Course Title:	Content Area:	Grade Level:	Credit (if applicable)
Website Design & Development	Business	9-12	0.5

Course Description:

In today's rapidly changing digital world, it's crucial to have a strong grasp of web design and development. This course dives into the fundamentals of crafting engaging and functional websites. Students gain essential skills to navigate the online world effectively. Students will explore the complexities of the internet, learn the basics of web design principles, explore interface and user experience design, and gain an understanding of HTML and CSS web languages. Through a mix of theory and hands-on projects, students will develop a solid understanding of web development concepts and techniques.

Aligned Core Resources:	Connection to the *BPS Vision of the Graduate*
GFC Global Google Sites Canva Code HS Code.org Visual Studio Code IBM Skills Build Supplemental Text Resources based on current technology	Website Design and Development will connect to the BPS Vision of the Graduate by ensuring students can ***EFFECTIVELY COMMUNICATE IN A GLOBAL SOCIETY*** specifically with communications and technology literacy and information literacy. Students will be able to understand principles of website design and basic web development computer languages. Students will also ***DEMONSTRATE ACADEMIC KNOWLEDGE AND SKILLS*** through their ability to master the content knowledge through project-based learning.
Additional Course Information: ***Knowledge/Skill Dependent courses/prerequisites***	**Link to *Completed Equity Audit***
No Prerequisites	

Standard Matrix

Standard	Unit 1	Unit 2	Unit 3	Unit 4
ISTE 1.4 Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.		X		X
MBA Research (Marketing Custer) Understands the concepts and strategies needed to communicate information about products, services, images, and/or ideas to achieve a desired outcome	X	X		
ITPC01.13 Consider intellectual property issues when creating Web pages.	X	X	X	X
ITC03.01 Use product/service design processes and guidelines to produce a quality IT product/service.		X		
ITC 03.03 Employ organization and design principles to sort and group information used in the IT industry.		X		

ITC08.01 Apply standards, practices and behaviors that meet legal and ethical responsibilities and exhibit positive cyber-citizenry to understand legal issues faced by IT professionals.			X	X
ITC 09.01 Identify and explain the implications IT has on business transformation and development to demonstrate an understanding of the impact on business.			X	X
ITC10.04 Summarize basic data communications components and trends to maintain and update IT systems.	X			
ITC10.05 Demonstrate technical knowledge of the internet to develop and maintain IT systems.	X			
ITC 10.06 Access and use internet services when completing IT related tasks to service and update IT systems.	X			
ITC 10.08 Demonstrate knowledge of web page basics to build an understanding of Web page design and functioning.	X	X	X	X
ITC 10.11 Recognize and analyze potential IT security threats to develop and maintain security requirements.	X			
ITPC 01.01 Iterate through design and development process to create a uniform web/digital product.		X		X
ITPC 01.02 Participate in a user focused design and development process to produce Web and digital communications solutions.		X	X	X
ITPC 01.03 Design and employ the use of motion graphics to create visual Web/digital designs.		X		X
ITPC 01.04 Gather and analyze digital communications customer requirements to best meet consumer needs.		X		X
ITPC 01.05 Define the scope of digital communication work in a written form to summarize and meet customer requirements.				X
ITPC 01.06 Prepare digital communication product specification to communicate specifications with various audiences.		X	X	X
ITPC 01.07 Demonstrate the effective use of tools for digital communications productions, development and project management to complete web/digital communication projects.		X	X	X
ITPC 01.08 Employ knowledge of Web design, programming and administration to develop and maintain Web applications.	X	X	X	X

