

Unit 4: Web Software/Website Software

Content Area: **Technology**
Course(s): **Web Page Design**
Time Period: **Sample Time Period**
Length: **25 Days**
Status: **Published**

Title Section

Department of Curriculum and Instruction



Belleville Public Schools

Curriculum Guide

Unit 4: Web Software

Web Page Design

**Belleville Board of Education
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Unit Overview

In Unit 4 Web Page Design Students will cover the following topics, Basics of Web Software, Creating a Web Layout for coding games, Creating and understanding appropriate online user interaction, Creating and understanding use of fair images, Creating professional based website, Understand how to implement software to website and Understand graphic software for website

Enduring Understanding

Students will be able to understand

The importance for using appropriate pictures based on the audience.

Understand use of images for all types of websites

Understand the need for Graphic Design Skills when designing websites.

Understand the affect images have on the user's experience.

Essential Questions

1. How do graphics affect user's experience?
2. How does computer and web software affect user's experience?
3. Why do programmers use thumbnail images throughout a site?
4. Why do game designers use certain web software?
5. Why are image maps used for advanced pages?
6. Why are different levels and goals needed in web based game?

7. How do images influence advertising and marketing?

Exit Skills

By the end of Unit 4 Students will be able to

Have an understanding of Web Software

Demonstrate process for coding games

Demonstrate an understanding appropriate online user interaction

Have an understanding for use of fair images

Demonstrate ability to create professional based website

have an understanding to implement software to website

Have ability to create graphic software for website

New Jersey Student Learning Standards (NJSL-S)

12.9.3.IT-PRG	Programming & Software Development
12.9.3.IT-PRG.1	Analyze customer software needs and requirements.
12.9.3.IT-PRG.2	Demonstrate the use of industry standard strategies and project planning to meet customer specifications.
12.9.3.IT-PRG.3	Analyze system and software requirements to ensure maximum operating efficiency.
12.9.3.IT-PRG.4	Demonstrate the effective use of software development tools to develop software applications.
12.9.3.IT-PRG.5	Apply an appropriate software development process to design a software application.
12.9.3.IT-PRG.6	Program a computer application using the appropriate programming language.
CS.9-12.8.1.12.CS.2	Model interactions between application software, system software, and hardware.
CS.9-12.8.1.12.CS.3	Compare the functions of application software, system software, and hardware.
TECH.9.4.12.CI	Creativity and Innovation
TECH.9.4.12.CI.1	Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a).
TECH.9.4.12.CI.2	Identify career pathways that highlight personal talents, skills, and abilities (e.g., 1.4.12prof.CR2b, 2.2.12.LF.8).
TECH.9.4.12.CI.3	Investigate new challenges and opportunities for personal growth, advancement, and transition (e.g., 2.1.12.PGD.1).
TECH.9.4.12.CT	Critical Thinking and Problem-solving
TECH.9.4.12.DC	Digital Citizenship
TECH.9.4.12.DC.1	Explain the beneficial and harmful effects that intellectual property laws can have on the creation and sharing of content (e.g., 6.1.12.CivicsPR.16.a).
TECH.9.4.12.DC.2	Compare and contrast international differences in copyright laws and ethics.
TECH.9.4.12.GCA	Global and Cultural Awareness
TECH.9.4.12.GCA.1	Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others (e.g., SL.11-12.1., HS-ETS1-1, HS-ETS1-2, HS-ETS1-4, 6.3.12.GeoGI.1, 7.1.IH.IPERS.6, 7.1.IL.IPERS.7, 8.2.12.ETW.3). Laws govern the use of intellectual property and there are legal consequences to utilizing or sharing another's original works without permission or appropriate credit. Innovative ideas or innovation can lead to career opportunities.

With a growth mindset, failure is an important part of success.

Interdisciplinary Connections

LA.RH.11-12.1	Accurately cite strong and thorough textual evidence, (e.g., via discussion, written response, etc.), to support analysis of primary and secondary sources, connecting insights gained from specific details to develop an understanding of the text as a whole.
LA.RH.11-12.2	Determine the theme, central ideas, information and/or perspective(s) presented in a primary or secondary source; provide an accurate summary of how key events, ideas and/or author's perspective(s) develop over the course of the text.
LA.RH.11-12.3	Evaluate various perspectives for actions or events; determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain.
LA.RH.11-12.4	Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
LA.RH.11-12.6	Evaluate authors' differing perspectives on the same historical event or issue by assessing the authors' claims, reasoning, and evidence.
	Integration of Knowledge and Ideas
	Key Ideas and Details

Learning Objectives

Students will be able to.....

