Unit plan Proposal

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General Overview

We are proposing to create a new course in Web Development. Our goal is for students to understand the basics of web development, to learn more about careers options in that field and html and css. Students will use data to be able to build content for their website on social issues in their community.

Motivation for Unit

The motivation will be for students to bring their ideas to life and practice their skills in coding HTML/CSS. This unit will allow them to combine their interests with practical coding skills to make a project that is their own.

Students will be able to:

- Explain that HTML is a coding language that allows a programmer to communicate the way content should be organized on a web page
- Use HTML to a create document that uses opening and closing tags
- Use heading tags to change the appearance of text on a web page.
- Structure content into headings, subheadings, and paragraphs.
- Use CSS selectors to style HTML text elements.
- Link to an external style sheet.
- Explain the differences between HTML and CSS in both use and syntax.
- Follow copyright law, accurately attributing others when using their work.
- Add an image to a web page.
- Use CSS properties to change the size, position, and borders of elements.
- Create a CSS rule-set for the body element that impacts all elements on the page.
- Group elements using classes to create more specific styles on their website.
- Use HTML to link between web pages.

Standards Referenced

Impacts of Computing

9-12.IC.4 Assess personal and societal trade-offs related to computing technologies and data privacy.

9-12.IC.5 Describe ways that complex computer systems can be designed for inclusivity and to mitigate unintended consequences.
9-12.IC.6 Create accessible computational artifacts that meet standard compliance requirements or otherwise meet the needs of users with disabilities.
9-12.IC.7 Investigate the use of computer science in multiple fields.

Computational Thinking
9-12.CT.3 Refine and visualize complex data sets to tell different stories with the same data set.

9-12.CT.2 Collect and evaluate data from multiple sources for use in a computational artifact.

Algorithms and Programming
9-12.CT.8 Develop a program that effectively uses control structures in order to create a computer program for practical intent, personal expression, or to address a societal issue.

9-12.CT.9 Systematically test and refine programs using a range of test cases, based on anticipating common errors and user behavior.

9-12.CT.10 Collaboratively design and develop a program or computational artifact for a specific audience and create documentation outlining implementation features to inform collaborators and users.

Digital Literacy

9-12.DL.2 Communicate and work collaboratively with others using digital tools to support individual learning and contribute to the learning of others.

Assessment

Quiz - Mid way through the unit students will be quizzed on basic html and css text elements

Gallery walk- As students progress through their website, they will do a gallery walk of other projects and provide feedback to their classmates on what they are doing well and opportunities for improvement.

End of Unit assessment - Students will create a Website on a Social issue in our society that is important to them. Students will do research on this topic before delving into constructing the website in order to determine what the focus of their website will be and how it will help to alleviate the social issue they have identified. Students will be required to include certain elements in their website as specified by a rubric.