Unit Links

Basics of Web Design
Web Design Elements

HTML
CSS

Unit Title:	
Basics of Web Design	
Relevant Standards: Bold indicates priority	
• MBA Research (Marketing Custer) Understands the concepts and strategies needed to communicate information about products, services, images, and/or ideas to achieve a desired outcome. • ITPC 01.13; ITC 10.04; ITC 10.05; ITC 10.06; ITC 10.08; ITC 10.11; ITPC 01.08	
Essential Question(s):	**Enduring Understanding(s):**
• How does the internet work and why is it important to understand its functioning? • What strategies can be employed for effective internet use and how do they impact individuals and society? • How has the internet evolved over time, and what can we predict about its future?	Understanding of Internet Fundamentals: • The internet is a global network of interconnected devices and servers that relies on protocols, data packets, and data centers to transmit information. • Differentiate between the World Wide Web (WWW) and the internet itself, understanding the fundamental components and functions of each. Critical Analysis and Application of Internet Knowledge: • Understanding important terms related to the internet enables effective communication and comprehension of online concepts. • Comparing the internet to other computer tools enhances understanding of its unique features and capabilities. • Analyzing how the internet functions and its societal impact fosters informed decision-making and effective use strategies. Historical Context and Evolution of the Internet: • Describe the predecessors to the internet, recognizing their contributions and limitations in shaping its development. • Analyze how and why the internet was created, understanding the historical, technological, and socio-political factors involved. • Recognize the progression of the internet through distinct eras, identifying key technological advancements and societal changes. Visual Representation and Communication: • Creating a timeline to show the history of the internet develops skills in organizing information

	chronologically and communicating complex concepts visually. ● Creating a clear visual representation of internet history enhances understanding and retention of key events and milestones. Cybersecurity and Privacy Awareness: ● Describing common internet security threats and methods for securing personal information online promotes awareness of online risks and best practices. ● Explaining the importance of privacy settings and their impact on society fosters responsible digital citizenship and ethical behavior. Predictive Analysis and Future Trends: ● Theorizing how the internet can change in the future develops critical thinking skills and prepares individuals to adapt to emerging technologies and trends. ● Understanding the role of data centers and internet protocols in supporting website functionality prepares individuals to adapt to evolving online environments.
Demonstration of Learning:	**Pacing for Unit**
Internet timeline, development of safety setting	6 blocks
Integration of Technology:	
Chromebooks, desktop computers with windows	
Unit-specific Vocabulary:	
ARPANET, browser, client-server model, data center, data packet, DNS (Domain Name System), encryption, HTTP (Hypertext Transfer Protocol), HTTPS (Hypertext Transfer Protocol Secure), HTML (Hypertext Markup Language), intranet, internet, ISP (Internet Service Provider), malware, phishing, protocol, router, server, TCP/IP (Transmission Control Protocol/Internet Protocol), timeline, URL (Uniform Resource Locator), VPN (Virtual Private Network), web browser, web server, website, World Wide Web (WWW).	
Anticipated misconceptions:	
● Misconception: The terms "internet" and "World Wide Web (WWW)" are interchangeable. ○ Clarification: While often used interchangeably, the internet refers to the global network of interconnected devices, while the World Wide Web (WWW) specifically refers to the system of linked documents, images, and other resources accessible via the internet through web browsers. ● Misconception: All websites are part of the World Wide Web. ○ Clarification: While many websites are part of the World Wide Web, there are other types of internet services that don't rely on web browsers, such as email servers, FTP (File Transfer Protocol) servers, and online gaming servers. ● Misconception: The internet and the web are recent inventions.	

- Clarification: The concept of networking and the development of early forms of the internet, such as ARPANET, began in the late 1960s. The World Wide Web was created in 1989 by Tim Berners-Lee, but the idea of a global network of computers predates this by decades.
- Misconception: The terms "web server" and "internet server" are the same.
  - Clarification: While related, a web server specifically hosts websites and serves web pages to users upon request through HTTP or HTTPS protocols. An internet server is a broader term that includes various types of servers used for different internet services, such as email servers, DNS servers, and FTP servers.
- Misconception: Data centers only store data.
  - Clarification: Data centers not only store data but also host web servers, manage network infrastructure, and provide various cloud services. They play a crucial role in ensuring the reliability, security, and performance of internet-based services.
- Misconception: The internet is entirely secure.
  - Clarification: While security measures exist, the internet is susceptible to various threats, including malware, phishing, hacking, and data breaches. Understanding and implementing cybersecurity measures are essential for safe internet usage.
- Misconception: HTTP and HTTPS are the same protocols.
  - Clarification: While both HTTP (Hypertext Transfer Protocol) and HTTPS (Hypertext Transfer Protocol Secure) are protocols used for transmitting data over the internet, HTTPS encrypts data to provide secure communication between a web browser and a web server, whereas HTTP does not encrypt data.
- Misconception: The terms "router" and "modem" are interchangeable.
  - Clarification: A router and a modem serve different functions. A modem connects a device to the internet service provider (ISP), while a router routes data between devices within a network and manages traffic between the local network and the internet. Some devices, known as combination or gateway devices, function as both a modem and a router.

