

# DWA\_02.8 Knowledge Check\_DWA2

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

- ES5 - ECMAScript 5 was released, December 2009. It added improvements like strict mode and native support for JSON.
  - ES6 / ES2015 - ECMAScript 6/ECMAScript 2015 was released ,June 2015. It introduced major enhancements, including let and const for variables, arrow functions, classes, and more.
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## 2. What are JScript, ActionScript and ECMAScript - and how do they relate to JavaScript?

- JScript - Was created by Microsoft as a scripting language for Internet Explorer. JScript is essentially Microsoft's implementation of ECMAScript, the standard on which JavaScript is based. It was specific to Internet Explorer, so it shares similarities with JavaScript but was targeted for Microsoft's browser.
  - ActionScript - is another implementation of ECMAScript that can develop rich internet applications, however it is built solely for interacting with Flash applications(Adobe).
  - ECMAScript - Is the language specification. ECMAScript is the standard that JavaScript adheres to. ES5, ES6 (or ES2015), and subsequent versions showcasing the ongoing development and evolution of the language based on ECMAScript specifications.
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## 3. What is an example of a JavaScript specification - and where can you find it?

JavaScript specification is the ECMAScript specification itself. ECMAScript is the standardized specification that defines the core features of JavaScript. It provides the rules and guidelines that JavaScript implementations (like browsers or other environments) should follow.

You can find it on the ECMA International website or follow the development on GitHub(Ecma TC39).

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

They are JavaScript compilers/engines.

- V8 - is an open-source JavaScript engine developed by the Google Chrome browser. It is known for its designed to execute JavaScript code in the browser quickly and efficiently.
- SpiderMonkey - Is the JavaScript engine developed by Mozilla for the Firefox browser. It's one of the oldest JavaScript engines and has undergone various improvements over the years. SpiderMonkey is known for its flexibility.
- Chakra - Was the JavaScript engine developed by Microsoft for its Edge browser (legacy version, before Microsoft adopted Chromium for the new Edge). It was designed with a focus on performance and had features like Just-In-Time (JIT) compilation. However, Chakra is no longer actively developed, as Microsoft Edge has transitioned to using V8.
- Tamarin - Was developed by Adobe and the Mozilla Foundation and was used as the JavaScript engine in the Adobe Flash Player. However, Flash Player, including Tamarin, has been phased out, and modern browsers no longer support Flash content.

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

Please see screenshots on the next page...

1. Showing results for Caniuse.com - `const`
2. Showing results for MDN Browser compatibility - `const`

caniuse.com/?search=const

Home News January 7, 2024 - New feature: Selectlist - Customizable select element Compare browsers About

# Can I use `const` ? ⚙ Settings

# `const` - OTHER Usage % of all users Global 97.59% + 0.95% = 98.54%

Declares a constant with block level scope

Current aligned Usage relative Date relative Filtered All ⚙

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	E
4-20		3.1-5	10-11.5				3.2-4.3							
21-40		5.1-9.1	12.1	15-27			5-9.3					2.1-2.2		
41-48		10-10.1	13-35	28-35			10-10.3	4				2.3		
49-120	12-120	11-17.2	36-121	36-105	6-10		11-17.2	5-22		12-12.1		3-4.4.4		
121	121	17.3	122	106	11	120	17.3	23	all	73	15.5	120	119	
122-124		17.4-TP	123-125											

developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Statements/const

mdn web docs References Guides Plus Blog Play AI Help Theme Log in Sign up for free

References > JavaScript > Reference > Statements and declarations > const English (US)

Filter

async function\*  
Block statement  
break  
class  
**const**  
continue  
debugger  
do...while  
Empty statement  
export  
Expression statement  
for

## Browser compatibility

Report problems with this compatibility data on GitHub

Report an issue with this compatibility data

	Chrome	Edge	Firefox	Opera	Safari	Chrome Android	Firefox for Android	Opera Android	Safari on iOS	Samsung Internet	WebView Android	Deno	Node.js
<code>const</code>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	21	12	36	9	5.1	25	36	10.1	5	1.5	4.4	1.0	6.0.0
			*				*						

Tip: you can click/tap on a cell for more information.

✓ Full support \* See implementation notes.

### In this article

- Try it
- Syntax
- Description
- Examples
- Specifications
- Browser compatibility**
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