

Introduction to CSS Training

CSS Fonts

Lesson 1, Activity 2: Font - the old way

Before looking at how we define font properties with CSS, we'll take a look at how it's done with plain-old HTML. In HTML, we define the font name (i.e, face in HTML, family in CSS) and the font size with the `` tag, like so:

Syntax

```
<font face="list of font names" size="size">
```

However, the `` tag has been deprecated, meaning that it is no longer part of the HTML specification, and although browsers still support it, we strongly recommend that you never use it. Instead you should use CSS as we'll see in this lesson.

Bold and Italic

In HTML, you can make text bold and italic with the `` and `<i>` tags. Although these tags aren't deprecated, they should be used sparingly. Most often CSS should be used for bolding and italicizing text.

For more information on the `` and `<i>` tags, see [Using `` and `<i>` elements](#).

Lesson 1, Activity 3: **Font-family**

The `font-family` property is used in CSS to specify the font name to apply to an element. You can specify by font name or font category.

Specifying by Font Name

When you specify a font by font name, the browser will look for the named font on the end user's computer. If it finds it, the font will be displayed accordingly. For example, the following rule would make the font of all `<p>` tags Arial.

```
p { font-family: Arial }
```

If the Arial font were not found on the end user's computer, the browser would display a default font. If you are concerned that the font name you want to use might not be found on a user's computer, you can provide a list of options.

```
p { font-family: Arial, Helvetica }
```

In this case, the browser will first look for Arial. If it doesn't find Arial, it will then look for Helvetica.

Specifying Font by Category

When you specify a font by category, the browser will use the font the user's computer specifies for that category. For example, for monospace, the computer might specify Courier. The font family categories are listed below.

- cursive
- fantasy
- monospace
- sans-serif
- serif

To be extra safe, designers often specify a couple specific options followed by a font family category, like so:

```
p { font-family: Arial, Helvetica, sans-serif}
```

This way, if neither Arial nor Helvetica is found, the browser at least knows to use some sans-serif font.

The following code sample illustrates how `font-family` works.

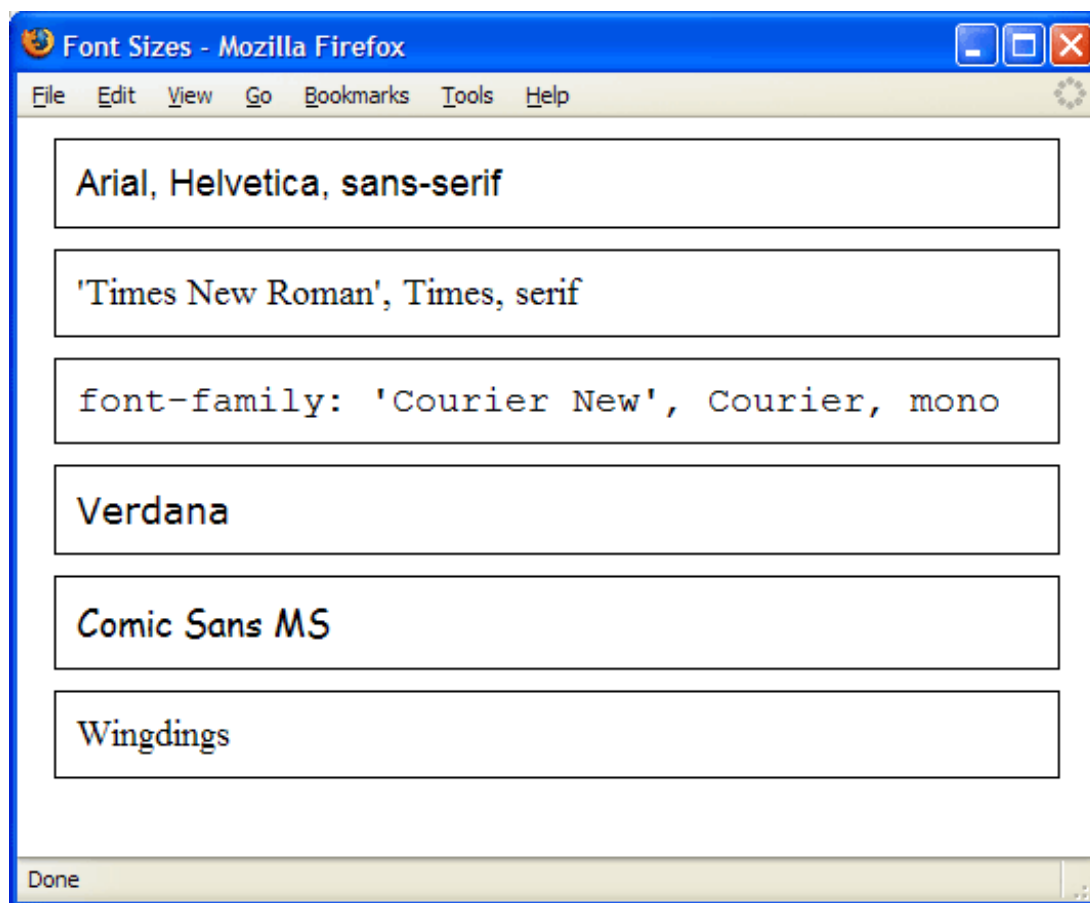
Code Sample:

Fonts/Demos/FontFamily.html

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>Font Sizes</title>
<style type="text/css">
  body { font-size: large }
  div { margin:10px; padding: 10px; border: 1px solid black; }
</style>
</head>
<body>
<div style="font-family: Arial, Helvetica, sans-serif">
  Arial, Helvetica, sans-serif
</div>
<div style="font-family: 'Times New Roman', Times, serif">
  'Times New Roman', Times, serif
</div>
<div style="font-family: 'Courier New', Courier, monospace">
  font-family: 'Courier New', Courier, monospace
</div>
<div style="font-family: Verdana">
```

```
Verdana
</div>
<div style="font-family: Comic Sans MS">
  Comic Sans MS
</div>
<div style="font-family: Wingdings">
  Wingdings
</div>
</body>
</html>
```

The above code will render as follows:



A survey of the most common fonts found on operating systems can be found at <http://www.codestyle.org/css/font-family>.

Lesson 1, Activity 4: **Font-size**

One of the nicest benefits of CSS is the precise control it gives designers over the font size. While HTML limits you to seven different relative font size, CSS gives you the ability to specify exactly how big or small you want text to appear. You literally have infinite control.

Font-size Units

All the units of measurement can be used. The following screenshot illustrates the relative size of different units.

Font-size Defined in Units

px	19px	Hello World!
pt	14pt	Hello World!
in	.2in	Hello World!
cm	.51cm	Hello World!
mm	5.1mm	Hello World!
pc	1.2pc	Hello World!
em	1.2em	Hello World!
ex	2.4ex	Hello World!
%	120%	Hello World!

Relative Font-size Terms

In addition, font size can be defined using the following relative terms.

- xx-large
- x-large
- large

- medium
- small
- x-small
- xx-small
- smaller
- larger

The terms `xx-small` to `xx-large` work similarly to font sizes 1 through 7 in HTML, though they don't match up exactly. The terms `smaller` and `larger` change the font size of an element relative to its parent element's font size. The following code illustrates this.

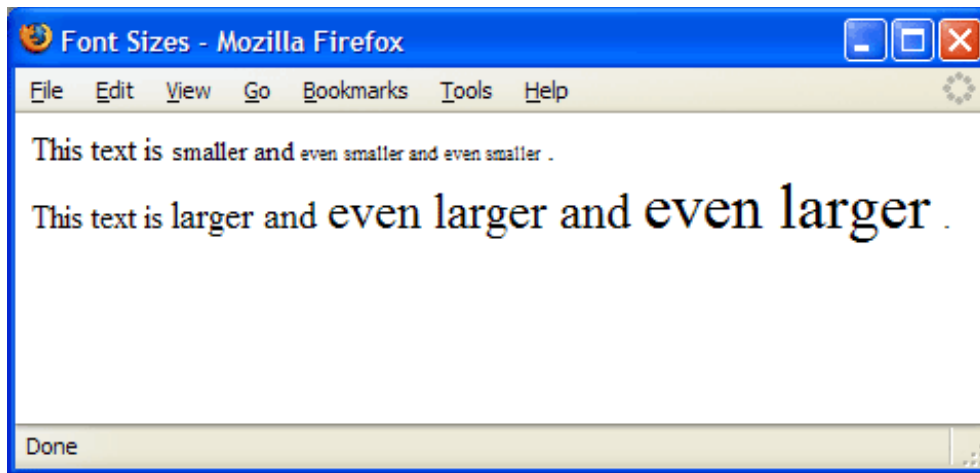
Code Sample:

Fonts/Demos/FontSize.html

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>Font Sizes</title>
</head>
<body>
<div id="smaller">
  This text is <span style="font-size:smaller">smaller and
  <span style="font-size:smaller">even smaller and
  <span style="font-size:smaller">even smaller</span>
  </span></span>.
</div>

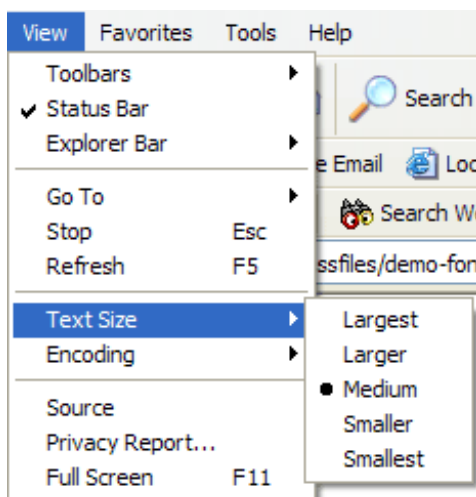
<div id="larger">
  This text is <span style="font-size:larger">larger and
  <span style="font-size:larger">even larger and
  <span style="font-size:larger">even larger</span>
  </span></span>.
</div>
</body>
</html>
```