Differentiation through *Universal Design for Learning*	
UDL Indicator	**Teacher Actions:**
Representation: Clarify Terms and Symbols	• Pre-teach vocabulary and symbols, especially in ways that promote connection to the learners' experience and prior knowledge • Highlight how complex terms, expressions, or equations are composed of simpler words or symbols • Embed support for vocabulary and symbols within the text (e.g., hyperlinks or footnotes to definitions, explanations, illustrations, previous coverage, translations) • Embed support for unfamiliar references within the text (e.g., domain specific notation, lesser known properties and theorems, idioms, academic language, figurative language, mathematical language, jargon, archaic language, colloquialism, and dialect)
Supporting Multilingual/English Learners	

Related *CELP standards:*	Learning Targets:
An EL can . . . determine the meaning of words and phrases in oral presentations and literary and informational text. • **I can explain how internet protocols, data packets and data centers support website functionality.** • Level 1: I can recognize words like "internet," "data," "packets," and "center" in pictures or simple diagrams. • Level 2: I can understand basic explanations of how internet protocols, data packets, and data centers support website functionality with the help of visual aids and simple explanations. • Level 3: I can understand and explain, using context, some visual aids, and basic English morphology, how internet protocols, data packets, and data centers support website functionality. • Level 4: I can explain, using context and increasingly complex visual aids, how internet protocols, data packets, and data centers support website functionality. • Level 5: I can use context and complex visual aids to explain how internet protocols, data packets, and data centers support website functionality.	

Lesson Sequence	Learning Target	Success Criteria/Assessment/Resources
1 Internet basics (1-block)	• I can understand how the internet works and can determine strategies for effective use.	• I can understand important terms related to the internet. • I can compare the internet to other computer tools. • I can explain how the internet functions and how it is used by society. • I can determine strategies for effective internet use.
2 Internet History (1-block)	• I can create a timeline to show the history of the internet.	• I can describe the predecessors to the internet. • I can analyze how and why the Internet was created. • I can analyze how the internet has progressed through three distinct eras. • I can theorize how the internet can change in the future. • I can create a clear visual representation of the history of the internet.
3 Internet Safety (1-2 blocks)	• I can explain the importance of privacy settings and their impact on society.	• I can describe common internet security threats (malware, phishing, etc.). • I can explain methods for securing personal information online (using strong passwords, encryption, etc.).
4 How Websites Work (1-2 blocks)	• I can explain how internet protocols, data packets and data centers support website functionality.	• I can recognize the various physical components of the internet (servers, routers, cables, etc.). • I can understand the difference between the World Wide Web (WWW) and the internet.

		• I can identify and explain common internet protocols (HTTP, HTTPS, TCP/IP, DNS, etc.). • I can describe how data packets are transmitted and support website functionality. • I can understand the client-server model and how it functions in web browsing. • I can explain the role of data centers and how they contribute to website functionality.

Unit Title:	
Web Design Elements	
Relevant Standards: Bold indicates priority	
• ISTE 1.4; MBA. ITPC 01.03; ITC 03.01; ITC 03.03; ITC 10.08; ITPC 01.01; ITPC 01.02; ITPC 01.03; ITPC 01.04; ITPC 01.06; ITPC 01.07; ITPC 01.08	
Essential Question(s):	**Enduring Understanding(s):**
• What factors influence the design decisions for creating an effective website layout? • How can design choices impact user engagement and achieve desired outcomes on a website?	Effective Website Design Principles: • Understanding the principles of effective website design, including layout, navigation, and visual appeal, is essential for creating user-friendly and engaging websites. Audience-Centric Design: • Designing with the target audience in mind, considering their demographics, interests, and needs, is crucial for creating websites that resonate with users and meet their expectations. User Experience (UX) and Accessibility: • Prioritizing user experience and ensuring accessibility for all users, including those with disabilities, enhances usability and inclusivity of websites. Consistent Visual Identity: • Maintaining a consistent visual identity, including color scheme, typography, and imagery, across the website strengthens branding and user recognition. Content Organization and Navigation: • Structuring website content effectively and designing intuitive navigation promotes easy access to information and enhances user satisfaction. Engagement through Visual Elements: • Incorporating relevant and purposeful graphic elements that align with content and goals can enhance user engagement and support desired outcomes. Strategic Use of Graphics: • Understanding how to strategically use graphics to support call-to-action elements and drive user interaction is essential for achieving website objectives. Optimization for Web Performance: • Creating optimized graphics and adhering to best practices for web use ensures fast loading

