Javascript Basics - file extension is .js
Link Script - <script src="script.js"></script>, link in head of HTML doc
Variables - set using var, let, and const. Var is old, stick to let and const. Const is only used for variables that will not change. (ex. Someone's birthday)
Variable types - string, number, boolean, undefined, null, array
Console.log() - whatever you put in here will log to the console
Numbers - everything in computer runs on numbers, so we need to cover that first
Addition - simple enough, use + sign
Subtraction - simple enough, use - sign
Multiplication - simple enough, use * sign
Division - simple enough, use / sign
Exponentiation - multiplies the number by itself as many times as the exponent says, ex. 6^3 = 6x6x6, use ** sign
Increment - adds 1 to a number, use ++ sign
Decrement - subtracts 1 from a number, use -- sign
Remainder (modulus) - gives the remainder, ex. 5%2 = 1, use % sign
Precedence - Javascript still follows the order of operations (PEMDAS)
Strings - denoted used "" or '', stick to one throughout your entire project
Escaping characters - you can escape a character by putting a \ in front of it. You would use it when you want to add an apostrophe, but have chosen to use '' to denote your strings.
Concatenating (joining) strings - here you use the ` symbol to enclose a string so that you can add variables inside of it. Ex. `Hello, ${name}, nice to meet you!` (can lead to more readable code and is the preferred method on the web docs)
Concatenating (joining) strings using + - instead of using backticks you can just use the + symbol in between variables and words Ex. "Hello," + name + ", nice to meet you!" (my preferred method)
Joining strings and numbers - if you add the string "street " to the number 42, the result will be street 42.
Functions to convert between string and numbers - use toString() to convert to string, use Number() to convert to number
New lines - If you want text to span multiple lines you just put it there using text literals, but if you chose the other method you have to put \n where you want the line break.
Slice - Javascript starts with position 0 (first letter is 0), slice takes in a starting position and end position, use var.slice(1,2). If you omit the second number it will slice the rest of the string.
toUpperCase - makes the entire string uppercase, used when comparing strings that are not case-sensitive
toLowerCase - self explanatory, opposite of to upper case, use var.toLowerCase()
Comparisons
Greater/less than - simple enough, use > < symbols respectively
Greater/less than or equal to - simple enough, use >= <= respectively
Equal each other - use == to check if two values are equal. === means they have to be the same data type as well. With == the values get converted to different data types for comparison. Ex. 0 == false // true 0 === false // false
Not equal to - simple enough, use !=

Result - if you use one of the comparisons the result will be a boolean value, either true or false, true is equal to 1 and false is equal to 0
Strings - strings are compared letter by letter in a dictionary, whatever comes after is greater. Ex. dot > dog

Conditionals

If - if a specified condition is true, execute the following block of code. Use if(condition){}
Else - if the condition is false, execute the following code of code. Use else {}
Else if - if the first condition isn't true, try this one. Use else if (condition){}

Logical operators - can be used as conditions in conditional statements

And - denoted with && symbol, and returns the first falsy value. Ex. alert(0 && "no matter what"); // 0
Or - denoted with ||, or reuters the first truthy value. Ex. alert(null || 0 || 1); // 1
Not - ! this operator basically says it is not something. A double !! is used for converting to a boolean type ex. !!null = false, generally not used outside of conditions

Exercises if we have extra time

1. Let's do some math!
One rule first:
Do not manually enter the answer, for example: "one plus ten" would look like 1+10
a = one plus eight
b = 22 times three
c = the *remainder* of 5/4
d = the variable 'a' minus 17
e = the sum of the previous four variables

2. Greeting Message
Must include:

- First name
- Last name
- Current year
- Birth year
- Full name = first name + last name
- Age = current year - birth year

Create a message that says something like "Hello, my name is Craig Lindstrom and I am 15 years old (won't work because I haven't had my birthday yet, but you get the idea)

Beyond that we'll just go over some of the basics within chrome dev tools.