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?

ES5 (ECMAScript 5)
In 2009, JavaScript got an upgrade called ES5. It made JavaScript more powerful by adding new features. Some things it introduced were strict mode, which helps make code more reliable, and new methods for working with lists of things (like numbers or words). It also made it easier to work with JSON.

ES6 (ECMAScript 2015)
In 2015, another big upgrade called ES6 (or ES2015) came out. It made JavaScript even better with lots of changes and improvements. It added things like arrow functions, which are a shorter way to write functions, and template literals, which make it easier to create fancy strings. ES6 also made it possible to create classes, which are like blueprints for making objects, and it introduced new ways to organize code into modules. It also introduced Promises, which help with doing things at the right time, and the spread operator, which makes it simpler to work with lists of things.

ES2015
ES2015 is just another name for ES6. They changed the name to show that they planned to release a new version of JavaScript every year from then on. Each new version would have smaller updates instead of big changes like ES6. This way, JavaScript keeps getting better and more useful every year.

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

JScript and ActionScript are specific implementations of the ECMAScript specification, while JavaScript is the most well-known and widely used implementation of ECMAScript. They all share a common foundation and are closely related scripting languages.

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

The ECMAScript specification is like a rulebook that defines how JavaScript should work. It outlines the features, syntax, and behavior of the language. It's created by a group of experts called TC39 and is regularly updated to improve JavaScript. The specification can be found on the ECMA International website, and it's a valuable resource for JavaScript developers. It helps them understand how to write code that is compatible across different browsers and platforms. Following the specification ensures that JavaScript behaves consistently and reliably, making it easier to build robust and scalable applications.

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

V8, SpiderMonkey, Chakra, and Tamarin are different JavaScript engines used by various web browsers.

Yes, there can be slight differences in their interpretation and implementation of certain JavaScript features.

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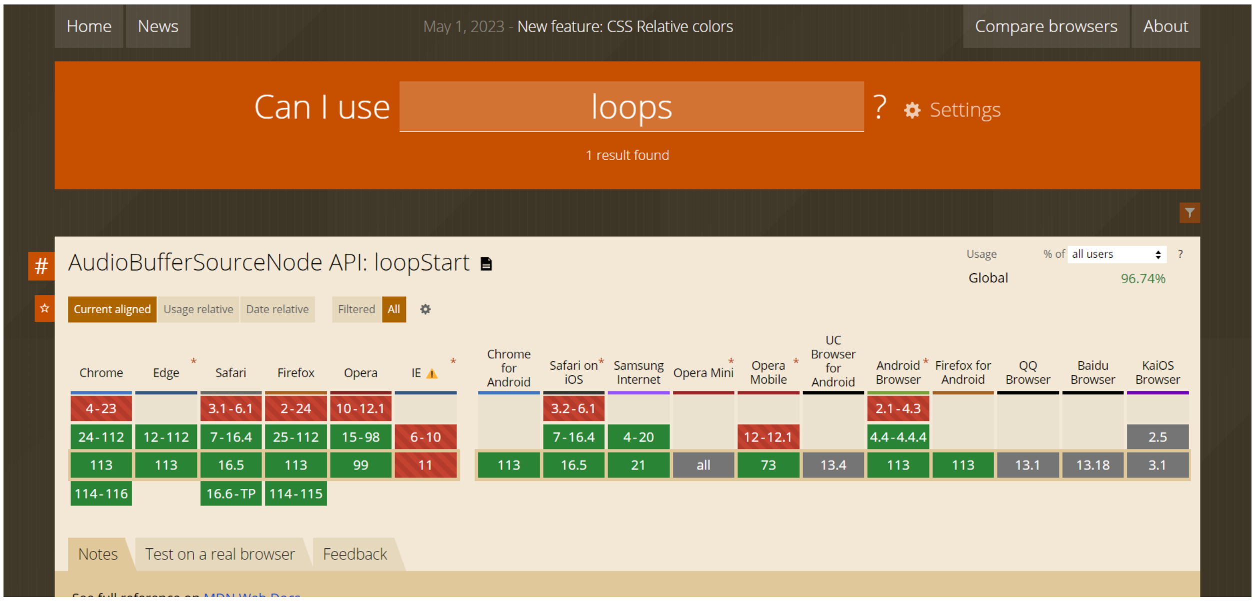
5. Show a practical example using caniuse.com and the MDN compatibility table.



AudioBufferSourceNode API: loopStart

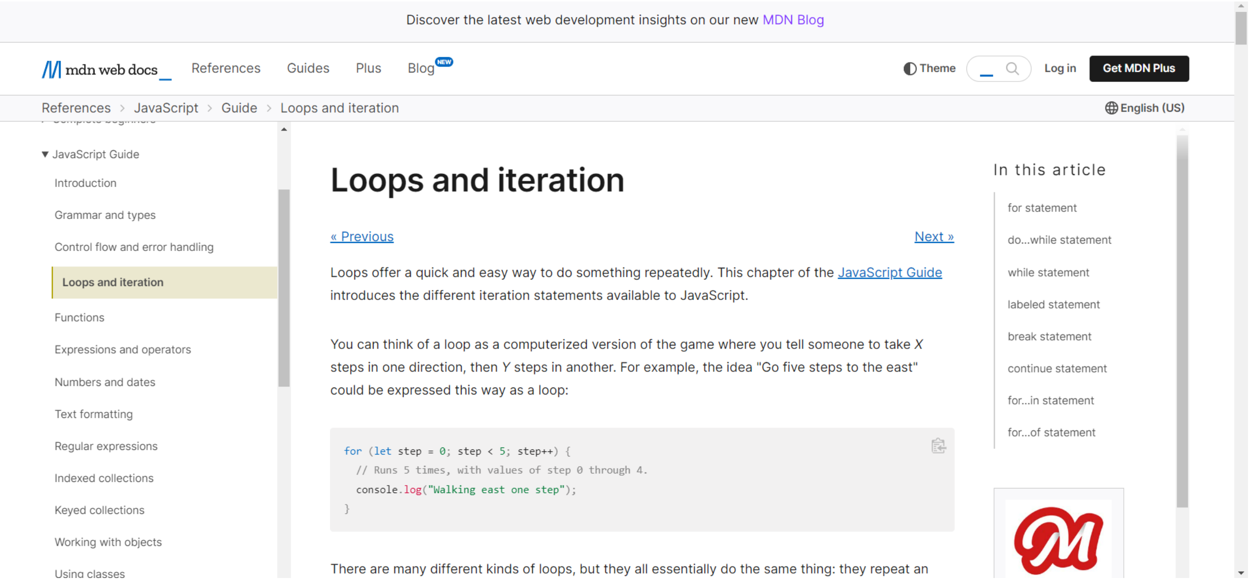
Usage % of all users ?
Global 96.74%

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
4-23		3.1-6.1	2-24	10-12.1			3.2-6.1					2.1-4.3				
24-112	12-112	7-16.4	25-112	15-98	6-10		7-16.4	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 | Feedback

MDN



Loops and iteration

[« Previous]() [Next »]()

Loops offer a quick and easy way to do something repeatedly. This chapter of the [JavaScript Guide]() introduces the different iteration statements available to JavaScript.

You can think of a loop as a computerized version of the game where you tell someone to take *X* steps in one direction, then *Y* steps in another. For example, the idea "Go five steps to the east" could be expressed this way as a loop:

```
for (let step = 0; step < 5; step++) {
  // Runs 5 times, with values of step 0 through 4.
  console.log("Walking east one step");
}
```

There are many different kinds of loops, but they all essentially do the same thing: they repeat an