	times and optimal website performance across devices and platforms. Adaptation to Changing Needs: ● Recognizing that website design is an iterative process, adaptable to changing needs and user feedback, ensures ongoing improvement and relevance. Alignment with Business Goals: ● Understanding how design choices align with business goals and objectives helps create websites that contribute to overall organizational success.
Demonstration of Learning:	**Pacing for Unit**
Development of basic website	9 blocks

Integration of Technology:

Chromebooks, desktop computers with windows

Unit-specific Vocabulary:

Accessibility, Alt Text, Call-to-Action (CTA), CMS (Content Management System), Color Scheme, CSS (Cascading Style Sheets), Graphic Elements, HTML (Hypertext Markup Language), Iterative Design, Navigation, Responsive Design, Sitemap, Target Audience, Typography, Usability Testing, User Experience (UX), Visual Identity, Web Optimization, Website Design Principles, Wireframe.

Anticipated misconceptions:

- Misconception: A visually appealing website design is all about using bright colors and fancy graphics.
  - Clarification: While visual appeal is important, effective website design goes beyond aesthetics. It involves creating a design that aligns with the website's purpose and target audience. Sometimes, simple and clean designs can be more effective than overly flashy ones.
- Misconception: All users interact with websites in the same way, so designing for one type of user is sufficient.
  - Clarification: Different users have varying needs and preferences. Effective website design considers a diverse range of users, including those with disabilities, various cultural backgrounds, and different levels of technological proficiency.
- Misconception: As long as the website looks good on my device, it will look good on all devices.
  - Clarification: Website design should be responsive, meaning it adapts to different screen sizes and devices. What looks good on a desktop may not translate well to a mobile device. Testing across various devices and screen sizes is crucial for ensuring a consistent user experience.
- Misconception: Adding lots of graphics and animations will make the website more engaging.
  - Clarification: While visuals can enhance engagement, overloading a website with graphics and animations can lead to slow loading times and distract from the main content. Graphics should be purposeful and relevant to the content and should not hinder website performance.
- Misconception: Accessibility features are only necessary for users with disabilities.
  - Clarification: Accessibility features benefit all users, not just those with disabilities. For example, providing alt text for images helps users understand the content when images don't load or if they're using a screen reader. Ensuring proper color contrast benefits users in various lighting conditions or with vision impairments.

- Misconception: Once a website is designed, it doesn't need further updates or changes.
  - Clarification: Websites should be regularly updated and adapted to meet changing user needs and technological advancements. Regular maintenance, content updates, and usability testing are essential for keeping a website relevant and effective.
- Misconception: Designing a website is all about personal preference.
  - Clarification: While personal preferences play a role, effective website design is primarily driven by user research and best practices. Design decisions should be based on audience needs, usability studies, and established design principles rather than personal opinions.

Differentiation through *Universal Design for Learning*	
UDL Indicator	**Teacher Actions:**
Representation: Guide information processing and visualization	• Give explicit prompts for each step in a sequential process • Provide options for organizational methods and approaches (tables and algorithms for processing mathematical operations) • Provide interactive models that guide exploration and new understandings • Introduce graduated scaffolds that support information processing strategies • Provide multiple entry points to a lesson and optional pathways through content (e.g., exploring big ideas through dramatic works, arts and literature, film and media) • "Chunk" information into smaller elements • Progressively release information (e.g., sequential highlighting) • Remove unnecessary distractions unless they are essential to the instructional goal

Supporting Multilingual/English Learners	
Related *CELP standards:*	**Learning Targets:**

An EL can . . . adapt language choices to purpose, task, and audience when speaking and writing.

- **I can define the best layout for my website design and anticipated audience.**
- Level 1: With prompting and supports,
  - Adapt language to describe website layout and audience with emerging control.
  - Use some general academic and content-specific words related to website design.
  - Express basic ideas about the best website layout for a given audience.
- Level 2: With prompting and supports,
  - Adapt language to describe website layout and audience with emerging control.
  - Use some general academic and content-specific words related to website design.
  - Express basic ideas about the best website layout for a given audience.
- Level 3: With guidance and supports,
  - Adapt language choices and style according to purpose, task, and audience with developing ease.

