Summary

Loops to iterate over array

- First element is **index 0**

- Last element is **index "length – 1"**

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For loop

```
let scores = [1, 3, 10, 22];

for(let i = 0; i < scores.length; i++) {
    scores[i]++;
}
```

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While loop

```
let scores = [1, 3, 10, 22];

// declare index
let i = 0;

while(i < scores.length - 1) {
  scores[i]++;

  // increase loop index
  i++;
}
```

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forEach

- Method present in all **arrays**

```javascript
catalog.forEach(function(item, index){

    console.log('item number ' + index);
    console.log(item)

    if(item.author == 'Zenva') {
        item.copies += 10;
    }

});
```

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Passing by value

- Function parameters that are Numbers, Strings or Booleans, are **passed by value** (copy of the original variable)

```
let age = 99;

function increase(a) {
    a++;
}

// will NOT modify the "age" variable
increase(age);
```

Passing by reference

- Function parameters that are Objects, Arrays are **passed by reference** (will modify the original)

```javascript
let person = {age: 99};

function increase(p) {
    p.age++;
}

// will modify the "person" variable
increase(person);
```

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