1. Develop flowchart, navigational blueprints and schema.
2. Create sample design showing placement of buttons/navigational graphics and suggested color scheme.
3. Develop storyboards.
4. Demonstrate knowledge of available graphics, video, motion graphics, web software programs.
5. Identify how different user agents (browsers, devices) affect the digital communication product.

6. Identify, utilize and create reusable components.

Remember	Understand	Apply	Analyze	Evaluate	Create
Choose	Classify	Choose	Categorize	Appraise	Combine
Describe	Defend	Dramatize	Classify	Judge	Compose
Define	Demonstrate	Explain	Compare	Criticize	Construct
Label	Distinguish	Generalize	Differentiate	Defend	Design
List	Explain	Judge	Distinguish	Compare	Develop
Locate	Express	Organize	Identify	Assess	Formulate
Match	Extend	Paint	Infer	Conclude	Hypothesize
Memorize	Give Examples	Prepare	Point out	Contrast	Invent
Name	Illustrate	Produce	Select	Critique	Make
Omit	Indicate	Select	Subdivide	Determine	Originate
Recite	Interrelate	Show	Survey	Grade	Organize
Select	Interpret	Sketch	Arrange	Justify	Plan
State	Infer	Solve	Breakdown	Measure	Produce
Count	Match	Use	Combine	Rank	Role Play
Draw	Paraphrase	Add	Detect	Rate	Drive
Outline	Represent	Calculate	Diagram	Support	Devise
Point	Restate	Change	Discriminate	Test	Generate
Quote	Rewrite	Classify	Illustrate		Integrate
Recall	Select	Complete	Outline		Prescribe
Recognize	Show	Compute	Point out		Propose
Repeat	Summarize	Discover	Separate		Reconstruct
Reproduce	Tell	Divide			Revise
	Translate	Examine			Rewrite
	Associate	Graph			Transform
	Compute	Interpolate			
	Convert	Manipulate			
	Discuss	Modify			
	Estimate	Operate			
	Extrapolate	Subtract			
	Generalize				
	Predict				



Suggested Activities & Best Practices

Students will be given handouts on a step by step process of how to use the dashboard of a website, coding site for educational game, and drag/drop and language process.

Students will update sites on a weekly basis with computer and smart objects software

Students will be informed to use higher energy efficient equipment

Assessment Evidence - Checking for Understanding (CFU)

-Students will be given hands on quizzes as well as written quizzes that will be used to enhance student knowledge which will be based on the running of a website through dashboard and other platform-benchmark assessments

-Students will compare and contrast different website software to match which program is best for which type of website-alternate assessment

-Unit test-summative assessment

-Define-formative assessment

- Admit Tickets
- Anticipation Guide
- Common Benchmarks
- Compare & Contrast
- Create a Multimedia Poster
- DBQ's
- Define
- Describe
- Evaluate
- Evaluation rubrics
- Exit Tickets
- Explaining
- Fist- to-Five or Thumb-Ometer
- Illustration
- Journals
- KWL Chart
- Learning Center Activities
- Multimedia Reports
- Newspaper Headline
- Outline
- Question Stems
- Quickwrite

- Quizzes
- Red Light, Green Light
- Self- assessments
- Socratic Seminar
- Study Guide
- Surveys
- Teacher Observation Checklist
- Think, Pair, Share
- Think, Write, Pair, Share
- Top 10 List
- Unit review/Test prep
- Unit tests
- Web-Based Assessments
- Written Reports

Primary Resources & Materials

Google sharing documents for class projects

Youtube Video Channels for website and platform usage

Wix.com dashboard platform and slides with information regarding process

Ancillary Resources

Web software tutorials for projects

Website add-ons for all platforms

Online videos guidelines for Wix.com/Google Sites, and software development

Technology Infusion

Students will use computer, computer hardware, SmartBoard, Internet, Google Accounts, Drag and Drop Code Programs, Wix.com Account, Website Builder and PhotoShop for use to complete following projects- Wix.com Website, Scratch.MIT, and Google Sites

