RESPONSIVE DESIGN
CLASS 3

WELCOME!

Some "rules"

- Every question is important
- Help each other
- Have fun

REVIEW - HTML

```html
<h1>headings</h1>

<p class="background-blue">
  paragraphs with <strong>importance</strong>.
</p>

<ul>
  <li>lists</li>
</ul>

<img src="images/logo.png" /> image with relative src
<a href="http://google.com">a link with absolute href</a>

<p id="footer">
  IDs are used once per page.
</p>
```

REVIEW – CONNECTING HTML AND CSS

External CSS

```
<head>
  <link rel="stylesheet" type="text/css" href="style.css">
</head>
```

REVIEW - CSS

```css
h1{
  color:purple;
}

/* classes start with . */

.background-blue{
  background-color:blue;
}

/* IDs start with # */

#footer{
  font-size:12px;
  color:#888;
}
```

HTML DIV TAG

- The div tag is used everywhere to group elements together into sections.
- For example, what if we want the first 2 paragraphs of a section to be right-aligned, green & bold, but we don't want any other paragraphs to be right-aligned?
- We would wrap them in a div element to style them differently.

GROUPING ELEMENTS WITH DIV, CONT.

```css
.align-right{
  text-align:right;
  color: green;
  font-weight: bold;
}
```

```html
<div class="align-right">
  <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit</p>
  <p>Sed do eiusmod tempor incididunt ut labore et dolore.</p>
</div>
<p>Magna aliqua. Ut enim ad minim veniam.</p>
<p>Quis nostrud exercitation ullamco.</a>
```
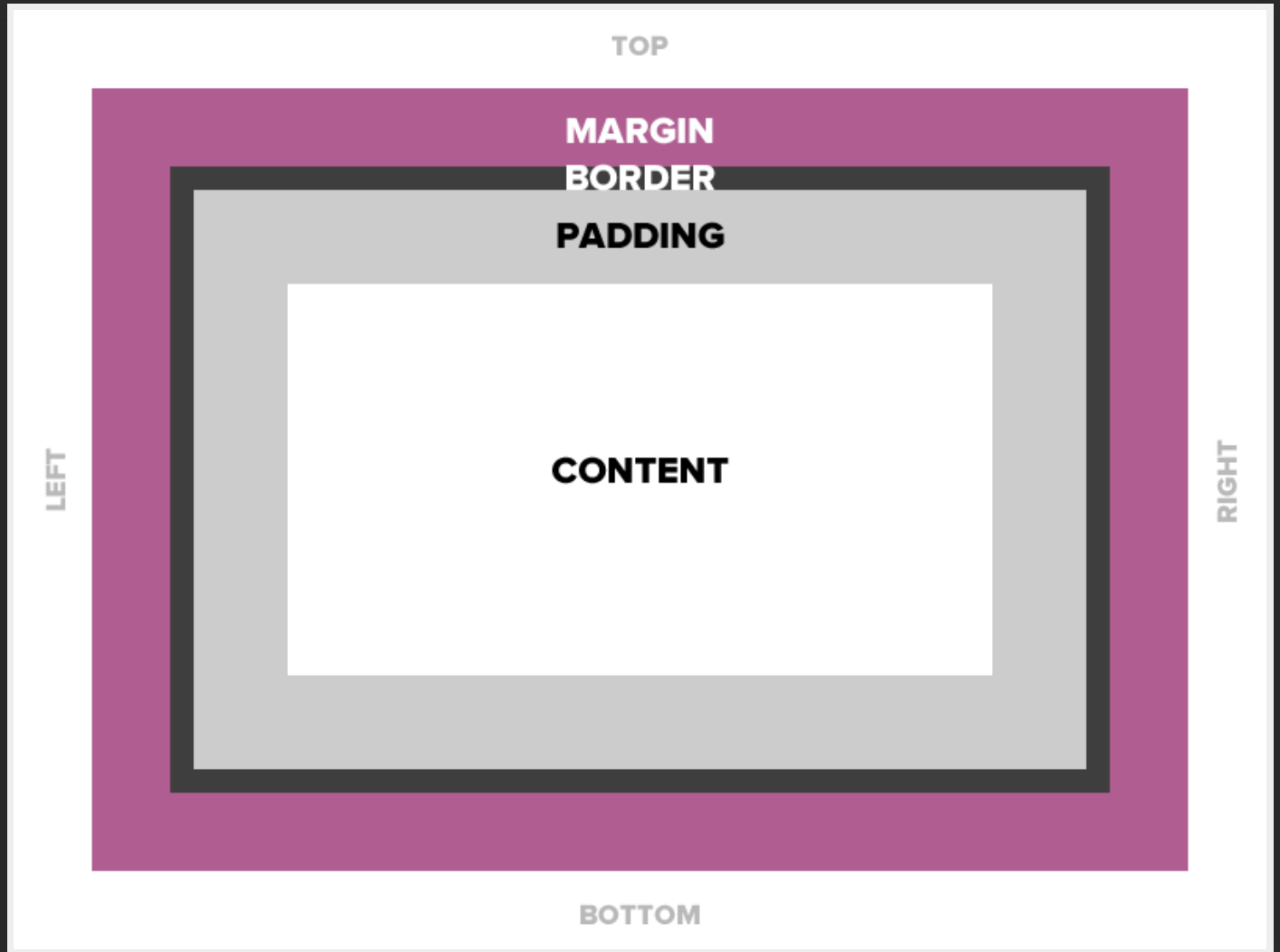
Lorem ipsum dolor sit amet, consectetur adipisicing elit

