

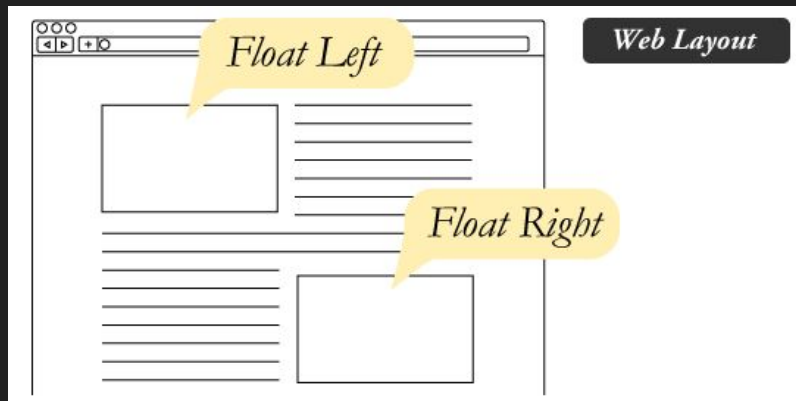
CSS FlexBox

What is it?

Why is it needed?

Why should I care?

Examining CSS Float



Source: <https://css-tricks.com/almanac/properties/f/float/>



The float property in CSS can be used to have text wrap around images or have columns wrap around columns, resulting in multi-column layouts.

Examining CSS Float

```
main {  
  background: #89ad07;  
  float: left;  
  width: 70%;  
}  
  
aside {  
  background: #ad4307;  
  float: left;  
  width: 30%;  
}  
  
footer {  
  background: #a407ad;  
  clear: both;  
}
```

<MAIN>

Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transferred it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea.

You may have noticed that this text is the same as the aside text, just with this next bunch tacked on. Very astute of you! You get extra credit in chemistry class next year! If you don't have Chem next year, you'll get less points on your first class. I'm sorry, that's just how it is, I don't control it. You've been cursed. The gods have spoken and you have been smitten.

<ASIDE>

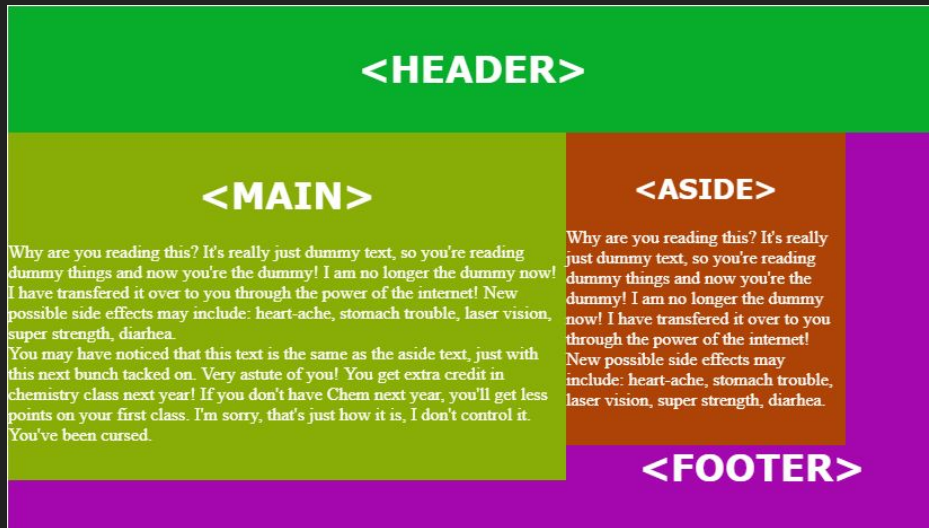
Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transferred it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea.

<FOOTER>

Float-multi-columns are usually done by floating 2 separate columns with widths less than 100% of the width of the page. The next section is then clear-fixed to stop the page from breaking.

