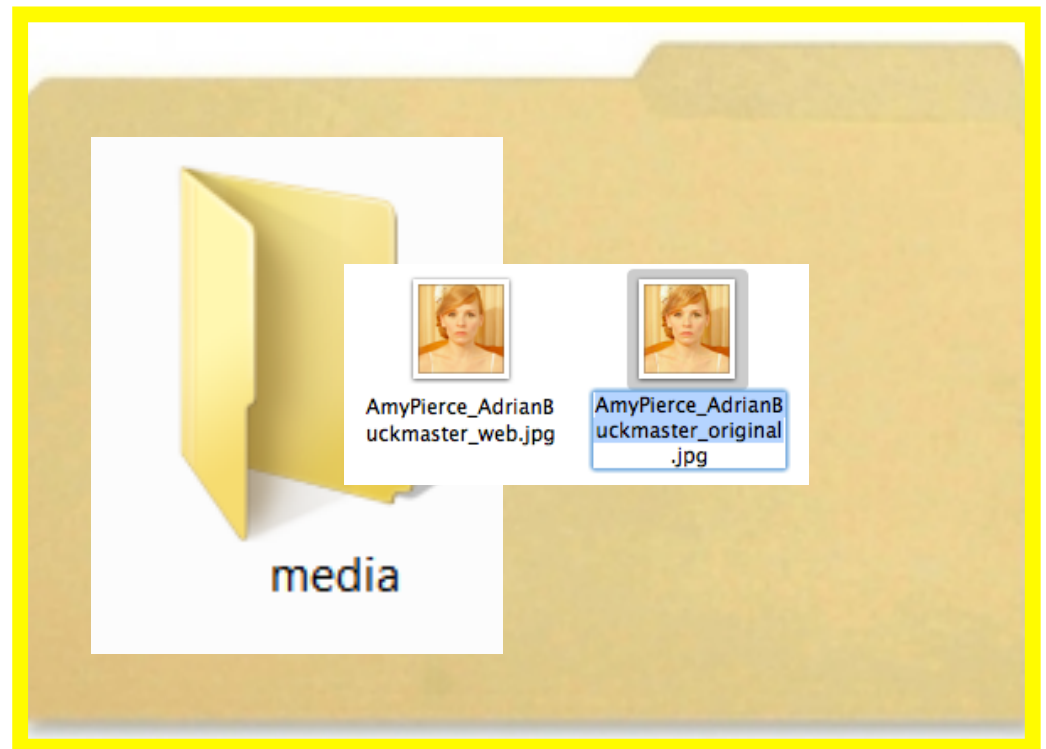
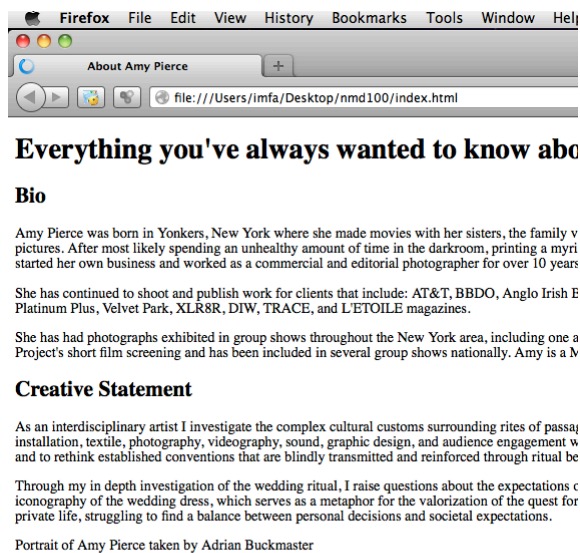
```

```


Add an Image to Your Page

Move the Image into the media folder
Inside your nmdprojects.net folder

Resave the html file and see the results



The Alt Text Shows Up Because the Path is No Longer Correct and the Browser can't find the image

Add an Image to Your Page

We need to update the path:

From:

```


## Add an Image to Your Page

```
index.html
1 <!DOCTYPE html>
2
3 <html>
4 <head>
5 <meta charset="utf-8">
6 <title>Amy Pierce: Bio and Creative Statement</title>
7 </head>
8 <body>
9 <h1>About Amy Pierce</h1>
10
11 <h2>Bio</h2>
12 <p>Amy Pierce was born in Yonkers, New York where she made movies with her sisters, the family video camera, and loads of fake blood. Later she moved to Connecticut where she got made fun of for having a weird accent and learned to take pictures. After most likely spending an unhealthy amount of time in the darkroom, printing a myriad of self-initiated projects, she received a BFA from the University of Connecticut. Directly following she was off to New York City where she started her own business and worked as a commercial and editorial photographer for over 10 years, while simultaneously developing her artistic vision.</p>
13
14 <p>class=bio> She has continued to shoot and publish work for clients that include: AT&T, BBDO, Anglo Irish Bank, Phillips de Pury & Co., Random House, Pantheon Books, Gianluca Isaia, Tishman Speyer, The Village Voice, NY Press, Japanese Playboy, Platinum Plus, Velvet Park, XL&R, DIV, TRACE, and L'ETOILE magazines.</p>
15
16 <p>class=bio> She has had photographs exhibited in group shows throughout the New York area, including one at the Brooklyn Museum and the Museum of Sex in New York City. Her short film, Maypole, was an official selection of Independent Film Project's short film screening and has been included in several group shows nationally. Amy is a MFA candidate in the Intermedia MFA program at the University of Maine and is excitedly engaging in new creative territory.</p>
17
18 <h2>Creative Statement</h2>
19
20 <p>As an interdisciplinary artist I investigate the complex cultural customs surrounding rites of passage and transformational moments. By reframing components of popular and often unquestioned rituals through the integration of performance, installation, textile, photography, videography, sound, graphic design, and audience engagement within the flexible parameters of structured created narratives, I urge the viewer to challenge the roles society and self play in constructing identity and to rethink established conventions that are blindly transmitted and reinforced through ritual behavior. </p>
21
22 <p>Through my in depth investigation of the wedding ritual, I raise questions about the expectations of perfection that are feverishly propagated by the wedding industry and eagerly consumed and self-imposed by American brides. I focus on the iconography of the wedding dress, which serves as a metaphor for the valorization of the quest for perfection in contemporary American wedding culture, and the resulting perfection hysteria that often ensues as brides straddle public and private life, struggling to find a balance between personal decisions and societal expectations. </p>
23
24
25 <p>Photo by Adrian Buckmaster
 www.adrianbuckmaster.com</p>
26 </body>
27 </html>
```



And Now it Works  
AND  
the Files Are Organized  
Correctly!

# <ul></ul> & <li></li>

## Unordered List & List Items

<ul>

<li>.....</li>

<li>.....</li>

<li>.....</li>

</ul>

### Unordered Lists:

Collections of items that appear in **no particular order**

<ul>

<li>items are nested  
inside unordered lists</li>

</ul>

By default, unordered lists **display with a bullet** before each list item, but you can change that with a style sheet.

To identify an unordered list, mark it up as a <ul> element.

The opening <ul> tag goes before the first list item, and the closing tag </ul> goes after the last item.

# <ol></ol> & <li></li>

## Ordered List & List Items

<ol>

<li>.....</li>

<li>.....</li>

<li>.....</li>

</ol>

### Ordered Lists:

Lists in which the **sequence of the items is important**.

<ol>

<li>items are nested  
inside ordered lists</li>

</ol>

By default, ordered lists **display with a number** before each list item (inserted by the browser), but you can change that with a style sheet.

To identify an ordered list, mark it up as an <ol> element.

The opening <ol> tag goes before the first list item,  
and the closing tag </ol> goes after the last item.

# <ul><ol>&<li>

## Unordered List, Ordered List & List Items

### Ordered and Unordered Lists Markup

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
 <title>Preformatted Example</title>
</head>
<body>
 <h1> Cup Pudding</h1>
 <p>
 This is an ideal dessert for two. This is made in no time and can be cooked and left in
 the microwave whilst eating the main course. Serve with custard sauce if so desired.
 </p>
 <h2>Ingredients</h2>

 80 ml cake flour
 2 ml baking powder
 30 ml sugar
 25 g butter
 30 ml milk
 1 egg
 30 ml golden syrup

 <h2>Directions</h2>

 Grease 2 large cups well.
 Sift together dry ingredients.
 Melt butter in microwave.
 Mix the milk and egg into the butter and add this to the dry ingredients.
 Mix til smooth.
 Spoon half syrup (or jam) into each cup, followed by 1/2 the batter.
 Cover loosely with plastic wrap and microwave for 2 minutes on high.
 Leave to stand for about 5 minutes before turning out onto serving plates.

</body>
</html>
```

#### Cup Pudding

This is an ideal dessert for two. This is made in no time and can be cooked and left in the microwave whilst eating the main course. Serve with custard sauce if so desired.

