

TRUMBULL PUBLIC SCHOOLS

Trumbull, Connecticut

WEB DESIGN: HTML & CSS

Grades 9-12

Business Education Department

2020

(Last revision date: 2016)

Curriculum Writing Team

Christina Rusate

Department Chair

Alana Tartaglia

Teacher

Jonathan S. Budd, Ph.D.

Assistant Superintendent

Web Design: HTML & CSS

Property of Trumbull Public Schools

Web Design: HTML & CSS
Grades 9-12
Table of Contents

Core Values & Beliefs	2
Introduction & Philosophy	2
Course Goals.....	2
Course Enduring Understandings	5
Course Essential Questions.....	5
Course Knowledge & Skills.....	6
Course Syllabus	7
Unit 1: What Is the Web?	8
Unit 2: Evaluating Websites	10
Unit 3: HTML-Structuring Websites	12
Unit 4: CCS-Styling Websites	14
Unit 5: Advanced HTML and CSS	16
Course Credit	18
Prerequisites	18
Assured Student Performance Rubrics	18

The Trumbull Board of Education promotes non-discrimination in all of its programs, including educational opportunities and services provided to students, student assignment to schools and classes, and educational offerings and materials.

CORE VALUES AND BELIEFS

The Trumbull High School community engages in an environment conducive to learning which believes that all students will **read and write effectively**, therefore communicating in an articulate and coherent manner. All students will participate in activities **that present problem-solving through critical thinking**. Students will use technology as a tool applying it to decision making. We believe that by fostering self-confidence, self-directed and student-centered activities, we will promote **independent thinkers and learners**. We believe **ethical conduct** to be paramount in sustaining the welcoming school climate that we presently enjoy.

Approved 8/26/2011

INTRODUCTION & PHILOSOPHY

Web Design: HTML & CSS is an introduction to the design, creation, and maintenance of webpages and websites using HTML, CSS, and JavaScript. In today's world, webpages are the most common medium for sharing information and ideas. This is a project-based course in which students will critically evaluate a web site's quality, and then create and maintain webpages of their own using HTML, CSS, and JavaScript. By the end of the course, students will be able to explain how websites are developed and viewed on the Internet and multiple browsers, analyze and fix errors in websites, and create their very own multi-page/-file websites. Web Design: HTML & CSS is designed for those who have an interest in computer science and technical writing.

COURSE GOALS

The following course goals derive from the 2015 Connecticut Career & Technical Education Performance Standards & Competencies.

- | | |
|---------------|--|
| CCTE.BFT.A | Impact on Society: Assess the impact of information technology in a global society. |
| CCTE.BFT.A.1 | Describe the impact of technology on the knowledge and skills needed for success in the workplace. |
| CCTE.BFT.G | Web Development and Design: Design, develop, test, implement, update, and evaluate web solutions. |
| CCTE.BFT.G.10 | Identify and apply appropriate design concepts and create web pages. |
| CCTE.BFT.G.11 | Identify client and target audience needs. |
| CCTE.BFT.H | Programming and Application Development: Design, develop, test, and implement programs and applications. |
| CCTE.BFT.H.12 | Identify and define object-oriented programming terminology. |

The following course goals derive from the 2010 Connecticut Core Standards.

CCS.ELA-Literacy.RST.9-10.2	Determine the central ideas 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.
CCS.ELA-Literacy.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.
CCS.ELA-Literacy.RST.9-10.5	Analyze the structure of the relationships among concepts in a text, including relationships among key terms (e.g., force, friction, reaction force, energy).
CCS.ELA-Literacy.RST.9-10.6	Analyze the author’s purpose in providing an explanation, describing a procedure, or discussing an experiment in a text, defining the question the author seeks to address.
CCS.ELA-Literacy.RST.9-10.7	Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words.
CCS.ELA-Literacy.RST.9-10.8	Assess the extent to which the reasoning and evidence in a text support the author’s claim or a recommendation for solving a scientific or technical problem.
CCS.ELA-Literacy.RST.9-10.9	Compare and contrast findings presented in a text to those from other sources (including their own experiments), noting when the findings support or contradict previous explanations or accounts.
CCS.ELA-Literacy.WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
CCS.ELA-Literacy.WHST.9-10.6	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology’s capacity to link to other information and to display information flexibly and dynamically.
CCS.ELA-Literacy.SL.9-10.2	Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively,

orally) evaluating the credibility and accuracy of each source.

CCS.ELA-Literacy.SL.9-10.4

Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

The following course goals derive from the 2016 International Society for Technology in Education Standards.

ISTE Empowered Learner
(Standard 1)

Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.
1d. Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use, and troubleshoot current technologies, and are able to transfer their knowledge to explore emerging technologies.

ISTE Digital Citizen
(Standard 2)

Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal, and ethical.
2c. Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.

ISTE Knowledge Constructor
(Standard 3)

Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.
3a. Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
3b. Students evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.

ISTE Innovative Designer
(Standard 4)

Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
4a. Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.
4b. Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.

4c. Students develop, test, and refine prototypes as part of a cyclical design process.

ISTE Computational Thinker
(Standard 5)

Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

5c. Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.

5d. Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

ISTE Creative Communicator
(Standard 6)

Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.

6b. Students create original works or responsibly repurpose or remix digital resources into new creations.

6c. Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.

6d. Students publish or present content that customizes the message and medium for their intended audiences.

COURSE ENDURING UNDERSTANDINGS

Students will understand that . . .

- the Internet has developed significantly from how it began to how it works today.
- websites used in research can and should be evaluated for validity.
- websites can and should be evaluated using principles of web design.
- HTML and CSS codes function in certain ways that must be understood and applied for effective webpage design.

COURSE ESSENTIAL QUESTIONS

- What is web design?
- What is the difference between web design and web programming?
- What makes a functional website?
- How do HTML and CSS work together to create websites?
- What is responsive design?

COURSE KNOWLEDGE & SKILLS

Students will know . . .

- how to create multi-page websites using HTML and CSS codes.
- how to analyze and fix errors in websites.