Examining CSS Float

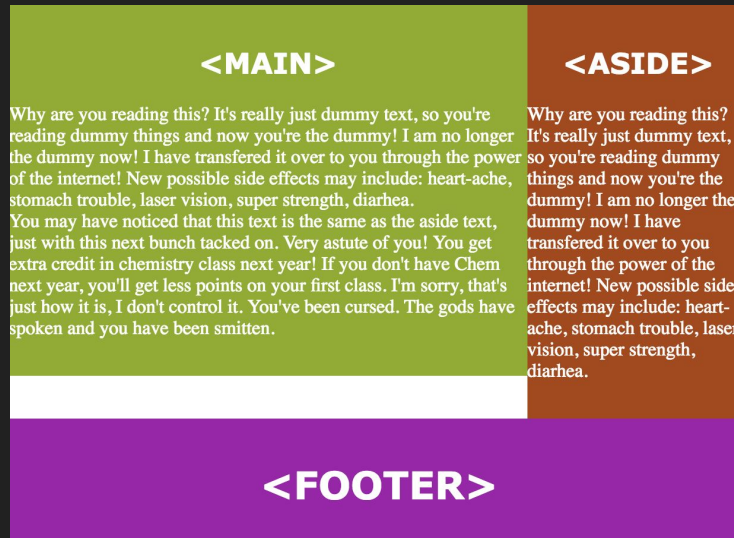
```
main {  
  background: #89ad07;  
  float: left;  
  width: 60%;  
}  
  
aside {  
  background: #ad4307;  
  float: left;  
  width: 30%;  
}  
  
footer {  
  background: #a407ad;  
}
```



If the clear-fix is removed, results may vary wildly, but not for the better. In this case, our footer filled up the space not taken up by our floats, resulting in this wacky behavior.

Examining CSS Float

```
main {  
  background: #89ad07;  
  float: left;  
  width: 70%;  
}  
  
aside {  
  background: #ad4307;  
  float: left;  
  width: 30%;  
}  
  
footer {  
  background: #a407ad;  
  clear: both;  
}
```



Even when used correctly, floats aren't perfect. When we don't strictly define the height of our floated sections, they can leave horrible gaps with missing backgrounds.

Examining CSS Float

```
header, aside, main, footer {  
    padding: 15px 15px;  
}
```

<MAIN>

Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transferred it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea.

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<ASIDE>

Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transferred it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea.

When we want to give our text some breathing room by assigning padding, our floated elements are no longer exactly 70% and 30% respectively. This will make them no longer occupy the same line, ruining the point of our float.

Summary:

Problems with CSS Float:

- Height isn't something that float factors in for us
- Float cannot do stretch-to-fill
- Float requires a lot of messy code to fix basic problems

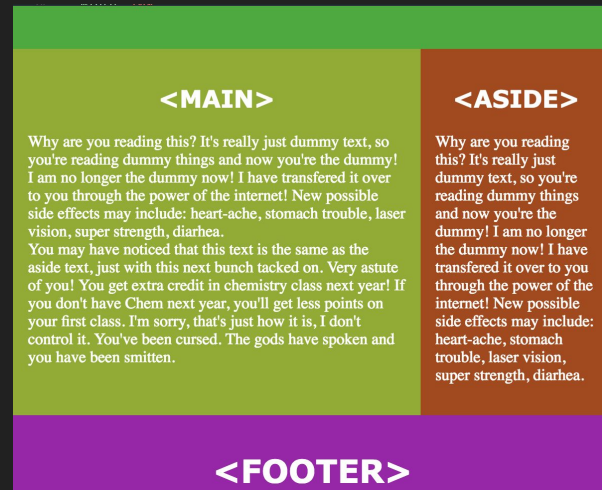
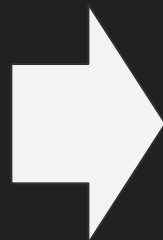
Introducing:

The Flexible Box Layout (Flexbox)

Flexbox and you



```
display: flex;
```



Our entire lot of problems can simply be fixed by changing the *display* property of our sections' container to *flex*.

```
<div class="container">
  <main>
    <h2>&#60;MAIN&#62;</h2>
    <p>
```

Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transfered it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea.

```
<br />
```

You may have noticed that this text is the same as the aside text, just with this next bunch tacked on. Very astute of you! You get extra credit in chemistry class next year! If you don't have Chem next year, you'll get less points on your first class. I'm sorry, that's just how it is, I don't control it. You've been cursed. The gods have spoken and you have been smitten.

```
</p>
```

```
</main>
```

```
<aside>
```

```
<h1>&#60;ASIDE&#62;</h1>
```

```
<p>
```

Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transfered it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea.

```
</p>
```

```
</aside>
```

```
</div>
```

```
.container {
  display: flex;
}
```

Here's our entire
changed code.

