

DWA_02.8 Knowledge Check_DWA2

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

ES5 and ES6 represent the different specifications that were introduced, where ES2015 refers to ES6 or ECMAScript6. The main difference between these versions is the introduction of new language features and syntax enhancements. ES6 (or ES2015) introduced significant updates to JavaScript, including arrow functions, classes, modules, and destructuring, among others. ES5 is also known for being the first major update to the JavaScripting language bringing in new features such as:

- ["use strict"](#)
- [String\[*number*\] access](#)
- [Multiline strings](#)
- [String.trim\(\)](#)
- [Array.isArray\(\)](#)
- [Array forEach\(\)](#)
- [Array map\(\)](#)
- [Array filter\(\)](#)
- [Array reduce\(\)](#)
- [Array reduceRight\(\)](#)
- [Array every\(\)](#)
- [Array some\(\)](#)
- [Array indexOf\(\)](#)
- [Array lastIndexOf\(\)](#)
- [JSON.parse\(\)](#)
- [JSON.stringify\(\)](#)
- [Date.now\(\)](#)
- [Date toISOString\(\)](#)
- [Date toJSON\(\)](#)
- [Property getters and setters](#)
- [Reserved words as property names](#)
- [Object methods](#)
- [Object.defineProperty\(\)](#)
- [Function bind\(\)](#)
- [Trailing commas](#)

These aren't all but mainly the really big additions

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

JScript is Microsoft's implementation of the ECMAScript standard. ActionScript is a scripting language derived from ECMAScript, primarily used in Adobe Flash. ECMAScript is the standardized scripting language specification, but it is also technically JavaScript seeing as that was the official name change which was never wholefully accepted by the JavaScript community.

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

An example of a JavaScript specification is ES6 or ES7 or any new update brought through by ECMA, the most recent one is ES13 introduced in the year 2022, it can be found on their website :

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

Alternatively it can also be found on github: <https://tc39.github.io/ecma262/> where one can even provide feedback/contribute to changes.

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

V8, SpiderMonkey, Chakra, and Tamarin are all JavaScript engines. While they all run JavaScript, they are developed by different organizations and have variations in how they are implemented and run.

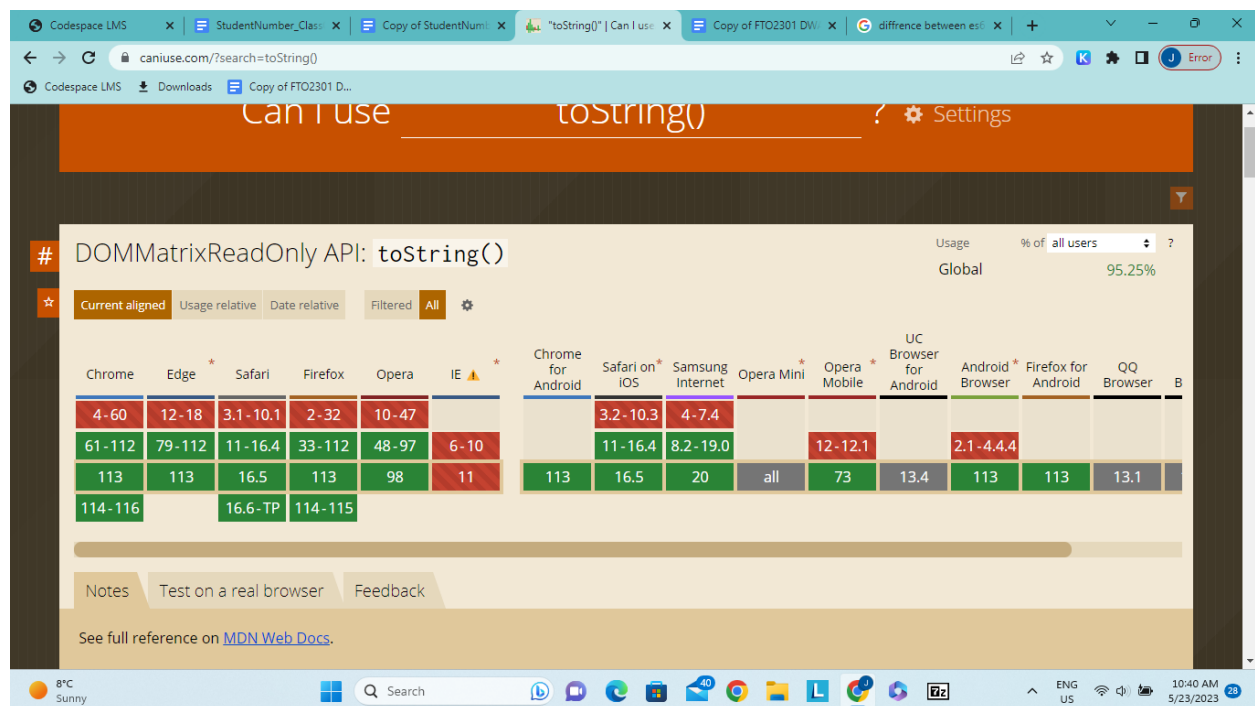
Main takeaway points:

- V8 open-source JavaScript engine created by Google primarily for chrome, uses Just In Time (JIT) compilation techniques in order to optimize speed and execution of JavaScript.
- SpiderMonkey the original JavaScript engine developed by Mozilla and is used in the FireFox web engine/browser

- Chakra was developed and used by Microsoft for Internet explorer and the newer MicroSoft edge but since Microsoft has transitioned to using V8 in the newer version of their browsers.
- Tamarin used by Adobe flash for creating animations/compiling code with ActionScript and or JavaScript, however development as since been discontinued

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

Caniuse



MDN

CodeSpace LMSStudentNumber_ClassCopy of StudentNum"toString()" Can I useCopy of FTO2301 DWBrowser support for J

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Mozilla > Add-ons > Browser Extensions > Browser support for JavaScript APIs

English (US)

Concepts

User interface

How to

JavaScript APIs

Browser support for JavaScript APIs

action

alarms

bookmarks

browserAction

browserSettings

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captivePortal

clipboard

action

[Report problems with this compatibility data on GitHub](#)

	Desktop					Mobile	
	Chrome	Edge	Firefox	Opera	Safari	Firefox for Android	Safari on iOS
action	✓ 88	✓ 88	✓ 109	✓ 74	✓ 16	✓ 109	✓ 16
ColorArray	✓ 88	✓ 88	✓ 109	✓ 74	✗ No	✓ 109	✗ No
ImageDataType	✓ 88	✓ 88	✓ 109	✓ 74	✗ No	✓ 109	✗ No

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