**Lesson 3: An Introduction to the use of HTML**

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| **Overview**  This lesson introduces the linear and binary search algorithms    **Lesson Summary**  Each student be asked to create a storyboard on paper using the big posters. They are to enter the title of the college of their preference and add to that the logo and mascot.  **CS Content**  *It includes Equity as all students can look up a College of choice online. It includes Problem Solving technique that they will use to figure out where they are to put all the items asked for..* |  |  | **Objectives**  **Students will be able to:**   * Create a Story Board * Navigate an HTML Editor * Create an HTML Page with Paragrah Tags, Headings, line breaks and horizontal lines.   **Materials and Prep**   * Big poster boards * Markers, pens, colored pencils   **Resources**  **Student Documents**   * <http://www.w3schools.com/html/> * http://www.w3schools.com/html/   **Code Studio**  **Video**  **Assessments**  **Notes**   |  | | --- | |  | |  | |  | |

Outline of the Lesson: • Create a storyboard (15 minutes) • Demo of html editor (15 minutes) • Html page with a title and body (15 minutes) • Html page with paragraphs and headings (25 minutes) • Html page with line breaks and horizontal lines (40 minutes) Student Activities: • Create a storyboard for a webpage. • Follow along during the demo of the html editor. • Create an html page with a title and body. • Create an html page with paragraphs and headings. • Create an html page with line breaks and horizontal lines. Teaching/Learning Strategies: • Create a storyboard for a webpage o Explain to students that a storyboard is a visual plan for a website. It usually consists of a series of pages that include a rough sketch outlining the content, navigation, and design elements of the website. o Have students create a storyboard for a website that includes a title, several paragraphs, and headings for each paragraph before beginning the demo of the html editor. • Demo of html editor o Display the html editor that you have chosen for the class. Point out the following html tags. Tag Description End Tag Defines an HTML document

Defines information about the document Version 5.0 Exploring Computer Science—Unit 3: Web Design 106

Defines the main part of the document

o Enter a title and a one sentence body. Demonstrate how to save the document as an html file and how to view the output page in a browser. Point out that the title appears in the bar at the top of the window. Also point out that the end tag is a necessary part of the syntax in order to tell the computer when to stop doing a particular thing. • Html page with a title and a body o Have students write a paragraph in the body section and give it a title. (Students can choose to write about themselves or another topic of interest.) o Demonstrate the creation of a basic html/css page in the html editor of choice. • Html page with paragraphs and headings o Have students add a second paragraph to their web page and note what happens. o Then have them add two lists related to their topic (favorite movies, music, hobbies, etc.) and note what happens. o Guide students to notice that everything runs together no matter how they type it. o Explain the following html tags. Tag Description End Tag

Defines a paragraph

# to

###### Defines headings at levels 1-6

###### to

###### o Have students try inserting these new tags into their web page and note what happens. o Remind students that they need the end tag. o This is a good place to point out that html is one language that can be used to give the computer instructions as discussed in Unit 1 and that the computer will produce exactly the output that the user indicates with the syntax provided. Html is not a programming language; it is a markup language. • Html page with line breaks and horizontal lines o Explain the following html tags. Tag Description End Tag Defines a single line break

Defines a horizontal line o Have students try inserting these new tags into their web pages and note what happens. o Give students time to experiment and determine what combination of tags will allow them to put their lists in a column, with each list having its own heading. o Point out that trying different tags and checking the output is an example of testing and verification. If the output is not what is intended, then they need to debug the code they wrote. Version 5.0 Exploring Computer Science—Unit 3: Web Design 107 o Note that you can retrieve an html reference from http://www.w3schools.com/html/ Resources: html editors • http://www.tacosw.com (mac only) • http://www.barebones.com/products/TextWrangler/index.shtml (mac only) • http://smultron.sourceforge.net/ (mac only) • http://www.alleycode.com/download.htm (windows only) html tutorial • http://www.w3schools.com/html/