

Console	
Print to console	<code>console.log(...)</code>

Comments	
One line	<code>// single line comment</code>
Multi lines	<code>/* A multi line comment */</code>

Data Types	
number	3, 3.1, -3.1, 3e5, 3e-5
string	"abc", 'abc', "", "
boolean	true, false
undefined	No value
null	Value of nothing
NaN	Not a number

Numbers	
<code>var x = 3.1415;</code>	Declare a number
<code>x.toFixed(2)</code>	To string, fixed decimals
<code>parseInt("2")</code>	Convert a string to int
<code>parseFloat("1.23")</code>	Convert a string to float

Strings	
<code>var s = "Hello"</code>	Declare and assign a string
<code>s.length</code>	Length of string
<code>s.charAt(0)</code>	Access a character at index
<code>s.indexOf("el")</code>	Index of a substring
<code>s.slice(2, 4)</code>	Part of string (start, end)

Arithmetic Operators	
<code>+, -, *, /</code>	Add, subtract, multiply, divide
<code>%</code>	Modulus (remainder)
<code>=</code>	Assignment
<code>++, --</code>	Increment, decrement
<code>+=, -=, *=, /=, %=</code>	Operation and assignment
<code>?</code>	<code>a = (x > y) ? b : c;</code>

Comparisons	
<code>==, !=</code>	Equal to, not equal
<code>===, !==</code>	with type
<code>>, <, >=, <=</code>	Greater/Less or equal
<code>&&, , !</code>	And, Or, Not

Functions	
Declare a function	<pre>function myFunc(p1, p2) { statements; return p1 + p2; }</pre>
Use a function	<code>x = myFunc(1, 5);</code>
Function variable	<pre>var f = function(p1, p2) { statements; return p1 + p2; };</pre>
Use function variable	<code>x = f(1, 5);</code>

Conditionals	
if	<pre>if (x > y) { statements; }</pre>
if..else	<pre>if (x > y) { statements; } else { statements; }</pre>
if..else if	<pre>if (x > y) { statements; } else if (x > z) { statements; } else { statements; }</pre>



Conditionals (cont)

```
switch..case      switch(x) {
                    case 1:
                        statements;
                        break;
                    case 2:
                        statements;
                        break;
                    default:
                        statements;
                }
```

Loops

```
while      var x = 0;
           while (x < y) {
               statements;
               ++x;
           }
```

```
for      for (var x = 0; x < y; ++x) {
           statements;
       }
```

continue Stop current iteration, continue with next one

break Stop loop immediately

```
for/in      var x = [ " abc ", " efg ", " hij " ];
           for (i in x) {
               statements; // i = 0,1,2...
           }
```

```
for/of      var x = [ " abc ", " efg ", " hij " ];
           for (i of x) {
               statements; // i = "abc","efg",..
           }
```

Arrays

```
var a = [8, " hi", 6]  Declare and assign
                       ]
```

```
var a = []            Declare empty array
```

```
a[0]                  Extract the first element
```

```
a[0] = " xx"         Set the first element
```

```
a.length             Length of array
```

```
a.push(17)           Add element to array
```

```
a.pop()              Remove the last element
```

```
a.splice(
    s, r,
    e1, e2..)         From index s, remove r elements,
                       then add e1, e2...
```

```
a.forEach(f)         Run function f(e) for each element in
                       array
```

Objects

```
Literal object      var x = {
                       name: "cool",
                       size: 10,
                       sayHi: function() {
                           console.log(this.name);
                       }
                   }
```

```
Constructor         function MyObj(nm) {
                       this.name = nm;
                       this.size = 10;
                       this.sayHi = function() {
                           console.log(this.name);
                       }
                   }
```

```
Create new object   var x = new MyObj( " coo l");
```

```
Use object          console.log(x.size);
                   x.sayHi();
```