#### Ingredients

- 80 ml cake flour
- 2 ml baking powder
- 30 ml sugar
- 25 g butter
- 30 ml milk
- 1 egg
- 30 ml golden syrup or jam

#### Directions

1. Grease 2 large cups well.
2. Sift together dry ingredients.
3. Melt butter in microwave.
4. Mix the milk and egg into the butter and add this to the dry ingredients.
5. Mix til smooth.
6. Spoon half syrup (or jam) into each cup, followed by 1/2 the batter.
7. Cover loosely with plastic wrap and microwave for 2 minutes on high.
8. Leave to stand for about 5 minutes before turning out onto serving plates.

<ul></ul>  
Unordered List

<ol></ol>  
Ordered List

<li></li>  
List Item

<li></li>  
List Item

# <dl></dl>

## Definition List

<dl>

<dt>.....</dt>

<dd>.....</dd>

<dt>.....</dt>

<dd>.....</dd>

</dl>

### Definition Lists:

Lists that consist of **terms and definitions**

<dl>

<dt><dd>items are nested  
inside definition lists</dd></dt>  
</dl>

Definition (or dictionary) lists are used for  
**Lists of terms with their respective definitions.**

They are a bit different from the other two list types in format.

The whole list is marked up as a definition list (dl) element.

The content of a dl is some number of terms (indicated by the <dt> element)  
and definitions (indicated by the dd element).



# <dl></dl>

## Definition List

```
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
 <title>Preformatted Example</title>
</head>
<body>
 <dl>
 <dt>Linotype</dt>
 <dd>
 Line-casting allowed type to be selected, used, then recirculated into the
 machine automatically. This advance incread the speed of typesetting and
 printing dramatically.
 </dd>
 <dt>Photocompositi</dt>
 <dd>
 Typefaces are
 Lenses adjust
 </dd>
 <dt>Digital Types</dt>
 <dd>
 <p>Digital typ</p>
 The outline ma
 <p>Postscript</p>
 support on the
 </dd>
 </dl>
</body>
</html>
```

**Linotype**  
Line-casting allowed type to be selected, used, then recirculated into the machine automatically. This advance incread the speed of typesetting and printing dramatically.

**Photocomposition**  
Typefaces are stored on film then projected onto photo-sensitive paper. Lenses adjust the size of the type.

**Digital Types**  
Digital typefaces store the outline of the font shape in a format such as Postscript. The outline may be scaled to any size for output.  
  
Postscript emerged as a standard due to its support of graphics and its early support on the Macintosh computer and Appler laser printers.

<dl></dl>  
DefinitionList

<dt></dt>  
<dd></dd>

### Definition List Rules

The <dl> element is only allowed to contain <dt> and <dd> elements.

The <dt> tag defines the start of a term in a definition list.

The <dd> tag is used to describe an item in a definition list.

# <blockquote></blockquote>

## Long Quotations

If you have a **long quotation**, a testimonial, or a section of copy from another source, particularly one that spans **four lines or more**, you should mark it up as a blockquote element.



It is recommended that content within blockquotes be contained in other elements, such as paragraphs, headings, or lists.

Browsers usually renders the text from <blockquote> elements with paragraph breaks.

**Tip:** Use `<q>` for shorter quotes that does not require paragraph breaks.

**Note:** The blockquote element should only be used for quotes from another source.

# <pre></pre>

## Preformatted Text

Browsers by default ignore white space : line returns, character spaces (anything more than a single space), tabs etc.