Students will be able to . . .

- use creativity and problem solving to create, code, and maintain websites.
- analyze, test, and review their work using feedback to improve.
- explain how websites are developed and viewed on the Internet and multiple browsers.

COURSE SYLLABUS

Course Name

Web Design: HTML & CSS

Level

Grades 9-12

Prerequisites

None

Materials Required

None

General Description of the Course

Web Design: HTML & CSS is a project-based course that teaches students how to build their own webpages using HTML and CSS coding language. Students will be able to explain how webpages are developed and viewed on the Internet, analyze and fix errors in existing websites, and write code for their very own multi-page websites.

Assured Assessments

- Scavenger hunt for information about the history of the Internet (Unit 1)
- Evaluating websites based on 8 principles of effective websites (Unit 2)
- Creating a multi-page website (Unit 3)
- Using HTML to code and create a website about a cartoon character of choice (Unit 3)
- Using HTML code and CSS styling to create a “Pretty Poem / Song Styles” website (Unit 4)
- Using HTML and CSS to code and create a multi-page website (Unit 5)
- Using JavaScript to create a clock on a webpage (Unit 5)

Core Texts

- Technology hardware and digital resources
- *CodeHS*. <https://codehs.com/>. Accessed November 3, 2020. Web.
- w3schools.com. <https://www.w3schools.com/>. Accessed November 3, 2020. Web.

UNIT 1

What Is the Web?

Unit Goals

At the completion of this unit, students will:

CCTE.BFT.A CCTE.BFT.A.1	Assess the impact of information technology in a global society.
CCS.ELA-Literacy.RST.9-10.7	Create a timeline showing a history of the web.
CCS.ELA-Literacy.RST.9-10.7	Create a visual to explain the steps for a webpage to get to one's computer.
CCS.ELA-Literacy.RST.9-10.9	Investigate the capabilities of the Internet 20 years ago, 10 years ago, today, and looking forward to the future.
ISTE Knowledge Constructor (Standards 1d, 3a, 3b)	Identify valid websites used in research.

Unit Essential Questions

- What is the web?
- How are we able to view websites on multiple browsers?
- What elements make a webpage easy to navigate?

Scope and Sequence

1. Course introduction
2. Goal-setting
3. The Internet
 - The history of the Internet
 - World Wide Web Consortium
 - How the Internet works
4. URLs
5. How a webpage gets to your computer

Assured Assessment

- Scavenger hunt for information about the history of the Internet
- Students' creation of their own questions and answers for self-discovery on the W3C organization
- "How the Internet Works" activity
- "The Internet Then and Now": Students investigate the capabilities of the Internet 20 years ago, 10 years ago, today, and looking forward to the future

Resources

Core

- Technology hardware and digital resources
- *CodeHS*. <https://codehs.com/>. Accessed November 3, 2020. Web.

Supplemental

- Various print and digital articles
- Various websites

Time Allotment

- Approximately 1 week

UNIT 2

Evaluating Websites

Unit Goals

At the completion of this unit, students will:

CCTE.BFT.A CCTE.BFT.A.1	Describe the impact of technology on the knowledge and skills needed for success in the workplace.
CCS.ELA-Literacy.RST.9-10.2 CCS.ELA-Literacy.RST.9-10.7 CCS.ELA-Literacy.SL.9-10.2 ISTE Digital Citizen (Standards 2c)	Research several websites to answer questions on their design effectiveness.
CCS.ELA-Literacy.RST.9-10.5 CCS.ELA-Literacy.RST.9-10.8 CCS.ELA-Literacy.RST.9-10.9 CCS.ELA-Literacy.SL.9-10.4	Based on criteria discussed in class, compare and contrast websites to determine their effectiveness.
CCTE.BFT.G	Design, develop, test, implement, update, and evaluate web solutions.
CCTE.BFT.G.10	Identify and apply appropriate design concepts.
CCTE.BFT.G.11	Identify client and target audience needs.

Unit Essential Questions

- What makes a quality website?
- What are the principles of web design?

Scope and Sequence

1. Criteria for evaluating websites

Assured Assessment

- Comparing and contrasting websites based on the 8 principles of effective websites
- Evaluating websites based on all 8 principles of effective website design

Resources

Core

- Technology hardware and digital resources
- *CodeHS*. <https://codehs.com/>. Accessed November 3, 2020. Web.

Supplemental

- Various print and digital articles
- Various websites

Time Allotment

- Approximately 1 week

UNIT 3

HTML-Structuring Websites

Unit Goals

At the completion of this unit, students will:

CCTE.BFT.H CCTE.BFT.H.12	Understand the terminology associated with HTML code.
CCS.ELA-Literacy.WHST.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience when creating an individual website.
CCS.ELA-Literacy.WHST.9-10.6	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
CCTE.BFT.G	Design, develop, test, implement, update, and evaluate web solutions.
CCTE.BFT.G.10	Identify and apply appropriate design concepts and create web pages.
CCTE.BFT.G.11	Identify client and target audience needs.
ISTE Innovative Designer (Standards 4a, 4b, 4c)	Create webpages using HTML.

Unit Essential Questions

- How do we code webpages with HTML?
- What are the basics of coding in HTML?
- What is HTML?
- What is a markup language?
- How do I write HTML?
- What is the anatomy of an HTML page?
- What is an HTML element?
- What is an HTML tag?
- What is an HTML attribute?

Scope and Sequence

- HTML
- Structure of HTML

- HTML tags, attributes, and elements
- Headings
- Formatting text
- Hyperlinks: Internal and external
- Images
- Copyright
- Ordered and unordered lists
- Tables
- Resizing tables, rows, and columns
- Merging and splitting cells
- Inserting and aligning images
- Styling with HTML

Assured Assessment

- Using HTML code to create a multi-page website including an index page, a schedule page, a hobbies page, a birthday page, etc., with pages linked to one another
- Using HTML to code and create a website about a cartoon character of choice
- Working through the *CodeHS* program, completing exercises to reinforce skills learned

Resources

Core

- Technology hardware and digital resources
- *CodeHS*. <https://codehs.com/>. Accessed November 3, 2020. Web.