<HEADER>

<MAIN>

Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transfered it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea. You may have noticed that this text is the same as the aside text, just with this next bunch tacked on. Very astute of you! You get extra credit in chemistry class next year! If you don't have Chem next year, you'll get less points on your first class. I'm sorry, that's just how it is, I don't control it. You've been cursed. The gods have spoken and you have been smitten.

<ASIDE>

Why are you reading this? It's really just dummy text, so you're reading dummy things and now you're the dummy! I am no longer the dummy now! I have transfered it over to you through the power of the internet! New possible side effects may include: heart-ache, stomach trouble, laser vision, super strength, diarrhea.

<FOOTER>

We can even add some margin and our content is still flexibly constrained to our container.

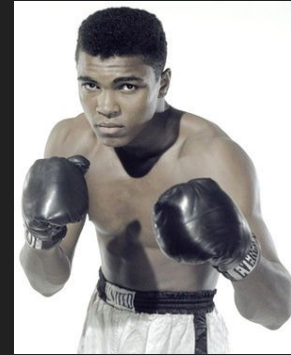
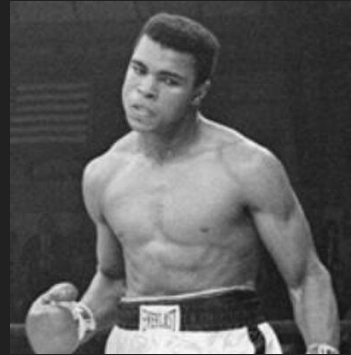
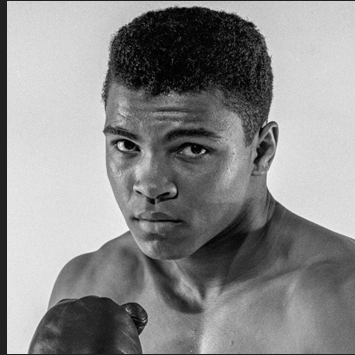
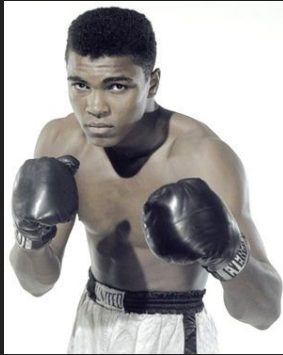
But What Else Can Flexbox Do For You

- Align items
- That's all it does
- Yup, everything
- That's it
- It aligns things

Source: https://en.wikipedia.org/wiki/John_F._Kennedy



Flexboxing



Many time we'll have images/sections of varying sizes being displayed on our website

Source: <http://boxrec.com/en/boxer/180>, <https://www.biography.com/people/muhammad-ali-9181165>,
https://en.wikipedia.org/wiki/Muhammad_Ali, <https://twitter.com/muhammatali>

Flexboxing

<MAIN>



Flexbox will default to justify (adjust) the images to go from left to right
A.K.A. “Flex-Start”

Flexboxing

<MAIN>



We can set our flex container to use

```
.container {  
  display: flex;  
  justify-content: space-around;  
}
```

to get a much nicer look overall

Flexboxing

Using justify-content in a flex container will horizontally *(by default)* align the items according to the format that you have specified.

Those possible formats are `flex-start`, `flex-end`, `center`, `space-between`, `space-around`, **and** `space-evenly`.

