



GEORGIA

PEACH STATE PATHWAYS

Career, Technical, & Agricultural Education

BUSINESS & COMPUTER SCIENCE

PATHWAY: Computing

COURSE: Computing in the Modern World

UNIT: 5-Web Page Design and Internet Essentials



INTRODUCTION

Annotation:

In this unit, students will be introduced to a number of tools that can be used on the Internet to improve search performance and productivity. Students will learn to evaluate websites in terms of reliability and validity. Students will understand the importance of working in a secure environment. Also, students will develop their first web pages using both HTML and web development software. They will also be able to explain the process of posting web pages to a server.

Grade(s):

X	9 th
X	10 th
X	11 th
X	12 th

Time: 30 hours (6weeks)

Author: Jason Naile

Additional Author(s):

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.



FOCUS STANDARDS

GPS Focus Standards:

BCS-CMW-12 Students will demonstrate the ability to search for information and evaluate search results.

- a. Demonstrate basic searching techniques using Internet search engines.
- b. Use logic and set operators to refine a search.
- c. Evaluate search results with respect to relevance, reliability, and credibility.

BCS-CMW-13 Students will examine Internet security issues and recognize the importance of working in a secure environment.

- a. Explain the potential dangers of working in an insecure environment.
- b. Identify, compare, and contrast anti-virus software.
- c. Explain the purpose of a firewall.
- d. Describe the purpose of spyware/adware.
- e. Explain the concept of encryption and how it is used on a daily basis.

BCS-CMW-14 Students will evaluate, compare, and contrast Web sites.

- a. List the important issues in evaluating Web sites.
- b. Identify and critique the layout, navigation, and accessibility of a Web site based on its purpose.

BCS-CMW-15 Students will design and create a basic Web site.

- a. Demonstrate knowledge of basic HTML and scripting techniques.
- b. Use hypertext links to load new pages or activate processes.
- c. Use tools to express the design of a Web site.
- d. Demonstrate the ability to use various Web development software programs.
- e. Compare and contrast creating a Web page manually versus using a software development program.

GPS Academic Standards:

ELA10W2 The student demonstrates competence in a variety of genres.

ELA10W3 The student uses research and technology to support writing.

ELA10RL5 The student understands and acquires new vocabulary and uses it correctly in reading and writing.

ELA10RC3 The student acquires new vocabulary in each content area and uses it correctly.

ELA10C1 The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.

ELA10C2 The student demonstrates understanding of manuscript form, realizing that different forms of writing require different formats.

ELA10LSV2 The student formulates reasoned judgments about written and oral communication in various media genres. The student delivers focused, coherent, and polished presentations that convey a clear and distinct perspective, demonstrate solid reasoning, and combine traditional rhetorical strategies of narration, exposition, persuasion, and description.

National Standards:



UNDERSTANDINGS & GOALS

Enduring Understandings:

- At the conclusion of this unit, students will be able to perform Internet searches, use various web tools, and evaluate websites in terms of design, reliability, and validity. Students will also be able to create web sites using HTML and scripting techniques, as well as design a basic web site using web development software.

Essential Questions:

- How are web searches conducted?
- What makes a website valid and reliable?
- What are good design principles for websites?
- What accessibility should a website have?
- What is the role of anti-virus software, firewalls, encryption and adware/spyware?
- What tools can be used to design web pages?

Knowledge from this Unit:

- Perform web searches for specific information.
- Evaluate web sites in terms of validity and reliability.
- Evaluate a web site based on design principles.
- Critique a web site in terms of accessibility.
- Students will explain the role of anti-virus software, firewalls, encryption, and adware/spyware.
- Students will be able to design web pages using HTML, scripting, and web development tools.

Skills from this Unit:

- Students will read in context and present their finished projects to classmates.



ASSESSMENT(S)

Assessment Method Type: Select one or more of the following. Please consider the type(s) of differentiated instruction you will be using in the classroom.

- ☐ Pre-test
- ☐ Objective assessment - multiple-choice, true- false, etc.
 - ☐ Quizzes/Tests
 - ☐ Unit test
- ☐ Group project
- ☐ Individual project
- ☐ Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
 - ☐ Self-check rubrics
 - ☐ Self-check during writing/planning process
 - ☐ Journal reflections on concepts, personal experiences and impact on one's life
 - ☐ Reflect on evaluations of work from teachers, business partners, and competition judges
 - ☐ Academic prompts
 - ☐ Practice quizzes/tests
- ☒ Subjective assessment/Informal observations
 - ☐ Essay tests
 - ☐ Observe students working with partners
 - ☐ Observe students role playing
- ☐ Peer-assessment
 - ☐ Peer editing & commentary of products/projects/presentations using rubrics
 - ☐ Peer editing and/or critiquing
- ☒ Dialogue and Discussion
 - ☒ Student/teacher conferences
 - ☐ Partner and small group discussions
 - ☐ Whole group discussions
 - ☐ Interaction with/feedback from community members/speakers and business partners
- ☐ Constructed Responses
 - ☐ Chart good reading/writing/listening/speaking habits
 - ☐ Application of skills to real-life situations/scenarios
- ☐ Post-test

Assessment(s) Title:

Assessment(s) Description/Directions:

Check progress throughout units. As students complete their work, the teacher will check to make sure students are performing at an acceptable level on each task. Informal checks will be used to assess students' progress.

