**STUDY GUIDE**

**JAVASCRIPT**

**Introduction**

JavaScript is the programming language of HTML and the Web. JavaScript has a lot of uses in programming the behavior of web pages. One of its uses is to add interactivity to your web pages.

**Where to insert Javascript?**

1. Javascript can be inserted in the HTML file, between the <script> and </script> tags. The scripts tags can be placed in the <body>, or in the <head> section, or in both.

2. Scripts can also be placed in external files and insert into the <head> section of the HTML page using the following code:

<script src="myScript.js"></script>

External scripts can be referenced with a full URL or with a path relative to the current web page, as following:

<script src="https://www.w3schools.com/js/myScript1.js"></script>

<script src="/js/myScript1.js"></script>

**What Javascript can do?**

1. Change HTML Content

2. Change HTML Attribute Values

3. Change HTML Styles (CSS)

4. Hide/Show HTML Elements

5. Validate data

6. React to events

7. Detect visitor’s browser

8. Create cookies

9. Creat graphics

etc.

**Javascript Output**Because Javascript doesn’t have a built-in print function, it can print content as:

1. An alert box using window.alert()

2. A prompt using window.prompt()

3. HTML output using document.write()

4. HTML element using innerHTML()

5. The browser console using console.log()

**Javascript Statements and Syntax**

In Javascript, programming instructions are called **statements**.

Each JS statement is separated by a semicolon (;) and JS ignores white spaces.

JS statements are scripted with keywords, values, operators, expressions, identifiers and comments.

***1. Keywords:***

JS statements often start with a keyword to identify the action to be executed.

For instance, ***function*** can be used to declare a function, or ***var*** can be used to declare variable.

**2. Values:**

There are two types of values: fixed and variable values.

Fixed values are numbers and strings (written within double or single quotes).

Variable values (or variables) are used to store data values.

**3. Operators:**

Arithmetic operators (+ - \* /) are used to compute values.

Assignment operator (=) is used to assign values to variables.

**4. Expressions:**

Expressions combine values, variables and operators to compute a value.

**5. Identifiers:**

Idenifiers are used to name variables, keywords, functions and labels.

Rules:

- First character must be a letter, or an underscore (\_), or a dollar sign ($).

- The rest: letters, digits, underscores, dollar signs.

- Case sensitive

- Use hyphens, underscore or Upper/Lower Camel Case to join multiple words into one variable name.

first-name

first\_name

FirstName

firstName

**6. Comments:**

//

/\* \*/ (like in CSS)

Please see <https://www.w3schools.com/js/default.asp> for details and examples.