FREEHOLD REGIONAL HIGH SCHOOL DISTRICT

OFFICE OF CURRICULUM AND INSTRUCTION

CAREER AND TECHNICAL EDUCATION

HONORS WEB DESIGN

Grade Level: 10

Credits: 5.00

BOARD OF EDUCATION ADOPTION DATE:
AUGUST 27, 2018

FREEHOLD REGIONAL HIGH SCHOOL DISTRICT

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HONORS WEB DESIGN

WEB DESIGN PATHWAY PROGRAM LEARNER PROFILE

The mission of the Web Design Pathway Program is to develop critical-thinking students in the field of Web Design, preparing them for a career in this field and to developing transferable, marketable skills. Our students strive to be:

- **Inquisitive**: They possess curiosity about how technology works and how web design happens.
- **Logical Problem-Solvers**: They gain satisfaction from solving challenging problems efficiently and effectively. These students enjoy breaking down problems into smaller chunks in order to create better solutions, and yet are open-minded to other possible solutions. They are not afraid of digging further to reach a proper solution.
- **Focused**: They possess an intrinsic drive to be successful in their interests.
- **Passionate**: They are interested in informational technology and modern creative design. They choose to pursue these interests on their own time outside of school.
- **Persistent**: They are not afraid of failure and keep trying to succeed. They understand that learning comes from failures and mistakes.
- **Creative**: They have an artistic flair or a design sensibility. They are original and like to think outside the box. They enjoy creating something original that others will use.

COURSE DESCRIPTION

The Honors Web Design course is the first course in the CTE Web Design Pathway Program. In this course, students will learn the fundamentals of the internet, coding principals, Hypertext Markup Language (HTML) code and Cascading Styles Sheets (CSS). This course will prepare students to create and maintain professional static websites using current industry tools and emerging trends and technologies. Students will design and create functional web pages according to specifications using HTML, CSS, and JavaScript and emerging trends and technologies. In addition, students will solve problems collaboratively and creatively in a professional environment, mirroring that of industry, while developing transferable, marketable skills in preparation for careers in the field of web design.

Honors Web Design COURSE SCOPE AND SEQUENCE			
UNIT TITLE	**DRIVING QUESTIONS**	**STANDARD ALIGNED PERFORMANCE EXPECTATIONS**	**SUGGESTED PACING**
UNIT 1: Introduction to Web Design	Driving Questions: • What are the hardware components associated with information systems and why are they important? • How do we select appropriate software functions and applications and maintain them for optimal operation and functionality? • What is the difference between web design and web development? • How do web designers and developers work together? • How are the tools for web designers and developers different? • What websites have changed how education is taught and how?	9.3.IT.12 Demonstrate knowledge of the hardware components associated with information systems. 9.3.IT.13 Compare key functions and applications of software and determine maintenance strategies for computer systems.	4 Sessions
UNIT 2: Hypertext Markup Language - HTML	Driving Questions: • How does a designer meet customer requirements? • How does a designer develop and manage a project to meet customer requirements? • How does HTML support information organization? • How does HTML layout impact readability and why is readability important? • How could you compare and contrast different HTML representations of the same information? • What is copyright and intellectual property?	9.3.IT-WD.3 Write product specifications that define the scope of work aligned to customer requirements. 9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	18 Sessions
UNIT 3: Cascade Styling Sheets - CSS	Driving Questions: • Why quality assurance practices are important? • What limitations do you notice when designing a webpage with just HTML? • What are some considerations that go into developing a website? • Why might people or organizations want to develop their own website and share it on the Internet?	9.3.IT.9 Describe quality assurance practices and methods employed in producing and providing quality IT products and services. 9.3.IT.13 Compare key functions and applications of software and determine maintenance strategies for computer systems. 9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production,	14 Sessions

		development and project management.	
UNIT 4: Advanced HTML & CSS	Driving Questions: • When is it necessary to use Cascade Styling Sheets (CSS)? • How can you identify, troubleshoot, and resolve errors in CSS? • What kinds of interactivity and dynamism does CSS support? • What is the optimal size of a website iteration? • What happens if you increase or decrease the scope of work for an individual iteration of a website? • Why is an iterative approach important to the customer? To the developer?	9.3.IT.2 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service. 9.3.IT.6 Describe trends in emerging and evolving computer technologies and their influence on IT practices. 9.3.IT-WD .7 valuate the functionality of a digital communication product using industry accepted techniques and metrics.	24 Sessions
UNIT 5: Cascade Styling Sheets (CSS) Frameworks	Driving Questions: • What is a Cascade Styling Sheets (CSS) framework and why are they so popular to use? • Why is it that one class from a CSS framework can do so much to changing the style of an element? • How can a user modify a class from a CSS framework and why is that important for developers to know?	9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management. 9.3.IT.6 Describe trends in emerging and evolving computer technologies and their influence on IT practices.	26 Sessions
UNIT 6: Project Development	Driving Questions: • What are the stages of web project development? • How can you measure if a web project is completed? • How can you determine if a web project is meeting the need for which it was commissioned?	9.3.IT.2 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service. 9.3.IT.9 Describe quality assurance practices and methods employed in producing and providing quality IT products and services. 9.3.IT-WD.2 Apply the design and development process to produce user-focused Web and digital communications solutions. 9.3.IT-WD.8 Implement quality assurance processes to deliver quality digital communication products and services.	4 Sessions
UNIT 7: Publish Web Pages	Driving Questions: • What are the benefit of publishing a web page?	9.3.IT-WD.6 Design, create and publish a digital communication	4 Sessions

