Introduction to JavaScript

## Description:

This activity is designed for people who have never programmed before. It aims to build confidence and develop a basic understanding / mental model of programming. This lesson plan includes:

* Links to introductory videos & activities to be introduced to the basics of JavaScript
* An exercise to create a webpage in HTML
* An exercise to create a basic JavaScript program to run in the webpage.

## Experience required:

None!

## Duration

1. minutes

## Learning Objectives

* Describe the differences between HTML & JavaScript
* Create JS and HTML files in a text editor

## Step 1: What is Java Script?

There are many free online videos and tutorials that explain the basics of JavaScript and allow you to try some script.

1. **Watch:** What is JavaScript? (https://www.youtube.com/watch?v=nItSSTwBvSU)
2. **Do:** Try JavaScript (https://www.javascript.com/try)

## Step 2: Create a HTML file.

1. Open Notepad (usually located under accessories in your program list) and enter in the following text:

<HTML>

<HEAD>

<TITLE>

Learning JavaScript

</TITLE>

</HEAD>

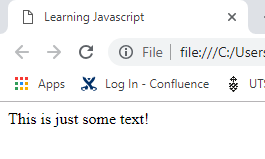
<BODY>

This is just some text!

</BODY>

</HTML>

1. Save this file as index.html somewhere you will find it. Note: It will now have an internet browser icon instead of a text file.
2. Test your file! Double click to open it. You should see the Title text appear at the top of the browser and the body text appear on the page.



## Step 3: Create a JavaScript Program

As you now know, HTML is a markup language that will instruct a website on how to display content (e.g. font style, colour etc). But it won’t let us make popups or interactive elements (like an alert box), so we are going to create a JavaScript program to make that happen.

The JavaScript code needs to be created in a separate file that will be called called on or executed by our HMTL website. This is just like when you link to an image file sorted in a separate file on a website. The image itself isn’t in the HTML code, but instead we include instructions in the HTML of which file to display.

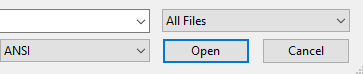
1. Open Notepad, choose **File🡪 New** and enter in the following text:

alert("Hello world!");

1. Save the file as **script.js** in the **same folder** as index.html.
2. Keep Notepad open – you’re going to need it in a minute.

## Step 4: Update HMTL

1. While still in Notepad, choose **File -> Open** and open **index.html.** *Note: You may need to select all files to get this to appear.*



1. Add in the following tags between the <BODY> and </BODY> tags:

<SCRIPT SRC="script.js"></SCRIPT>

<HTML>

<HEAD>

<TITLE>

Learning Javascript

</TITLE>

</HEAD>

<BODY>

This is just some text!

<SCRIPT SRC="script.js"></SCRIPT>

</BODY>

</HTML>

1. Save this file
2. Open index.html in a web browser and you should see an alert box!

## Step 4: Get fancy & create an interactive JavaScript program

1. Using Notepad, choose **File -> Open** and open **script.js**
2. Erase all the code in the file, and replace it with:

var name = prompt("What is your name");

alert ("Hello " + name + ", pleased to meet you");

1. Save and close the file.
2. Reopen index.html in a web browser

## Next steps

Have a look online for some free coding tutorials, you may want to check out:

* <https://www.codecademy.com/>
* <https://www.w3schools.com/>
* Practice! Once you know more JavaScript, give yourself a challenge Try <https://javascript30.com/> where you get 30 days to build 30 things with 30 free tutorials for free!