The above code will output the following:



Best Practices

Most experts agree that font size should be defined in relative units (e.g, em or %) or in terms (e.g, large, small, etc.). This is because absolute font sizes can make pages inaccessible to people who have difficulty seeing. In most browsers, a user can change the size that the text appears. In Internet Explorer 8 or earlier, this is done using the View menu as shown in the screenshot below.



However, changing this setting will have no effect on font sizes defined in absolute units. To illustrate this, open [Fonts/Demos/FontSizeCompared.html](http://www.foundry.com/Fonts/Demos/FontSizeCompared.html) in Internet Explorer 8 or earlier

and change the *Text Size* setting by selecting *Text Size* under the *View* menu. You will notice that, in the table with the caption "Font-size Defined in Units," only the fonts using em, ex, and percentage (%) change size.

Font-size Defined in Units

px	19px	Hello World!
pt	14pt	Hello World!
in	.2in	Hello World!
cm	.51cm	Hello World!
mm	5.1mm	Hello World!
pc	1.2pc	Hello World!
em	1.2em	Hello World!
ex	2.4ex	Hello World!
%	120%	Hello World!

All the fonts using relative font size terms change size.

Unfortunately, there is a downside to using relatively defined font sizes and that is that you have less control over design. This can cause text to wrap when you don't want it to or table cells to expand beyond what you had intended.

Lesson 1, Activity 6: **Font Family and Font Size**

Duration: 15 to 25 minutes.

In this exercise, you will modify an HTML page by applying font sizes to different elements on the page.

1. Open [Fonts/Exercises/Stories.html](#) for editing. The file contains several children's stories.
2. Modify the font family and size of the different elements on the page. You may do this using inline styles, an embedded style sheet and/or an external style sheet. You are also welcome to add tags to the page. The object of this exercise is to get used to working with font family and font size with CSS.
3. When you are done, open [Stories.html](#) in your browser to see the results. You are welcome to go back to the code and continue to work.

Solution:

[Fonts/Solutions/Stories-FontFamilyAndSize.html](#)

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>Stories</title>
<style type="text/css">
  h1
  {
    font-family: Arial, Helvetica, sans-serif;
    font-size: x-large;
  }

  h2
  {
    font-family: Arial, Helvetica, sans-serif;
    font-size: large;
  }

  p
  {
```

```

font-family: "Comic Sans MS", Times, serif;
font-size: small;
}

.topLink
{
font-family: "Comic Sans MS";
font-size: medium;
}
</style>
</head>
<body>

<h1 id="top">Stories</h1>
<a href="#pooh" class="topLink">Pooh Goes Visiting</a><br>
<a href="#alice" class="topLink">A Mad Tea-Party</a><br>
<a href="#naughtyboy" class="topLink">The Naughty Boy</a><br>

<hr>

<h2 id="pooh">POOH GOES VISITING - A.A. Milne</h2>

<p>Pooh always liked a little something
---- C O D E   O M I T T E D ----
and said to himself 'Silly Old Bear! '</p>
<a href="#top">Back to top</a>