- Use an increasing number of general academic and content-specific words and expressions related to website design.
- Show developing control of style and tone when discussing website layout.

- Level 4:
  - Adapt language choices and style according to purpose, task, and audience.
  - Use a wider range of complex general academic and content-specific words and phrases related to website design.
  - Adopt and maintain a formal style in discussing website layout, as appropriate.
- Level 5:
  - Adapt language choices and style according to purpose, task, and audience with ease.
  - Use a wide variety of complex general academic and content-specific words and phrases proficiently in discussing website design.
  - Employ both formal and informal styles effectively when discussing website layout, depending on the context.

Lesson Sequence	**Learning Target**	**Success Criteria/Assessment/Resources**
1 Layout (1 block)	• I can define the best layout for my website design and anticipated audience.	• I can define different common web page layouts. • I can define the target audience for the website, considering demographics, interests, and needs. • I can determine the appropriate content structure based on the website's purpose and target audience. • I can ensure that the website layout promotes a positive user experience by minimizing clutter and distractions. • I can ensure the website design is accessible to users with disabilities by adhering to accessibility guidelines (e.g., WCAG).
2 Navigation (1 block)	• I can design the navigation of my website to support the intended outcomes and audience.	• I can interpret and create a sitemap for an existing website. • I can use a sitemap to make inferences about how web designers link pages to each other. • I can ensure that navigation elements remain consistent across all pages of the website. • I can ensure that users can easily navigate between pages without confusion or disorientation. • I can ensure navigation is accessible to users with disabilities, adhering to web accessibility standards (e.g., keyboard navigation, proper use of alt text for images).
3 Theme (2-3 blocks)	• I can design the theme (color, typography, etc) of my website to	• I can design a color scheme that aligns with the branding or theme of the website.

	attract the intended audience and outcomes.	● I can use colors that evoke the desired emotional response or mood from the audience in my design (e.g., calming, energetic, professional). ● I can ensure that visual elements such as color, typography, and imagery are consistent throughout the website. ● I can make design choices that reflect a cohesive and unified visual identity that resonates with the intended audience. ● I can ensure typography is legible and appropriate for the content and audience. ● I can use font styles, sizes, and spacing to enhance readability, accessibility, and user experience. ● I can make design choices that are informed by research or analysis of the target audience's preferences, demographics, and psychographics.
4 Graphic Elements (1-2 blocks)	● I can add graphic elements to my website to attract the intended audience and drive desired outcomes.	● In my design, I can make sure graphics are directly related to the content and purpose of the website. ● In my design, each graphic serves a specific purpose in enhancing user engagement or conveying information ● I can align graphic elements with the overall branding and visual identity of the website. ● I can ensure graphics are accessible to users with disabilities, adhering to web accessibility standards (e.g., providing alt text for images, ensuring color contrast for visual elements). ● I can strategically place graphics to support call-to-action (CTA) elements and drive desired outcomes (e.g., prompting users to make a purchase, sign up for a newsletter, or contact the business). ● I can select and create optimized graphics for web use to ensure fast loading times and optimal performance.

Unit Title:	
HTML	
Relevant Standards: Bold indicates priority	
ITPC 01.13; ITC 08.01; ITC 09.01; ITC 10.08; ITPC 01.02; ITPC 01.06; ITPC 01.07; ITPC 01.08	
Essential Question(s):	**Enduring Understanding(s):**
• How do HTML elements and tags support the design and navigation of a website? • How does understanding HTML contribute to the creation of an effective website design? • In what ways can the use of semantic HTML elements improve the accessibility and usability of a website?	• HTML is the foundation of web development: Students understand that HTML (Hypertext Markup Language) serves as the fundamental building block for creating web pages. They recognize that proficiency in HTML is essential for structuring content, organizing information, and enhancing user experience on the web. • Effective website design requires a combination of technical and creative skills: Students grasp that designing a visually appealing and functional website involves a blend of technical knowledge of HTML coding and creative skills in graphic design, typography, and layout. They understand that successful web development entails balancing technical constraints with aesthetic considerations to achieve the desired outcomes. • Semantic markup enhances accessibility and usability: Students learn that using semantic HTML elements contributes to the accessibility and usability of a website. They understand the importance of structuring content with semantic tags to improve search engine visibility, assistive technology compatibility, and overall user comprehension. • Web development involves continuous learning and adaptation: Students recognize that the field of web development is dynamic and constantly evolving. They understand the need to stay updated with new HTML standards, emerging technologies, and best practices to create modern, responsive, and user-friendly websites that meet the evolving needs of both developers and users.

