LESSON 4 – Setting Colors and Backgrounds

The color is not part of the font collection in CSS - rather it has its own definition. If you want to add a color to the text you can do it this way:

p{ font:arial, helvetca 12px bold; color:red; }

You can also define an area to have a specific cor without that area being part of a table in CSS by referring to a certain class in your <td> tags.

I. Color Properties

Property	Values
color	<color>
background-color	transparent <color>
background-image	none url(<url>)
background-repeat	repeat repeat-x repeat-y no-repeat
background-attachment	scroll fixed
background-position	<percentage> <length> top center bottom left right
background	<background-color> <background-image> <background-repeat> <background-attachment> <background-position>

Setting colors

There are 3 colors options for CSS. These include:

1. Setting the foreground color for contents
2. Setting the background color for an area
3. Setting a background image to fill out an area

With CSS you have the following options to apply color:

a. Common name
   You can define colors with the use of common names, by simply enter the name of the desired color.

For example

.myclass { color: white; background-color: blue; }

b. Hexedecimal value

You can define colors with the use of hexadecimal values, similar to how it's done in plain HTML.
For example

.myclass { color: #000000; background-color: #ff0000; }

c. RGB Value

You can define colors with the use of RGB values, by simply entering the values for amounts of Red, Green and Blue.
For example

.myclass { color: rgb(255,245,208); background-color: rgb(51,51,102); }

You can also define RGB colors using percentage values for the amounts of Red, Green and Blue.
For example

.myclass { color: rgb(100%, 100%, 81%); background-color: (81%, 81%, 100%); }

II. Background

A. Background Color

Background colors are defined similar to the colors mentioned above. For example you can set the background color of the entire page using the BODY selector

body {background-color: #FF6666; }

B. Background Image

You can define the background image for the page like this:

body{ background-image: url(myimage.gif); }

1. Controlling repetition of background image

You can control the repetition of the image with the background-repeat property.

- background-repeat: repeat
  Tiles the image until the entire page is filled, just like an ordinary background image in plain HTML.
- background-repeat: repeat-x
  Repeats the image horizontally – but not vertically.
- background-repeat: repeat-y
  Repeats the image vertically – but not horizontally.
- background-repeat: no-repeat
  Does not tile the image at all.

2. **Positioning a background**

Background positioning is done by entering a value for the left position and top position separated by a space.
In this example the image is positioned 75 pixels from the upper left corner of the page.

body {background-image: url(myimage.gif); background-position: 75px 75px; }

3. Fixing a background

You can fixate an image at a certain position so that it doesn't move when scrolling occurs.

body { background-image:url(myimage.gif); background-attachment: fixed; }

4. Setting Multiple Background Values

Rather than defining each background property with its own property you can assign them all with the use of the background property.

body { background:green url(myimage.gif) repeat-y fixed 75px 75px; };

Exercise CSS2a

I. Objectives. At the end of the exercise, the students are expected to:
   1. Apply the CSS concepts they have learned.
   2. Edit a previous activity and apply appropriate CSS selectors for images and backgrounds.

II. Concepts to be applies
   1. Internal CSS
   2. Setting colors and backgrounds in CSS.
   3. Choosing appropriate background image to use.

III. Instructions
   1. Download an image from the internet. Choose an image that should maintain the readability of the text.
   2. Modify Exercise1CSS.html by setting the downloaded image as its background. Use an INTERNAL style sheet to accomplish this.
   3. Save the file as ExerciseCSS2a.html

IV. Checklist for the instructor

Activity	Yes (2 points)	No (0 point)
A. Background Image		
1. Is there a background image?		
2. Is the text readable?		
3. Did the student use INTERNAL CSS to set the background of the webpage?		
B. File		
1. Is the file saved as ExerciseCSS2a.html?		
2. Is the file located in the CSS folder?		

Exercise CSS2b

I. Objectives. At the end of the exercise, the students are expected to:
   1. Apply basic CSS formatting that they have learned from the previous activities.
   2. Use INTERNAL and EXTERNAL style sheet.
   3. Apply the concepts they have learned regarding CSS classes and IDs
   4. Research in the Internet to learn about the equivalent CSS selectors and properties of HTML table tags and attributes
   5. Recreate their schedule in Exercise3 using CSS.

II. Concepts to be applies
   1. Internal and external style sheet

2. CSS table selectors and properties
3. CSS classes and IDs

III. Instructions

1. Research on the Internet on table selectors and its associated properties.
2. Modify your table schedule in Exercise3.html
3. Replace the HTML tags and attributes that defined the schedule table with CSS selectors and properties using INTERNAL stylesheet.
4. Replace the HTML tags and attributes that defined the colors of the subjects in the schedule with CSS selectors and properties using CSS classes and/or IDs. Use EXTERNAL style sheet.
5. Save this file as ExerciseCSS2b.html

IV. Checklist for the instructor

Activity	Yes (2 points)	No (0 point)
A. Table Structure		
1. Did the student use internal CSS for the table structure?		
B. Subjects		
1. Did the student use external CSS for the subjects in the schedule		
2. Did the student use classes or IDs to format the subjects?		
C. File		
1. Is the file saved as ExerciseCSS2b.html?		
2. Is the file located in the CSS folder?		