	• What is the difference between a published and an unpublished web page? • How long do web pages stay published for? • Who can see web pages that are published to the internet?	product based on customer needs. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	
UNIT 8: Designing User Interfaces	Driving Questions: • Why is it important for developers to have user empathy? What is the result when they lack it? • When two designers/developers have different opposing ideas of how a web page should be created, what is the best way to resolve it? • What are the risks associated with skipping the prototype phase?	9.3.IT.1 Demonstrate effective professional communication skills and practices that enable positive customer relationships. 9.3.IT-WD.1 Analyze customer requirements to design and develop a Web or digital communication product.	7 Sessions
UNIT 9: Introduction to Object Oriented Programming with Visual Block Programming Language	Driving Questions: • What is indicative of bad programming style or bad program design? • Which are better: “While loops’ or “for loops”? Why? Can you rewrite any while loop as a for loop? Can you rewrite any for loop as a while loop? • How can you tell if every line of your program is being executed? What if there are conditions in your program? • Why is indentation important? Should indentation change the execution of a program? Should indentation be required? Should a program fail if the indentation is wrong?	9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management.	7 Sessions
UNIT 10: Introduction to Programming Challenges	Driving Questions: • How do you start to solve a programming problem? • Why are loops required to solve most problems? • How do you decide when a loop should stop? • Why are functions necessary? Why not just write one long program without any functions? • How can you prove that a programming challenge has been solved? • How long is an appropriate amount of time to struggle with a coding challenge before seeking assistance?	9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management.	7 Sessions

UNIT 11: Capstone Project - Web Design Project	Driving Questions: • Which pieces of content on a web page should appear closer to the top and why? • How do you decide which content to put on a page vs. which content should be linked to? • How do you decide which elements should appear on desktop but not on mobile? • How do you prioritize the links in a navigation menu? What about sub-menus? • How do you choose between CSS Frameworks? • What are the advantages of open source libraries? • Which skills are most important to list on a portfolio? • What is difference between the tags for table rows, list elements, spans, and *divs* and when is each most appropriate?	9.3.IT-WD.2 Apply the design and development process to produce user-focused Web and digital communications solutions. 9.3.IT-WD.3 Write product specifications that define the scope of work aligned to customer requirements. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	11 Sessions

Honors Web Design

UNIT 1: Introduction to Web Design **SUGGESTED PACING: 4 Sessions**

UNIT 1	DRIVING QUESTIONS	STANDARD ALIGNED PERFORMANCE EXPECTATIONS
UNIT 1: Introduction to Web Design	Driving Questions: • What is the difference between web design and web development? • How do web designers and developers work together? • How are the tools for web designers and developers different? • What websites have changed how education is taught and how?	9.3.IT.12 Demonstrate knowledge of the hardware components associated with information systems. 9.3.IT.13 Compare key functions and applications of software and determine maintenance strategies for computer systems.

UNIT 1 STANDARD-ALIGNED LEARNING OBJECTIVES	
Instruction and assessment	
9.3.IT.1.2 Demonstrate knowledge of the hardware components associated with information systems. 9.3.IT.1.3 Compare key functions and applications of software and determine maintenance strategies for computer systems	
4.0	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.
3.0	Students will be able to: • Define information systems and list hardware components associated with information systems. • Identify maintenance strategies for computer systems and compare and contrast key functions and applications of software • Identify and explain the difference between web design and web development. • Describe how websites have changed education, arts and commerce. • Explain what a browser is and describe its purpose. • List several kinds of browsers. • Describe how users are able to display specific web pages to their computers. • describe the process that happens from typing in a URL, sending a request and response over the Internet, to viewing a webpage. • Explain that the internet is a network of networks. • Compare and contrast the different levels of censorship that different organizations or countries impose on the internet.
2.0	The students demonstrates partial success at score 3.0
1.0	With help, partial success at score 2.0 content but not at score 3.0 content.

UNIT 1 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT.1.2	Demonstrate knowledge of the hardware components associated with information systems.	Describe web design and articulate the difference between web design and development. CRP6. Demonstrate creativity and innovation
		Describe how websites have changed education, arts and commerce. CRP 4 Communicate clearly and effectively with reason: writing CRP 11: Use technology to enhance productivity: word processing tool
		Explain what a browser is and describe its purpose CRP 4 Communicate clearly and effectively with reason: writing CRP 11: Use technology to enhance productivity: word processing tool
		List several kinds of browsers (at least 4) CRP 4 Communicate clearly and effectively with reason: speaking
9.3.IT.1.3	Compare key functions and applications of software and determine maintenance strategies for computer systems.	Describe how users are able to display specific web pages to their computers CRP 4 Communicate clearly and effectively with reason: writing CRP 11: Use technology to enhance productivity: word processing tool
		Describe the process that happens from typing in a URL, sending a request and response over the Internet, to viewing a webpage. CRP 4 Communicate clearly and effectively with reason: writing
		Explain that the internet is a network of networks CRP 4 Communicate clearly and effectively with reason: writing and speaking CRP 11 Use technology to enhance productivity: Digital presentation tool
		Compare and contrast the different levels of censorship that different organizations or countries impose on the internet. CRP 4 Communicate clearly and effectively with reason: writing CRP 11: Use technology to enhance productivity: word processing tool

UNIT 1 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
RST.9-10.2	Determine the central ideas, themes, or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics. Review career goals and determine steps necessary for attainment.

WHST.9-10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.

UNIT 1 NOCTI			
ID			**Description**
Internet Basics	1	a	Describe how information is physically moved across the Internet
Internet Basics	1	b	Describe the use of web browsers and various clients (e.g., email, FTP) within a given context of use
Internet Basics	1	c	Explain ways to access the Internet
Internet Basics	1	d	Search for information on the Web
Internet Basics	1	e	Describe different types of web pages and their uses
Internet Basics	1	f	Identify the tools required for web publishing
Internet Basics	1	g	Describe the function and components of a URL (how it relates to protocols, addresses, and ports)

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.2	Modify Personalized Student Learning Plans to support declared career goals.	Students will develop Personalized Student Learning Plans and make modifications as needed.
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

SUPPORTING RESOURCES
Appendix A: Accommodations and Modifications for Various Student Populations
Appendix B: Assessment Evidence
Appendix C: Interdisciplinary Connections

Honors Web Design

UNIT 2 OVERVIEW: Hypertext Markup Language – HTML **SUGGESTED PACING: 18 Sessions**

UNIT 2	DRIVING QUESTIONS	STANDARD ALIGNED PERFORMANCE EXPECTATIONS
UNIT 2: Hypertext Markup Language - HTML	• How does HTML support information organization? • How does HTML layout impact readability and why is readability important? • How could you compare and contrast different HTML representations of the same information? • What is copyright and intellectual property?	9.3.IT-WD.3 Write product specifications that define the scope of work aligned to customer requirements. 9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.