Demonstration of Learning:	**Pacing for Unit**
Write a simple HTML code for a website	14 blocks

Integration of Technology:

Chromebooks, desktop computers with windows.

Unit-specific Vocabulary:

Accessibility, Aesthetic Considerations, Assistive Technology, Backend Functionality, Cascading Style Sheets (CSS), Content Structure, Creative Skills, Dynamic, Emerging Technologies, HTML (Hypertext Markup Language), Interactivity, Responsive, Search Engine Optimization (SEO), Semantic Markup, Technical Knowledge, Typography, Usability, User Experience (UX), User Needs.

Anticipated misconceptions:

- Misconception: HTML is the only language needed for web development.
  - Clarification: While HTML is fundamental, web development involves more than just HTML. CSS (Cascading Style Sheets) is used for styling and layout, JavaScript for interactivity, and other languages and frameworks for backend functionality. HTML provides the structure, but a combination of languages and technologies is necessary for full website development.
- Misconception: Effective website design is primarily about making the website look pretty.
  - Clarification: Effective website design goes beyond aesthetics; it's about creating a user-friendly and functional experience. While visual appeal is important, functionality, usability, and accessibility are equally crucial. Design decisions should prioritize user needs and goals over purely aesthetic considerations.
- Misconception: Semantic markup is only about improving search engine rankings.
  - Clarification: Semantic markup serves multiple purposes beyond SEO (Search Engine Optimization). While it does improve search engine visibility by providing context to search engines, it also enhances accessibility for users with disabilities. Semantic HTML elements improve screen reader compatibility and help all users better understand the content and structure of a webpage.
- Misconception: Once you learn HTML, you don't need to update your skills.
  - Clarification: Web development is a continuously evolving field. HTML standards, as well as best practices and technologies, are constantly changing. It's important for developers to stay updated with the latest developments, tools, and techniques to create modern and responsive websites. Ongoing learning and adaptation are essential for staying relevant in web development.

Differentiation through *Universal Design for Learning*

UDL Indicator	**Teacher Actions:**
Representation: Clarify syntax and structure	• Clarify unfamiliar syntax (in language or in math formulas) or underlying structure (in diagrams, graphs, illustrations, extended expositions or narratives) through alternatives that: • Highlight structural relations or make them more explicit • Make connections to previously learned structures

	• Make relationships between elements explicit (e.g., highlighting the transition words in an essay, links between ideas in a concept map, etc.)

Supporting Multilingual/English Learners	
Related *CELP standards:*	**Learning Targets:**

An EL can construct meaning from oral presentations and literary and informational text through grade appropriate listening, reading, and viewing.

I can organize my page by adding divs, spans, and semantic tags with the HTML programming language.

Level 1: With prompting and support, use a very limited set of strategies to:
- Identify basic HTML tags such as , , and <p>.
- Recognize a few key words and phrases related to HTML coding.
- Follow basic instructions to add simple tags to a webpage.

Level 2: With prompting and support, use an emerging set of strategies to:
- Identify the main purpose of HTML tags like , , and <p>.
- Retell a few key details about the usage of these tags in organizing a webpage.
- Explain how these tags help in structuring content on a webpage.

Level 3: With guidance and support, use a developing set of strategies to:
- Determine the central idea of organizing a webpage using divs, spans, and semantic tags.
- Explain how the theme of page organization is developed by specific details in the HTML code.
- Summarize the purpose of divs, spans, and semantic tags in organizing content on a webpage.

Level 4: Use an increasing range of strategies to:
- Determine two central ideas of organizing a webpage using divs, spans, and semantic tags.
- Analyze the development of these ideas by examining specific HTML tags and their roles.
- Cite specific details and evidence from the HTML code to support the analysis.
- Summarize the overall structure of a webpage using divs, spans, and semantic tags.