I a  
cat who  
coated in a  
dense shadow  
which I cast  
along myself  
absorb the  
light you  
gaze at me  
with can yet  
look at a king  
and not be seen  
to be seeing any  
more than himself  
a motionless seer  
sovereign of gray  
mirrored invisibly  
in the seeing glass  
of air Whatever I am  
seeing is part of me  
As you see me now my  
vision is wrapped in  
two green hypotheses  
darkness blossoming  
in two unseen eyes  
which pretend to be  
intent on a spot of  
upon  
the  
rug  
Who  
can  
can  
see  
how  
eye  
can  
know

[www.stephenfrug.blogspot.com](http://www.stephenfrug.blogspot.com)

The screenshot illustrates the use of the `<pre>` tag in HTML. The top section displays the raw HTML source code, including the `<html>`, `<head>`, `<title>`, `<body>`, `<h2>`, `<p>`, `<pre>`, `</pre>`, `</body>`, and `</html>` tags. The bottom section shows the rendered output, where the text is displayed exactly as it was in the source code, including line breaks and indentation. A small 'bug' label points to a line in the source code.

**With preformatted Tags**

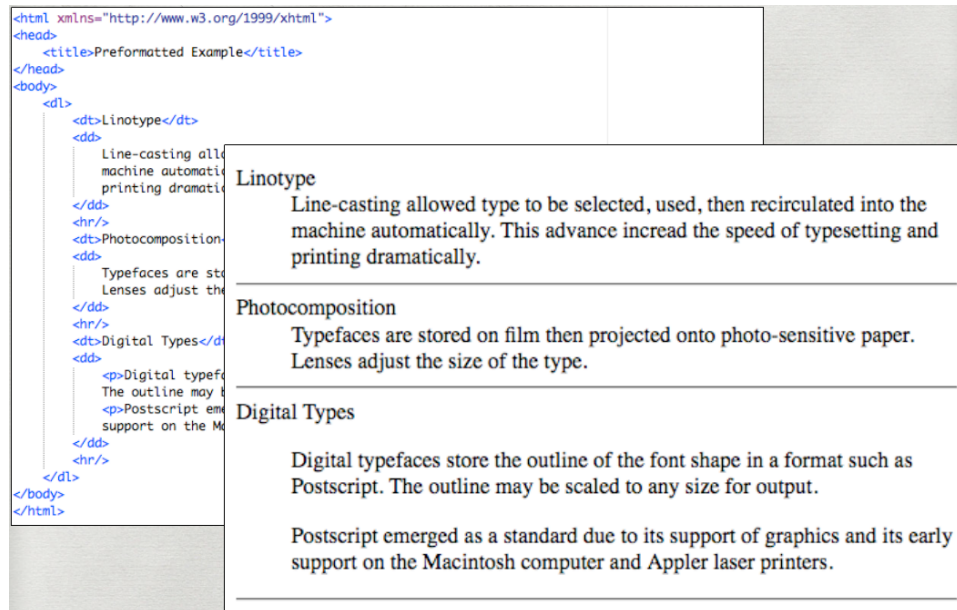
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Morbi feugiat scelerisque bibendum. Fusce sit amet ligula vitae urna placerat vehicula id vel lectus. Proin lobortis faucibus elit, vitae cursus diam sodales ut. Sed quam nunc, sagittis id convallis a, congue ac felis. Suspendisse potenti.

To preserve white space and display the text exactly as the original source code is formatted use the preformatted text `<pre></pre>` element.

**Tip:** Use the `<pre>` element when displaying text with unusual formatting, or some sort of computer code.

# <hr>

## Horizontal Rules (lines)



When browsers see an `<hr>` element, they **insert a shaded horizontal line** in its place by default.

Because horizontal rules are block-level elements, they always start on a new line and have some space above and below.

The `hr` element is an empty element – you just drop it in place where you want the rule to occur.

# Some Special Character

## &entity;

By a predefined abbreviated name for the character (named **entity**)

All character references begin with a “&” and end with an “;”

### Some Special Characters

Some common characters, such as the copyright symbol ©, are not part of the standard ASCII characters, which contains only letters, numbers, and a few basic symbols.

Other characters, such as the less-than symbol (<), are available, but if you put one in an XHTML document, the browser will interpret it as the beginning of a tag.

Characters such as these **must be escaped** in the source document. Escaping means that **instead of typing in the character itself, you represent it by its named character reference.**

When the browser sees the character reference, it substitutes the proper character in that spot when the page is displayed.

