HTML5 & CSS3

What's new?

New elements

Element	Description
`<address>`	The **HTML `<address>` element** supplies contact information for its nearest `<article>` or `<body>` ancestor; in the latter case, it applies to the whole document.
`<article>`	The **HTML `<article>` element** represents a self-contained composition in a document, page, application, or site, which is intended to be independently distributable or reusable (e.g., in syndication). This could be a forum post, a magazine or newspaper article, a blog entry, an object, or any other independent item of content. Each `<article>` should be identified, typically by including a heading (`<h1>`-`<h6>` element) as a child of the `<article>` element.
`<aside>`	The *HTML `<aside>` element* represents a section of the page with content connected tangentially to the rest, which could be considered separate from that content. These sections are often represented as sidebars or inserts. They often contain the definitions on the sidebars, such as definitions from the glossary; there may also be other types of information, such as related advertisements; the biography of the author; web applications; profile information or related links on the blog.
`<footer>`	The **HTML `<footer>` element** represents a footer for its nearest sectioning content or sectioning root element. A footer typically contains information about the author of the section, copyright data or links to related documents.

New elements

Element	Description
`<header>`	The **HTML `<header>` element** represents a group of introductory or navigational aids. It may contain some heading elements but also other elements like a logo, wrapped section's header, a search form, and so on.
`<h1>`, `<h2>`, `<h3>`, `<h4>`, `<h5>`, `<h6>`	**Heading** elements implement six levels of document headings, `<h1>` is the most important and `<h6>` is the least. A heading element briefly describes the topic of the section it introduces. Heading information may be used by user agents, for example, to construct a table of contents for a document automatically.
`<hgroup>`	The **HTML `<hgroup>` Element** (*HTML Headings Group Element*) represents the heading of a section. It defines a single title that participates in the outline of the document as the heading of the implicit or explicit section that it belongs to.
`<nav>`	The **HTML `<nav>` element** (*HTML Navigation Element*) represents a section of a page that links to other pages or to parts within the page: a section with navigation links.
`<section>`	The **HTML `<section>` element** represents a generic section of a document, i.e., a thematic grouping of content, typically with a heading. Each `<section>` should be identified, typically by including a heading (`<h1>`-`<h6>` element) as a child of the `<section>` element.

Resources

More new stuff in HTML5

Cool new stuff

HTML5 Boilerplate

CSS

Advanced selectors & Layout

Selectors

```
* {
 margin: 0;
 padding: 0;
}
```

```
#container * {
 border: 1px solid black;
}
```

```
.error {
  color: red;
}
```

```
li a {
   text-decoration: none;
}
```



```
a { color: red; }
ul { margin-left: 0; }
```

```
a:link { color: red; }
a:visted { color: purple; }
```

```
ul + p {
   color: red;
}
```

```
div#container > ul {
  border: 1px solid black;
}
```

```
<div id="container">
   <ul>
       <li> List Item
         <ul>
            <li> Child </li>
         </ul>
       </li>
       <li> List Item </li>
       <li> List Item </li>
       <li> List Item </li>
    </ul>
</div>
```

```css
a[href="http://google.com"] {
  color: #1f6053; /* green */
}
```

```css
input[type=radio]:checked {
   border: 1px solid black;
}
```

```css
div:hover {
  background: #e3e3e3;
}
```

```css
li:nth-child(3) {
   color: red;
}
```

```css
ul li:first-child {
   border-top: none;
}
```

In-depth explanations are here

Layout

In the past:

float: left

Today:

display: flex

Flexbox

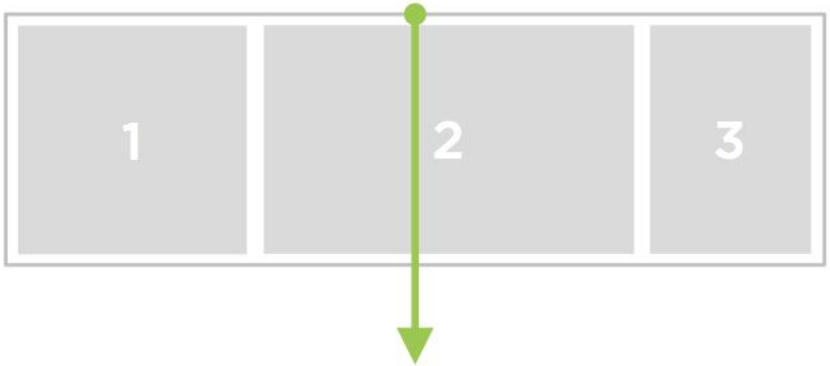
A Set of CSS Properties
Creating Flexible Layouts
Distributing Extra Space
Aligning Content