Level 5: Use a wide range of strategies to:
- Determine central ideas of organizing a webpage using divs, spans, and semantic tags.
- Analyze the development of these ideas by thoroughly examining the HTML code.
- Cite specific details and evidence from the HTML code to support the analysis.
- Summarize the key principles of structuring a web page using divs, spans, and semantic tags.

Lesson Sequence	**Learning Target**	**Success Criteria/Assessment/Resources**
1 HTML Skeleton (1 block)	• I can use the HTML programming language to code a website.	• I can understand and identify the parts of the HTML skeleton. • I can create the HTML Skeleton.
2 HTML Formatting Text (1-2 blocks)	• I can format text using the HTML programming language.	• I can utilize tags such as <h1>-<h6> for headings, <p> for paragraphs, and / with for lists. • I can apply text formatting tags like , , <u>, and as needed.

		• I can implement navigation menus with <nav> and / tags.
3 HTML Links (1 block)	• I can link elements using the HTML programming language.	• I can create hyperlinks using the <a> tag with appropriate href attributes.
4 HTML Media (1-2 blocks)	• I can insert images and media using the HTML programming language.	• I can embed images using the <img> tag with correct src and alt attributes. • I can integrate multimedia content with <audio> and <video> tags.
5 HTML Tables and Forms (2-3 blocks)	• I can insert and format tables and forms using the HTML programming language	• I can create tables using <table>, <tr>, <th>, and <td> tags for tabular data. • I can construct forms with <form>, <input>, <select>, and <textarea> tags for user input.
6 HTML Organization (1-2 blocks)	• I can organize my page by adding divs, spans, and semantic tags with the HTML programming language.	• I can use and <spans> to section out my page. • I can use the semantic tags to structure my page.

Unit Title:	
CSS	
Relevant Standards: Bold indicates priority	
ISTE 1.4; ITPC 01.13;ITC 08.01;ITC 09.01; ITC 10.08; ITPC 01.01; ITPC 01.02; ITPC 01.03; ITPC 01.04; ITPC 01.05; ITPC 01.06; ITPC 01.07; ITPC 01.08	
Essential Question(s):	**Enduring Understanding(s):**
• How do CSS properties enhance the visual presentation of HTML elements on a webpage? • What are the various methods of applying CSS properties to HTML elements, and when should each method be used? • How can the principles of cascading and specificity impact the application of CSS properties in web development?	• CSS enhances the presentation of HTML elements: Students understand that CSS (Cascading Style Sheets) is essential for controlling the appearance and layout of HTML elements on a webpage. They recognize that proficiency in CSS enables them to apply visual styles, such as colors, fonts, spacing, and positioning, to enhance the aesthetic appeal and usability of a website. • Different methods for applying CSS properties: Students grasp the various techniques for applying CSS properties to HTML elements, including inline styling, wildcard styling, tag selection, class selection, and ID selection. They understand the advantages, limitations, and appropriate use cases for each method, considering factors such as specificity, maintainability, and ease of styling. • Cascading and specificity principles in CSS: Students learn about the principles of cascading and specificity in CSS, understanding how these concepts determine the precedence and resolution of conflicting styles. They recognize the importance of understanding the order of precedence in CSS styling and the implications for managing style sheets, avoiding conflicts, and achieving consistent styling across a website.
Demonstration of Learning:	**Pacing for Unit**
Internet timeline, development of safety setting	13 blocks

Integration of Technology:

Chromebooks, desktop computers with windows

Unit-specific Vocabulary:

Aesthetic Appeal, Cascading Style Sheets (CSS), Class Selection, CSS Property, HTML (Hypertext Markup Language), ID Selection, Inline Styling, Semantic Markup, Specificity, Tag Selection, Wildcard Styling.