UNIT 2 STANDARD-ALIGNED LEARNING OBJECTIVES

Instruction and assessment.

9.3.IT-WD.3 Write product specifications that define the scope of work aligned to customer requirements.
9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management.
9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.

4.0	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.

3.0	Students will:
	• Create a simple web page with fully formed HTML pages including:
	  ○ Images in HTML that are legally allowed to use in their projects;
	  ○ Formatting tags to modify the appearance of text and make web pages look clear and aesthetically pleasing;
	  ○ HTML styling to make their web pages more visually appealing and unique;
	  ○ Hyperlinks;
	  ○ Ordered and unordered lists;
	  ○ Tables;
	  ○ Their own colors created by mixing primary colors: red, green, and blue.

2.0	Students will • Describe the purpose and applications of HTML code. • Describe various parts of an HTML page. • Explain what copyright laws are and why they are important • Accurately attribute images they find and want to use • Explain the benefits of including tables on web pages • Compare various ways of displaying information and choose the appropriate format • Explain how colors are created on web pages • Explain what copyright laws are and why they are important and accurately attribute images they find and want to use

1.0	With help, partial success at score 2.0 content but not at score 3.0 content.

UNIT 2 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD-ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT-WD.3 9.3.IT-WD.4 9.3.IT-WD.10	Write product specifications that define the scope of work aligned to customer requirements. Demonstrate the effective use of tools for digital communication production, development and project management. Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	• Create a simple web page with fully formed HTML pages including: o Images in HTML that are legally allowed to use in their projects . o Formatting tags to modify the appearance of text and make web pages look clear and aesthetically pleasing. o HTML styling to make their web pages more visually appealing and unique. o Hyperlinks. o Ordered and unordered lists. o Tables. o Their own colors created by mixing primary colors: red, green, and blue CRP2. Apply appropriate academic and technical skills CRP6 Demonstrate creativity and innovation. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them CRP9. Model integrity, ethical leadership and effective management. CRP11 Use technology to enhance productivity.
		Describe the purpose and applications of HTML code. Describe various parts of an HTML page. Explain what copyright laws are and why they are important Explain the benefits of including tables on web pages Explain how colors are created on web pages CRP4 Communicate clearly and effectively and with reason in writing.
		Explain what copyright laws are and why they are important and accurately attribute images they find and want to use CRP9. Model integrity, ethical leadership and effective management.
		Compare various ways of displaying information and choose the appropriate format CRP2. Apply appropriate academic and technical skills. CRP7. Employ valid and reliable research strategies

UNIT 2 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.
WHST.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 2 NOCTI			
ID			**Description**
Programming / Markup / Scripting	2	b	Demonstrate the ability to create HTML/XHTML/XML pages
Editors	3	a	Create a website
Editors	3	b	Design and implement tables and templates
Web Marketing and Business Management	6	a	Explain the issues involved in copyrighting, trademarking, and licensing

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.

8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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Appendix B: Assessment Evidence
Appendix C: Interdisciplinary Connections

Honors Web Design

UNIT 3 OVERVIEW: Cascade Styling sheets - CSS **SUGGESTED PACING: 14 Class Sessions**

UNIT 3	DRIVING QUESTIONS	UNIT 3 STANDARD ALIGNED PERFORMANCE EXPECTATIONS
UNIT 3: Cascade Styling Sheets - CSS	Driving Questions: • What limitations do you notice when designing a webpage with just HTML? • What are some considerations that go into developing a website? • Why might people or organizations want to develop their own website and share it on the Internet?	9.3.IT.9 Describe quality assurance practices and methods employed in producing and providing quality IT products and services.
		9.3.IT.13 Compare key functions and applications of software and determine maintenance strategies for computer systems.
		9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management

UNIT 3 STANDARD-ALIGNED LEARNING OBJECTIVES

Instruction and Assessments:	
9.3.IT.9 Describe quality assurance practices and methods employed in producing and providing quality IT products and services. 9.3.IT.13 Compare key functions and applications of software and determine maintenance strategies for computer systems. 9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management.	
4	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.

3	Students will:
	• Create a website including CSS styling elements.
	  ○ Use CSS tag selectors to select all elements of the same kind and give them all the same style.
	  ○ Use CSS Class selectors to apply CSS styling to all HTML units that share a specified class.
	  ○ Use CSS Selectors by ID to select a single element to format on a webpage.
	  ○ Apply the order of precedence of CSS rules to achieve the desired styling of specific elements on the webpage.

2	Students can: • Describe how CSS adds styling to HTML pages. • Explain the order of precedence of CSS rules. • Explain why CSS allows rules to cascade.
1	With help, partial success at score 2 content but not at score 3 content.

UNIT 3 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT.9 9.3.IT.13 9.3.IT-WD.4	Describe quality assurance practices and methods employed in producing and providing quality IT products and services. Compare key functions and applications of software and determine maintenance strategies for computer systems. Demonstrate the effective use of tools for digital communication production, development and project management.	Create a website including CSS styling elements. o Use CSS tag selectors to select all elements of the same kind and give them all the same style. o Use CSS Class selectors to apply CSS styling to all HTML units that share a specified class. o Use CSS Selectors by ID to select a single element to format on a webpage. o Apply the order of precedence of CSS rules to achieve the desired styling of specific elements on the webpage. CRP1. Act as a responsible and contributing citizen and employee. CRP8. Utilize critical thinking to make sense of problems and persevere in solving them. CRP9. Model integrity, ethical leadership and effective management.
		Describe how CSS adds styling to HTML pages. CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason in writing.
		Describe how CSS adds styling to HTML pages. CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason in writing.
		Explain why CSS allows rules to cascade. CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason in writing. Explain the order of precedence of CSS rules. CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason in writing

UNIT 3 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.