Supplemental

- Various print and digital articles
- Various websites

Time Allotment

- Approximately 5 weeks

UNIT 4

CSS-Styling Websites

Unit Goals

At the completion of this unit, students will:

CCTE.BFT.H CCTE.BFT.H.12	Understand the terminology associated with HTML code and CSS.
CCS.ELA-Literacy.RST.9-10.7	Identify the components of a style in CSS, as well as CSS style rules.
CCS.ELA-Literacy.WHST.9-10.4	Explain the benefits CSS provides over styling with only HTML.
CCS.ELA-Literacy.WHST.9-10.6	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
CCTE.BFT.G	Design, develop, test, implement, update, and evaluate web solutions.
CCTE.BFT.G.10	Identify and apply appropriate design concepts and create web pages.
CCTE.BFT.G.11	Identify client and target audience needs.
ISTE Creative Communicator (Standards 6b, 6c, 6d)	Create webpages using HTML and additional styling using CSS to introduce color, design, and image manipulation.
ISTE Computational Thinker (Standards 5c, 5d)	Identify CSS selectors and rules used on webpages, and use CSS selectors to style webpages.

Unit Essential Questions

- What is Cascading Style Sheets (CSS), and how is the visual look of webpages controlled by using CSS?
- What is the relationship between CSS and HTML?
- What is the difference between internal style and external style?
- What is the order of selector precedence?

Scope and Sequence

- Cascading Style Sheets (CSS)
- CSS vs. HTML

- Color in CSS
- Typography in CSS
- The Box Model in CSS
- CSS Selectors such as tag, class, and id
- Differences among styling by tag, class, and id
- CSS override rules
- Page layout techniques

Assured Assessment

- Using HTML code to create a “Pretty Poem / Song Styles” website, applying HTML and CSS style to format and markup the text, and using CSS styling to make several images fit together properly on the webpage
- Using CSS selectors to style previous and new webpages
- Explaining the benefits CSS provides over styling with only HTML
- Identifying CSS Selectors and rules
- Working through the *CodeHS* program, completing exercises to reinforce skills learned

Resources

Core

- Technology hardware and digital resources
- *CodeHS*. <https://codehs.com/>. Accessed November 3, 2020. Web.

Supplemental

- Various print and digital articles
- Various websites

Time Allotment

- Approximately 5 weeks

UNIT 5

Advanced HTML and CSS

Unit Goals

At the completion of this unit, students will:

ISTE Creative Communicator (Standards 6b, 6c, 6d)	Create webpages using HTML, CSS, and JavaScript.
CCTE.BFT.H CCTE.BFT.H.12	Understand the terminology associated with HTML, CSS, and JavaScript.
CCS.ELA-Literacy.WHST.9-10.4 CCS.ELA-Literacy.SL.9-10.2 CCS.ELA-Literacy.SL.9-10.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
CCS.ELA-Literacy.WHST.9-10.6	Use technology, including the Internet, to produce, publish, and update individual or shared writing products, taking advantage of technology's capacity to link to other information and to display information flexibly and dynamically.
CCTE.BFT.G	Design, develop, test, implement, update, and evaluate web solutions.
CCTE.BFT.G.10	Identify and apply appropriate design concepts and create web pages.
CCTE.BFT.G.11	Identify client and target audience needs.

Unit Essential Questions

- How do we style webpages?
- What are the purposes for using the div and span tags, and when and why would I use them?
- How can I manipulate HTML content on a webpage?

Scope and Sequence

- Splitting site into separate files
- Iframes and embedding media
- Div and span tags
- CSS combinators
- Special selectors
- Image filters and animation
- Introduction to scripting

- Using JavaScript to show an alert
- Using JavaScript to hide and show content

Assured Assessment

- Using HTML and CSS to code and create a multi-page website
- Using iframes to embed video on new and existing webpages
- Using divs and spans to style HTML elements
- Using CSS styling to elements on click, hover, and set filters to images
- Working through the *CodeHS* program, completing exercises to reinforce skills learned
- Using www.w3schools.com to insert JavaScript on webpages
- Using JavaScript to create a clock on a webpage

Resources

Core

- Technology hardware and digital resources
- *CodeHS*. <https://codehs.com/>. Accessed November 3, 2020. Web.
- w3schools.com. <https://www.w3schools.com/>. Accessed November 3, 2020. Web.

Supplemental

- Various print and digital articles
- Various websites

Time Allotment

- Approximately 5 weeks

COURSE CREDIT

One-half credit in business education
One class period daily for a half year

PREREQUISITES

None

CURRENT REFERENCES

- *Codecademy*. <https://www.codecademy.com/>. Accessed November 3, 2020. Web.
- *CodeHS*. <https://codehs.com/>. Accessed November 3, 2020. Web.
- *HTML Dog*. <https://htmldog.com/>. Accessed November 3, 2020. Web.
- *w3schools.com*. <https://www.w3schools.com/>. Accessed November 3, 2020. Web.

