Unit 1: Website Maintenance

Content Area: **Computer Science**
Course(s):
Time Period: **Marking Period 1**
Length: **50 - 55 days**
Status: **Published**

Brief Summary of Unit

Website maintenance is the core activity in this class, and it is the task on which all learning activities are designed. Components of website maintenance require both short-term and long-term planning, as well as constant communication with website users and fellow designers. Students will have daily meetings and weekly goals to help maintain focus on individual and subgroup responsibilities. Students must also check email for user requests and updates, update the school website calendar, maintain the high school's period notifier app, and attend to any other required updates. Topics from other units will spiral, since website maintenance covers a wide array of concepts.

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CS.9-12.8.2.12.ED.5	Evaluate the effectiveness of a product or system based on factors that are related to its requirements, specifications, and constraints (e.g., safety, reliability, economic considerations, quality control, environmental concerns, manufacturability, maintenance and repair, ergonomics).
CS.9-12.8.2.12.ETW.1	Evaluate ethical considerations regarding the sustainability of environmental resources that are used for the design, creation, and maintenance of a chosen product.
WRK.K-12.P.8	Use technology to enhance productivity increase collaboration and communicate effectively.
WRK.K-12.P.9	Work productively in teams while using cultural/global competence.
TECH.8.1.12.C	Communication and Collaboration: Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
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.
TECH.8.1.12.D.CS1	Advocate and practice safe, legal, and responsible use of information and technology.
TECH.8.1.12.E.CS2	Locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
TECH.8.2.12.E.3	Use a programming language to solve problems or accomplish a task (e.g., robotic functions, website designs, applications, and games).

Essential Questions / Enduring Understandings

Essential Questions:

- How is the site progressing?

- What is required for effective website maintenance?
- How does the structure and cohesion of a webmaster team affect the team's overall performance?

Enduring Understandings:

- There are a variety of ways to assess the efficacy of a website.
- Each individual on the team can affect overall team performance.
- The roles of team members are varied, but intertwined.
- Cooperation and a clear vision for website updates and enhancements helps to ensure the continued relevancy of the website.
- Communication is critical to website maintenance.

Objectives

Students Will Know:

- everyone's role on the team.
- how the roles on the team rely on each other.
- the basics of each role, so that they can step in as needed.

Students Will be Skilled at:

- their role as a member of the team.
- planning for future updates.
- knowing how different parts of the site interact.

Learning Plan

- Assign roles of email, team leader, calendar, daily period notifier app, and other tasks as needed.
- Assign both long-term and short-term student projects, and clearly outline each team member's responsibilities.
- Define subgroups of students so that they can leverage each other's strengths and weaknesses to achive their goals, and so that students can benefit from the web development knowledge of their peers.

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

- Monitor the ongoing updates to the web site.
- Check in with subgroups regularly to offer assistance and gauge progress.

Materials

Core instructional materials: Core Book List

Supplemental materials: CodeHS

- The Internet
- CHS@CRANFORDSCHOOLS.ORG - Email and Google Suite

Integrated Accommodation and Modifications

Web Team Accommodations and Modifications