

# 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?

## European Computer Manufacturer's Association

ES5: ECMAScript 5, released in 2009, introduced significant updates and improvements to JavaScript.

ES6/ES2015: ECMAScript 2015, also known as ES6, brought numerous new features and syntax enhancements to JavaScript, released in 2015

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

1. JScript is a Microsoft-developed scripting language based on ECMAScript 3. It is primarily used in Internet Explorer and Windows scripting environments. While similar to JavaScript, JScript has some syntax and behavioral differences.

2. ActionScript is a scripting language developed by Adobe for creating multimedia applications and games in Adobe Flash and Adobe AIR. It is based on ECMAScript 4 and shares similarities with ECMAScript 3, the foundation of JavaScript

3. ECMAScript is the standardized language specification for JavaScript, ensuring compatibility and defining its core features. Updates are regularly made to introduce new features and improvements.

JScript is a Microsoft implementation of ECMAScript, ActionScript is a scripting language used in Adobe Flash and based on ECMAScript, and ECMAScript is the standardized specification that defines the JavaScript language.

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

The ECMAScript Language Specification is a comprehensive documentation of the JavaScript language. It can be found on the Ecma International website.

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

V8: V8 is a JavaScript engine developed by Google. It is used in the Google Chrome browser and Node.js runtime. V8 is known for its high performance and efficient execution of JavaScript code. It uses just-in-time (JIT) compilation techniques to optimize and speed up code execution.

SpiderMonkey: SpiderMonkey is the JavaScript engine developed by Mozilla. It is used in the Firefox browser and other Mozilla projects. SpiderMonkey has a long history and was the first JavaScript engine ever created. It also utilizes JIT compilation and has evolved to support various JavaScript features and optimizations.

Chakra: Chakra was the JavaScript engine developed by Microsoft for its Edge browser. It has since been replaced by the Chromium-based Edge browser, which now utilizes V8 as its JavaScript engine. Chakra was known for its performance and compatibility with web standards.

Tamarin: Tamarin was a JavaScript engine developed by Adobe Systems. It was primarily used in the Adobe Flash Player to execute ActionScript, a language based on

ECMAScript. Tamarin was later open-sourced as part of the Mozilla project, and some of its components were incorporated into SpiderMonkey.

While these JavaScript engines have their own implementation details and optimizations, they all aim to execute JavaScript code accurately and efficiently. They may differ in terms of performance, compatibility, and specific optimizations, but ultimately their goal is to provide a reliable and performant execution environment for JavaScript applications.

V8, SpiderMonkey, Chakra, and Tamarin are all JavaScript engines, each used by different web browsers or platforms to execute JavaScript code. While they all serve the same purpose of running JavaScript, they do have some differences in their implementations and performance characteristics.

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5. Show a practical example using [caniuse.com](https://caniuse.com) and the MDN compatibility table.

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