**New HTML5 Elements**

The most interesting new HTML5 elements are:

New **semantic elements** like <header>, <footer>, <article>, and <section>.

New **attributes of form elements** like number, date, time, calendar, and range.

New **graphic elements**: <svg> and <canvas>.

New **multimedia elements**: <audio> and <video>.

**New HTML5 API's (Application Programming Interfaces)**

The most interesting new API's in HTML5 are:

* HTML Geolocation
* HTML Drag and Drop
* HTML Local Storage
* HTML Application Cache
* HTML Web Workers
* HTML SSE

HTML History

Since the early days of the World Wide Web, there have been many versions of HTML:

|  |  |
| --- | --- |
| **Year** | **Version** |
| 1989 | Tim Berners-Lee invented www |
| 1991 | Tim Berners-Lee invented HTML |
| 1993 | Dave Raggett drafted HTML+ |
| 1995 | HTML Working Group defined HTML 2.0 |
| 1997 | W3C Recommendation: HTML 3.2 |
| 1999 | W3C Recommendation: HTML 4.01 |
| 2000 | W3C Recommendation: XHTML 1.0 |
| 2008 | WHATWG HTML5 First Public Draft |
| 2012 | WHATWG HTML5 Living Standard |
| 2014 | W3C Recommendation: HTML5 |
| 2016 | W3C Candidate Recommendation: HTML 5.1 |
| 2017 | W3C Recommendation: HTML5.1 2nd Edition |
| 2017 | W3C Recommendation: HTML5.2 |

From 1991 to 1999, HTML developed from version 1 to version 4.

In year 2000, the World Wide Web Consortium (W3C) recommended XHTML 1.0. The XHTML syntax was strict, and the developers were forced to write valid and "well-formed" code.

In 2004, W3C's decided to close down the development of HTML, in favor of XHTML.

In 2004, WHATWG (Web Hypertext Application Technology Working Group) was formed. The WHATWG wanted to develop HTML, consistent with how the web was used, while being backward compatible with older versions of HTML.

In 2004 - 2006, the WHATWG gained support by the major browser vendors.

In 2006, W3C announced that they would support WHATWG.

In 2008, the first HTML5 public draft was released.

In 2012, WHATWG and W3C decided on a separation:

**WHATWG wanted to develop HTML as a "Living Standard"**. A living standard is always updated and improved. New features can be added, but old functionality cannot be removed.

The [WHATWG HTML5 Living Standard](http://whatwg.org/html/) was published in 2012, and is continuously updated.

**W3C wanted to develop a definitive HTML5 and XHTML standard.**

The [W3C HTML5](http://www.w3.org/TR/html5/) Recommendation was released 28 October 2014.

The [W3C HTML5.1 2nd Edition](http://www.w3.org/TR/html51/) Recommendation was released 3 October 2017.

The [W3C HTML5.2](http://www.w3.org/TR/html52/) Recommendation was released 14 December 2017.

## What are Semantic Elements?

A semantic element clearly describes its meaning to both the browser and the developer.

Examples of **non-semantic** elements: <div> and <span> - Tells nothing about its content.

Examples of **semantic** elements: <form>, <table>, and <article> - Clearly defines its content.

**New Semantic/Structural Elements**

HTML5 offers new elements for better document structure:

|  |  |
| --- | --- |
| **Tag** | **Description** |
| [<article>](https://www.w3schools.com/tags/tag_article.asp) | Defines an article in a document |
| [<aside>](https://www.w3schools.com/tags/tag_aside.asp) | Defines content aside from the page content |
| [<bdi>](https://www.w3schools.com/tags/tag_bdi.asp) | Isolates a part of text that might be formatted in a different direction from other text outside it |
| [<details>](https://www.w3schools.com/tags/tag_details.asp) | Defines additional details that the user can view or hide |
| [<dialog>](https://www.w3schools.com/tags/tag_dialog.asp) | Defines a dialog box or window |
| [<figcaption>](https://www.w3schools.com/tags/tag_figcaption.asp) | Defines a caption for a <figure> element |
| [<figure>](https://www.w3schools.com/tags/tag_figure.asp) | Defines self-contained content |
| [<footer>](https://www.w3schools.com/tags/tag_footer.asp) | Defines a footer for a document or section |
| [<header>](https://www.w3schools.com/tags/tag_header.asp) | Defines a header for a document or section |
| [<main>](https://www.w3schools.com/tags/tag_main.asp) | Defines the main content of a document |
| [<mark>](https://www.w3schools.com/tags/tag_mark.asp) | Defines marked/highlighted text |
| [<meter>](https://www.w3schools.com/tags/tag_meter.asp) | Defines a scalar measurement within a known range (a gauge) |
| [<nav>](https://www.w3schools.com/tags/tag_nav.asp) | Defines navigation links |
| [<progress>](https://www.w3schools.com/tags/tag_progress.asp) | Represents the progress of a task |
| [<rp>](https://www.w3schools.com/tags/tag_rp.asp) | Defines what to show in browsers that do not support ruby annotations |
| [<rt>](https://www.w3schools.com/tags/tag_rt.asp) | Defines an explanation/pronunciation of characters (for East Asian typography) |
| [<ruby>](https://www.w3schools.com/tags/tag_ruby.asp) | Defines a ruby annotation (for East Asian typography) |
| [<section>](https://www.w3schools.com/tags/tag_section.asp) | Defines a section in a document |
| [<summary>](https://www.w3schools.com/tags/tag_summary.asp) | Defines a visible heading for a <details> element |
| [<time>](https://www.w3schools.com/tags/tag_time.asp) | Defines a date/time |
| [<wbr>](https://www.w3schools.com/tags/tag_wbr.asp) | Defines a possible line-break |