

"JavaScript for Kids" Coding Class

**May/June 2015 - 4th and 5th Grade
Lesson 2**

Welcome to Lesson 2!

Lesson 2

- Recap of Lesson 1 (Numbers, Strings, Booleans)
- Arrays
 - Creating and defining arrays
 - Inserting / removing elements
 - Searching an array
 - Picking a random element from an array
 - Random body part generator!

Arrays

Creating and Defining Arrays

```
var student1 = 'Ethan';  
var student2 = 'Jose';  
var student3 = 'Cooper';  
var student4 = 'Rosa';  
var student5 = 'Christina';  
var student6 = 'Allan';  
var student7 = 'Brad';
```

**An Array is a
collection of elements**

Creating and Defining Arrays

```
var students = ['Ethan', 'Jose', 'Cooper', 'Rosa', 'Christina', 'Allan', 'Brad'];
```

Inserting and Removing Elements

```
students.push( 'Mako' );
```


Inserting and Removing Elements

```
students.pop();
```

Get the length of an array

```
students.length
```

Indexing an array

```
students[0]
```

Indexing an array

```
students[1] = 'Simon';  
students;
```

Joining Arrays

```
var mondayClass = ['Cooper', 'Rosa'];  
var tuesdayClass = ['Ethan', 'Jose'];  
var bothClasses = mondayClass.concat(tuesdayClass);
```

Turning Arrays into Strings

```
bothClasses.toString();  
bothClasses.join(' and ');
```

Try it out!

Safeway sells oranges and apples. QFC sells bananas and kiwis.

- Create two arrays for safeway and QFC
- Join them to make one array, and remove the last fruit
- Replace oranges with pineapples. How many fruits do you have?

Pages 39 - 53 if you get stuck.

Random Numbers

```
Math.random();
```


Random Number between 1 and 10

```
Math.random() * 10;
```

Rounding down and up a number

```
Math.floor(3.141592);
```

```
Math.ceil(4.01);
```

```
Math.floor(10.99999);
```

```
Math.ceil(10.99999);
```

Generating whole random numbers between 0 and 9

```
Math.floor(Math.random() * 10);
```

Random Fruit Selection!

```
var fruits = ['Apple', 'Banana', 'Cherry', 'Pineapple', 'Kiwi'];  
fruits[Math.floor(Math.random() * 5)]
```

Would you like some random fruit?

```
"Would you like some " + fruits[Math.ceil(Math.random() * 5)] + "?"
```

Body Parts!

- Create three arrays: different numbers, different adjectives and an array of different body parts.
- Select a number, adjective and body part at random
- Write some code that will prints "I like your 5 big arms!" or "I like your 10 smelly feet!"