WHST.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 3 NOCTI			
ID			**Description**
Programming / Markup / Scripting	2	b	Demonstrate the ability to create HTML/XHTML/XML pages
Programming / Markup / Scripting	2	d	Use CSS to differentiate between logic, content, and presentation
Editors	3	d	Enhance site elements by using templates and style sheets

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.

8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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Appendix A: Accommodations and Modifications for Various Student Populations
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Honors Web Design

UNIT 4 OVERVIEW: Advanced HTML & CSS **SUGGESTED PACING: 24 Sessions**

UNIT 4	DRIVING QUESTIONS	UNIT 4 STANDARD-ALIGNED LEARNING PERFORMANCE EXPECTATIONS
UNIT 4: Advanced HTML & CSS	Driving Questions: • When is it necessary to use CSS? • How can you identify, troubleshoot, and resolve errors in CSS? • What kinds of interactivity and dynamism does CSS support? • What is the optimal size of a website iteration? • What happens if you increase or decrease the scope of work for an individual iteration of a website? • Why is an iterative approach important to the customer? To the developer?	9.3.IT.2 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service. 9.3.IT.6 Describe trends in emerging and evolving computer technologies and their influence on IT practices. 9.3.IT-WD.7 Evaluate the functionality of a digital communication product using industry accepted techniques and metrics

UNIT 4 STANDARD-ALIGNED LEARNING OBJECTIVES

Instruction and Assessment

9.3.IT.2 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
9.3.IT.6 Describe trends in emerging and evolving computer technologies and their influence on IT practices.
9.3.IT-WD.7 Evaluate the functionality of a digital communication product using industry accepted techniques and metrics.

4	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.

3	The student will:
	• Create multi-file websites that are divided for clarity and organization including the following:
	  ○ Use IFrames to embed other websites into their own website.
	  ○ Use divs to group and style multiple elements at once.
	  ○ Use the tag to style multiple elements of inline text.
	  ○ Combine CSS selectors to style multiple selectors, parent/child selectors, and specific combinations of classes, ids, and tags.
	  ○ Cut down on the amount of repeated code in their programs by combining selectors and using div.
	  ○ Use special selectors to style their website as the user interacts with elements on the page.
	  ○ Use the visibility property to make elements visible or invisible on their page.
	  ○ Explain the difference between visibility and display properties (visibility still takes up space when it's not visible, display does not)
	  ○ Use the inspector tool to modify styling and content inline.
	  ○ Modify the margins, borders and padding of an HTML element.
	  ○ Use CSS to manipulate images using filters, opacity, sizing, and more.

	○ Add simple animations to their websites, such as transitions, transition delays, color changes, size changes, and rotations. ○ Add simple interactions to their websites, so that parts of the website change if the user hovers or clicks on parts of the site.
2	The student will: • Define what an IFrame is, and explain how they might be used in websites. • Explain why multi-page websites make sense from a user experience perspective and from a development perspective • Explain the importance of the DRY Principle. • Explain the box model and how it is essentially a box that wraps around every HTML element. • Name the different components that wrap around an HTML element. • Explain the term “div” • Identity additional HTML and CSS features on their own
1	With help, partial success at score 2 content but not at score 3 content.

UNIT 4 STANDARD ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT.2	Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.	Create multi-file websites that are divided for clarity and organization including advanced coding techniques and strategies: CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason. CRP6. Demonstrate creativity and innovation when creating web pages. CRP9. Model integrity, ethical leadership and effective management. CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.
		Define what an IFrame is, and explain how they might be used in websites. CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason.
9.3.IT.6	Describe trends in emerging and evolving computer technologies and their influence on IT practices.	Explain why multi-page websites make sense from a user experience perspective and from a development perspective CRP2. Apply appropriate academic and technical skills. CRP4. Communicate clearly and effectively and with reason.
		Explain the importance of the DRY Principle.
9.3.IT-WD.7	Evaluate the functionality of a digital communication product using industry accepted techniques and metrics.	Explain the box model and how it is essentially a box that wraps around every HTML element.
		Name the different components that wrap around an HTML element.
		Explain the term “div”
		Identity additional HTML and CSS features on their own. CRP2. Apply appropriate academic and technical skills.

UNIT 4 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.
WHST.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
WHST.9-10.9	Draw evidence from informational texts to support analysis, reflection, and research.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 4 NOCTI			
ID			**Description**
Programming / Markup / Scripting	2	d	Use CSS to differentiate between logic, content, and presentation
Editors	3	f	Enhance a website with media objects and images
Web Multimedia	5	a	Add interactive media to a website through the use of rich Internet applications
Web Multimedia	5	d	Implement multimedia on the Web

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.

9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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Honors Web Design

UNIT 5 OVERVIEW: CSS Frameworks **SUGGESTED PACING: 26 Sessions**

UNIT 5	DRIVING QUESTIONS	UNIT 5 STANDARD-ALIGNED PERFORMANCE EXPECTATIONS
UNIT 5: CSS Frameworks	Driving Questions: • What is a CSS framework and why are they so popular to use? • Why is it that one class from a CSS framework can do so much to changing the style of an element? • How can a user modify a class from a CSS framework and why is that important for developers to know?	9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management. 9.3.IT.6 Describe trends in emerging and evolving computer technologies and their influence on IT practices.

UNIT 5 STANDARD-ALIGNED LEARNING OBJECTIVES

Instruction and Assessment	
9.3.IT-WD Demonstrate the effective use of tools for digital communication production, development and project management. 9.3.IT.6 Describe trends in emerging and evolving computer technologies and their influence on IT practices.	
4	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.
3	The students will: • Create a website integrating CSS frameworks. The students is able to: o Enabled Bootstrap o Create a basic Bootstrap page using container to gather the pieces of the site o Use Bootstrap's grid system to structure their webpages o Take a Bootstrap template and modify the page content o Add professional tables using Bootstrap's CSS rules for tables o Take a Bootstrap template and modify the styles o Add a professional title header for the web page utilizing a Jumbotron o Divided content of a page into a header and main content o Glyphicons to add widely recognized icons to their webpages to improve usability o Create and style buttons o Create a gallery of thumbnail images o Create and add navbar that sits at the top of a webpage with links o Create and add dropdown menus in a navbar o Create and add dropdown menus to redirect to another part of the same page
2	The student will: • Research Bootstrap documentation to accomplish a task • Explain how the grid system enables Bootstrap sites to be responsive • Explain what Bootstrap is • Explain why a web developer would use Bootstrap • Compare and contrast responsive vs. unresponsive sites • Explain the difference between container and container-fluid

	• Explain the parts of Bootstrap's grid system and their functions
1	With help, partial success at score 2 content but not at score 3 content.