ASSURED STUDENT PERFORMANCE RUBRICS

- Trumbull High School School-Wide Reading Rubric (attached)
- Trumbull High School School-Wide Problem-Solving Rubric (attached)
- Trumbull High School School-Wide Independent Learning and Thinking Rubric (attached)
- Web Design: HTML & CSS Evaluating Websites (attached)
- Web Design: HTML & CSS Project 1: Cartoon Character! & Rubric (attached)
- Web Design: HTML & CSS Pretty Poem / Song Styles Activity (attached)
- Web Design: HTML & CSS Advanced HTML and CSS Project (attached)

Trumbull High School School-Wide Reading Rubric

Category/ Weight	Exemplary 4 Student work:	Goal 3 Student work:	Working Toward Goal 2 Student work:	Needs Support 1-0 Student work:
Respond X_____	<ul style="list-style-type: none"> • Demonstrates exceptional understanding of text by: <ul style="list-style-type: none"> ○ Clearly identifying the purpose of the text ○ Providing initial reaction richly supported by text ○ Providing a perceptive interpretation 	<ul style="list-style-type: none"> • Demonstrates understanding of text by: <ul style="list-style-type: none"> ○ Identifying the fundamental purpose of the text ○ Providing initial reaction supported by text ○ Providing a clear/straightforward interpretation of the text 	<ul style="list-style-type: none"> • Demonstrates general understanding of text by: <ul style="list-style-type: none"> ○ Partially identifying the purpose of the text ○ Providing initial reaction supported by text ○ Providing a superficial interpretation of the text 	<ul style="list-style-type: none"> • Demonstrates limited or no understanding of text by: <ul style="list-style-type: none"> ○ Not identifying the purpose of the text ○ Providing initial reaction not supported by text ○ Providing an interpretation not supported by the text
Interpret X_____	<ul style="list-style-type: none"> • Demonstrates exceptional interpretation of text by: <ul style="list-style-type: none"> ○ Extensively reshaping, reflecting, revising, and/or deepening initial understanding ○ Constructing insightful and perceptive ideas about the text ○ Actively raising critical questions and exploring multiple interpretations of the text 	<ul style="list-style-type: none"> • Demonstrates ability to interpret text by: <ul style="list-style-type: none"> ○ Reshaping, reflecting, revising, and/or deepening initial understanding ○ Summarizing main ideas of text ○ Actively interpreting text by raising questions and looking for answers in text 	<ul style="list-style-type: none"> • Demonstrates general ability to interpret text by: <ul style="list-style-type: none"> ○ Guided reflection and/or revision of initial understanding ○ Summarizing some of the main ideas of text ○ Guided interpretation of text by locating answers to given questions in text 	<ul style="list-style-type: none"> • Demonstrates limited ability to interpret text as evidenced by: <ul style="list-style-type: none"> ○ Struggle to implement guided reflection and/or revision of initial understanding ○ Struggle to summarize any main ideas of text ○ Struggle to answer questions by locating responses in text
Connect X_____	<ul style="list-style-type: none"> • Demonstrates perceptive connections <ul style="list-style-type: none"> ○ text-to-text ○ text-to-self ○ text-to-world 	<ul style="list-style-type: none"> • Demonstrates specific connections <ul style="list-style-type: none"> ○ text-to-text ○ text-to-self ○ text-to-world 	<ul style="list-style-type: none"> • Demonstrates general connections <ul style="list-style-type: none"> ○ text-to-text ○ text-to-self ○ text-to-world 	<ul style="list-style-type: none"> • Struggles to make connections <ul style="list-style-type: none"> ○ text-to-text ○ text-to-self ○ text-to-world
Evaluate X_____	<ul style="list-style-type: none"> • Demonstrates insightful evaluation of text by one or more of the following: <ul style="list-style-type: none"> ○ Critical analysis to create a conclusion supported by the text ○ Perceptive judgments about the quality of the text ○ Synthesis of text ○ Expression of a personal opinion 	<ul style="list-style-type: none"> • Demonstrates an evaluation of text by one or more of the following: <ul style="list-style-type: none"> ○ Critical analysis to form a conclusion from the text ○ Thoughtful judgments about the quality of the text ○ Evaluation of text to express personal opinion(s) 	<ul style="list-style-type: none"> • Demonstrates a general evaluation of text by one or more of the following: <ul style="list-style-type: none"> ○ Formulation of a superficial conclusion from the text ○ Assessment of the quality of the text ○ Use of text to express personal opinion(s) 	<ul style="list-style-type: none"> • Demonstrates a struggle to evaluate text by one or more of the following: <ul style="list-style-type: none"> ○ Formulation of a conclusion from the text ○ Assessment of the quality of the text ○ Use of text to express personal opinion(s)

Trumbull High School School-Wide Problem-Solving through Critical Thinking Rubric

Category/ Weight	Exemplary 4	Goal 3	Working Toward Goal 2	Needs Support 1-0
Understanding X_____	<ul style="list-style-type: none"> • Student demonstrates clear understanding of the problem and the complexities of the task 	<ul style="list-style-type: none"> • Student demonstrates sufficient understanding of the problem and most of the complexities of the task 	<ul style="list-style-type: none"> • Student demonstrates some understanding of the problem but requires assistance to complete the task 	<ul style="list-style-type: none"> • Student demonstrates limited or no understanding of the fundamental problem after assistance with the task
Research X_____	<ul style="list-style-type: none"> • Student gathers compelling information from multiple sources including digital, print, and interpersonal 	<ul style="list-style-type: none"> • Student gathers sufficient information from multiple sources including digital, print, and interpersonal 	<ul style="list-style-type: none"> • Student gathers some information from few sources including digital, print, and interpersonal 	<ul style="list-style-type: none"> • Student gathers limited or no information
Reasoning and Strategies X_____	<ul style="list-style-type: none"> • Student demonstrates strong critical thinking skills to develop a comprehensive plan integrating multiple strategies 	<ul style="list-style-type: none"> • Student demonstrates sufficient critical thinking skills to develop a cohesive plan integrating strategies 	<ul style="list-style-type: none"> • Student demonstrates some critical thinking skills to develop a plan integrating some strategies 	<ul style="list-style-type: none"> • Student demonstrates limited or no critical thinking skills and no plan
Final Product and/or Presentation X_____	<ul style="list-style-type: none"> • Solution shows deep understanding of the problem and its components • Solution shows extensive use of 21st-century technology skills 	<ul style="list-style-type: none"> • Solution shows sufficient understanding of the problem and its components • Solution shows sufficient use of 21st-century technology skills 	<ul style="list-style-type: none"> • Solution shows some understanding of the problem and its components • Solution shows some use of 21st-century technology skills 	<ul style="list-style-type: none"> • Solution shows limited or no understanding of the problem and its components • Solution shows limited or no use of 21st-century technology skills