Alignment to 21st Century Skills & Technology

WRK.9.2.12.CAP	Career Awareness and Planning
WRK.9.2.12.CAP.2	Develop college and career readiness skills by participating in opportunities such as structured learning experiences, apprenticeships, and dual enrollment programs.
WRK.9.2.12.CAP.3	Investigate how continuing education contributes to one's career and personal growth.
TECH.9.4.12.CI	Creativity and Innovation
TECH.9.4.12.CI.1	Demonstrate the ability to reflect, analyze, and use creative skills and ideas (e.g., 1.1.12prof.CR3a).
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TECH.9.4.12.GCA.1	Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others (e.g., SL.11-12.1., HS-ETS1-1, HS-ETS1-2, HS-ETS1-4, 6.3.12.GeoGI.1, 7.1.IH.IPERS.6, 7.1.IL.IPERS.7, 8.2.12.ETW.3). There are strategies to improve one's professional value and marketability. With a growth mindset, failure is an important part of success. Career planning requires purposeful planning based on research, self-knowledge, and informed choices.

21st Century Skills/Interdisciplinary Themes

Upon completion of this section, please remove all remaining descriptions, notes, outlines, examples and/or illustrations that are not needed or used.

Please list only the **21st Century/Interdisciplinary Themes** that will be incorporated into this unit.

- Communication and Collaboration
- Creativity and Innovation
- Critical thinking and Problem Solving
- ICT (Information, Communications and Technology) Literacy

- Information Literacy
- Life and Career Skills
- Media Literacy

21st Century Skills

Upon completion of this section, please remove all remaining descriptions, notes, outlines, examples and/or illustrations that are not needed or used.

Please list only the **21st Century Skills** that will be incorporated into this unit.

- Civic Literacy
- Environmental Literacy
- Financial, Economic, Business and Entrepreneurial Literacy
- Global Awareness
- Health Literacy

Differentiation

-Students will work in small groups to complete review of all websites and software activities

-A video/oral presentation will be created and uploaded onto google classroom based on how to use dashboard in Wix.com through different platforms of software use

Differentiations:

- Small group instruction
- Small group assignments
- Extra time to complete assignments
- Pairing oral instruction with visuals
- Repeat directions
- Use manipulatives
- Center-based instruction
- Token economy
- Study guides
- Teacher reads assessments allowed
- Scheduled breaks
- Rephrase written directions

- Multisensory approaches
- Additional time
- Preview vocabulary
- Preview content & concepts
- Story guides
- Behavior management plan
- Highlight text
- Student(s) work with assigned partner
- Visual presentation
- Assistive technology
- Auditory presentations
- Large print edition
- Dictation to scribe
- Small group setting

Hi-Prep Differentiations:

- Alternative formative and summative assessments
- Choice boards
- Games and tournaments
- Group investigations
- Guided Reading
- Independent research and projects
- Interest groups
- Learning contracts
- Leveled rubrics
- Literature circles
- Multiple intelligence options
- Multiple texts
- Personal agendas
- Project-based learning
- Problem-based learning
- Stations/centers
- Think-Tac-Toes
- Tiered activities/assignments
- Tiered products
- Varying organizers for instructions

Lo-Prep Differentiations

- Choice of books or activities
- Cubing activities
- Exploration by interest
- Flexible grouping
- Goal setting with students
- Jigsaw
- Mini workshops to re-teach or extend skills
- Open-ended activities
- Think-Pair-Share
- Reading buddies
- Varied journal prompts
- Varied supplemental materials

Special Education Learning (IEP's & 504's)

-Students will be given additional time to understand the process of coding and software creation

-Printed copy of notes for all add-ons and projects with list of software for computers

- printed copy of board work/notes provided
- additional time for skill mastery
- assistive technology
- behavior management plan
- Center-Based Instruction
- check work frequently for understanding
- computer or electronic device utilizes
- extended time on tests/ quizzes
- have student repeat directions to check for understanding
- highlighted text visual presentation
- modified assignment format
- modified test content
- modified test format
- modified test length
- multi-sensory presentation
- multiple test sessions
- preferential seating
- preview of content, concepts, and vocabulary
- Provide modifications as dictated in the student's IEP/504 plan
- reduced/shortened reading assignments
- Reduced/shortened written assignments
- secure attention before giving instruction/directions
- shortened assignments

- student working with an assigned partner
- teacher initiated weekly assignment sheet
- Use open book, study guides, test prototypes

English Language Learning (ELL)

-Student will be assisted by peers, fluent in native language to understand all parts and pages of a website

-Students will be allowed to correct all errors until students become proficient in the use of dashboard for the website

