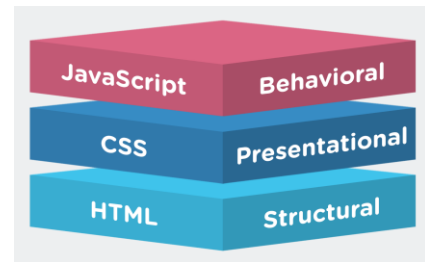# Lesson 19 – JavaScript Basics

JavaScript is the programming language of HTML and the Web.

It is one of the 3 languages all web developers must learn:
1. **HTML** to define the content of web pages.
2. **CSS** to specify the layout of web pages.
3. **JavaScript** to program the behavior of web pages.

JavaScript Introduction:
- learn of what JavaScript (or **JS** for short) can do to **HTML** and **CSS**
- read the introduction at: https://www.w3schools.com/js/js_intro.asp

How to insert JS to a webpage:
- read and try: https://www.w3schools.com/js/js_whereto.asp
- discuss what are the advantages and disadvantages of:
    a) using the <script> tag inside a page <head>,
    b) using the <script> tag inside a page <body>,
    c) using an external .js file.

How to print with JS:
- read and try: https://www.w3schools.com/js/js_output.asp
- which way to print is the most useful to
    a) change the content of a page?
    b) send notifications to a user?
    c) debug a behavior of a webpage?

Task:
- Create a webpage that can draw various TextArt images by clicking different buttons.

Instructions:
1. First, create a new HTML file in Notepad++. Use the code from this example as a template.
2. Rename the **myFunction()** to **drawTextArt1()**, both in the definition and in the onclick attribute.
3. Change the displayed text of the button from **Try it** to **Draw Art 1**.
4. Select any of these TextArt images and copy it into the function, replacing the original text string.
   Use **backticks `** (instead of double quotes **"**) to properly create multiline strings and **
** to insert **newline** characters. The backtick key is located just below ESC on US/UK keyboards, or at ALT-Gr+7 on SLK keyboard. Example string is shown below:

```
document.getElementById("demo").innerHTML = `← backtick here <br>
  xxxxxxxxxxx      xxxxxxxxxx<br>
 xxxxxxxxxxxxx    xxxxxxxxxxxxx<br>
xxxxxxxxxxxxxxxx xxxxxxxxxxxxxxx<br>
xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx<br>
 xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx<br>
  xx   I LOVE JAVASCRIPT ! xx<br>
    xxxxxxxxxxxxxxxxxxxxxx<br>
      xxxxxxxxxxxxxxxxxx<br>
       xxxxxxxxxxxxxxx<br>
        xxxxxxxxx<br>
         xxxxx<br>
          xxx<br>
          xx<br>
          *        backtick here →`
```

5. Check the result by opening the page in a browser and clicking the button. In case of any errors or unresponsive scripts, press F12 in a browser to display a debugging console.
6. Add additional functions and buttons to rewrite the demo paragraph with other TextArt images :)