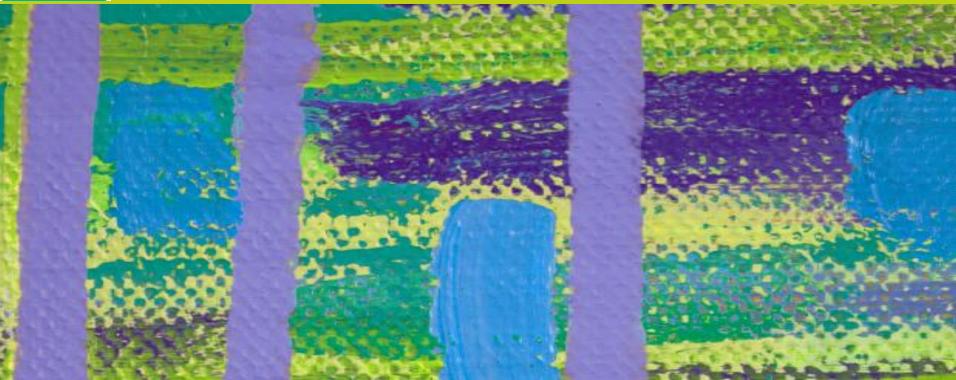
### HTML5 and CSS3 Illustrated

Unit D: Formatting Text with CSS







## **Objectives**



- Assess Web fonts
- Declare a font family
- Declare font sizes
- Implement bold and italics



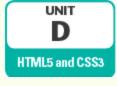
## **Objectives (continued)**



- Change font colors
- Change background colors
- Use special characters
- Provide alternative style sheets



## **Assessing Web Fonts**



- When formatting Web pages with different fonts, limited by fonts available on users' machines
  - Makes it a challenge to ensure that Web pages appear consistently on different computers



## Assessing Web Fonts (continued)



- Strategies for implementing fonts consistently:
  - Specifying multiple font families
    - Font stack: List of font families in order of preference, separated by commas
  - Specifying a generic font family
    - Generic font families: grouping of font families according to shared characteristics
    - Can be added to end of font stack



## Assessing Web Fonts (continued)



- Strategies for implementing fonts consistently (continued):
  - Implementing downloadable fonts
    - User agent downloads and applies fonts not installed on user's computer
    - Upload file containing elements of the font family to Web publishing location or reference licensed downloadable font
    - Add @font-face rule to style sheet
      - Indicates font name and location of necessary files



# Assessing Web Fonts (continued)



### Generic font families

generic font family	examples	characteristics	best for
Serif	Times New Roman Georgia	Finishing strokes at the end of each line making up a character	Headings on computer screens and other backlit displays
Sans-serif	Arial Tahoma	Lack of serifs ("sans" is French for "without")	Paragraphs of text on computer screens and other backlit displays
Monospace	Courier New Lucida Console	Each character uses the same amount of horizontal space	Code samples
Cursive	Monotype Corsiva Comic Sans	Flowing strokes that simulate handwritten text	Decorative purposes only, not main Web page text, as font families in these groups can be difficult to read
Fantasy	Papyrus Impact	Exaggerated style	



## **Declaring a Font Family**



- <u>font-family property</u>: Used to specify fonts in CSS
  - Value is font stack that includes font family name(s) and ends with generic font family name
  - Can be included in any style rule to apply to elements selected in that rule
- Downloadable font family name can be included in regular font stack
  - @font-face rule must be added

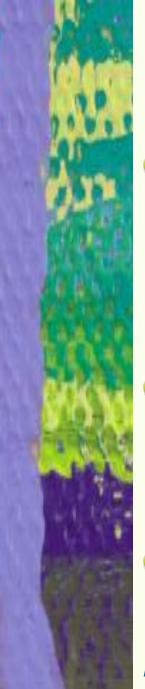


# Declaring a Font Family (continued)



### Common @font-face descriptors

descriptor	value	purpose	
font-family	family-name	Creates the name you use to reference the font in all of your CSS code.	
src	local(name), url(url), format(format), where name is the name of an installed font family, url is the remote location of the font, and format is the format	Provides parameters for user agents to locate the font family and understand its formatting. Different formats require different combinations of local, url, and format, and Internet Explorer 6 compatibility requires specific formatting.	
font-weight	normal, bold, 100, 200, 300, 400, 500, 600, 700, 800, or 900	Specify the font-weight, font-style, and font-stretch values for which the font family should be used. Using these descriptors, you can import several	
font-style	normal, italic, or oblique	variants of the same font family, use the same font-family name for all of them, and enable user agents to apply bold, italic, condensed, or expanded versions where appropriate.	
font-stretch	normal, ultra-condensed, extra-condensed, condensed, semi-condensed, semi-expanded, expanded, extra-expanded, ultra-expanded		