UNIT 5 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT.6	Describe trends in emerging and evolving computer technologies and their influence on IT practices.	Create a website integrating CSS frameworks CRP6. Demonstrate creativity and innovation.
		Explain what Bootstrap is CRP7. Employ valid and reliable research strategies. CRP10. Plan education and career paths aligned to personal goals.
		Explain why a web developer would use Bootstrap CRP7. Employ valid and reliable research strategies. CRP11. Use technology to enhance productivity.
		Explain the difference between container and container-fluid CRP7. Employ valid and reliable research strategies. CRP10. Plan education and career paths aligned to personal goals.
9.3.IT-WD.4	Demonstrate the effective use of tools for digital communication production, development and project management.	Explain how the grid system enables Bootstrap sites to be responsive CRP7. Employ valid and reliable research strategies.
		Explain the parts of Bootstrap's grid system and their functions CRP7. Employ valid and reliable research strategies. CRP11. Use technology to enhance productivity.
		Research Bootstrap documentation to accomplish a task CRP7. Employ valid and reliable research strategies.
		Compare and contrast responsive vs. unresponsive sites CRP11. Use technology to enhance productivity. CRP12. Work productively in teams while using cultural global competence.

UNIT 5 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics. Review career goals and determine steps necessary for attainment.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.
WHST.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 5 NOCTI			
ID			**Description**
Programming / Markup / Scripting	2	d	Use CSS to differentiate between logic, content, and presentation
Editors	3	d	Enhance site elements by using templates and style sheets

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.

9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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UNIT 6 OVERVIEW: Project Development **SUGGESTED PACING: 4 Class Sessions**

UNIT 5	DRIVING QUESTIONS	UNIT 5 STANDARD-ALIGNED PERFORMANCE EXPECTATIONS
UNIT 5: Project Development	Driving Questions: • What are the stages of web project development? • How can you measure if a web project is completed? • How can you determine if a web project is meeting the need for which it was commissioned?	9.3.IT.2 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.
		9.3.IT.9 Describe quality assurance practices and methods employed in producing and providing quality IT products and services.
		9.3.IT-WD.2 Apply the design and development process to produce user-focused Web and digital communications solutions.
		9.3.IT-WD.8 Implement quality assurance processes to deliver quality digital communication products and services.

UNIT 6 STANDARD-ALIGNED LEARNING OBJECTIVES

Standard Number	
9.3.IT.2 Describe quality assurance practices and methods employed in producing and providing quality IT products and services. 9.3.IT-WD.9 Implement quality assurance processes to deliver quality digital communication products and services. 9.3.IT.2 Use product or service design processes and guidelines to produce a quality information technology (IT) product or service. 9.3.IT-WD.8 Apply the design and development process to produce user-focused Web and digital communications solutions.	
4	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.
3	The student will: • Analyze product or service design processes and guidelines to integrate quality practices and methods when producing products and providing services: • Describe effective quality assurance practices and methods • Create a guide including quality assurance practices and methods to use when creating products for customers
2	The student will: • Recognize elements of quality assurance practices and methods employed in producing and providing quality IT products and services • Recognize design and development processes to produce user-focused Web and digital communications solutions
1	With help, partial success at score 2 content but not at score 3 content.

UNIT 6 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT.2	Use product or service design processes and guidelines to produce a quality information technology (IT) product or service.	List steps for planning a career in health care. Analyze product or service design processes and guidelines to integrate quality practices and methods when producing products and providing services: CRP7. Employ valid and reliable research strategies. CRP11. Use technology to enhance productivity.
9.3.IT.9.	Describe quality assurance practices and methods employed in producing and providing quality IT products and services.	Describe effective quality assurance practices and methods CRP7. Employ valid and reliable research strategies. CRP10. Plan education and career paths aligned to personal goals.
9.3.IT-WD.2	Apply the design and development process to produce user-focused Web and digital communications solutions.	Create a guide including quality assurance practices and methods to use when creating products for customers CRP10. Plan education and career paths aligned to personal goals.
		Recognize design and development processes to produce user-focused Web and digital communications solutions
9.3.IT-WD.8	Implement quality assurance processes to deliver quality digital communication products and services.	Recognize elements of quality assurance practices and methods employed in producing and providing quality IT products and services CRP11. Use technology to enhance productivity.

UNIT 6 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics. Review career goals and determine steps necessary for attainment.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.

WHST.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 6 NOCTI			
ID			**Description**
Web Marketing and Business Management	6	c	Define web-related mechanisms for audience development (attracting and retaining an audience)
Web Marketing and Business Management	6	d	Define e-commerce terms and concepts

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.

8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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UNIT 7 OVERVIEW: Publishing Web Pages **SUGGESTED PACING: 4 Sessions**

UNIT 7	DRIVING QUESTIONS	UNIT 6 STANDARD-ALIGNED PERFORMANCE EXPECTATIONS
UNIT 7: Publishing Web Pages	Driving Questions: • What are the benefit of publishing a web page? • What is the difference between a published and an unpublished web page? • How long do web pages stay published for? • Who can see web pages that are published to the internet?	9.3.IT-WD.6 Design, create and publish a digital communication product based on customer needs. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.

UNIT 7 STANDARD-ALIGNED LEARNING OBJECTIVES	
Instruction and Assessment	
9.3.IT-WD.6 Design, create and publish a digital communication product based on customer needs. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	
4.0	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.

3.0	The student will:
	• Publish professional web pages using industry relevant tools in compliance with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications:
	• Use a platform that provides access to industry relevant tools (i.e.: Github and Atom)
	  ○ Configure computer to publish code.
	  ○ Publish their webpages to the web and view their webpages with their desktop browser and their mobile browser on smart phones.

