

DWA_02.8 Knowledge Check_DWA2

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

- ES5 stands for ECMAScript 5
- ES5 stands for ECMAScript 2015
- ES2015 is just another name for ES6

What are the differences between them?

ES5

- It was released in 2009.
- We can only define the variables by using the var keyword.
- It is time-consuming.
- It is the fifth edition of the ECMAScript.
- Both function and return keywords are used to define a function.

ES6

- It was released in 2015.
- There are two ways to define variables, which are let and const.
- Due to destructuring and spread operators, object manipulation can be processed more smoothly in ES6.
- It is the sixth edition of the ECMAScript.
- It has an arrow function feature which allows the user to define the function without using function keyword

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

- JScript is a scripting language developed by Microsoft Corporation. It is an implementation of the ECMAScript (ECMA-262) standard, which is the same standard on which JavaScript is based.
- ActionScript is a scripting language developed by Adobe Systems. ActionScript and JavaScript are both based on ECMAScript.
- ECMAScript is a standardized scripting language specification. It defines the syntax, semantics, and behavior of a scripting language, providing a common foundation for

various implementations. JavaScript is one of the most popular implementations of the ECMAScript standard.

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

ECMAScript 2021 (ES2021) specification, It can be found on the official website of Ecma International: <https://www.ecma-international.org/publications/standards/Ecma-262.htm>.

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

v8

It is a free and open-source JavaScript and WebAssembly engine developed by the Chromium Project for Chromium and Google Chrome web browsers. It is the JavaScript engine developed by Google for the Chrome browser

SpiderMonkey

It is an open-source JavaScript and WebAssembly engine by the Mozilla Foundation. It is the JavaScript engine developed by Mozilla for the Firefox browser.

Chakra

It is a proprietary JScript engine developed by Microsoft. It is used in the Internet Explorer web browser. It is the JavaScript engine developed by Microsoft.

Tamarin

It is a discontinued free software virtual machine with just-in-time compilation (JIT) support intended to implement the 4th edition of the ECMAScript (ES4) language standard. It was a JavaScript engine developed by Adobe Systems for the Adobe Flash Player.

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

JavaScript function: get

Usage % of all users

Global 97.52%


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	QQ Browser	Baidu Browser	KaiOS Browser
					6-8							2.1-4.3				
4-112	12-112	3.1-16.4	2-112	10-98	9-10		3.2-16.4	4-20		12-12.1		4.4-4.4.4				2.5
113	113	16.5	113	99	11	113	16.5	21	all	73	13.4	113	113	13.1	13.18	3.1
114-116		16.6-TP	114-115													

Notes Test on a real browser Sub-features Feedback

See full reference on [MDN Web Docs](#).

Support data for this feature provided by:

 MDN browser-compat-data

CSS Filter Effects

Usage % of all users

Global 97.84% + 0.24% = 98.09%

unprefixed: 96.78% + 0.24% = 97.02%

Method of applying filter effects using the `filter` property to elements, matching filters available in SVG. Filter functions include blur, brightness, contrast, drop-shadow, grayscale, hue-rotate, invert, opacity, sepia and saturate.

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	QQ Browser	Baidu Browser	KaiOS Browser
			2-3.5													
4-17	12	3.1-5.1	3.6-33	10-12.1			3.2-5.1									
18-52	13-18	6-9	34	15-39			6-9.2	4-6.4				2.1-4.3				
53-112	79-112	9.1-16.4	35-112	40-98	6-10		9.3-16.4	7.2-20		12-12.1		4.4-4.4.4				2.5
113	113	16.5	113	99	11	113	16.5	21	all	73	13.4	113	113	13.1	13.18	3.1
114-116		16.6-TP	114-115													

Notes Test on a real browser Known issues (3) Resources (6) Feedback

Note that this property is significantly different from and incompatible with Microsoft's [older "filter" property](#).

- Supported in Firefox under the `layout.css.filters.enabled` flag.
- Supported in MS Edge under the "Enable CSS filter property" flag.
- Partial support in Firefox before version 34 [only implemented the url\(\) function of the filter property](#).
- Partial support refers to supporting filter functions, but not the `url` function.