## **Declaring Font Sizes**



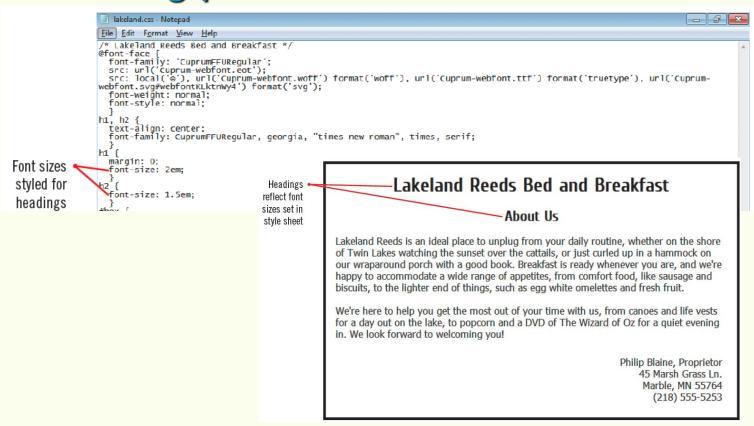
- <u>font-size property</u>: used to specify font size of an element
  - > Can specify size in many different units
    - Most widely supported are percent and em
- Useful to specify font-sizes in style sheet to standardize visual display of headings in different browsers
- Specify font size in em so that remains proportional to rest of Web page







 Font size properties in style sheet and resulting presentation





## Implementing Bold and Italics



- Can use CSS to format text to be bold and/or italic
  - <u>font-weight property</u>: used to make text bold
  - font-style property: used to add italics
- span element: generic HTML element free of semantic meaning
  - Used to isolate specific section of a larger element
    - Include id attribute to create style rules



## Implementing Bold and Italics (continued)

D

HTML5 and CSS3

### Span element added

```
lakeland.css - Notepac
            File Edit Format View Help
             /* Lakeland Reeds Bed and Breakfast */
            @font-face
              font-family: 'CuprumFFURegular';
src: url('Cuprum-webfont.eot');
            src: local('e'), url('Cuprum-webfont.woff') format('woff'), url('Cuprum-webfont.ttf') format('truetype'), url('Cuprum-webfont.sug#webfontk(krnwy4') format('svg'); font-welgfnt: normal;
              font-style: normal;
            h1, h2 {
text-align: center;
              font-family: CuprumFFURegular, georgia, "times new roman", times, serif;
            h1 {
              margin: 0:
              font-size: 2em;
              font-size: 1.5em;
            #box {
              border: 0.25em solid black;
width: 40em;
              width: 400m;
padding: 1em;
margin-left: auto;
margin-right: auto;
font-family: tahoma, aria
                                           aboutus.html - Notepad
                                                                                                                                                                                    - F X
            #contact
Use the
              text-align: right;
                                          File Edit Format View Help
              padding: 0.5em;
width: 12.5em;
  font-
                                          <!DOCTYPE html>
              margin-left: auto;
weight
                                          <html>
              margin-bottom: 0;
                                             <head>
property
              callout {
font-weight: bold
                                               <meta charset="utf-8" />
                                               <title>Lakeland Reeds Bed and Breakfast - About Us</title>
to style
                                               <link rel="stylesheet" type="text/css" href="lakeland.css" />
             #title {
text as
              font-style: italic:
                                             <body>
  bold
                                               <div id="box">
                                                 <h1>Lakeland Reeds Bed and Breakfast</h1>
                                                 <h2>About Us</h2>
                                                  <span id="callout" Lakeland Reeds</span> is an ideal place to unplug from your daily routine, whether on the shore
            Use the font-style property
                                          style text in italic
                                                  cp id="contact">Philip Byaine, Proprietor<br />45 Marsh Grass Ln.<br />Marble, MN 55764<br />(218) 555-5253
                                               </div>
                                             </body>
                                          </html>
                                              Span elements added to enable you to
                                              style sections of larger elements
```



## Implementing Bold and Italics (continued)



 Results of span element and bold and italic style rule

#### Lakeland Reeds Bed and Breakfast

#### **About Us**

Text styled with the font-weight property appears in bold

**Lakeland Reeds** is an ideal place to unplug from your daily routine, whether on the shore of Twin Lakes watching the sunset over the cattails, or just curled up in a hammock on our wraparound porch with a good book. Breakfast is ready whenever you are, and we're happy to accommodate a wide range of appetites, from comfort food, like sausage and biscuits, to the lighter end of things, such as egg white omelettes and fresh fruit.

We're here to help you get the most out of your time with us, from canoes and life vests for a day out on the lake, to popcorn and a DVD of *The Wizard of Oz* for a quiet evening in. We look forward to welcoming you!