- teaching key aspects of a topic. Eliminate nonessential information
- using videos, illustrations, pictures, and drawings to explain or clarify
- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning;
- allowing students to correct errors (looking for understanding)
- allowing the use of note cards or open-book during testing
- decreasing the amount of work presented or required
- having peers take notes or providing a copy of the teacher's notes
- modifying tests to reflect selected objectives
- providing study guides
- reducing or omitting lengthy outside reading assignments
- reducing the number of answer choices on a multiple choice test
- tutoring by peers
- using computer word processing spell check and grammar check features
- using true/false, matching, or fill in the blank tests in lieu of essay tests

At Risk

-Students will be given option to use illustrations or video lessons for software builder

-Students will select their own website idea for the creation process and dashboard controls

- allowing students to correct errors (looking for understanding)
- teaching key aspects of a topic. Eliminate nonessential information

- allowing products (projects, timelines, demonstrations, models, drawings, dioramas, poster boards, charts, graphs, slide shows, videos, etc.) to demonstrate student's learning
- allowing students to select from given choices
- allowing the use of note cards or open-book during testing
- collaborating (general education teacher and specialist) to modify vocabulary, omit or modify items to reflect objectives for the student, eliminate sections of the test, and determine how the grade will be determined prior to giving the test.
- decreasing the amount of work presented or required
- having peers take notes or providing a copy of the teacher's notes
- marking students' correct and acceptable work, not the mistakes
- modifying tests to reflect selected objectives
- providing study guides
- reducing or omitting lengthy outside reading assignments
- reducing the number of answer choices on a multiple choice test
- tutoring by peers
- using authentic assessments with real-life problem-solving
- using true/false, matching, or fill in the blank tests in lieu of essay tests
- using videos, illustrations, pictures, and drawings to explain or clarify

Talented and Gifted Learning (T&G)

-Students will be given an advanced list of software guidelines to complete at faster pace and will be able to choose which website topic they like

-Students will troubleshoot any and all issues that arise when operating computer software

- Above grade level placement option for qualified students
- Advanced problem-solving
- Allow students to work at a faster pace
- Cluster grouping
- Complete activities aligned with above grade level text using Benchmark results
- Create a blog or social media page about their unit
- Create a plan to solve an issue presented in the class or in a text
- Debate issues with research to support arguments
- Flexible skill grouping within a class or across grade level for rigor
- Higher order, critical & creative thinking skills, and discovery
- Multi-disciplinary unit and/or project
- Teacher-selected instructional strategies that are focused to provide challenge, engagement, and growth opportunities
- Utilize exploratory connections to higher-grade concepts
- Utilize project-based learning for greater depth of knowledge

Sample Lesson

Unit Name: Web software/ Website Software

NJSLS: See Below

Interdisciplinary Connection: Math, English, Social Studies

Statement of Objective: Students will cover the following topics, Basics of Web Software, Creating a Web Layout for coding games, Creating and understanding appropriate online user interaction, Creating and understanding use of fair images, Creating professional based website, Understand how to implement software to website and Understand graphic software for website. Students will be informed to use higher energy efficient equipment

Anticipatory Set/Do Now: Students will complete vocabulary on HTML and WIX word database. Students will work in group settings.

Learning Activity: #1 Do Now, #2 Computer Hands on Activity, #3 Class Discussion #4 Peer review.

Student Assessment/CFU's:

Materials: SmartBoard, Book, Handouts, Computers,

21st Century Themes and Skills:

Differentiation:

- * Hands on Activities
- * Group Work
- * Different level of questions
- * Direct Instruction
- * Application of concepts

Integration of Technology: Computers, SmartBoard, Internet,

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TECH.9.4.12.DC	Digital Citizenship
TECH.9.4.12.DC.1	Explain the beneficial and harmful effects that intellectual property laws can have on the

creation and sharing of content (e.g., 6.1.12.CivicsPR.16.a).

TECH.9.4.12.DC.2

Compare and contrast international differences in copyright laws and ethics.

TECH.9.4.12.GCA

Global and Cultural Awareness

TECH.9.4.12.GCA.1

Collaborate with individuals to analyze a variety of potential solutions to climate change effects and determine why some solutions (e.g., political, economic, cultural) may work better than others (e.g., SL.11-12.1., HS-ETS1-1, HS-ETS1-2, HS-ETS1-4, 6.3.12.GeoGI.1, 7.1.IH.IPERS.6, 7.1.IL.IPERS.7, 8.2.12.ETW.3).

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