Character	Description	Name
	Character space (nonbreaking space)	&nbsp;
&	Ampersand	&amp;
'	Apostrophe	&apos; (XHTML only)
<	Less-than symbol (useful for displaying markup on a Web page)	&lt;
>	Greater-than symbol (useful for displaying markup on a Web page)	&gt;
©	Copyright	&copy;
®	Registered trademark	&reg;
™	Trademark	&trade;
£	Pound	&pound;
¥	Yen	&yen;
€	Euro	&euro;
—	En-dash	&ndash;
—	Em-dash	&mdash;
'	Left curly single quote	&lsquo;
'	Right curly single quote	&rsquo;
“	Left curly double quote	&ldquo;
”	Right curly double quote	&rdquo;
•	Bullet	&bull;
...	Horizontal ellipses	&hellip;

# <embed.../>

## Embed Tag

```
<embed src="helloworld.swf" />
```



The <embed> tag defines **embedded content**, such as a plug-in.

The embedded element represents an integration point for an **external (typically non-HTML) application or interactive content**.

# <video></video>

## Video Tag

```
<video width="320" height="240" controls="controls">
 <source src="movie.mp4" type="video/mp4" />
 <source src="movie.ogv" type="video/ogg" />
 Your browser does not support the video tag.
</video>
```



The <video> tag specifies **video**, such as a movie clip or other video streams.

# <audio></audio>

## Audio Tag

```
<audio controls="controls">
 <source src="horse.ogg" type="audio/ogg" />
 <source src="horse.mp3" type="audio/mp3" />
 Your browser does not support the audio element.
</audio>
```



The <audio> tag defines sound, such as music or other **audio** streams.



# <script></script>

## Adding JavaScript to your Web Page

An HTML document can also be extended through the use of scripts to provide additional behaviors beyond the abilities of HTML hyperlinks and forms.

```
<script type="text/javascript">
document.write("Hello World!")
</script>
```

Hello World!

The <script> tag is used to define a **client-side script, such as a JavaScript**.

The script element either contains scripting statements or it points to an external script file through the src attribute.

Common uses for JavaScript are image manipulation, form validation, and dynamic changes of content.

# <style></style>

## Adding CSS to your Web Page

```
<html>
<head>
<style type="text/css">
h1 {color:red}
p {color:blue}
</style>
</head>
```

```
<body>
<h1>Header 1</h1>
<p>A paragraph.</p>
</body>
</html>
```

Header 1

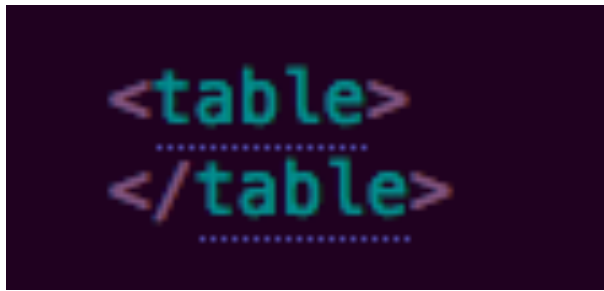
A paragraph.

The <style> tag is used to **define style information** for an HTML document.

Inside the style element you specify how HTML elements should render in a browser.

# <table></table>

## Adding tables to your Web Page



The `<table>` tag is used to **define tabular data** for an HTML document.  
**You should not use tables for presentational Formatting- Use CSS instead!**

The `<table>` tag defines an HTML table.  
An HTML table consists of the `<table>` element and one or more [`<tr>`](#), [`<th>`](#), and [`<td>`](#) elements.

# Table Attributes

Adding table attributes to your Web Page

```
<table border="1">
```

# <tr></tr>

## Adding table rows to your Web Page

```
<table border="1">
 <tr></tr>
 <tr></tr>
 <tr></tr>
 <tr></tr>
 <tr></tr>
 <tr></tr>
 <tr></tr>
 <tr></tr>
</table>
```

The <tr> tag defines a row in an HTML table.  
A <tr> element contains one or more [<th>](#) or [<td>](#) elements.

# <th></th>

## Adding table headings to your Web Page

```
<table border="1">
 <tr>
 <th></th>
 <th></th>
 <th></th>
 </tr>
```

```
<table border="1">
 <tr>
 <th>Assignment</th>
 <th>Description</th>
 <th>Submitted</th>
 </tr>
```

Assignment	Description	Submitted
------------	-------------	-----------

The <tr> tag defines a row in an HTML table.  
A <tr> element contains one or more [<th>](#) or [<td>](#) elements.

