**Lesson 2**

**Objectives:**

* Introduce JS fundamentals
* Provide practice with basic JS constructs
* Engage students with hands-on exercises

**Executing our JS**

* Chrome: menu / More Tools / Developer Tools / Console
* Firefox: menu / Developer Tools / Web Console
* Online: <https://jsbin.com/yalusagiku/edit?js,console> (best choice). Let’s use this editor as we walk through the slides so we can try some things out

**Intro to JS PPT**

* Js background
* Syntax
* Operators
* Variables
* Conditions
* Functions
* Loops
* Arrays

**Exercises**

* === quiz (within ppt ~ slide 21)
* JS rock-paper-scissors game: <https://www.codecademy.com/courses/javascript-beginner-en-Bthev-mskY8/0/1?curriculum_id=506324b3a7dffd00020bf661>
* arrays

Rock-Paper-Scissors Solution:

// using a function

var userChoice = prompt("Do you choose rock, paper or scissors?");

var computerChoice = Math.random();

if (computerChoice < 0.34) {

computerChoice = "rock";

}

else if(computerChoice <= 0.67) {

computerChoice = "paper";

}

else {

computerChoice = "scissors";

}

console.log("Computer: " + computerChoice);

compare(userChoice, computerChoice);

function compare(choice1, choice2) {

if (choice1 == choice2) {

return "The result is a tie!";

}

else if (choice1 === 'paper') {

if (choice2 === 'scissors') {

return 'scissors wins';

}

else {

return 'paper wins';

}

}

else if (choice1 === 'scissors') {

if (choice2 === 'rock') {

return 'rock wins';

}

else {

return 'scissors wins';

}

}

}

**Arrays Solution:**

// js arrays practice

// 1. create array

var foods = ['fish tacos', 'mango salad', 'california roll'];

// 2. output first element

console.log(foods[0]);

// 3. display each item in the array on a new line

for (var i = 0; i < foods.length; i++) {

console.log(foods[i] + '\n');

}

// 4. display the items this way using only 1 console.log command: Favourite Foods: [comma-separated list]

var output = 'Favourite Foods: ';

for (var i = 0; i < foods.length; i++) {

output += (foods[i]);

if (i < (foods.length-1)) {

output += ',';

}

}

console.log(output);

// 5. modify to include nested arrays. use nested loops to display all the foods and their ingredients

foods = [

['fish tacos',

['fish', 'tortillas', 'salsa']],

['mango salad',

['mango', 'lime', 'cilantro', 'peanuts']],

['california roll',

['rice', 'nori', 'avocado', 'surimi', 'cucumber']];

var output = '';

for (var i = 0; i < foods.length; i++) {

// store the current element as its own array

current = foods[i];

// display the food name (the first item in the array)

output += current[0] + '\n';

// start at the 2nd element of the current item and output the rest of the items

for (var j = 1; j < current.length; j++ ) {

output += '\t' + current[j] + '\n';

}

}

console.log(output);