2.0	The student will: • Explain the process to publish a website • Explain the ethical rules to publish websites • Describe the when they can use materials from other sources in compliance with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications
1.0	With help, partial success at score 2.0 content but not at score 3.0 content.

UNIT 7 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
		Publish professional web pages using industry relevant tools in compliance with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications: CRP1 Act as a responsible and contributing citizen and employee. CRP9 Model integrity, ethical leadership and effective management.
9.3.IT-WD	Design, create and publish a digital communication product based on customer needs. Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	Use a platform that provides access to industry relevant tools (i.e.: Github and Atom) CRP6. Demonstrate creativity and innovation.
9.3.IT-WD		Explain the process to publish a website CRP4. Communicate clearly and effectively and with reason. CRP11. Use technology to enhance productivity.
		Explain the ethical rules to publish websites CRP4. Communicate clearly and effectively and with reason.
		Describe the when they can use materials from other sources in compliance with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications CRP4. Communicate clearly and effectively and with reason.

UNIT 7 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
RST.9-10.2	Determine the central ideas, themes, or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics. Review career goals and determine steps necessary for attainment.
RST.9-10.5	Analyze the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
WHST.9-10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.

WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.
WHST.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
WHST.9-10.9	Draw evidence from informational texts to support analysis, reflection, and research.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 7 NOCTI			
ID			**Description**
Web Marketing and Business Management	6	a	Explain the issues involved in copyrighting, trademarking, and licensing
Web Marketing and Business Management	6	d	Define e-commerce terms and concepts

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.

8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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UNIT 8 OVERVIEW: Designer User Interface **SUGGESTED PACING: 7 Sessions**

UNIT 8	DRIVING QUESTIONS	UNIT 7 STANDARD-ALIGNED PERFORMANCE EXPECTATIONS
Unit 8: Designer User Interface	Driving Questions: • Why is it important for developers to have user empathy? What is the result when they lack it? • When two designers/developers have different opposing ideas of how a web page should be created, what is the best way to resolve it? • What are the risks associated with skipping the prototype phase?	9.3.IT.1 Demonstrate effective professional communication skills and practices that enable positive customer relationships. 9.3.IT-WD.1 Analyze customer requirements to design and develop a Web or digital communication product.

UNIT 8 STANDARD-ALIGNED LEARNING GOAL OR OBJECTIVES SCALES

Instruction and Assessment	
9.3.IT Demonstrate effective professional communication skills and practices that enable positive customer relationships. 9.3.IT-WD Analyze customer requirements to design and develop a Web or digital communication product.	
4.0	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.
3.0	The Student will: • Explain the composition of a User Interface (UI) that is intuitive to use, easy to navigate, and allows the user to quickly and efficiently complete the desired task. • Explain the value of creating and experimenting with prototypes and describe the benefits of testing a prototype on users. • Explain why empathy for users of their web pages is necessary • Formalize how to collaborate with others when brainstorming ideas. • Develop a can-do attitude in which a person views challenges and setbacks as ways to learn rather than terminal obstacles in their path to their goal. • Explain how professional communication skills and practices enable positive customer relationships
2.0	The student will: • Define User Interface (UI) • Define prototype • Explain empathy • Identify characteristics of positive professional relationships • Identify characteristics of persistent problem solvers • Describe the characteristics of a professional listener.
1.0	With help, partial success at score 2.0 content but not at score 3.0 content.

UNIT 8 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT.1 9.3.IT-WD.1	Demonstrate effective professional communication skills and practices that enable positive customer relationships. Analyze customer requirements to design and develop a Web or digital communication product.	Explain the composition of a User Interface (UI) that is intuitive to use, easy to navigate, and allows the user to quickly and efficiently complete the desired task. CRP4 Communicate clearly and effectively and with reason.
		Explain the value of creating and experimenting with prototypes and describe the benefits of testing a prototype on users. CRP7 Employ valid and reliable research strategies CRP1. Act as a responsible and contributing citizen and employee. CRP9. Model integrity, ethical leadership and effective management.
		Explain why empathy for users of their web pages is necessary CRP4 Communicate clearly and effectively and with reason. CRP1. Act as a responsible and contributing citizen and employee. CRP9. Model integrity, ethical leadership and effective management.
		Formalize how to collaborate with others when brainstorming ideas. CRP12 Work productively in teams while using cultural global competence CRP1. Act as a responsible and contributing citizen and employee.
		Explain how professional communication skills and practices enable positive customer relationships CRP4 Communicate clearly and effectively and with reason.

UNIT 8 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.2	Determine the central ideas, themes, or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
RST.9-10.5	Analyze the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
WHST.9-10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.5	Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

WHST.9-10.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.
WHST.9-10.9	Draw evidence from informational texts to support analysis, reflection, and research.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 8 NOCTI			
ID			**Description**
Web Marketing and Business Management	6	b	Identify the issues related to working in a global environment

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.

8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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UNIT 9 OVERVIEW: Introduction to Object Oriented Programming with Visual Block Programming Language **SUGGESTED PACING: 7 Sessions**

UNIT 9	DRIVING QUESTION	UNIT 9 STANDARD-ALIGNED PERFORMANCE EXPECTATIONS
UNIT 9: Introduction to Object Oriented Programming with Visual Block Programming Language	Driving Question: • What is indicative of bad programming style or bad program design? • Which are better: "While loops" or "for loops"? Why? Can you rewrite any while loop as a for loop? Can you rewrite any "for loop" as a "while loop"? • How can you tell if every line of your program is being executed? What if there are conditions in your program? • Why is indentation important? Should indentation change the execution of a program? Should indentation be required? Should a program fail if the indentation is wrong?	9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management.

