

DWA_02.8 Knowledge Check_DWA2

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

- ES5, ES6, and ES2015 all refer to different versions of the ECMAScript language specification, which is the official standard for JavaScript.
- ES5 (ECMAScript 5) was released in 2009 and introduced significant improvements to the language, JSON support, and various new methods for arrays and strings.
- ES6 (ECMAScript 2015) is the next major version of ECMAScript after ES5. It was released in 2015 and brought many new features to the language, such as arrow functions, classes, modules, template literals, and enhanced object literals. The introduction of ES6 marked a significant update to JavaScript.
- ES2015 is another name for ES6, as it was initially planned to release a new ECMAScript version every year, starting from ES2015. However, this naming convention was not strictly followed, and subsequent versions were named using the year of their release (e.g., ES2016, ES2017).

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

JScript, ActionScript, and ECMAScript are all scripting languages that are related to JavaScript:

- JScript is a scripting language developed by Microsoft and was used primarily in Internet Explorer. It was Microsoft's implementation of ECMAScript.

- ActionScript is a scripting language developed by Adobe Systems and was primarily used for creating interactive content and applications in Adobe Flash. ActionScript is based on an older version of ECMAScript (ECMAScript 4), which was never released as a standard.
- ECMAScript is the standardized scripting language specification that JavaScript is based on. JavaScript is the most widely used implementation of ECMAScript and is often used as a synonym for ECMAScript.

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

An example of a javascript specification is one of the first specifications created by ECMA explaining how single-line commenting should work. In short it says that single line comments should always start with `//`, they must accept any character except line breaks and they should end before the first line break.

You can find it on **first specification created by ECMA**

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

- V8, SpiderMonkey, Chakra, and Tamarin are all JavaScript engines, which are responsible for executing JavaScript code.
- V8 is an open-source JavaScript engine developed by Google. It is written in C++ and used in the Google Chrome web browser, as well as other Chromium-based browsers like Microsoft Edge.
- SpiderMonkey is the JavaScript engine developed by Mozilla for the Firefox web browser. It was one of the first JavaScript engines and is written in C++.

- Chakra is the JavaScript engine developed by Microsoft. It was used in Internet Explorer and Microsoft Edge.
- Tamarin was a JavaScript engine developed by Adobe Systems. It was used in the Adobe Flash Player to execute ActionScript and ECMAScript 4-based code.

While these engines have different implementations, they all aim to execute JavaScript code and adhere to the ECMAScript specification. They may have variations in performance, optimizations, and additional features, but their primary goal is to run JavaScript code correctly.

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