<td></td>

## Adding table cells to your Web Page

```
<tr>
 <td>Assignment 1</td>
 <td>Bio & Creative Statement</td>
 <td>Bio & Creative Satement</td>
</tr>
```

```
<h2 id="biop">Bio</h2>
```

```
<h2 id="creative">Creative Statement</h2>
```

Assignment	Description	Submitted
Assignment 1	Bio & Creative Statement	<a href="#">Bio</a> & <a href="#">Creative Satement</a>

# <td></td>

## Adding table cells to your Web Page

```
<table border="1">
 <tr>
 <th>Assignment</th>
 <th>Description</th>
 <th>Submitted</th>
 </tr>

 <tr>
 <td>Assignment 1</td>
 <td>Bio & Creative Statement</td>
 <td>Bio & Creative Satement</td>
 </tr>

 <tr>
 <td>Assignment 2</td>
 <td>Bio Photo</td>
 <td>Bio Photo</td>
 </tr>

 <tr>
 <td>Assignment 3</td>
 <td>Video Clips</td>
 <td>Not Yet Uploaded</td>
 </tr>
</table>
```

Assignment	Description	Submitted
Assignment 1	Bio & Creative Statement	<a href="#">Bio &amp; Creative Satement</a>
Assignment 2	Bio Photo	<a href="#">Bio Photo</a>
Assignment 3	Video Clips	Not Yet Uploaded



# Deprecated elements

## Changes from HTML4 to HTML5

### DEPRECATED DUE TO OBSOLESCENCE

acronym  
applet  
isindex  
dir

### DEPRECATED DUE TO ACCESSIBILITY

frame  
frameset  
noframes

### DEPRECATED PRESENTATIONAL TAGS

basefont  
big  
center  
font  
s  
strike  
tt  
u

Use CSS instead!

Poor HTML is OK now, but it's bad form...so shouldn't use going forward.

But it is backwards compatible, so the billions of websites already exist will still work!

# Content Mark Up

It's Usually all in the Name!

Semantic HTML is easy if you use commonsense:

- If you want a line to be a heading enclose it a heading tags `<h1>...</h1>`
- If you are writing a paragraph use the `<p>...</p>` tags
- If you are quoting someone use the `<blockquote>...</blockquote>` tags

Never use HTML tags for the way they make the content look in the browser – remember all presentation can be changed and manipulated using CSS, so use the tags that make logical, commonsense – you can adjust the presentation later.

Some HTML tags were designed for presentation like `<b></b>` for bold and `<i></i>` for italics but with the move to semantic HTML they are generally not used, and `<strong></strong>` and `<em></em>` are preferred respectively because they tell the browser to emphasize or strongly emphasize the content (not just bold or italicise it)- it is usefull for screen readers.

CSS is ALWAYS the best option for presentation!

# w3schools.com

The best free resource out there

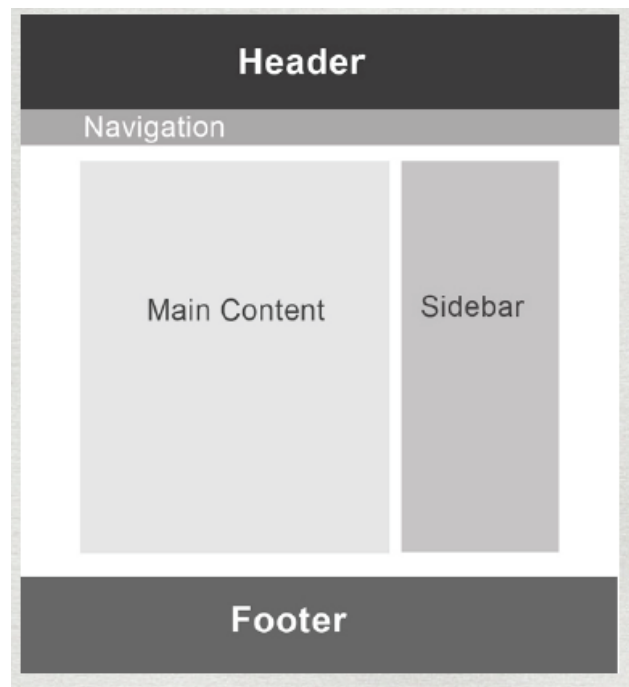


## PLAY TAG!

[http://www.w3schools.com/html5/html5\\_reference.asp](http://www.w3schools.com/html5/html5_reference.asp)

# HTML4 v. HTML5

## Page Structure



Think about Web Page as an Outline

Break down Info in Terms of Importance and Site Goals

Main Points are Divided Sections (divs)

CONTENT dictates which elements to use!