Trumbull High School School-Wide Independent Learning and Thinking Rubric

Category/ Weight	Exemplary 4	Goal 3	Working Toward Goal 2	Needs Support 1-0
Proposal X_____	<ul style="list-style-type: none"> Student demonstrates a strong sense of initiative by generating compelling questions, creating uniquely original projects/work 	<ul style="list-style-type: none"> Student demonstrates initiative by generating appropriate questions, creating original projects/work 	<ul style="list-style-type: none"> Student demonstrates some initiative by generating questions, creating appropriate projects/work 	<ul style="list-style-type: none"> Student demonstrates limited or no initiative by generating few questions and creating projects/work
Independent Research & Development X_____	<ul style="list-style-type: none"> Student is analytical, insightful, and works independently to reach a solution 	<ul style="list-style-type: none"> Student is analytical, and works productively to reach a solution 	<ul style="list-style-type: none"> Student reaches a solution with direction 	<ul style="list-style-type: none"> Student is unable to reach a solution without consistent assistance
Presentation of Final Product X_____	<ul style="list-style-type: none"> Presentation shows compelling evidence of an independent learner and thinker Solution shows deep understanding of the problem and its components Solution shows extensive and appropriate application of 21st-century skills 	<ul style="list-style-type: none"> Presentation shows clear evidence of an independent learner and thinker Solution shows adequate understanding of the problem and its components Solution shows adequate application of 21st-century skills 	<ul style="list-style-type: none"> Presentation shows some evidence of an independent learner and thinker Solution shows some understanding of the problem and its components Solution shows some application of 21st-century skills 	<ul style="list-style-type: none"> Presentation shows limited or no evidence of an independent learner and thinker Solution shows limited or no understanding of the problem and its components Solution shows limited or no application of 21st-century skills

Web Design: HTML & CSS

Evaluating Websites

Part 1: You are going to browse the Internet to find different websites that you consider successful and unsuccessful. Please use the suggested links, although you may find your own as well.

- Click this link to access award-winning websites: <https://winners.webbyawards.com/winners>.
- Click on either link to access articles about poor/bad websites:
<https://www.rankingbyseo.com/blog/bad-websites/> or
<https://www.elegantthemes.com/blog/resources/bad-web-design-a-look-at-the-most-hilariously-terrible-websites-from-around-the-web>.

Part 2: Once you have browsed different websites, you need to pick one successful website and one unsuccessful, bad website for which to fill out the following (1 pt. each, unless stated differently).

Successful Website

Website address:	
Name of site:	

How would you rate the website on the following? Put an X in each box that applies.

	1 – Strongly Disagree	2 – Disagree	3 – No Opinion	4 – Agree	5 – Strongly Agree
<u>Layout:</u> The overall layout of the website was organized nicely.					
<u>Accessibility/Design:</u> The text was legible, the colors were easy on the eyes, there was a good amount of white space, and the overall look of the site was great!					
<u>Navigation:</u> The website was easy to access and navigate through.					
<u>Content:</u> The website’s information was compelling, easy to read, and easy to process.					

<p><u>Media:</u> The webpage had pictures, videos, and audio that enhanced the website.</p>					
<p><u>Audience:</u> It was easy to understand who the website's target audience is.</p>					
<p><u>Overall Feel:</u> The website was highly responsive, functional, quick, and useful.</p>					

Write a paragraph about why you felt this website was successful and what you liked the most about it. You must include/discuss the 8 Principles of Successful Web Design in your answer! (5 points)

Unsuccessful Website

Website address:	
Name of site:	

How would you rate the website on the following? Put an X in each box that applies.

	1 – Strongly Disagree	2 – Disagree	3 – No Opinion	4 – Agree	5 – Strongly Agree
<p><u>Layout:</u> The overall layout of the website was organized nicely.</p>					

<p><u>Accessibility/Design:</u> The text was legible, the colors were easy on the eyes, there was a good amount of white space, and the overall look of the site was great!</p>					
<p><u>Navigation:</u> The website was easy to access and navigate through.</p>					
<p><u>Content:</u> The website's information was compelling, easy to read, and easy to process.</p>					
<p><u>Media:</u> The webpage had pictures, videos, and audio that enhanced the website.</p>					
<p><u>Audience:</u> It was easy to understand who the website's target audience is.</p>					
<p><u>Overall Feel:</u> The website was highly responsive, functional, quick, and useful.</p>					

Write a paragraph about why you felt this website was unsuccessful and what you disliked the most about it. You must include/discuss the 8 Principles of Successful Web Design in your answer! (5 points)

Web Design: HTML & CSS Cartoon Character!



Project Objective: Demonstrate skills from Lessons 1-6 by creating a one-page website on a character of your choice!

Directions: Open up a new program in your CodeHS Sandbox! Name this project “Project 1.”

Contents: index.HTML page

1. Images of cartoon character
2. Description of cartoon character (should be about two paragraphs)
3. Timeline of cartoon character with 10 interesting facts (see example)

Required Components:

You must demonstrate understanding of Lessons 1-6 and creativity in this project. This will be an original website; you cannot copy code from other activities. Attached is just an example!

Website considers the [8 Principles of Successful Web Design](#).

Website contains:

- All required content information on index.HTML page
- HTML structure tags
- **Formatting** such as `<hr>````<i>``<sub>``<sup>``<mark>` entity/symbols etc.
- **Attributes** such as style, href, src, title, width, height, target, alt
- 5 images – at least 2 must be sourced!
- 10 related hyperlinks

Must include symbol for copyright, year, your name.

Evidence of effort which includes applying a **new** skill from w3schools to your site!

Caution: You must be able to explain your code! For example, you cannot use CSS and not understand what it means. You cannot just copy and paste the code from w3Schools.

Extra Credit: Use an [Image Map](#) to create an image map for one of your images!

