

GENERATING RANDOM NUMBERS

IN THIS LESSON

The Math global object

`Math.random()`

`Math.floor()`

THE MATH GLOBAL OBJECT

Math is a built-in global object in JavaScript that we can use to access certain math-related functions, which are called methods of the **Math** global object

We will use two of these to help us generate random numbers: **Math.random()** and **Math.floor()**

MATH.RANDOM()

Math.random() generates a random number between 0 and 1

You can store this number inside a variable:

```
let randomNumber = Math.random();
```

randomNumber	0.057687003370775036
randomNumber	0.9215978141261272

The potential value of this number includes 0 but not 1

MATH.RANDOM()

To generate a number between 0 and a number higher than 1,
multiply the random number

To generate a number between 0 - 6, but not including 6:

```
let randomNumber = Math.random() * 6
```

randomNumber	4.202796021295845
randomNumber	0.9614235151288781

The highest possible value for this random number
would be 5.9999999999... but never reaching 6

MATH.FLOOR()

Math.floor() removes all digits to the right of the decimal point from a number

You pass it the number you want to "floor" as an argument:

```
const anInteger = Math.floor(3.14);
```

anInteger	3
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MATH.FLOOR() & MATH.RANDOM()

You can use **Math.floor()** & **Math.random()** together like this:

```
const randomInteger = Math.floor(Math.random() * 6);
```

The value of **randomInteger** could potentially be 0, 1, 2, 3, 4, or 5 - but not 6

If you want a random number between 1-6 rather than 0-5, add **1** to the result :

```
const randomInteger = Math.floor(Math.random() * 6) + 1;
```