UNIT 9 STANDARD-ALIGNED LEARNING OBJECTIVES

Standard Number	
9.3.IT-WD Demonstrate the effective use of tools for digital communication production, development and project management.	
4	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.
3	The student will: • Identify a problem and talking through the steps of a solution. • Introduced to a visual block programming language and explain the commands that can be given. • Explain how functions are used to program element behavior and how using functions allow us to break down our program into smaller pieces and make it easier to understand. • Explain what " loops" are in programs. • Recognize that a condition is a function that returns a true/false answer. • Define conditional statements (ie.: if/else statements) • Explain how control structures (like loops and if statements) are useful in building programs that can be applied in various settings. • Recognize that an indentation is especially important when using multiple loops, functions, and if statements to show the structure of the code. The indentation gives a good visual way to see what commands are inside vs. outside of a loop or if statements.
2	The student will: • Define programming. • Recognize "loops" • Recognize conditions

	• Recognize functions • Recognize control structures
1	With help, partial success at score 2 content but not at score 3 content.

UNIT 5 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT-WD	Demonstrate the effective use of tools for digital communication production, development and project management.	Identify a problem and talking through the steps of a solution. Introduced to a visual block programming language and explain the commands that can be given. CRP8 Utilize critical thinking to make sense of problems and persevere in solving them.
		Explain how functions are used to program element behavior and how using functions allow us to break down our program into smaller pieces and make it easier to understand. CRP6. Demonstrate creativity and innovation.
		Explain what " loops" are in programs. Recognize that a condition is a function that returns a true/false answer.
		Recognize that an indentation is especially important when using multiple loops, functions, and if statements to show the structure of the code. The indentation gives a good visual way to see what commands are inside vs. outside of a loop or if statements.
		Define conditional statements (ie.: if/else statements) Explain how control structures (like loops and if statements) are useful in building programs that can be applied in various settings.

UNIT 9 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.2	Determine the central ideas, themes, or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics. Review career goals and determine steps necessary for attainment.
WHST.9-10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.
WHST.9-10.9	Draw evidence from informational texts to support analysis, reflection, and research.
WHST.9-10.10	Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

UNIT 9 NOCTI			
ID			**Description**
Programming / Markup / Scripting	2	e	Describe the difference between a scripting language and a markup language

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.

8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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UNIT 10 OVERVIEW: Introduction to Programming Challenges **SUGGESTED PACING: 7 Sessions**

UNIT 10	DRIVING QUESTION	UNIT 10 STANDARD-ALIGNED PERFORMANCEEXPECTATIONS
UNIT 10: Introduction to Programming Challenges	Driving Question: • How do you start to solve a programming problem? • Why are loops required to solve most problems? • How do you decide when a loop should stop? • Why are functions necessary? Why not just write one long program without any functions? • How can you prove that a programming challenge has been solved? • How long is an appropriate amount of time to struggle with a coding challenge before seeking assistance?	9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management.

UNIT 10 STANDARD-ALIGNED LEARNING OBJECTIVES

Instruction and Assessments	
9.3.IT-WD.4 Demonstrate the effective use of tools for digital communication production, development and project management.	
4	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.
3	The student will: • Solve programming problems independently and collaboratively • Define a problem in his/her own words and plan out a solution to the problem • Break a large problem down into smaller pieces and solve each of the pieces, then use these solutions as building blocks to solve the larger problem • Describe pseudo-coding and use it to properly break down solutions to a given problem • Utilize the proper control structures to create general solutions that solve multiple settings • Write clear and readable code using control structures, functions, decomposition, and comments
2	The student will: • Recognize errors in programming • List the steps to solve a problem • Define deductive reasoning and inductive
1	With help, partial success at score 2 content but not at score 3 content.

UNIT 10 STANDARD-ALIGNED LEARNING OBJECTIVES		
STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT-WD.4	Demonstrate the effective use of tools for digital communication production, development and project management.	Define a problem in their own words and plan out a solution to the problem CRP2 Apply appropriate academic and technical skills CRP8 Utilize critical thinking to make sense of problems and persevere in solving them.
		Solve programming problems independently and collaboratively CRP8 Utilize critical thinking to make sense of problems and persevere in solving them.
		Break a large problem down into smaller pieces and solve each of the pieces, then use these solutions as building blocks to solve the larger problem
		Describe pseudo-coding and use it to properly break down solutions to a given problem CRP4 Communicate clearly and effectively and with reason.
		Utilize the proper control structures to create general solutions that solve multiple settings CRP2 Apply appropriate academic and technical skills
		Write clear and readable code using control structures, functions, decomposition, and comments CRP4 Communicate clearly and effectively and with reason.

UNIT 10 NJSLS COMPANION STANDARDS	
ID	**Description**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics. Review career goals and determine steps necessary for attainment.
WHST.9-10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.

WHST.9-10.7	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.
WHST.9-10.9	Draw evidence from informational texts to support analysis, reflection, and research.

UNIT 10 NOCTI			
ID			**Description**
Web Marketing and Business Management	6	b	Identify the issues related to working in a global environment

NJSLS 9.2 CAREER EXPLORATION STANDARDS		
9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.
9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.

8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

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UNIT 11 OVERVIEW: Capstone Project **SUGGESTED PACING: 11 Sessions**

UNIT 11	DRIVING QUESTION	UNIT 11 STANDARD-ALIGNED PERFORMANCEEXPECTATIONS
UNIT 11: Capstone Project	Driving Question: • Which pieces of content on a web page should appear closer to the top and why? • How do you decide which content to put on a page vs. which content should be linked to? • How do you decide which elements should appear on desktop but not on mobile? • How do you prioritize the links in a navigation menu? What about sub-menus? • How do you choose between CSS Frameworks? • What are the advantages of open source libraries? • Which skills are most important to list on a portfolio? • What is difference between the tags for table rows, list elements, spans, and divs and when is each most appropriate?	9.3.IT-WD.2 Apply the design and development process to produce user-focused Web and digital communications solutions. 9.3.IT-WD.3 Write product specifications that define the scope of work aligned to customer requirements. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.