Things to do:

- Choose a cartoon character of your choice.
- Write a two-paragraph description of the cartoon character. Make it interesting! Some prompts to get you started are:
 - Who is the character?
 - What show is the character from?
 - What kind of activities is the character involved in?
 - Are there any really interesting facts about the character?

- Research a timeline of the major or key events in the character's history. (See example.)
- Find your images and make sure to source 2 that you are using in your page. Enter the urls below:

- Decide what colors you want to use for your site.

Web Design: HTML & CSS Cartoon Character! Rubric

	Exemplary	Goal	Working towards Goal	Needs Support
Layout Design Evidence of 8 Principles of Successful Web Design	<ul style="list-style-type: none"> Each page is exceptionally attractive and visually pleasing with complementing colors. Text is easy to read. Backgrounds enhance the page. No spelling or grammatical errors. User can easily navigate site. 	<ul style="list-style-type: none"> The pages are eye-catching and attractive. Test is easy to read. Backgrounds are appropriate. May be some spelling or grammatical errors. User can easily navigate site. 	<ul style="list-style-type: none"> The pages are not consistent to the theme throughout the website. Text may be difficult to read. Backgrounds are distracting. Spelling and grammatical errors exist. Site may be confusing. 	<ul style="list-style-type: none"> The pages are unattractive, with clashing colors. Text is difficult to read. Backgrounds are distracting. Several spelling and grammatical errors exist. Site may be confusing.
Images	<ul style="list-style-type: none"> Each page has images correctly formatted with source when applicable. Images are relevant. Images use several attributes to improve site such as alt, width, height, title. 	<ul style="list-style-type: none"> Images are mostly formatted with source when applicable. Images are relevant. Evidence of attributes. 	<ul style="list-style-type: none"> Images do not work on every page and do not fit with the topic. Attributes are missing. 	<ul style="list-style-type: none"> There are no photos, photos are incorrectly formatted, and/or photos are missing source.
Navigation Links	<ul style="list-style-type: none"> Links are formatted correctly and working without error. Website contains at least 10 links. Links are relevant to the topic. 	<ul style="list-style-type: none"> Links are formatted correctly with few errors. Website is missing additional links. Some links are not relevant to the topic. 	<ul style="list-style-type: none"> User may be confused navigating through links. Formatting is missing. Some links may not work. 	<ul style="list-style-type: none"> The user may be lost or links may be missing and not working.

<p>Overall Meeting of Project Objectives</p>	<ul style="list-style-type: none"> • All project requirements are met or exceeded. • Website meets objectives, including correct use and variety of tags, formatting, and style. • Evidence of incorporating a new skill. 	<ul style="list-style-type: none"> • Most project requirements are met. • Student did what was required. 	<ul style="list-style-type: none"> • Missing project requirements on some of the pages, such as correct use of tags, formatting, and/or style. 	<ul style="list-style-type: none"> • Overall project is incomplete or missing pages. • Incorrect use of tags, formatting, and style.
<p>Effort</p>	<ul style="list-style-type: none"> • Exceptional 	<ul style="list-style-type: none"> • Above Average 	<ul style="list-style-type: none"> • Average 	<ul style="list-style-type: none"> • Below Average

Web Design: HTML & CSS

Pretty Poem / Song Styles Activity

Project Objective: Practice and demonstrate mastery of styling in HTML as well as basic HTML concepts.

Directions: Open up CodeHS. Create a new program called “poem.HTML.”

Task: Style a Poem or Song of your choice.

Step 1: Find a poem. Copy and paste it into your web editor and format below into stanzas with all the required tags.

You can go here (<https://fizzyfunnyfuzzy.com>) or use a poem or appropriate (no swearing) song of your choice.

Make the below changes to the poem:

- Insert a background color.
- Create a main page font color.
- Center-align the heading and change the color.
- Italicize one of the words in your heading.
- In the first stanza, strike through a word the author used and replace it with a word you like better (example: ~~hot~~ blazing).
- In the first stanza, after some word, add a subscript with a comment related to the poem.
- In the second stanza, italicize 2 words on the first line and bold 2 words on the last line.
- In one of your stanzas, create a “tooltip/pop up” that comments on a word or phrase.
- After the last stanza of the poem, create a new stanza that is in addition to the poem. It can be silly and not make much sense, but maybe make it rhyme! This stanza should be right-aligned with the page and in a color of your choice (different from main). Use a HEX code.
- Insert the copyright symbol, year, your name.
- Add a horizontal rule and style it! before the copyright line.
- Make the copyright year a bold and different color.
- After the copyright line create a new stanza that is your name in italics and centered.
- Before your name add a horizontal rule. Style it!
- Change your name to be an H3 tag.
- Add at least 5 symbols/entity tags throughout the poem.
- Add at least 1 image, and link it to the source of your poem
- Add this site to your About Me Website under Websites I’ve Made.
- Add a new skill to this site!

Self Evaluation

Your name: _____

Did your project include the following? Check off what you have completed.

- Insert a background color.
- Create a main page font color.
- Center-align the heading and change the color.
- Italicize one of the words in your heading.
- In the first stanza, strike through a word the author used and replace it with a word you like better (example: ~~hot~~ blazing).
- In the first stanza, after some word, add a subscript with a comment related to the poem.
- In the second stanza, italicize 2 words on the first line and bold 2 words on the last line.
- In one of your stanzas, create a “tooltip/pop up” that comments on a word or phrase.
- After the last stanza of the poem, create a new stanza that is in addition to the poem. It can be silly and not make much sense, but maybe make it rhyme! This stanza should be right-aligned with the page and in a color of your choice (different from main). Use a HEX code.
- Insert the copyright symbol, year, your name.
- Add a horizontal rule and style it! before the copyright line.
- Make the copyright year a bold and different color.
- After the copyright line create a new stanza that is your name in italics and centered.
- Before your name add a horizontal rule. Style it!
- Change your name to be an H3 tag.
- Add at least 5 symbols/entity tags throughout the poem.
- Add at least 1 image, and link it to the source of your poem
- Add this site to your About Me Website under Websites I’ve Made.
- Add a new skill to this site!