Sed do eiusmod tempor incididunt ut labore et dolore.

Magna aliqua. Ut enim ad minim veniam.

Quis nostrud exercitation ullamco.

LET'S DEVELOP IT

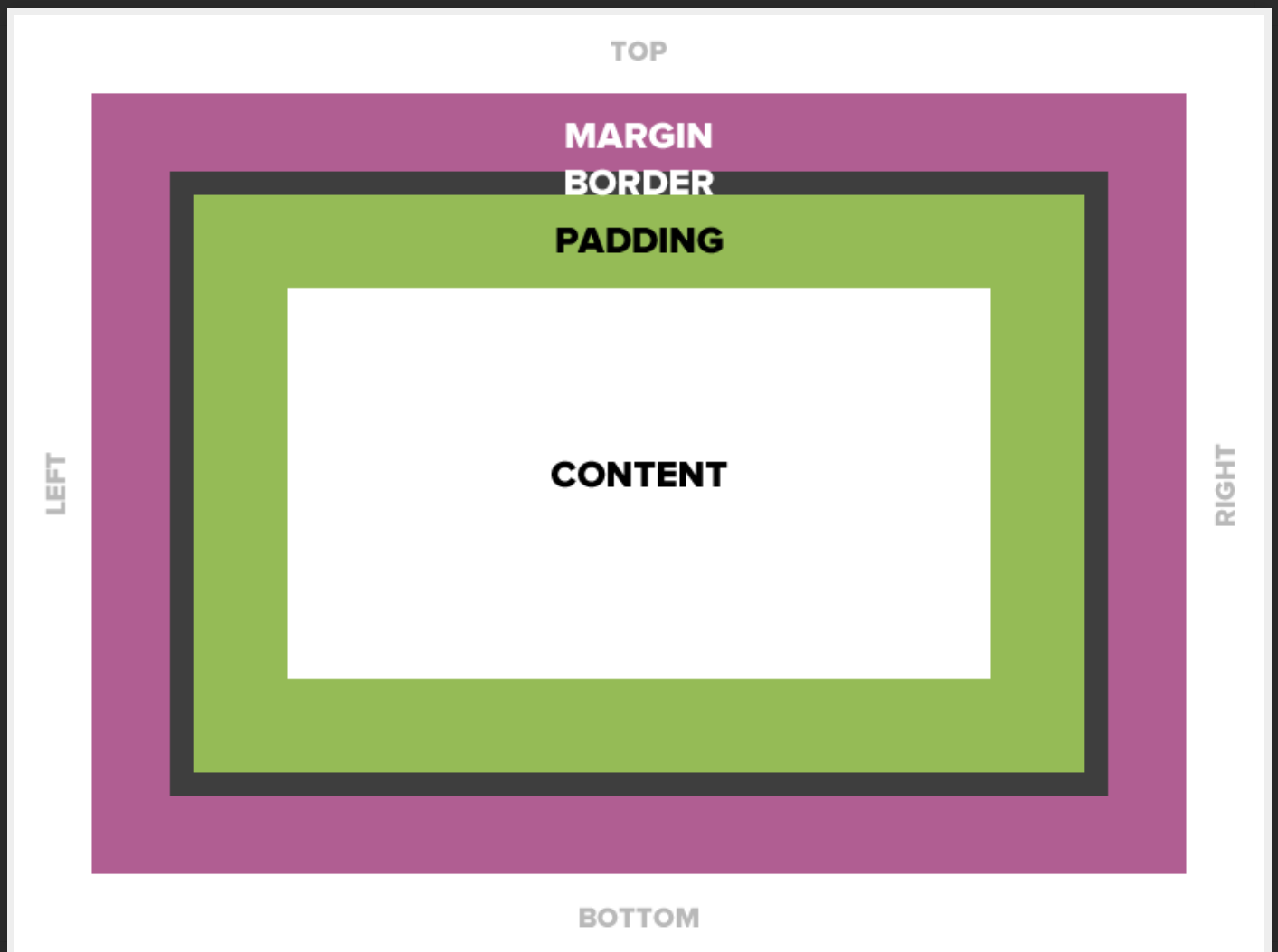Let's use divs to separate our content into different sections on our page.

