

DWA_02.8 Knowledge Check_DWA2

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

- They are various editions of JavaScript coding.
 - ES5, the initial version of JavaScript, introduces a single method for declaring variables through the use of var using a particular term.
 - ES6/ES2015 included two additional methods for declaring variables, utilizing let and const is used to declare variables that cannot be changed, they are immutable.
 - ES6/ES2015 offers a simpler method for defining objects by using the keys and variables remain constant.
- ES6 was given the new name of ES2015.
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2. What are JScript, ActionScript and ECMAScript - and how do they relate to JavaScript?

ECMAScript is a subset of JavaScript used as a standard for executing calculations within Web applications.

- Microsoft owns JScript, which is a scripting language. Reverse engineered using JS.
 - Action script is an imitation of JavaScript.
 - ECMAScript serves as the foundational script utilized by JavaScript, JScript, and ActionScript.
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3. What is an example of a JavaScript specification - and where can you find it?

- Single-line comments should always start with "//"
 - Can be found in : ECMA 262: 1st Edition (1997)
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4. What are v8, SpiderMonkey, Chakra and Tamarin? Do they run JavaScript differently?
All of them are diverse JavaScript compilers.

- Developed by Microsoft, Chakra is a JScript engine.
 - Microsoft Edge browser developed a new JavaScript engine, though In 2020, Microsoft Edge transitioned to the v8 JavaScript engine.
 - An open sourced JavaScript engine is SpiderMonkey.
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5. Show a practical example using caniuse.com and the MDN compatibility table.

The first screenshot shows the search results for "javascript" on caniuse.com. The search bar contains "javascript" and the results show 50 results found. The filters are set to "CanIuse (3)" and "MDN (47)". The results are sorted by "Usage" and "Global" usage is 96.84%.

The second screenshot shows the search results for "ECMAScript 2015 (ES6)" on caniuse.com. The search bar contains "ECMAScript 2015 (ES6)" and the results show 50 results found. The filters are set to "CanIuse (3)" and "MDN (47)". The results are sorted by "Usage" and "Global" usage is 97.08% + 1.04% = 98.12%.

Both screenshots show a table of browser compatibility data. The table columns are: 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, and B. The table rows show the version ranges for each browser that support the feature.

For JavaScript modules: dynamic import(), the compatibility data is as follows:

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	B
4-62	12-18	3.1-11	2-65	10-49			3.2-10.3	4-7.4							
63-124	79-124	11.1-17.4	66	50-108	6-10		11-17.4	8.2-23		12-12.1		2.1-4.4.4			
125	125	17.5	126	109	11	124	17.5	24	all	80	15.5	124	125	14.9	

For ECMAScript 2015 (ES6), the compatibility data is as follows:

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	B
4-20	12-14	3.1-7	2-5	10-12.1			3.2-6.1								
21-50	15-18	7.1-9.1	6-53	15-37			7-9.3	4							
51-124	79-124	10-17.4	54-125	38-108	6-10		10-17.4	5-23							
125	125	17.5	126	109	11	124	17.5	24	all	80	15.5	124	125	14.9	
126-128		17.6-TP	127-129				17.6								

Notes: Test on a real browser, Sub-features, Known Issues (0), Resources (4), Feedback.

As ES6 refers to a huge specification and browsers have various levels of support, "Supported" means at least 95% of the spec is supported. "Partial support"