How many boxes did you check off?

What did you like most about this assignment?

What improvements would you make if you had additional time?

Peer Evaluation

Peer's name: _____

Did the project include the following? Check off what you can see in your peer's project.

- Insert a background color.
- Create a main page font color.
- Center-align the heading and change the color.
- Italicize one of the words in your heading.
- In the first stanza, strike through a word the author used and replace it with a word you like better (example: ~~hot~~ blazing).
- In the first stanza, after some word, add a subscript with a comment related to the poem.
- In the second stanza, italicize 2 words on the first line and bold 2 words on the last line.
- In one of your stanzas, create a "tooltip/pop up" that comments on a word or phrase.
- After the last stanza of the poem, create a new stanza that is in addition to the poem. It can be silly and not make much sense, but maybe make it rhyme! This stanza should be right-aligned with the page and in a color of your choice (different from main). Use a HEX code.
- Insert the copyright symbol, year, your name.
- Add a horizontal rule and style it! before the copyright line.
- Make the copyright year a bold and different color.
- After the copyright line create a new stanza that is your name in italics and centered.
- Before your name add a horizontal rule. Style it!
- Change your name to be an H3 tag.
- Add at least 5 symbols/entity tags throughout the poem.
- Add at least 1 image, and link it to the source of your poem
- Add this site to your About Me Website under Websites I've Made.
- Add a new skill to this site!

How many boxes did you check off?

What did you like most about this website?

What improvements would you recommend to your peer?

Web Design: HTML & CSS Advanced HTML & CSS Project

CONGRATULATIONS! You have made it through WEB DESIGN!

You will now choose one project from this packet to work on for your next project!

- 1. Planning a Party**
- 2. Topic of your choice**
- 3. Submitting your CodeHS Aboutme.HTML page**

Each of the projects contains the same requirements. Remember to check the requirements and review the project guidelines of each!

Required Components:
You must demonstrate an understanding of HTML and CSS, specifically using multi-file sites and stylesheets. You need to plan what your CSS styling will be so you can link into your pages.
Website considers the 8 Principles of Successful Web Design .
Website contains: <ul style="list-style-type: none">• All required content information• HTML structure tags• External CSS style sheet as well as external Google Font sheet<ul style="list-style-type: none">○ Style.css page should contain all the styling, including classes and id's• Formatting such as <hr><i><sub><sup><mark> entity/symbols, etc.• Attributes such as style, href, src, title, width, height, target, alt, class, and id• Images on each page with interactions/animation, borders, box model• 10 related hyperlinks throughout site• Iframe appropriate to topic• Pseudo-Classes (hover, active, etc.)• Style.css should contain at least one CSS combinator
Must include .header. Header must contain banner as well as navigation bar so the user can navigate between pages. These should be set up as div tags. Must include .footer. Footer should contain your name and copyright with year. These should be set up as div tags. Must include a navigation bar/menu with links to each page in your site! These should be set up as div tags. Must include a layout consistent throughout the site!
Evidence of effort which includes applying a new skill from w3schools to your site!

OPTION 1: Planning a Party

Project Objective: Demonstrate and practice skills from HTML, CSS, and Advanced CSS.

Task: Create a multi-page website to send to your family and friends about an upcoming theme party! Consider this webpage as your invitation!

This is your opportunity to be creative! The party has to have a creative theme such as “Pirate Party,” “Cats Rule Party,” or “Superhero Party.”

Directions: Open up a new program in CodeHS. Name this program party.HTML.

You will create 5 separate files total in this program.

1. index.HTML page title should be “Party Webpage”
2. guest.HTML guest list title should be “Guest list”
3. music.HTML playlist title should be “Music Playlist”
4. activity.HTML page title should be “Party Activities”
5. style.css page with all of your CSS styling rules

YOU MUST CREATE A NAVIGATION BAR/MENU SO ALL PAGES LINK TO EACH OTHER.

You will follow the directions on how to create a banner for each page of the site.

style.css page: THIS TAKES SOME PLANNING/DESIGNING.

- Decide on a **background image** that will apply to **all** pages. Keep this consistent.
- Each page will have **divs** that will be sections on top of the background image.
- You should also set rules for images and tags on this page that will apply to all pages (border, size, etc.).
- Images should have image interactions, manipulations, etc.
- Create a **.header** and **.footer** class, and style each.
- The footer of your page should have the same background color, the copyright symbol, year, your name, e-mail, phone number with a symbol relating to your party, all center-aligned.
- External Google Font. Use several fonts throughout your page!

index.HTML: Homepage/Invitation Page

Top of homepage should have banner and then links/nav bar to Guest List, Music Playlist, Activity page. Should include symbols.

- Header
- Topic of page. Example: Welcome to Alana’s Cats Rule Party Page!
- Information about the party (description)
- Picture related to party. **THIS PICTURE MUST BE SOURCED.**
- Party date:
- Party time:
- Party location: must link/embed to Google Map directions!

- Must have background color
- Footer

guest.HTML: Your guest list page must include banner and navigation bar/menu.

- Page Topic. Example: I am so excited for this party! Here is a list of the guests who signed up to bring something! You may create a list of guests with their pictures, or just a list of guests. Whatever you choose! Be creative!
- A table of some sort, whether guest list or drinks, food, and dessert at the party (at least 9) Your choice.

Drinks	Food	Dessert
Steve	Tracy	Alex
Circe	Hermes	Jason
Thelegonas	Odysseus	Lilianna

- Table must be styled.
- Must include relevant images on page. Include a SLIDESHOW!
- Footer

music.HTML: Music Playlist that must include banner and navigation bar.

- Create an ordered list of songs that will be played by artist and then songs as an unordered list. You should have at least 10 artists. You should practice with colors and use **CSS Combinators** to style this.