Flex Container

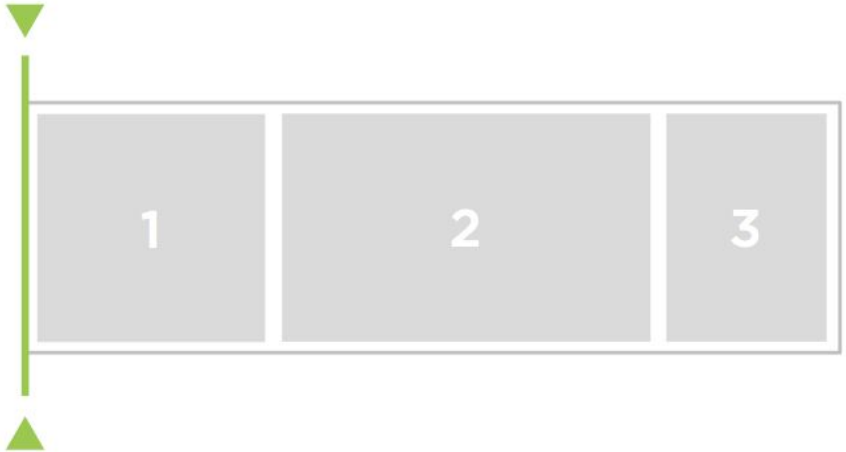
Flex Items

Main Axis

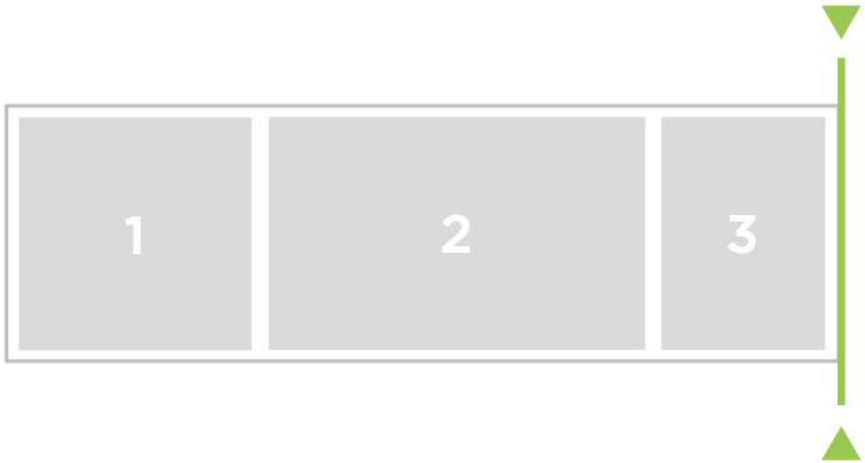
Cross Axis



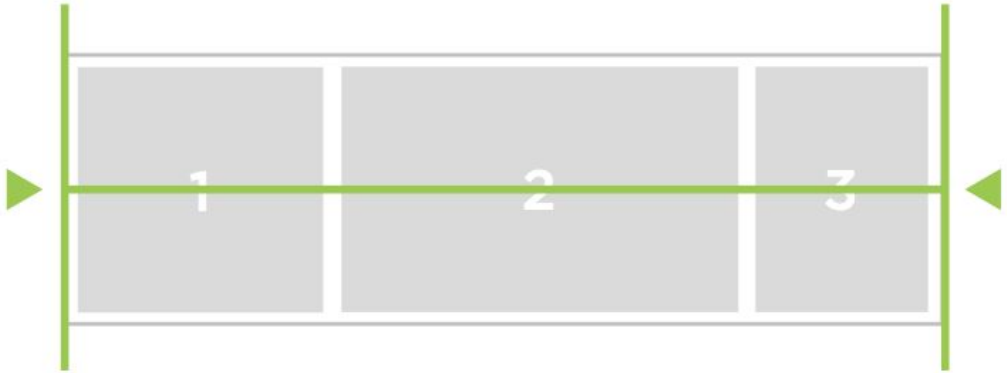
Main Start



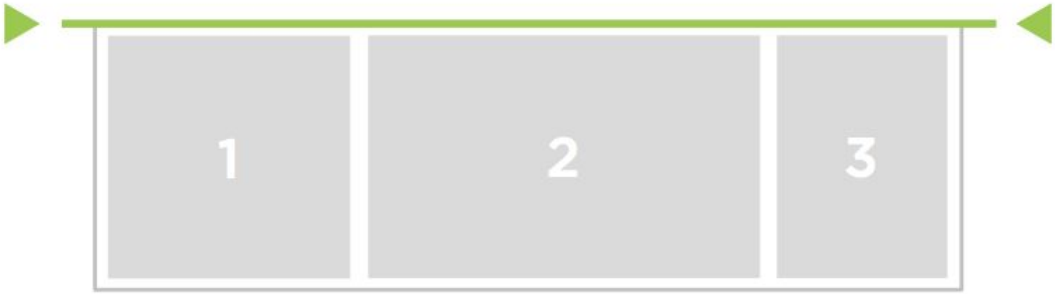
Main End



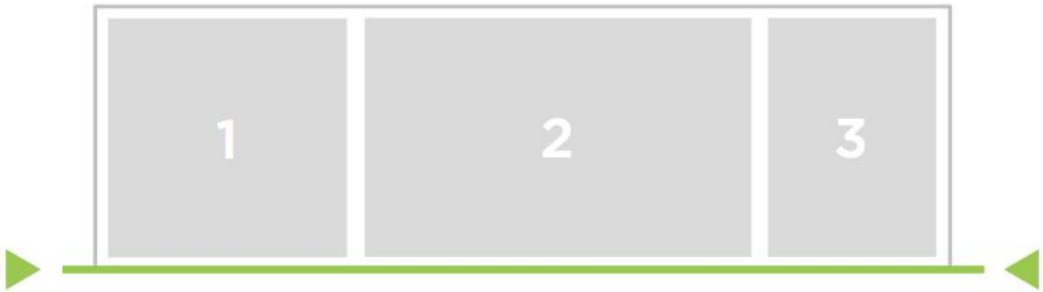
