

Main Difference between block and inline: where they appear in relation to the element they are surrounded by:

- Block = new line
- Inline = Inline with whatever elements they are placed beside
 - In general you do not want to try to put extra padding or margin on inline elements

Middle Ground: Inline Block

- Behave like inline elements, but have block-style padding and margin
- In practice, flexbox is a way more used tool when trying to line up a lot of boxes

Divs & Spans

- Div
 - Block level element (default)
 - Commonly used as a container element to group other elements
 - Allows us to divide page into different block and apply styling to those blocks
- Span
 - Inline level element (default)
 - Can be used to group text content and inline html elements for styling
 - SHOULD ONLY BE USED WHEN NO OTHER SEMANTIC HTML ELEMENT IS APPROPRIATE
 - Think stuff like highlighting text

CSS Layout Techniques

- Allows us to take elements contained in web page and control where they're position relative to the following factors:
 - Default position in normal layout flow
 - The other elements around them
 - Their parent container
 - Main viewport/window
- Normal Layout Flow
 - The way elements on a webpage lay out if you haven't applied any CSS to change the way they behave.
 - Starting with this in a well structured manner makes sure that the content is readable with limited browsers or things like screen readers.
 - Normal flow is designed to make a readable document, so by starting this way you're working with the document rather than against it.
- Table Layout
 - Features designed for styling parts of an HTML table can be used on non-table elements using `display: table` and associated properties.

- Multi-Column Layout
 - Can cause the content of a block to lay out in columns, like a newspaper.

How are elements laid out by default:

- Box Model - Individual elements are laid out with any padding, border, or margin to have being added to their content.
 - By default, block level elements' content fills the available inline space of the parent element, continuing it, growing along the block dimension to accommodate its content.
 - For inline, the default is just the size of their content, though you can set the width or height on some elements that have default display of inline (like img) but the display value will still be inline.
 - If you would want to do this you would need to use CSS to set it to either "display: block" or "display: inline-block".

Overriding Normal Flow:

- Display
 - Standard values such as block, inline or inline-block can change how elements behave in normal flow, for example, by making a block-level element behave like an inline-level element.
- Floats
 - Applying a float value such as left can cause block-level elements to wrap along one side of an element, like the way images sometimes have text floating around them in magazine layouts.
- Positioning
 - The position property allows you to precisely control the placement of boxes inside other boxes. static positioning is the default in normal flow, but you can cause elements to be laid out differently using other values, for example, fixing them to the top of the browser viewport using position: fixed.
- Specific layout systems accessed through "display"
 - We also have entire layout methods that are enabled via specific display values. The most important ones for you to know about are CSS grid and Flexbox, which both alter how child elements are laid out inside their parents.
- Responsive Design
 - Responsive design refers to creating layouts that adapt to different devices the web page is rendered on (for example, desktops and mobile phones).
 - Most significant component is the @media at-rule, allows you to apply different layouts depending on device attributes such as screen width or resolution.