

# **FLEXBOX**

**FLEXBOX WAS THE FIRST REAL LAYOUT  
TOOL WE HAD IN CSS. IT OPENED UP  
DOORS, AND IS MORE WIDELY USED  
THAN GRID\***

\*100% ANECDOTAL

**BUT IT IS A LITTEL QUIRKY AND CAN  
THROW SOME CURVE BALLS AT YOU**

**BEFORE WE GET TO THE CURVEBALLS,  
LET'S EXPLORE WHAT HAPPENS WHEN  
WE USE FLEXBOX**

# CODEPEN LINK

<https://codepen.io/kevinpowell/pen/zYBLybz>

# LAYOUTS WITH FLEXBOX

To make layouts flexible, flexbox changes how the size of flex items are calculated.

There are three properties at play here:

- `flex-basis`
- `flex-shrink`
- `flex-grow`

# FLEX BASIS

**flex-basis** is the "main size" of a flex item. We say "main size" and not width, because the **flex-direction** changes the direction **flex-basis** works in.

But to simplify matters, let's think of it as the **width** of the element.

# ENTER FLEX-SHRINK

So while the default of `flex-basis` is `auto`, we also have `flex-shrink`, which defaults to `1`.

By being a number bigger than `0` it means that the element is allowed to shrink smaller than its actual size if there isn't enough room.



# ENTER FLEX-SHRINK

This is a good thing, because without `flex-shrink`, elements would overflow out the side and this whole flexbox thing would be useless.

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**AS MUCH AS THIS HELPS US MAKE  
COLUMNS, IT DOES PRESENT US WITH  
A NEW PROBLEM...**

# CODEPEN LINK

<https://codepen.io/kevinpowell/pen/jOrpdOW>

# CONSISTENCY

This happens because if we do not set a `flex-basis` on an element, the default behavior is to set the `flex-basis` to the `width` of our elements.

Our elements do not have a `width`, so that default's to `auto`.

**ALL OF THAT MEANS THAT THE WIDTH  
OF THE COLUMNS IS BASED ON THE  
AMOUNT OF CONTENT THAT IS INSIDE  
OF THEM**

**IF THE CONTENT IS THE SAME  
THEN THE WIDTHS ARE EQUAL**

**BUT MOST OF THE TIME THE CONTENT  
IS NOT PERFECTLY EVEN**



**LUCKILY THERE IS A VERY EASY FIX TO  
THIS INCONSISTENCY**

# CODEPEN LINK

<https://codepen.io/kevinpowell/pen/jOrpdOW>

**MOST OF THE TIME, THIS IS EXACTLY  
WHAT WE WANT FROM FLEXBOX**

**BUT OFTEN WE NEED MORE  
COMPLICATED SOLUTIONS THAT EITHER  
WRAP OR WHICH HAVE COLUMNS OF  
DIFFERENT WIDTHS**

**WE'LL GET THERE SOON ENOUGH, BUT  
THIS IS ENOUGH TO GET US STARTED**