Main Size



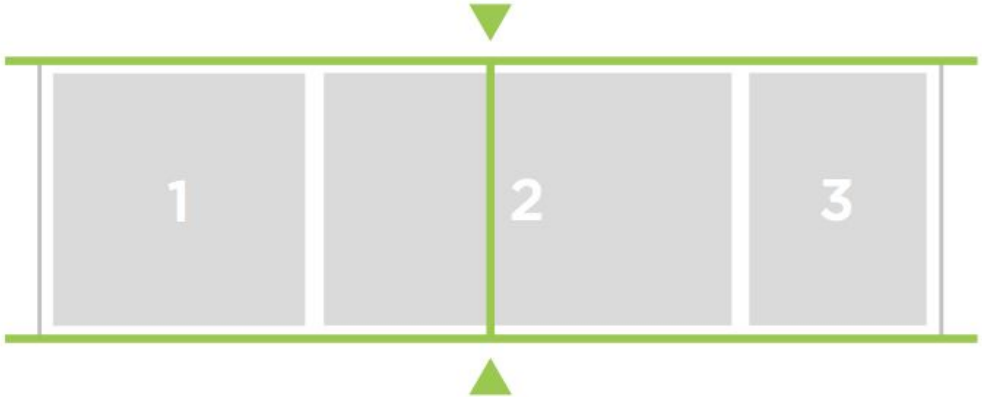
Cross Start



Cross End



Cross Size



Examples

Flexbox in action

Resources

Flexbox cheatsheet

Flexfroggy

Some real-world examples

More real-world examples

Also don't miss the bugs, grids and a nice gallery example