Flexboxing

flex-start



flex-end



center



space-between



space-around



space-evenly



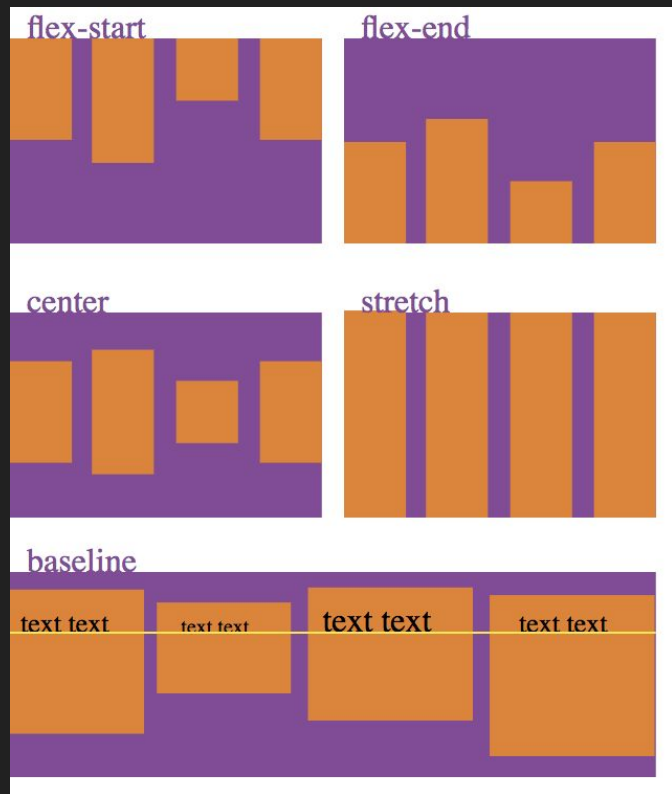
Source: <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

Flexboxing

Using `align-items` in a flex container will vertically align the items according to the format that you have specified.

Those possible formats are `flex-start`, `flex-end`, `center`, `baseline`, and `stretch`.

Flexboxing



Note:

Justify-content is most useful for aligning both information cards and sections while align-items is most useful for presentation boxes or information cards alone.

Articles are hardly ever vertically aligned.

Source: <https://css-tricks.com/snippets/css/a-guide-to-flexbox/>

Getting Flexible

Problem:

Our website is hard to read on mobile

Getting Flexible

Problem:

Our website is hard to read on mobile

Solution #1:

@media CSS selector defining screen sizes and appropriate actions regarding floats, boxes, and arrangements

Getting Flexible

Problem:

Our website is hard to read on mobile

~~Solution #1:~~

~~@media CSS selector defining screen sizes and appropriate actions regarding floats, boxes, and arrangements~~

Solution #2

Flexbox! (duh)

New Inventory



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Resources

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Here we have a website made entirely without floats, using just CSS Flexbox to align its header content and basic layout.

New Inventory



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The header contains our brand name and a flattened `` for the navigation links. Flexbox has been used to center them accordingly.

New Inventory



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Our `<main>` and `<aside>` have been centered accordingly within a `<div>`. Our `<main>` contains another `<div>` with 3 PNG images, centered again with flexbox.

WEBSITE.COM

[HOME](#) [ABOUT](#) [FAQ](#) [CONTACT](#)

New Inventory



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Resources

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luctus
pretium. Cras
nec magna
diam.

Maecenas
nibh orci,
varius at
metus quis,
placerat
fringilla

Perhaps the biggest upside to this system is that our page, without any complicated pseudo-selectors, is mostly mobile friendly. If a mobile device is being used, both the navigation bar and the list of images will auto-wrap and center themselves.

This system allows for a much cleaner way to write websites.

New Inventory



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Resources

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New Inventory



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The Exercise



- Create a site containing a `<header>`, a `<main>`, and an `<aside>`
- Put an `<h1>` and a `<nav>` inside of the `<header>`
- Put the `<main>` and `<aside>` inside of a div with a class or id
- Use flexbox instead of float on all your containers, such as the `<header>`, the `<div>` container, and the `` inside of your `<nav>`

Consult <https://css-tricks.com/snippets/css/a-guide-to-flexbox/> for help on Flexbox in general and consult <https://codepen.io/EmNudge/pen/yqMVzB> to see how it was done in the previous example.