MUST think ahead!

# Organizing your Web Page

## Using divs: Default Container Tags

```
<html>
<body>

<div id="container" style="width:500px">

<div id="header" style="background-color:#FFA500;">
<h1 style="margin-bottom:0;">Main Title of Web Page</h1></div>

<div id="menu" style="background-color:#FFD700;height:200px;width:100px;
float:left;">
Menu

HTML

CSS

JavaScript</div>

<div id="content" style="background-color:#EEEEEE;height:200px;
width:400px;float:left;">
Content goes here</div>

<div id="footer" style="background-color:#FFA500;clear:both;
text-align:center;">
Copyright © 2011 W3Schools.com</div>

</div>

</body>
</html>
```



Each `<div>` tag defines a **division** or a **section** in an HTML document.

Each `<div>` can be identified using class and id attributes.

No additional meaning to structure itself. - **They just act as containers.**

# HTML Document Structure

## Organization Within the Body

In HTML 4, content within the body tags is **semantically (structurally) divided into regions** using the `<div></div>` and `<span></span>` container tags.

In HTML 5, content within the body tags is **semantically (structurally) divided into regions** using `<div></div>` and `<span></span>` container tags

And these New Additional Container Element Tags :

`<header></header>`

`<nav></nav>`

`<section></section>`

`<aside></aside>`

`<article></article>`

`<footer></footer>`

These container Elements provide **'anchors'** for the CSS styling to hook into.

# <div></div>

## Container Tags: Divide Tags

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="UTF-8"/>
5 <title>My Awesome Research Paper</title>
6 </head>
7 <body>
8 <div>
9 <h1>I can't wait to start writing my research paper.

10 It's gonna be awesome!</h1>
11 <p>I have so many ideas- I don't know where to start!</p>
12 </div>
13 </body>
14 </html>
```

The <div> tag defines a division or a section in an HTML document.  
The <div> tag is often used to group **block-elements** to format them with styles.

In this example, a div element is used as a **container** to group a heading and a paragraph.  
By putting those elements in a div, we've made it clear that they are **conceptually related**.

# <span></span>

## Container Tags: Span Tags

A **span** tag offers all the same benefits as the div element, except it is used for **inline** elements.

```
<p>My mother has light blue eyes.</p>
```

My mother has light blue eyes.

The <span> tag provides no visual change by itself.

The <span> tag provides a way to add a hook to a part of a text or a part of a document.

When the text is hooked in a span element you can add styles to the content, or manipulate the content with for example JavaScript.

**\*The style is only applied to the text contained within the span tags.**

Because spans are inline elements, they can only contain text and other inline elements (in other words, you cannot put block-level elements in a span).



# New Structural Container Tags

