

A woman with long brown hair and a slight smile is holding up both hands, palms facing forward. Her hands are covered in dark, muddy dirt. She is wearing a dark jacket with a red drawstring on the left sleeve and a black watch on the right wrist. The background is a bright, out-of-focus outdoor scene with trees and a fence.

Javascript Basics

Let's get our hands dirty

What is a language made up of?

WORDS → NAMES, RESERVED NAMES and NUMBERS

SENTENCES → STATEMENTS

RULES TO MAKE SENTENCES → RULES TO MAKE STATEMENTS

Functions

The diagram shows the syntax of a function definition: `function FunctionName(var1, var2) {`
- A dotted arrow points from the word `function` to the label `keyword`.
- Three solid arrows point from the labels `names` to the words `FunctionName`, `var1`, and `var2`.
- A red bracket highlights the code `[some things done using var1 and var2];`, with a red arrow pointing from it to the label `statement`.
- A dotted arrow points from the closing curly brace `}` to the label `keyword`.

```
function FunctionName( var1, var2 ) {  
    return [some things done using var1 and var2];  
}
```

Names of 3 things here:

1. The function itself
2. var1, and
3. Var2

Rules:

1. Names need to start with a letter
2. Can have numbers or letters
3. Cannot be the same as keywords.

Examples

```
function add( x, y ) {  
    return x+y;  
}
```

```
function numOfHandshakes( nPeople) {  
    return nPeople * (nPeople - 1) / 2;  
}
```

```
function sumFrom1ToN( n ) {  
    return n * (n + 1) / 2;  
}
```

“CALLING” a function

Functions are made with “variables”.

So you can set different VALUES to them.

When you do, that’s called CALLING the function.

E.g.

```
add(10, 20);
```

```
numOfHandshakes( 20 );
```

“CALLING” a function

Every call to a function MUST return a value.

E.g.

`add(30, 40)` will *return* 70

`numHandshakes(5)` will return 10

Sending Output to the Screen #1

```
console.log( <whatever you want to output> );
```

(Don't forget the semi-colon ;)

Program to calculate the speed of a car

**Program to calculate the average marks
of a student**

How fast will a car be?