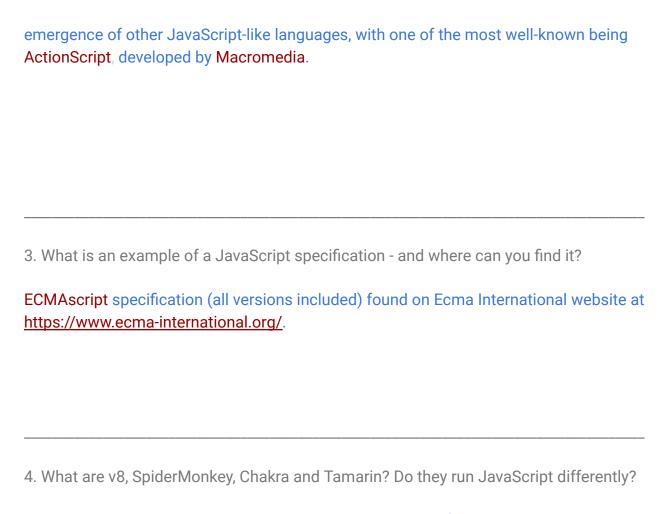# DWA_02.8 Knowledge Check_DWA2

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1. What do ES5, ES6 and ES2015 mean - and what are the differences between them?

ES5 also known as "ECMAScript 2009" is an older version of what was conceived as "Mocha" then "LiveScript" to what we have come to know as JavaScript.
It was an addition of features namely the function keyword to initialize a function and also the addition of the return keyword to give the computer value of the code within the scope of the function.

E.g
```
var add = function( a , b ) {
            return  a + b }  //return calculates the addition of the values given within the
                            // parameters of the function

console.log(add(2+3))
```

ES6 also known as ECMAscript 2015 is a much more updated version of ES5 and JavaScript as a whole,with the addition of features such as the arrow operator to initialize function rather than the function keyword and also using let and const to declare variables amongst other things.

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2. What are JScript, ActionScript and ECMAScript - and how do they relate to JavaScript?

Due to the overwhelming success of Netscape Navigator, Microsoft made the strategic decision to create its own competitor, known as Internet Explorer. Notably, during this period, JavaScript was a proprietary scripting language exclusively protected by the Netscape team. Consequently, Microsoft had to undertake reverse engineering to develop their own version, called JScript. They also introduced CSS, which was exclusive to Internet Explorer. The rapid evolution of the Web platform at that time did not involve a comprehensive standardization process. As a result, developers were compelled to write their code in either JavaScript, JScript, or both, depending on the browsers they wanted to support. This complexity was further compounded by the

emergence of other JavaScript-like languages, with one of the most well-known being ActionScript, developed by Macromedia.

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3. What is an example of a JavaScript specification - and where can you find it?

ECMAscript specification (all versions included) found on Ecma International website at https://www.ecma-international.org/.

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4. What are v8, SpiderMonkey, Chakra and Tamarin? Do they run JavaScript differently?

JavaScript engines play a crucial role in determining the performance and compatibility of JavaScript code in different web browsers and runtime environments.
They are used to process the JS code for the computer to be able read it properly and at higher speed.

SpiderMonkey: SpiderMonkey is the first-ever JavaScript engine, developed by Brendan Eich in 1995.

V8: V8 is a high-performance JavaScript engine developed by Google. It is written in C++ and is used in the Google Chrome web browser and also in Node.js

Chakra: Chakra was a JavaScript engine developed by Microsoft for its Edge web browser.

Tamarin: Tamarin was a JavaScript engine and virtual machine developed by Adobe Systems.

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5. Show a practical example using **caniuse.com** and the MDN compatibility table.

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