- Example:
 1. Death Cab for Cutie
 - I will follow you into the dark
 - No room in frame
 2. Lana Del Ray
 - Summer Time Sadness!
 - Born to Die

- Relevant pictures (each image must link to Spotify or Pandora)
- Bonus: Try to have music play on website!
- Bonus: Include a form to ask guests what they want to listen to!
- Footer

activity.HTML page: Must include banner and navigation bar/menu.

- Topic: Here are the activities for the party!
- Page must include a 3 x 3 picture collage with appropriate sizes related to page. These images should be styled in style.css.
- Create an unordered list of activities (at least 9) that will happen at your party! Each activity's text must be a different color. Title of list should be Activities! Can you use **span** tags for anything? List should be styled in style.css.
 - Dancing

- [Duck Duck Goose!](#)
- [Bob for Apples](#)
- [Candy](#)

EXTRA CHALLENGES:

- Insert something we have not already learned! Use your resources! You have the skills now!
- Create and insert a Google Form under the guest list page that guests can RSVP to!
- Include a variety of different fonts, font sizes, etc.
- Explore different types of [webpage layouts](#).
- Slideshow of images
- Change your cursor!
- Go To Top feature

Caution: You must be able to explain your code! For example, you cannot use CSS and not understand what it means. You cannot just copy and paste the code from w3schools.

Extra Credit: Use an [Image Map](#) to create an image map for one of your images!

OPTION 2: Your Choice

Project Objective: Demonstrate and practice skills from HTML, CSS, and Advanced CSS.

Task: Create a multi-page website on a topic of your choice!!! (Must be approved)

Sample topics:

- Sea Turtles or your favorite animal
- A cause that is important to you
- Star Wars page!
- Recreate the homepage for 5 websites! Try to get it as close as you can!
- Favorite movie star, sports star, musician, artist, writer, superhero, etc.

Directions: Open up a new program in CodeHS. Name this myproject.HTML. You will create 5 separate files total in this program.

1. Home page (index.HTML page)
2. style.css page
3. ...
4. ...
5. ...

You must create a banner for each page and a navigation bar. These must be included on every page, as well as a footer!

style.css page: THIS TAKES SOME PLANNING/DESIGNING.

- Keep the style consistent throughout your site.
- You should also set rules for images and tags on this page that will apply to all pages.
- Images should have image animations (keyframes) interactions, manipulations, etc.
- Create a **.header** and **.footer** class, and style each.
- The footer of your page should have the same background color, the copyright symbol, year, your name, center-aligned.
- External Google Font. Use several fonts throughout your page!

HTML pages

- Must include at least 1 table, 1 list; both styled in style.css
- Must include images on each page
- Look at layout examples
- Include symbols, text-decoration, variety of tags, style, etc.

OPTION 3: Aboutme.HTML Page

Project Objective: Demonstrate and practice skills from HTML, CSS, and Advanced CSS.

Task: Update, design, and complete your Aboutme.HTML page!

Directions: Open up your Aboutme.HTML page! You will need to update this page to include:

- Style.css page
- Birthday page – instructions are posted on Google Classroom!
- Family and friends page – your own creation!

style.css page: THIS TAKES SOME PLANNING/DESIGNING.

- Keep the style consistent throughout your site. Make sure you remove most of your inline styling. **For this project, all styling must be transitioned to an external/style.css page! This is not an easy task. Full credit will not be given to pages with inline style.**
- You should also set rules for images and tags on this page that will apply to all pages. Create ids to override when necessary.
- Images should have style, image animations (keyframes), interactions, manipulations, etc.
- Create a **.header** and **.footer** class, and style each.
- The footer of your page should have the same background color, copyright symbol, year, your name, center-aligned.
- External Google Font. Use several fonts throughout your page!

HTML pages: ALL of your HTML pages must be updated! All must have background color and be consistent throughout!

- Schedule Page needs to include table, styled in CSS
- Lists ul and ol both styled in style.css
- Must include images on each page styled in CSS
- Look at layout examples
- Include symbols, text-decoration, variety of tags, style, etc.

Creating a banner using a free online image editor site!

Photo Editor
To put it simply, BeFunky makes photo editing easy. With our world famous photo editor, you can turn photos you like into photos you love!

Collage Maker
Tell a story, share an adventure, design a card for a friend... whatever you want to create, our collage maker is here for you.

Designer
Don't know Photoshop? Now you don't need to. With our Designer Toolset, it's easy to make fully customized graphic designs.

In this class, we don't have that much time to devote to image and image editing; however, there are several free online photo editing tools that we can use to create a banner for our page.

- Go to befunky.com to create a collage that we will add to the top of our party page!
- Use Collage Maker and upload pictures from your computer or search their library.
- Choose a layout that has 3-5 images. Facebook Cover works well.
- Click settings and set the images to be 1000px wide and 300px tall so it will look like a banner. (Unlock aspect ratio.) You may have to play around with this.
- Drag your photos to the spots desired. You can return to settings to modify the spacing or roundness.
- Save to your computer to an images folder in your H drive. Name it all lowercase and save as PNG file format.
- Use this image as a banner for your entire website.

You can also use [Adobe Spark](#) or [Canva](#) (introduced in class).

See here for additional ways (<https://www.wikihow.com/Make-a-Banner> or <https://logomakr.com/>) to design a logo for the client!

You can create a class for this as well. See below example!

In style.css:

```
.banner {  
    background-image: url("insert image url");  
    height: 380px;  
    border: 1px solid black;  
        background-position: right;  
    background-repeat: no-repeat;  
    background-size: cover;  
    position: relative;  
}
```

In HTML page:

```
<div class="banner">  
</div>
```

How to create a Navigation Bar/Menu:

You should apply your own style rules for these!!!

https://www.w3schools.com/howto/howto_js_topnav.asp

https://www.w3schools.com/howto/tryit.asp?filename=tryhow_css_topnav

You can also create navigation bars by looking in Bootstrap lesson on CodeHS.com.

or

You can use basic HTML, links, background color to create navigation bars on your site under the banner!

How to create layouts!

https://www.w3schools.com/HTML/HTML_layout.asp