

ccdt

collaborative curriculum design tool

Anatomy of a web page 101

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description:	A unit on how to identify the parts of a web page.

THROUGHLINES

1. **Knowledge can be communicated through a well designed web site.:** Students should understand that they can communicate their knowledge of a topic effectively in the form of a web site. It is important that students know how to communicate well in the online environment in order to complete required web projects in their major classes during their matriculation at TechBoston Academy, including their e-portfolios. Students also need to know how to promote themselves virtually for post-secondary school opportunities such as employment and/or college admissions. In order to communicate effectively through a web site, the web site must be well designed. Students achieve an understanding of a well designed web site by identifying the building blocks of a web page, knowing the programming language to display web pages, and understanding the design principles of effective web pages.

2. **The whole web page is the display of its parts by command:** Students will understand that a web page is built out of universal parts, and glued together by the universal programming language of HTML. Web browsers are told which parts to place where and how to display them by a series of specific commands called HTML tags. It is important that students can identify the building blocks of a web page before learning the commands, so that they can later correlate the parts with the appropriate HTML tags. It is important to be able to identify the building blocks, know the purpose of each part, and know how to put those blocks together – by command or by tool. A construction worker needs to know the purposes of the parts and tools he/she is using before building a house. A web designer must understand the purposes of the parts and commands he/she is using in order to make a web page.

3. **Effective communication empowers youth:** Being able to communicate effectively in any medium is an essential and empowering skill. Teens primarily know how to be passive consumers of the media that bombards them every day with influential messages. With the ever-increasing attention paid to the media in today's society, teens are especially influenced by the messages targeted at them in print, video, and music. The web combines all of these types of media into one medium. Teens who have the skills to produce their own messages in any medium are empowered to combat misinformation, think critically about the messages targeted at them, and share their own ideas and opinions on issues important to them. Students with the skills to create their own messages and stories, report and reflect on school, community, and global issues, and share their personal experiences through digital communication are active producers rather than passive consumers of technology.

GENERATIVE TOPICS

1. **What makes a successful presentation?:** Students will practice presenting their web sites to the class in order to gain presentation skills.

2. **The tangled world wide web : finding your way.:** The internet is a huge resource of information that can be accessed quickly. Students will learn how to find exactly (or close to) what they need by understanding boolean expressions and keywords in search engine usage. It is important that students are able to locate valid information on the web as easily as possible without getting lost, distracted, or misinformed.

3. **What is the internet?:** Students know how to surf the web, chat, write emails, and download music, but few understand HOW any of these tasks are possible. Students will learn new vocabulary as they are taught what the

internet is and how networks are built.

4. **Who invented the internet?:** Did Al Gore invent the internet? Does one person control the internet? Students will understand that the internet is an expanding web of information with no beginning and no end. How did the internet come to exist? Students will learn the history of the internet and understand why it was necessary to speed up and expand communication all over the world.

5. **How is a web page made?:** Students will learn HTML and build web pages by writing the HTML code in Notepad. It is important that students can make web pages from scratch before using web-building software so that their understanding of why browsers display pages the way they do is emphasized. Browsers display web pages according to instructions. Students will also gain an introduction to the concept of programming.

6. **How does the web work?:** Students know how to surf the web, chat, write emails, and download music, but few understand HOW any of these tasks are possible. Students will learn new vocabulary as they are taught what the physical structure of the internet is and how information is shared between computers around the world. Students will be asked : how does an email get from a laptop in California to a desktop in Japan? What hardware is necessary to set up a network? How does a computer connect to the internet? What is happening when a file is downloaded? Students will learn how a web page gets into a web browser.

7. **Do you know what to watch out for online?:** Internet use has its dangers and rewards. Students will understand the importance of protecting their computer from harmful downloads, their identity from online predators, and their integrity from hoax web sites. Students will learn about proper "netiquette" and how to judge the validity of web sites. Students will recognize the meaning of a copyright symbol and understand the importance of properly citing web research.