LESSON 5 – Context Dependent Selectors

It is possible to make selectors that will only work in certain contexts. For example, you can define a style for the tag that is only triggered if the text is not only bold but also written in italics.
Example

Example

but not here

example

The syntax

Simply adding a normal style to the tag is done like this:

b {font-size: 16px}

Adding a context dependent style, like the one described above is done like this:

i b { font-size: 16px; }

We simply separated the contextual tag from the tag with a space.

Using grouped and context dependent selectors

It is possible to use context dependent and grouped selectors at the same time.
Example

i b, .headlines, b .sublines {font-size: 16px; }

In the example the font-size of 16 pixels is in effect on:

1. All tags enclosed by tags
2. All headlines classes
3. sublines classes enclosed by tags

LESSON 6 – CSS Links

I. Link Properties

Property	Values
a: link	<style>
a: visited	<style>
a: active	<style>
a: hover	<style>

Where:

- a:link
  Defines the style for normal unvisited links.
- a:visited
  Defines the style for visited links.
- a:active
  Defines the style for active links.
  A link becomes active once you click on it.
- a:hover
  Defines the style for hovered links.
  A link is hovered when the mouse moves over it.

Example Applications:

1. **Hover Links.** The resulting link from the example below would be blue in color and will have an underline when you put your mouse over it.

```
<style type = “text/css”>
a:link {text-decoration: none}
a:visited {text-decoration: none}
a:active {text-decoration: none}
a:hover {text-decoration: none; color: blue; }
</style>
```

2. **Underline/Overline Links.** Observe the following code.

```
<style type = “text/css”>
a:link {text-decoration: none}
a:visited {text-decoration: none}
a:active {text-decoration: none}
a:hover {text-decoration: underline overline; color: red; }
</style>
```

3. **Size changing links.** This CSS code below creates a link whose size will become bigger when the mouse is moved over it.

```
<style type = “text/css”>
a:link {text-decoration: none}
a:visited {text-decoration: none}
a:active {text-decoration: none}
a:hover {font-size: 24pt; font-weight: bold; color: red; }
</style>
```

4. **Background colored links.** Observe the code.

```
<style type = “text/css”>
a:link {background: #ffcc00; text-decoration: none; }
a:visited { background: #ffcc00; text-decoration: none;}
a:active { background: #ffcc00; text-decoration: none;}
a:hover { background: #ffcc00; font-weight: bold; color: red; }
</style>
```

II. Multiple link styles on same page

In order to add multiple link styles that can be used on the same page, we can use context dependent selectors which were discussed in Lesson 5 on this.

Rather than addressing the a:link selector, address it while being dependent on a certain outer class that surrounds the area where the link style will be effective.

For example:

```
<html>
<head>
<style type = “text/css”>
```

```
.class1 a:link {text-decoration: none}
.class1 a:visited {text-decoration: none}
.class1 a:active {text-decoration: none}
.class1 a:hover {text-decoration: none, color: red;}

.class2 a:link {text-decoration: none}
.class2 a:visited {text-decoration: none}
.class2 a:active {text-decoration: none}
.class2 a:hover {text-decoration: none, color: green;}
</style>
</head>

<body>
ONE TYPE OF LINKS
<br>
<span class = “class1”>
< a href = “http://www.facebook.com”>FACEBOOK</a>
<br>
< a href = “http://www.google.com”>GOOGLE</a>
</span>
<br>
<br>
<span class = “class2”>
< a href = “http://www.facebook.com”>FACEBOOK</a>
<br>
< a href = “http://www.google.com”>GOOGLE</a>
</span>
</body>
</html>
}
```

In this example, was used to define the context. This was done for two reasons:

1. It allows different link styles to be used on the same page, rather than being limited to using a single overall link style.
2. This can define entire areas where a certain link style works for all links within that area. Thus, you don’t have to add a style definition to each and every link in that area.

Exercise CSS3

I. Objectives. At the end of the exercise, the students are expected to:
   1. Apply basic CSS formatting that they have learned from the previous activities.
   2. Use EXTERNAL style sheet.
   3. Apply the concepts they have learned regarding CSS links.

II. Concepts to be applies
   1. External CSS

2. CSS basic formatting tags on text and font.
3. CSS links

III. Instructions

1. Open Exercise5b.html
2. Remove the any formatting you made to the links inside the article and in the reference section of the webpage
3. Create an external stylesheet with a filename called ArticleLinks.css. In this file, assign the following format settings:
    a. link: red, underline
    b. visited: yellow, line-through
    c. active: green, overline
    d. hover: blue, blink
4. Reference in the HTML file the external stylesheet. The links in the webpage should be able to reflect the above properties when the mouse moves over them or when they are clicked.
5. Save the HTML file as ExerciseCSS3.html in your CSS folder including the CSS ArticleLinks.css

IV. Checklist for the instructor

Activity	Yes (2 points)	No (0 point)
External Stylesheet		
1. Did the student create an external CSS file named ArticleLinks.css?	2 points	
2. Are the properties of the links set to the following? ○ link: red, underline ○ visited: yellow, line-through ○ active: green, overline ○ hover: blue, blink	2 points	
HTML File		
1. Is the external style sheet linked to the HTML file?	2 points	
2. Are the links displaying the appropriate format when ○ it is in its normal state? ○ hovered over? ○ clicked? ○ visited?	2 points	
3. Is the file saved as ExerciseCSS3.html	1 point	
4. Is the file located in the CSS folder?	1 point	