Unit 2: Hosting Research (Grades 10-12)

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 1**
Length: **1-2 Weeks**
Status: **Published**

Summary

Introduction: Students will research how websites are hosted online and the companies that provide these services. They will compare free services in terms of bandwidth, disk space, data transfer, support, uptime and user reviews. As a class, students will rank hosting services to be used in the following unit.

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.

CS	Computing Systems
L.SS.11–12.1	Demonstrate command of the system and structure of the English language when writing or speaking.
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.
	Choices individuals make about how and where data is organized and stored affects cost, speed, reliability, accessibility, privacy, and integrity.
8.1.12.DA.2	Describe the trade-offs in how and where data is organized and stored.
9.4.12.IML.3	Analyze data using tools and models to make valid and reliable claims, or to determine optimal design solutions (e.g., S-ID.B.6a., 8.1.12.DA.5, 7.1.IH.IPRET.8).
W.WR.11–12.5	Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.
SL.PE.11–12.1	Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with peers on grades 11–12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
8.2.12.ETW.4	Research historical tensions between environmental and economic considerations as driven by human needs and wants in the development of a technological product and present the competing viewpoints.

Essential Questions/Enduring Understandings

- How are websites hosted online?

- There is a reason that these services are free.
- Nothing is free. If you do not see the product, you are the product.

Objectives

Students Will Know

- vocabulary and programs that deals with putting a website online, including but not limited to:
    - Bandwidth
    - Client
    - Disk Space
    - Download
    - File Transfer Protocol (FTP)
    - Host
    - Server
    - Support
    - Time to Live (TTL)
    - Top-Level Domain (TLD)
    - Up Time
    - Upload
    - Filezilla
    - Dreamweaver
    - WS_FTP

Students Will be Skilled At

- Comparing very similar services

Learning Plan

- Preview the essential questions and connect to learning throughout the unit.
- Class discussion on the vocabulary of putting websites online.
- Research on free services that host websites.
- Comparison of services individually.
- Comparison of services as a class.
- Selection of top 3-5 hosting services that we will be using for the next project.

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 listed below:

  - Create a website-based resume.
  - Present the resume in a mock interview based setting.
  - Receive feedback from rubrics and comments from students/teachers/administration.
  - Make adjustments and complete self assessment.
  - Answer the essential questions.

Materials

- Core instructional materials: Core Book List

Supplemental materials:

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

Integrated Accommodation and Modifications

Possible accommodations/modification for Web Design 2