UNIT 11 STANDARD-ALIGNED LEARNING OBJECTIVES

Instruction and Assessments	
9.3.IT-WD.2 Apply the design and development process to produce user-focused Web and digital communications solutions. 9.3.IT-WD.3 Write product specifications that define the scope of work aligned to customer requirements. 9.3.IT-WD.10 Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	
4	In addition, to score 3.0 performance, the student demonstrates in-depth inferences and applications that go beyond what was taught.
3	The student final project will incorporate a variety of the techniques they learned throughout the class in a polished and functional publicly accessible website. The features of the website must include: • A publicly accessible web page on a topic of their choice to be approved by the instructor • Renders differently on desktop and mobile (“responsive”) • CSS framework such as Bootstrap or Material • responsive navigation bar • a large banner image • multiple pages which you can navigate to (at least 4) • Has multiple sections on a single page which you can navigate to (at least 4) • Utilizes tables and lists (at least 1 per page) • Organizes sections of the page using “div” and “span” tags • Integrates external stylesheets as well as inline styling • Has a section which organizes a number of logo images and text blocks using aesthetic concepts (eg: skills, languages, companies)

	• Integrates background images (at least 1) • links accompanied by images or icons which go to projects the student has worked on throughout the course (eg: portfolio links) • Hs links accompanied by images or icons which go to the users online profiles (eg: github, linkedin, instagram, gmail) • Incorporates animations when scrolling (eg: parallax) or navigating • Incorporates animations when clicking/tapping (eg: flipping or fading) • Incorporates a contact me section with a link to send the student an email • Incorporates an image carousel with next, previous controls, as well as the ability to jump to an image by index • Incorporates embedded video and audio • Is developed using GitHub • Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.
2	The student partially meets the content in score 3.0
1	The student does not meet the content 3.0

UNIT 5 STANDARD-ALIGNED LEARNING OBJECTIVES

STANDARD ALIGNED PERFORMANCE EXPECTATIONS		**STANDARD-ALIGNED LEARNING OBJECTIVES and CRPs**
9.3.IT-WD	Apply the design and development process to produce user-focused Web and digital communications solutions.	Develop a plan including a design and process to create the final product CRP8 Utilize critical thinking to make sense of problems and persevere in solving them.
9.3.IT-WD	Write product specifications that define the scope of work aligned to customer requirements.	Prioritize tasks and determine the materials and resources needed to create the product.
9.3.IT-WD	Comply with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications.	Ensure use of material and resources in compliance with intellectual property laws, copyright laws and ethical practices when creating Web/digital communications. CRP9 Model integrity, ethical leadership and effective management.

UNIT 11 NJSLS COMPANION STANDARDS

ID	**Descriptions**
RST.9-10.1	Accurately cite strong and thorough evidence from the text to support analysis of science and technical texts, attending to precise details for explanations or descriptions.
RST.9-10.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics. Review career goals and determine steps necessary for attainment.

WHST.9-10.2	Write informative/explanatory texts, including the narration of historical events, scientific procedures/ experiments, or technical processes.
WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
WHST.9-10.6	Use technology, including the Internet, to produce, share, and update writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
WHST.9-10.7	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.
WHST.9-10.9	Draw evidence from informational texts to support analysis, reflection, and research.

UNIT 11 NOCTI

ID			Description
Programming / Markup / Scripting	2	b	Demonstrate the ability to create HTML/XHTML/XML pages
Programming / Markup / Scripting	2	d	Use CSS to differentiate between logic, content, and presentation
Editors	3	a	Create a website
Editors	3	b	Design and implement tables and templates
Editors	3	c	Create and use interactive forms
Editors	3	d	Enhance site elements by using templates and style sheets
Editors	3	e	Design and implement layers, image maps, and navigation bars
Editors	3	f	Enhance a website with media objects and images
Web Graphics	4	c	Use basic photo editing tools
Web Graphics	4	d	Prepare digital images for use on the Web
Web Multimedia	5	a	Add interactive media to a website through the use of rich Internet applications
Web Multimedia	5	d	Implement multimedia on the Web
Web Marketing and Business Management	6	a	Explain the issues involved in copyrighting, trademarking, and licensing
Web Marketing and Business Management	6	b	Identify the issues related to working in a global environment

NJSLS 9.2 CAREER EXPLORATION STANDARDS

9.2.12.C.1	Review career goals and determine steps necessary for attainment.	Students will describe career opportunities in the field of web design.
9.2.12.C.3	Identify transferable career skills and design alternate career plans.	Students will explore careers in information technology and identify the skills necessary for those careers.

9.2.12.C.5	Research career opportunities in the United States and abroad that require knowledge of world languages and diverse cultures	Students will investigate careers in web design and information technology available in the United States and abroad and the skills and knowledge necessary to communicate clearly and effectively with diverse cultures around the world.
9.2.12.C.7	Examine the professional, legal, and ethical responsibilities for both employers and employees in the global workplace.	Students will evaluate the roles of employers and employees in the field of web design and information technology and identify their professional, legal, and ethical responsibilities.

NJSLS 8.1 EDUCATIONAL TECHNOLOGY STANDARDS	
ID	**Description**
8.1.12.A.1	Create a personal digital portfolio which reflects personal and academic interests, achievements, and career aspirations by using a variety of digital tools and resources.
8.1.12.A.2	Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review.
8.1.P.B.1	Create a story about a picture taken by the student on a digital camera or mobile device.
8.2.12.B.3	Analyze ethical and unethical practices around intellectual property rights as influenced by human wants and/or needs.
8.1.12.D.1	Demonstrate appropriate application of copyright, fair use and/or Creative Commons to an original work.
8.1.12.D.2	Evaluate consequences of unauthorized electronic access (e.g., hacking) and disclosure, and on dissemination of personal information.
8.1.12.D.3	Compare and contrast policies on filtering and censorship both locally and globally.
8.1.12.D.4	Research and understand the positive and negative impact of one's digital footprint.
8.1.12.D.5	Analyze the capabilities and limitations of current and emerging technology resources and assess their potential to address personal, social, lifelong learning, and career needs.
8.1.12.F.1	Evaluate the strengths and limitations of emerging technologies and their impact on educational, career, personal and or social needs.
8.1.12.E.2	Research and evaluate the impact on society of the unethical use of digital tools and present your research to peers.

SUPPORTING RESOURCES
Appendix A: Accommodations and Modifications for Various Student Populations
Appendix B: Assessment Evidence
Appendix C: Interdisciplinary Connections