Anticipated misconceptions:

- Misconception: CSS is only used for changing text styles.
  - Clarification: While CSS can indeed be used to style text, it also encompasses a wide range of properties for controlling the layout, appearance, and behavior of HTML elements beyond just text. This includes properties for colors, backgrounds, borders, spacing, positioning, and more.
- Misconception: Inline styling is the best and most efficient way to apply CSS properties.
  - Clarification: While inline styling can be convenient for quick adjustments to individual elements, it is generally not recommended for larger-scale styling tasks due to its lack of separation of concerns and potential difficulty in maintaining consistency across multiple pages. External style sheets linked via <link> tags or internal style sheets within <style> tags offer better organization, reusability, and maintainability.
- Misconception: Classes and IDs serve the same purpose in CSS.
  - Clarification: Classes and IDs have different purposes and usage patterns in CSS. Classes are typically used for styling multiple elements that share common characteristics, while IDs are intended to uniquely identify a single element on a page. Additionally, classes can be applied to multiple elements, while IDs should be unique within a document. Understanding these distinctions is important for proper CSS styling and HTML structure.
- Misconception: CSS specificity is solely determined by the order of rules in the style sheet.
  - Clarification: CSS specificity is determined by a combination of factors, including the type of selector used (e.g., tag, class, ID), the number of selectors, and any inline styles. It's not solely based on the order of rules in the style sheet. This misconception can lead to confusion about why certain styles are not being applied as expected and highlights the importance of understanding specificity rules in CSS.

Differentiation through *Universal Design for Learning*

UDL Indicator	**Teacher Actions:**
Representation: Activate or supply background knowledge	• Anchor instruction by linking to and activating relevant prior knowledge (e.g., using visual imagery, concept anchoring, or concept mastery routines) • Pre-teach critical prerequisite concepts through demonstration or models • Bridge concepts with relevant analogies and metaphors • Make explicit cross-curricular connections (e.g., teaching literacy strategies in the social studies classroom)

Supporting Multilingual/English Learners	
Related *CELP standards:*	**Learning Targets:**

An EL can . . . adapt language choices to purpose, task, and audience when speaking and writing.

- **I can develop a website to meet defined specifications using HTML and CSS.**

- Level 1: With prompting and supports,
  - Adapt language to describe website layout and audience with emerging control.
  - Use some general academic and content-specific words related to website design.
  - Express basic ideas about the best website layout for a given audience.
- Level 2: With prompting and supports,
  - Adapt language to describe website layout and audience with emerging control.
  - Use some general academic and content-specific words related to website design.
  - Express basic ideas about the best website layout for a given audience.
- Level 3: With guidance and supports,
  - Adapt language choices and style according to purpose, task, and audience with developing ease.
  - Use an increasing number of general academic and content-specific words and expressions related to website design.
  - Show developing control of style and tone when discussing website layout.
- Level 4:
  - Adapt language choices and style according to purpose, task, and audience.
  - Use a wider range of complex general academic and content-specific words and phrases related to website design.
  - Adopt and maintain a formal style in discussing website layout, as appropriate.
- Level 5:
  - Adapt language choices and style according to purpose, task, and audience with ease.
  - Use a wide variety of complex general academic and content-specific words and phrases proficiently in discussing website design.
  - Employ both formal and informal styles effectively when discussing website layout, depending on the context.

Lesson Sequence	Learning Target	Success Criteria/Assessment/Resources
1 Introduction to CSS (2 blocks)	• I can understand the different ways of applying CSS properties to HTML elements.	• I can understand what a CSS property is. • I can apply CSS properties to an element using inline styling. • I can apply CSS properties to an element using wildcard styling. • I can link a stylesheet to my HTML document.
2 CSS by Tag (1-2 blocks)	• I can apply CSS properties to HTML elements by selecting via Tag.	• I can apply text formatting CSS properties via tag • I can overwrite formatting by wildcard using tag styling.

3 CSS by Class (1-2 blocks)	• I can apply CSS properties to HTML elements by selecting via Class.	• I can apply text formatting CSS properties via class • I can overwrite formatting by Tag using Class styling.
4 CSS by Id (1-2 blocks)	• I can apply CSS properties to HTML elements by selecting via Id.	• I can apply text formatting CSS properties via id. • I can overwrite formatting by Class using Id styling. • I can overwrite formatting by Id using inline styling.
5 Culminating Project: Website Development (4-5 Blocks)	• I can develop a website to meet defined specifications using HTML and CSS.	• I can review project specifications. • I can design a website that meets the clients needs. • I can select the best layout for my website design and anticipated audience. • I can design the navigation of my website to support the intended outcomes and audience. • I can design the theme (color, typography, etc) of my website to attract the intended audience and outcomes. • I can add graphic elements to my website to attract the intended audience and drive desired outcomes. • I can code for the desired elements using HTML and CSS.