

# 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?

There are three different iterations of the ECMAScript specification for JavaScript: ES5, ES6, and ES2015. While ES6 (or ES2015) provided substantial additions and syntactic changes like arrow functions, classes, and modules, ES5 delivered new features and advancements

ES2015: Is a fantastic step forward JS language(it brings new features for a pattern that requires significant boilerplate in ES5).

ES6: Is a major enhancement that allows writing programs for complex application(provides substantial additions and syntactic,changes like arrow functions, classes, and modules)

ES5 (ECMAScript 5) was released in 2009 and introduced several new features and enhancements to JavaScript, such as strict mode, JSON support, and new array methods like `forEach`, `map`, `reduce`, etc.

Subsequent versions were also named in the same pattern, such as ES2016, ES2017, and so on.

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

Programming languages related to JavaScript include JScript, ActionScript, and ECMAScript. JavaScript is the most widely used ECMAScript implementation for web development, followed by Microsoft's JScript and ActionScript, which are both based on ECMAScript and used in Adobe Flash.

JScript: is Microsoft legacy dialect of the ECMAScript standard.

JScript is Microsoft's legacy dialect of the ECMAScript standard.

ActionScript is an object oriented programming language originally developed by Macromedia inc.

ECMAScript: is a JavaScript standard intended to ensure the interoperability of web pages across different web browsers.

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

One example of a JavaScript standard is the ECMAScript specification itself. It may be accessed on the ECMA International website and outlines the language's characteristics and norms.

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

The JavaScript engines V8, SpiderMonkey, Chakra, and Tamarin are in charge of carrying out JavaScript code. Chrome makes use of V8. Firefox used SpiderMonkey, Edge (which now uses V8) used Chakra, and Flash Player (which is no longer being actively developed) used Tamarin. V8, SpiderMonkey, Chakra, and Tamarin are all different JavaScript engines, which are responsible for executing JavaScript code. • V8 is the JavaScript engine developed by Google and is used in the Chrome browser and Node.js. It is known for its high performance and is written in C++. • SpiderMonkey is the JavaScript engine developed by Mozilla and is used in the Firefox browser. It was the first JavaScript engine ever created and is also written in C++

Chakra was the JavaScript engine developed by Microsoft for their Edge browser. However, Microsoft has transitioned to using Chromium as the rendering engine for their browser, which includes V8 as the JavaScript engine. • Tamarin is a JavaScript engine that was developed by Adobe Systems and was used in their Flash Player. However, Flash Player has been deprecated, and Tamarin is no longer actively developed. While these JavaScript engines may have some differences in their implementation details and performance characteristics, their job is to execute JavaScript code according to the ECMAScript specification.

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

Compatibility tables and the browser compatibility data repository (BCD) MDN has a standard format for tables that illustrate compatibility of shared technologies across all browsers, such as DOM, HTML, CSS, JavaScript, SVG, etc.

The screenshot shows the 'Can I use' website interface for the CSS property 'padding'. The search bar contains 'padding' and shows '31 results found'. Below the search bar, there are checkboxes for 'CanIuse (4)' and 'MDN (27)'. The main content area displays a table of browser compatibility for 'padding'. The table has columns for various browsers and their versions. The 'Global' usage is shown as 95.99%.

Chrome	Edge	Safari	Firefox	Opera	IE	Chrome for Android	Safari on iOS	Samsung Internet	Opera Mini	Opera Mobile	UC Browser for Android	Android Browser	Firefox for Android	QQ Browser	Baidu Browser	KaiOS Browser
4-113	12-113	3.1-16.4	2-112	10-98	6-10		3.2-16.4	4-20		12-12.1		2.1-4.4.4				2.5
114	114	16.5	113	99	11	114	16.5	21	all	73	13.4	113	113	13.1	13.18	3.1
115-117		16.6-TP	114-115				17									

Notes: Test on a real browser Feedback

See full reference on [MDN Web Docs](https://mdn.com).

Support data for this feature provided by: MDN browser-compat-data