Attachments for Assessment(s):

Web Resources:

<http://computer.howstuffworks.com/search-engine3.htm>

<http://computer.howstuffworks.com/blog.htm>

<http://www.learnwebskills.com/search/google.html>

Web Resource Title: Web Searches and Web 2.0 tools

Web Resource Description: The sites below to help development web searching skills and help students become familiar with Web 2.0 tools.



LEARNING EXPERIENCES

Instructional planning: Include lessons, activities and other learning experiences in this section with a brief description of the activities to ensure student acquisition of the knowledge and skills addressed in the standards. Complete the sequence of instruction for each lesson/task in the unit.

Sequence of Instruction

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

BCS-CMW-12 Students will demonstrate the ability to search for information and evaluate search results.

BCS-CMW-13 Students will examine Internet security issues and recognize the importance of working in a secure environment.

BCS-CMW-14 Students will evaluate, compare, and contrast Web sites.

BCS-CMW-15 Students will design and create a basic Web site.

2. Review Essential Questions.

- How are web searches conducted?
- What makes a website valid and reliable?
- What are good design principles for websites?
- What accessibility should a website have?
- What is the role of anti-virus software, firewalls, encryption and adware/spyware?
- What tools can be used to design web pages?

3. Identify and review the unit vocabulary.

4. Assessment Activity.

Sequence of Instruction and Learning:

(Based on a 50 minute period)

Week 1: Internet Searching Skills

Week 2: Security issues

Week 3: Compare and contrast websites

Week 4-6: Creation of a basic web site

Web Resource Title: Internet essentials overview

Web Resource Description: This website provides a great summary of Internet essentials.

Web Resources: <http://www.lsc.edu/library/guides/internet.aspx>

Technology Connection/Integration

Students will use technology in many ways. First, students will use technology to search for information about technology. Second, students will use technology to create their own web pages. Finally, students will use technology to present their creations.

Attachments for Learning Experiences: Please list.

Notes & Reflections:



CULMINATING PERFORMANCE TASK (Optional)

Culminating Unit Performance Task Title:

Personal web site creation

Culminating Unit Performance Task Description/Directions/Differentiated Instruction:

This unit performance task will require students to create a personal website using HTML scripting techniques.

Attachments for Culminating Performance Task:

Rubric for Performance Task:

Web Design (HTML or FrontPage project)

Please build a website on the topic of your choosing (school appropriate). Once you decide on a project please submit a three sentence description of your site to me for approval. Below are some features to include on your website.

- Three web pages (internally linked)
- Formatted text (bold, underline, italic, text color---each one)
- Ordered or Unordered list
- At least two headings
- Minimum of three external links (they must work)
- Two Images (one image as a link)
- Background color
- Horizontal line

Keep in mind these are minimum requirements and you should include other items that are appropriate for your theme/topic. Below is a scoring sheet that will be used for grading.

Criteria	Possible Points	Points earned
Three web pages (inked)	30	
Formatted text (bold, underlines, italics, text color)	10	
Ordered or unordered list.	10	
Two headings is used	10	
Three external links	10	
Two images (one acts as a link)	10	
Background color	10	
Horizontal line	10	
Total	100	

Comments:

Web Resource Title: HTML Tutorial

Web Resource Description: This site can be used to build HTML scripting skills for students.

Web Resource: <http://www.w3schools.com/HTML/>



UNIT RESOURCES

Web Resources:

Attachment(s):

Materials & Equipment:

Computer

Internet web browser

Notepad

Computer storage space

What 21st Century Technology was used in this unit:

<input checked="" type="checkbox"/>	Slide Show Software
<input type="checkbox"/>	Interactive Whiteboard
<input type="checkbox"/>	Student Response System
<input checked="" type="checkbox"/>	Web Design Software
<input type="checkbox"/>	Animation Software
<input type="checkbox"/>	Email

<input type="checkbox"/>	Graphing Software
<input type="checkbox"/>	Calculator
<input type="checkbox"/>	Desktop Publishing
<input checked="" type="checkbox"/>	Blog
<input checked="" type="checkbox"/>	Wiki
<input checked="" type="checkbox"/>	Website

<input type="checkbox"/>	Audio File(s)
<input type="checkbox"/>	Graphic Organizer
<input checked="" type="checkbox"/>	Image File(s)
<input type="checkbox"/>	Video
<input type="checkbox"/>	Electronic Game or Puzzle Maker