8. **What makes a good web site? What makes a bad web site?:** Students will learn basic web design principles. Students will analyze web sites and evaluate them according to a grading rubric set by the class. It is important that students understand what they will be graded on when they build their own web sites. It is important that students are able to build web sites that attract and engage their targeted audience so that the information is thoroughly communicated.

9. **The day the Internet died.:** The internet has many benefits we take for granted. Students will be asked to describe what would happen if the internet was sabotaged and destroyed. How would our daily lives be affected? How would the world be affected? Students will understand that advances in the internet simultaneously advance our society. Being able to communicate with anyone at anytime and find information about anything, opens up our minds to higher levels of understanding about the world and the people in it. Prejudice can be broken down in an online chat room, inventors and artists can collaborate across oceans, news can be broadcast to the world, education is expanded beyond the physical classroom. Distance is no longer an impediment to communication.

10. **Anatomy 101 : dissecting a web page : What are the building blocks of a web page?:** Students will be able to recognize the basic parts of a web page such as the title, current page indicator, navigation bar, hyperlink, content, head and body. It is important that students can recognise the parts of a web page so that they will be able to build web pages of their own out of these building blocks. Students need to understand the value of beginning with the end in mind and learning from example. They will look at finished web sites and break them apart to find common elements, and be able to see that web sites differ because of the design and placement of those universal parts.

11. **What is it like to work in a team?:** Students will learn how to work in teams on projects. It is important that students gain experience collaborating with their peers on a major project. Students will gain insight into their own strengths as well as get to know their classmates better.

12. **What makes a successful presentation?:** Students will learn what makes a successful presentation. They will be asked to state the purpose and target audience of their web site, point out the major parts of the site while clicking through it, and describe the planning/reasoning behind the design of the page(s).

UNIT LEVEL UNDERSTANDING GOALS

1. **Students will be introduced to the concept of programming:** At the end of the unit, students will be introduced to programming and understand that

PERFORMANCES OF UNDERSTANDING

1. **Class exercise : dissect a web site:** Students will be given a screenshot of a web site, along with questions. Students will be asked to mark up and label

instructions are needed to pull all the parts of a web page together correctly. They will understand that the instructions must be specific, in the correct order, and clear in order for a computer to correctly execute them.

2. Students will understand how the web works: Students will understand how content in a web page is displayed in a web browser. They will understand that a web page is made out of many pieces – images, audio, text, graphics, animations, video – collectively called "content", which is assembled correctly by the browser according to instructions. These instructions are text commands called HTML tags.

3. Students will understand that all web pages are made out of universal parts: Students will see that web sites they look at every day, even the most complicated-looking ones, are made out of the same basic parts.

4. Students will gain technical skills: Students will learn how to take screenshots, paste them into Word docs, and print to a networked printer.

5. Students will learn new vocabulary: Students will be asked to define new vocabulary terms such as navigation bar, title, current page indicator, head, body, hyperlink, content, target audience, and purpose in terms of web development.

the screenshot as the teacher marks it up on the SMART BOARD. The questions will be answered as a class and students will record the answers.

2. Homework : Dissect your own web site: Students will be asked to repeat the class exercise in pairs on a web site of their own choice. Students will take screenshots of a web page and answer the same questions about that web site.

ONGOING ASSESSMENT

1. Students will dissect their own web pages: Students will be asked to repeat the homework exercise on their own or a partner's web page. It is important that students recognise that they are building web pages out of the same parts as professional web designers do, only their design and placement of the pages is different. Obviously, a professional web designer's design and placement is more advanced because of increased practice and knowledge. This concept hopefully should encourage and empower students to improve their skills and improve upon their projects.

2. Students will build web pages using the building blocks: When students make their first web pages using HTML after the anatomy lesson, they will recognise the parts of the web site in the code. They will understand the connection between the names of the HTML commands and the names of the parts of a web page. They will understand that a web page is made out of building blocks of code, just as they are made out of building blocks of content.

Based on the graphic organizer presented in the Teaching for Understanding Guide by Blythe & Associates.