Unit 5: Viewers Utilizing Varied Devices

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 3**
Length: **20-25 days**
Status: **Published**

Brief Summary of Unit

Unlike the early days of the Internet, websites are no longer only viewed on desktop and laptop computers. The varied array of screen sizes that website users employ means that we, as designers, must plan our sites around how these different screen sizes and browsers will affect the layout and design of our site. One responsibility of a web designer is to ensure the best experience possible for the user regardless of the device or browser being used to display the web site.

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CS.9-12.8.1.12.AP.7	Collaboratively design and develop programs and artifacts for broad audiences by incorporating feedback from users.
CS.9-12.8.1.12.CS.1	Describe ways in which integrated systems hide underlying implementation details to simplify user experiences.
CS.9-12.8.1.12.NI.3	Explain how the needs of users and the sensitivity of data determine the level of security implemented.
MA.9-12.1.2.12prof.Re9a	Evaluate media art works and production processes at decisive stages, using identified criteria and considering context and artistic goals.
TECH.8.1.12.A	Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
TECH.8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
TECH.8.1.12.A.CS1	Understand and use technology systems.
TECH.8.1.12.C.CS1	Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media.
TECH.8.1.12.C.CS2	Communicate information and ideas to multiple audiences using a variety of media and formats.

Essential Questions / Enduring Understandings

Essential Questions:

- How does a site become optimized for each browser it will be viewed in?
- How does a site become optimized for varying screen sizes?

Enduring Understandings:

- Websites should be tested on various platforms to ensure that the website will display as designed.
- It is important to test new techonolgies and devices that will interact with your website, so that you can

make sure that the website displays correctly.

- Different systems may react differently to the same information.
- To develop a quality website, all possible veiwing situations should be examined.

Objectives

Students Will Know:

- how to determine which browser is being used to view the site, and how to have it displayed optimally.
- how to properly test their page to ensure it will work on different devices.

Students Will be Skilled at:

- adjusting content and images for optimal viewing on varied devices.

Learning Plan

- Discussion of the importance of being able to easily view a site on a variety of devices.
- Develop a plan to test all updates to the CHS site for proper display on computers and other devices in use by the site's users.
- Review sites that work well when viewed on a computer, but do not work well on other kinds of devices.
- Discuss the attribues of a website that are important to maintain when adapting the site for viewing on varied devices.

Assessment

Assessments

- Formative: Daily assessments using examples from class notes and CodeHS.com, AP Classroom/Albert Checks for Understanding

- Summative: Teacher-created assessments/projects and CodeHS Computer Science Projects, AP Classroom/Albert Unit Assessments

- Benchmark: Check for understanding benchmark assessments on CodeHS, AP Classroom/Albert/Khan Academy Diagnostics

- Alternative Assessments: Student-centered activities such as a doorbell coding project, game design

projects, and other activities involving real world applications

- [Activities/Assessments Folder](#)

- When developing/updating content for the CHS site, ensure that it displays properly on a variety of browsers and devices.

Materials

Core instructional materials: [Core Book List](#)

Supplemental materials: CodeHS

- The Internet

Integrated Accommodation and Modifications
[Web Team Accommodation and Modifications](#)