

First thing's first

1. Create a **function** for a sub sandwich order: 5 toppings
2. Create an **array** with 3 values and then add another to the start of the array using a method
3. Generate 6 random numbers between 1-50
4. If we can create a loop to put 0-9 on the screen, how can we count from 9 to 0? Try it.

Nation Code

JavaScript Fundamentals

Loops

{codenation}[®]

Learning Objectives

- To understand the uses of a for loop
- To understand the uses of a while loop
- To tell the difference between for and while loops
- To write programs using both for and while loops

First thing's first

Create a **function** for a sub sandwich
order: 5 toppings



First thing's first

Create a function for a sub sandwich
order: 5 toppings

```
const sandwichOrder = (top1, top2, top3, top4, top5) => {  
  console.log(`We are preparing your sandwich order:  
    ${top1}, ${top2}, ${top3}, ${top4}, ${top5}`);  
}  
  
sandwichOrder("ham", "cheese", "turkey", "bacon", "tuna");
```

Second things second

Create an **array** with 3 values and then add another to the start of the array using a method

Three large, light gray decorative shapes are positioned in the bottom right corner of the slide. They consist of a curved line on the left, a vertical bar in the middle, and another curved line on the right, all with rounded ends.

Second things second

Create an **array** with 3 values and then add another to the start of the array using a method

```
let values = [1,2,3];  
values.unshift(4);
```

Third things third

Generate 6 random numbers between 1-50



Third things third

Generate 6 random numbers between 1-50

```
for (i = 0; i < 6; i++) {  
    console.log(Math.random() * 49 + 1);  
}
```

Third things third

Generate 6 random numbers between 1-50

```
for (i = 0; i < 6; i++) {  
    console.log(Math.random() * 49 + 1);  
}
```

Or

```
for (i = 0; i < 6; i++) {  
    Math.random() * 49 + 1;  
}
```

Third things third

If we can create a loop to put 0-9 on the screen, how can we count from 9 to 0?

Try it.



Third things third

If we can create a loop to put 0-9 on the screen, how can we count from 9 to 0?

```
for (i = 9; i > -1; i--) {  
  console.log(i);  
}
```



Everyone works differently so your code would be different to your peers, this is completely normal :)

Moving on. Loop de loop

Imagine doing the same thing over and over and over again.

For example, if I asked you to make me a cup of tea...

**And then asked you again to make
everyone in the room a cup of tea...**

Or updating stocks in a warehouse...

Iteration in coding

for loops

If I said to you make an array of your 3 favourite drinks and log each to the console...

- 1) I'd expect you to have a good time doing it**
- 2) I'd expect you to do something like this**

```
let favouriteDrinks = ["Coke", "Fanta", "Tonic"];  
  
console.log(favouriteDrinks[0]);  
console.log(favouriteDrinks[1]);  
console.log(favouriteDrinks[2]);
```

But imagine if I said 1000 drinks



Let's make this code work for us.

```
let favouriteDrinks = [  
    "Coke",  
    "Fanta",  
    "Tonic",  
    "Red Bull"  
];  
  
for(let drinksIndex=0; drinksIndex<favouriteDrinks.length; drinksIndex++){  
    console.log(favouriteDrinks[drinksIndex]);  
}
```

```
for (statement1; statement2; statement3){  
    //do stuff  
}
```

Iteration in coding using **for** loops

```
let favouriteChoco = [  
    "Mars",  
    "Snickers",  
    "Dairy Milk",  
    "Picnic"  
];  
  
for(let chocoIndex = 0; chocoIndex < favouriteChoco.length; chocoIndex++) {  
    console.log(favouriteChoco[chocoIndex]);  
}
```

Activity:

Create an array that lists your favourite films, up to 5 elements

Add 2 more using a method

Use a loop to cycle through the array

for (let filmIndex = 0)

while loops

for loops run a **finite**, or limited number of times.

A **while** loop is a little **different**

```
while (condition){  
    //do stuff  
}
```



```
let cards = ["Diamond", "Spade", "Heart", "Club"];
let currentCard = "Spade";

while(currentCard !== "Spade"){

    console.log(currentCard);
    currentCard = cards[Math.floor(Math.random()*4)];

}

console.log(currentCard);
```

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Activity:

Displays 4 films stored in an array

Use a loop to show each film in the array

Create a function called `filmCheck()` that checks if the 3rd film in the array is Ghostbusters.

If it is, it should return "yey it's ghostbusters". If it isn't, it should return "booo, we want ghostbusters"