

C++ Arrays and Loops

Loop Through an Array

You can loop through the array elements with the for loop.

The following example outputs all elements in the **cars** array:

Example

```
// Create an array of strings
```

```
string cars[5] = {"Volvo", "BMW", "Ford", "Mazda", "Tesla"};
```

```
// Loop through strings
```

```
for (int i = 0; i < 5; i++) {
```

```
    cout << cars[i] << "\n";  
}
```

Try it Yourself »

This example outputs the index of each element together with its value:

Example

```
string cars[5] = {"Volvo", "BMW", "Ford", "Mazda", "Tesla"};  
for (int i = 0; i < 5; i++) {  
    cout << i << " = " << cars[i] << "\n";  
}
```

Try it Yourself »

And this example shows how to loop through an array of integers:

Example

```
int myNumbers[5] = {10, 20, 30, 40, 50};  
for (int i = 0; i < 5; i++) {  
    cout << myNumbers[i] << "\n";  
}
```

Try it Yourself »

The foreach Loop

There is also a "**for-each** loop" (introduced in C++ version 11 (2011)), which is used exclusively to loop through elements in an array (and other data structures, like [vectors](#) and [lists](#)):

Syntax

```
for (type variableName : arrayName) {  
    // code block to be executed  
}
```

The following examples output all elements in an array using a "**for-each** loop":

Example

Loop through integers:

```
// Create an array of integers
int myNumbers[5] = {10, 20, 30, 40, 50};

// Loop through integers
for (int i : myNumbers) {
    cout << i << "\n";
}
```

Try it Yourself »

Example

Loop through strings:

```
// Create an array of strings
```

```
string cars[5] = {"Volvo", "BMW", "Ford", "Mazda", "Tesla"};
```

```
// Loop through strings
```

```
for (string car : cars) {
```

```
    cout << car << "\n";
```