Unit 4: Mobile Website Design (Grades 10-12)

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 2**
Length: **6-8 Weeks**
Status: **Published**

Summary

Introduction: Internet users are statistically less likely to be on a desktop or laptop than they were in the past. Browsers work differently within handheld mobile devices, and websites need to adjust accordingly. This unit is designed to cover basic code structure, methods for functionality, and criteria that will optimize websites for mobile device viewing.

Revision Date: July 2026

Information Literacy: This unit challenges students to locate, evaluate, and use information effectively. Information literacy includes, but is not limited to, digital, visual, media, textual, and technological literacy. Lessons may include the research process and how information is created and produced; critical thinking and using information resources; research methods, including the difference between primary and secondary sources; the difference between facts, points of view, and opinions, accessing peer-reviewed print and digital library resources; the economic, legal, social, and ethical issues surrounding the use of information.

1	Make sense of problems and persevere in solving them
L.SS.11–12.1	Demonstrate command of the system and structure of the English language when writing or speaking.
P.4	Demonstrate creativity and innovation.
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P.5	Utilize critical thinking to make sense of problems and persevere in solving them.
L.KL.11–12.2	Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.
P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
P.9	Work productively in teams while using cultural/global competence.
6	Attend to precision
5.a	Plan the development of a computational artifact using an iterative process that includes reflection on and modification of the plan, taking into account key features, time and resource constraints, and user expectations.
6.a	Systematically test computational artifacts by considering all scenarios and using test cases.
6.b	Identify and fix errors using a systematic process.
6.c	Evaluate and refine a computational artifact, multiple times, to enhance its performance, reliability, usability, and accessibility.
8.1.12.AP.4	Design and iteratively develop computational artifacts for practical intent, personal expression, or to address a societal issue.

Essential Questions/Enduring Understandings

- How is a site optimized for a browser in a mobile device or tablet?
- Mobile website design is still developing as mobile devices are constantly being updated.
- Trial and error may be the best method for determining if coding will work properly.

Objectives

Students Will Know

- what stylesheet codes will effectively adjust the mobile webpage.
- how to detect browsers being used and adjust the displayed page accordingly.

Students Will be Skilled At

- designing images such that they properly fit on a mobile device.
- adjusting content of an existing webpage in order to be displayed well on a smaller screen.

Learning Plan

- Preview the essential questions and connect to learning throughout the unit.
- Research methods of mobile website design, hints, tricks and tips.
- Become familiar with mobile device emulator through experimentation.
- Develop an alternate version of a previously created website for mobile devices.
- Reflect on the process.

Assessment

- Core instructional materials: Core Book List

  Supplemental materials:

  - District Approved Textbook
  - HTML5 Resources
  - CSS3 Resources
  - Internet Access
  - Khan Academy
  - Codeacademy

- Codehs
- Computers

Materials

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- HTML5 Resources
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Integrated Accommodation and Modifications

Possible accommodations/modification for Web Design 2