Philip Blaine, Proprietor 45 Marsh Grass Ln. Marble, MN 55764 (218) 555-5253 Text styled with the font-style property appears in italics



## **Changing Font Colors**



- <u>color property</u>: used to specify the color of text and other HTML elements
- Four ways to specify colors:
  - > Name
  - hexadecimal format
  - > rgb format
  - > hsl format



# Changing Font Colors (continued)



### Comparison of CSS color systems

color system	format	advantages	disadvantages
name	name where name is CSS3 list of 147 colors	Names are easier to remember and harder to enter incorrectly.	Limited color selection
hexadecimal	#rrggbb or #rgb where rr (or r) is the red value, gg (or g) is the green value, and bb (or b) is the blue value in hexadecimal absolute value (00–FF or 0–F)	Can specify over 16 million colors	Format is not intuitive; values are not easy to remember and harder to proofread
rgb	rgb( <i>rrr,ggg,bbb</i> ) where <i>rrr</i> is the red value, <i>ggg</i> is the green value, and <i>bbb</i> is the blue value in absolute value (0–255) or percent (0%–100%)	Can specify over 16 million colors; format more intuitive than hexadecimal; can create using graphic design software	Values are not easy to remember and harder to proofread
hsl	hsl(hhh,sss,lll) where hhh is the hue value in degrees (0–360), sss is the saturation value in percent (0%–100%), and III is the light value in percent (0%–100%)	More intuitive than rgb-based sys- tems; not based on the use of CRT monitors	Not widely supported by older browsers



## **Changing Background Colors**



- You can use the background property to change the background color of HTML elements
  - Particularly important when working with text elements
    - Helps maintain contrast between text and background
- Can use any of the color definition systems to set background colors



# Using Background Colors (continued)



Changes to font and background colors

```
lakeland.css - Notepad
                                    File Edit Format View Help
                                    /* Lakeland Reeds Bed and Breakfast */
                                    @font-face
                                      font-family: 'CuprumFFURegular';
src: url('Cuprum-webfont.eot');
                                    src: local('e'), url('Cuprum-webfont.woff') format('woff'), url('Cuprum-webfont.ttf') format('truetype'), url('Cuprum-
webfont.svg#webfontkLktnwy4') format('svg');
                                      font-weight: normal;
                                       font-style: normal;
                                      text-align: center;
                                      font-family: CuprumFFURegular, georgia, "times new roman", times, serif;
                                     margin: 0;
font-size: 2em;
color: white;
            color and
                                      background: rgb(0,82,0);
                                      padding: 0.25em;
        background
           properties
                                      font-size: 1.5em;
                                    #box
      implemented
                                      border: 0.25em solid black;
width: 40em:
         together to
                                      padding: 1em;
margin-left: auto;
margin-right: auto;
font-family: tahoma, arial, helvetica, sans-serif;
background: rgb(255,255,185).
            maintain
             contrast
                                      text-align: right;
padding: 0.5em;
                                      width: 12.5em;
margin-left: auto;
                                      margin-bottom: 0;
background: rgb(218,165,32);
        background
                                      font-weight: bold;
                                    #title {
      properties for
                                      font-style: italic;
individual screen
                                     #name {
                                      color: rgb(0,82,0);
            elements
                                       font-weight: bold;
```



## **Using Special Characters**



- Some characters cannot be entered directly into HTML text
  - They may be misinterpreted as computer instructions
- Character reference: formatted codes that represent characters in the HTML character set
  - > Have the format &code;
    - Numeric references exist for all characters
    - Abbreviation references for some characters



# Using Special Characters (continued)



Important character references

character	character name	decimal numeric character reference	named character reference
&	ampersand	&	&
,	apostrophe	'	' (does not work in Internet Explorer)
>	greater-than sign	>	>
<	less-than sign	<	<
"	quotation mark	"	"



## Providing Alternative Style Sheets



- You may need to style a web document differently on different devices
  - > Different resolution, screen size
- Use media attribute of link element to specify which device should use the style sheet
  - May have multiple link elements for different media



## Providing Alternative Style Sheets (continued)



 Values for the link element media attribute

media type	intended use
all	All devices
aural	Screen reader
braille	Tactile feedback device
handheld	Device with a small screen
print	Printed output and print preview on a screen
projection	Projection device
screen	Computer screen
tty	Teletype or similar terminal
tv	Low-resolution display with limited colors, like a non-high-definition television



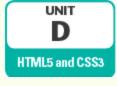
## Summary



- It is important to implement fonts so that they will be displayed consistently on different user agents
- Font stacks are declared using the font-family property
- span element: generic element used to isolate a portion of another element
  - Used to format the font of specific portion



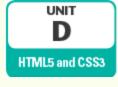
## **Summary (continued)**



- Different aspects of font can be set using CSS properties:
  - font-size property: set the font size
  - font-weight property: make font bold
  - font-style property: make font italic
- In CSS colors can be specified using names, rgb, hexadecimal, or hsl
  - > color property: sets font color
  - background property: sets background color



## **Summary (continued)**



- Character references are used to identify characters that may be misinterpreted as computer instructions
  - > Have the format & code;
- You can specify different style sheets for different user agents
  - media attribute of link element