## DWA\_02.8 Knowledge Check\_DWA2

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

These terms all refer to different iterations of JavaScript. The ES stands for 'ECMAScript'. The differences are that the later the version number, the more up-to-date that specification is. For example, ES6 would be a more updated specification than ES5.

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

JScript: during the browser wars, Microsoft decided to create its own version of JavaScript (because at this point, it was *exclusively* a proprietary language and gate kept by the Netscape team). JScript is the name Microsoft gave to their version of a scripting language (which was also launched alongside CSS, a Microsoft exclusive.

ActionScript: Another 'knock-off' JavaScript created by Macromedia during the browser wars.

ECMAScript is the more technical name for what we mean when we say 'JavaScript'. Here's how it was born: ECMA (which stands for the European Computer Manufacturers Association) was the first company to create a specification for JavaScript (specification is defined in the nextanswer).

They then eventually submitted their proposed specification, titled "ECMAScript: A general purpose, cross-platform programming language". After internal negotiations, it was adopted by both Netscape and Microsoft in 1997. Henceforth, what was previously known as JavaScript and JScript were to be unified into a single standardised language titled ECMAScript.

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

The specification is a collection of documents describing how JavaScript and its variants should work in the context of JavaScript and its variants. For example, they would explain how single-line commenting would work. One can find all the ECMA specifications (like ES4,ES5,etc.) on this website:

https://www.ecma-international.org/publications-and-standards/standards/ecma-262/

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

These are all different types of JS compilers that are exclusive to different browsers, as well as different versions of those browsers. They are regularly updated along with the browsers themselves.. They are different in the sense that they read and process the code in different ways.

A JavaScript compiler is a program that takes JavaScript code as input and converts it into machine code that can be understood and executed by a computer. This process is also known as transpiling or ahead-of-time compilation. The purpose of compiling JavaScript is to improve the performance of the code by reducing the amount of interpretation that needs to be done by the JavaScript engine.

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