```
<header></header>
```

```
<nav></nav>
```

```
<section></section>
```

```
<article></article>
```

```
<aside></aside>
```

```
<footer></footer>
```

# Div Tags

## Divide Tags: Default Container Tags

With the Addition of New Container Tags Div Tags are Downgraded in HTML5

### DIV ELEMENT IN THE HTML5 SPECIFICATION

`<div></div>`

"The div element has no special meaning at all. It represents its children. It can be used with the **class**, **lang**, and **title** attributes to mark up semantics common to a group of consecutive elements... Authors are strongly encouraged to view the div element as an element of last resort, for when no other element is suitable. Use of the div element instead of more appropriate elements leads to poor accessibility for readers and poor maintainability for authors."

### DIV TAG USE CONSIDERATIONS

- Only use **section** and **article** tags when sectioning content is appropriate
- Only use the **aside** tag for related content
- **Headers** and **footers** are for grouping heading or footer content
- **Nav** tags should not be used for every navigation grouping
- **Divs** can be used to group related content

The most common div id's were made into their own container tags  
but there are still lots of times when should you use divs:

Unrelated content (the aside is only for related content )

Headers and footers can not contain nested headers or footers- use div tags instead

Nav container tag is only for the main navigation- Use divs for other nav menus (ex. links inside footers)

Use divs to group related content

Even though downgraded in HTML5 - In Reality- Still REALLY important!!

And are still the most widely used form of organization on websites Today!

# Block & Inline

## HTML4

In visual browsers, displayable elements can be rendered as **either** *BLOCK* or *INLINE*.

### BLOCK:

div, form, h1-h6, li, ol, ul, p, pre, table

Block elements **appear as rectangular objects** which **do not break across lines**; with **block margins**, **width and height properties which can be set** independently of the surrounding elements.

### INLINE:

a, em, img, input, label, span, strong

#### Block-level elements

address  
blockquote  
h1 ... h6  
p  
hr

#### List elements (block-level)

dd  
dl  
dt  
li  
ol  
ul

#### Semantic inline elements

abbr  
acronym  
cite  
code  
dle  
dfn  
em  
ins  
kbd  
q  
samp  
strong  
var

#### Presentational inline elements

b  
big  
br  
center  
font  
i  
s  
small  
strike  
sub  
sup  
tt  
u

#### Generic elements

div  
span

Conversely, inline elements are treated as **part of the flow of document text**; they **cannot have margins, width or height set**, and **do break across lines**.

It is very black and white- **either block or inline** – can not both!

# Id & class

Use These When More Clarification Is Necessary

## HTML 4

```
<div id="header">
<h1>Welcome to our site</h1>
</div>
<div id="mainContent">
<h2>The main content</h2>
<p>intro paragraph</p>
<p>The body copy</p>
</div>
<div id="footer">
<p>footer content</p>
</div>
```

## HTML5

```
<header>
<h1>Welcome to our site</h1>
</header>
<section>
<h2>The main content</h2>
<p>intro paragraph</p>
</header>
<p>The body copy</p>
</section>
<p>
<p>footer content</p>
<footer>
```

# id

## Presentation & Behavior: Element Identifier

\*We all have our own separate ID's (ex. Maine Card)

The id identifier is used to identify a **unique** element in the document.  
In other words, the value of id must be used **only once** in the document.



[www.universityparent.com](http://www.universityparent.com)

```
<div id="ISBN0321127307">

 <p><cite>The Complete Manual of Typography</cite>, James Felici</p>
 <p>A combination of type history and examples of good and bad type. </p>
</div>
<div id="ISBN0881792063">

 <p><cite>The Elements of Typographic Styles</cite>, Robert Bringhurst</p>
 <p>This lovely, well-written book is concerned foremost with creating
 beautiful typography.</p>
</div>
```

# class

## Presentation & Behavior - Class Identity

**\*We are all in NMD 100 Class Together**

The class attribute is used for grouping similar elements; therefore, unlike the id attribute, **multiple elements** may **share** a class name.



[www.relevantclassroom.com](http://www.relevantclassroom.com)

By making elements part of the same class, you can **apply styles to all** of the labeled elements at once with a **single style rule**.

```
<div id="ISBN0321127307" class="listing">

 <p><cite>The Complete Manual of Typography</cite>, James Felici</p>
 <p class="description">A combination of type history and examples of good and
bad type. </p>
</div>
<div id="ISBN0881792063" class="listing">

 <p><cite>The Elements of Typographic Styles</cite>, Robert Bringhurst</p>
 <p class="description">This lovely, well-written book is concerned foremost with
creating beautiful typography.</p>
</div>
```

# class & id

## Elements Can Have Multiple Identifiers

The **same element** may have both a class and an id identifier.  
It is also possible for **an element** to have multiple classes.

```
<div id="ISBN0321127307" class="listing book">

 <p><cite>The Complete Manual of Typography</cite>, James Felici</p>
 <p class="description">A combination of type history and examples of good and
bad type. </p>
</div>
<div id="ISBN0881792063" class="listing book nonfiction">

 <p><cite>The Elements of Typographic Styles</cite>, Robert Bringhurst</p>
 <p class="description">This lovely, well-written book is concerned foremost with
creating beautiful typography.</p>
</div>
```

# Sources

## Used For this Presentation

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Lynda.com- HTML5 First look with James Williamson

Florida State University's Applied Web Design with Ken Baldauf

*Learning Web Design* by Jennifer Niederst Robbins

*Stylin' with CSS- A Designer's Guide* 2nd edition by Charles Wyke-Smith

[www.wikipedia.com](http://www.wikipedia.com)