<hr>

<h2 id="alice">A MAD TEA-PARTY - Lewis Carroll</h2>

<p>There was a table set out under a tree
---- C O D E   O M I T T E D ----
that's the same thing, you know.'</p>
<a href="#top">Back to top</a>

<hr>

<h2 id="naughtyboy">THE NAUGHTY BOY - Hans Christian Andersen</h2>

<p>Along time ago, there lived an old poet,
---- C O D E   O M I T T E D ----
and you know, too, how ill-behaved he is!</p>
<a href="#top">Back to top</a>
</body>
</html>

```

Lesson 1, Activity 7: **Font-style**

Currently, the only use for `font-style` is to make text italic. The values are listed below.

- `normal`
- `italic`
- `oblique`

However, `italic` and `oblique` are displayed in the same way. Since `italic` has better support, you should use it.

Lesson 1, Activity 8: **Font-variant**

Currently, the only use for `font-variant` is to turn lowercase letters into small caps. The values are listed below.

- `normal`
- `small-caps`

Lesson 1, Activity 9: **Font-style**

Currently, the only use for `font-style` is to make text italic. The values are listed below.

- `normal`
- `italic`
- `oblique`

However, `italic` and `oblique` are displayed in the same way. Since `italic` has better support, you should use it.

Font-variant

Currently, the only use for `font-variant` is to turn lowercase letters into small caps. The values are listed below.

- `normal`
- `small-caps`

Font-weight

The weight of a font determines how thick (or bold) it is. Possible values are:

- `100`
- `200`
- `300`
- `400`
- `500`
- `600`
- `700`
- `800`

- 900
- bold
- bolder
- lighter
- normal

The numeric values are used for fonts that can have many different degrees of boldness. Most fonts, however, are either `bold` or `normal` (not bold).

Lesson 1, Activity 11: Font Style, Font Variant and Font Weight

Duration: 10 to 20 minutes.

In this exercise, you will modify [Fonts/Exercises/Stories.html](#) by applying font styles, font variants and font weights to different elements on the page.

1. Open [Fonts/Exercises/Stories.html](#) for editing.
2. Modify the font style, variant and weight of the different elements on the page. You may do this using inline styles, an embedded style sheet and/or an external style sheet. You are also welcome to add tags to the page. The object of this exercise is to get used to working with these CSS font properties.
3. When you are done, open [Stories.html](#) in your browser to see the results. You are welcome to go back to the code and continue to work.

Solution:

[Fonts/Solutions/Stories-FontStyleVariantAndWeight.html](#)

```
<!DOCTYPE HTML>
<html>
<head>
<meta charset="UTF-8">
<title>Stories</title>
<style type="text/css">
  h1
  {
    font-family: Arial, Helvetica, sans-serif;
    font-size: x-large;
  }

  h2
  {
    font-family: Arial, Helvetica, sans-serif;
    font-size: large;
    font-style: italic;
    font-weight: normal;
  }
}
```



```

p
{
  font-family: "Comic Sans MS", Times, serif;
  font-size: small;
}

a
{
  font-style: italic;
  font-weight: bold;
}

.topLink
{
  font-family: "Comic Sans MS";
  font-size: medium;
  font-variant: small-caps;
  font-style: normal;
  font-weight: normal;
}
</style>
</head>
<body>
<a name="top"></a>
<h1>Stories</h1>
<a href="#pooh" class="topLink">Pooh Goes Visiting</a><br>
<a href="#alice" class="topLink">A Mad Tea-Party</a><br>
<a href="#naughtyboy" class="topLink">The Naughty Boy</a><br>

<hr>

<a name="pooh"></a><h2>POOH GOES VISITING - A.A. Milne</h2>

<p>Pooh always liked a little something
---- C O D E   O M I T T E D ----
and said to himself 'Silly Old Bear!</p>
<a href="#top">Back to top</a>

<hr>

<a name="alice"></a><h2>A MAD TEA-PARTY - Lewis Carroll</h2>

<p>There was a table set out under a tree
---- C O D E   O M I T T E D ----
that's the same thing, you know.</p>
<a href="#top">Back to top</a>

<hr>

<a name="naughtyboy"></a><h2>THE NAUGHTY BOY - Hans Christian Andersen</h2>

```

```
<p>Along time ago, there lived an old poet,  
---- C O D E   O M I T T E D ----  
and you know, too, how ill-behaved he is!</p>  
<a href="#top">Back to top</a>  
</body>  
</html>
```