Name: Marina Moshchenko	Date:
Class: Web Development	**CS Standards:** **9-12.CT.4** Implement a program using a combination of student-defined and third-party functions to organize the computation. *The focus is on having students think about how to decompose a programming problem into functions and procedures, including working around the constraints imposed by specific functions or features provided in a library.* **9-12.CT.8** Develop a program that effectively uses control structures in order to create a computer program for practical intent, personal expression, or to address a societal issue. *The focus is on combining different forms of repetition and conditionals, including conditionals with complex Boolean expressions.*
UNIT: **Web Development**	**Period:**

Focus (In the form of a question – How? or Why?):
How front-end web development languages JavaScript, html, and CSS are related to each other, how they interact with one another and how they connect?

Learning Target(s) Explicitly Stated / Students will be able to (S.W.B.A.T.):
Understand the relationship between three web languages, ways to interact and connect information between the three by implementing interactive elements of web pages and their properties.

Vocabulary:
data-* attribute, element.getAttribute(), string, operations on string, element.className

Start-Up Assessment for Learning (Determine Prior Knowledge):
Play Card Matching Memory game online. Think if you want to develop this game in any programming language, what component your code would have? You can use pseudocode or program outline. List variables and functions/methods/procedures would you use?
https://www.puzzlewebgames.com/memory-match/

Mini-Lesson + Guided Practice:
Follow the slides “Relationships between HTML, JavaScript and CSS”

Teacher’s explanation of new material according to the slides.

Look at the web languages together to develop web pages and separately as each of them perform a different “job” . HTML – markup language, CSS – styling language and JavaScript is the only programming language.

Activity/Task:
Card Matching Game (memory game).

Students will use the starter code (explained) and continue working with it in accordance with the instructions in the code (script.js file) and in the slides.

Exceeding Standards Task:
INSTRUCTIONS. FINISH THE CODE THAT:
1. The game will have the board of your selected dimensions (4x4, 5x5, 3x4). Make sure you use even number of cards.
2. The game will have title and user-friendly instructions.
3. The counter of step is being added and display at the end of the game. Example "You win the game with 14 moves"

CHALLENGE 1. Modify the code so that the cards would display emojis as literal when flipped (You may use https://emojipedia.org/)
CHALLENGE 2. Modify the code so that the cards would display images when flipped

At Standards Task:
INSTRUCTIONS: FINISH THE CODE THAT:
1. The game will have the board of your selected dimensions (4x4, 5x5, 3x4). Make sure you use even number of cards.
2. The game will have title and user-friendly instructions.
3. The counter of step is being added and display at the end of the game. Example "You win the game with 14 moves"

Below Standards Task:
INSTRUCTIONS: FINISH THE CODE THAT:
1. The game will have the board of your selected dimensions (4x4, 5x5, 3x4). Make sure you use even number of cards.
2. The game will have title and user-friendly instructions.

Summary (What have you learned today?):	
Students share their coding approaches in small groups.	

Homework:
Finish the program code