Create a header, content area, and a footer.

BOX MODEL

PADDING

Space between the border and the content

Adds to the total width of the box.

PADDING

15 pixels on all sides

```
padding: 15px;
```
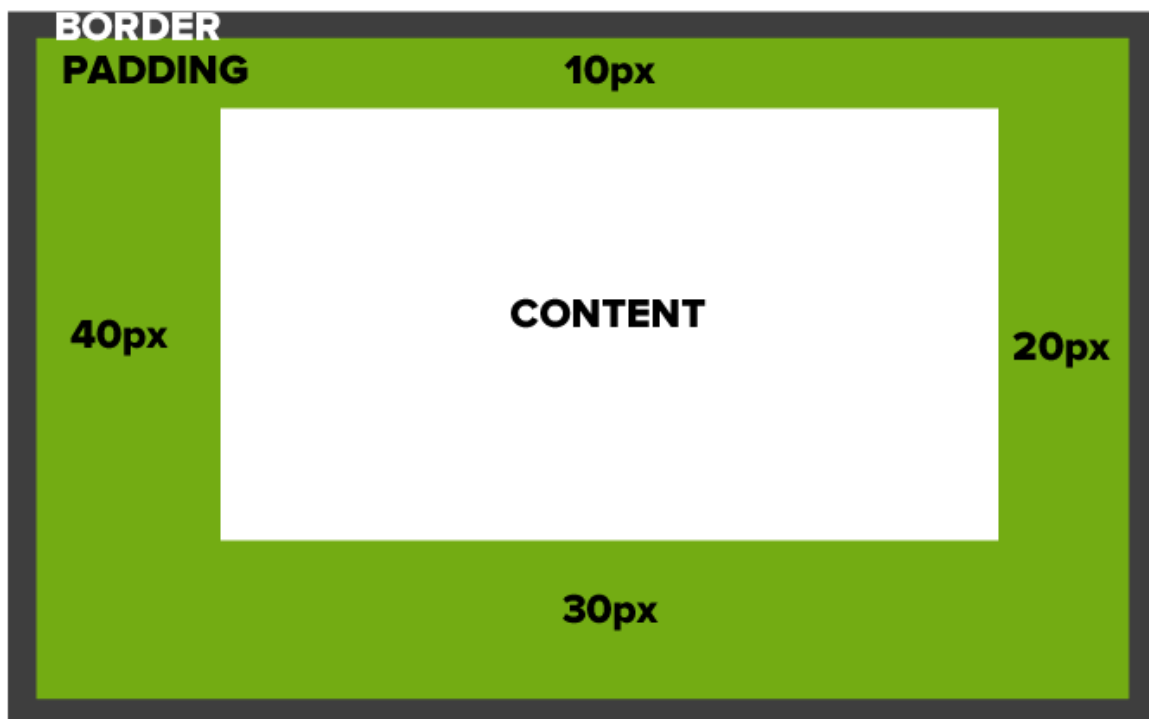
10 pixels on top only

```
padding-top: 10px;
```

10 on top, 5 on right, 3 on bottom, 5 on left
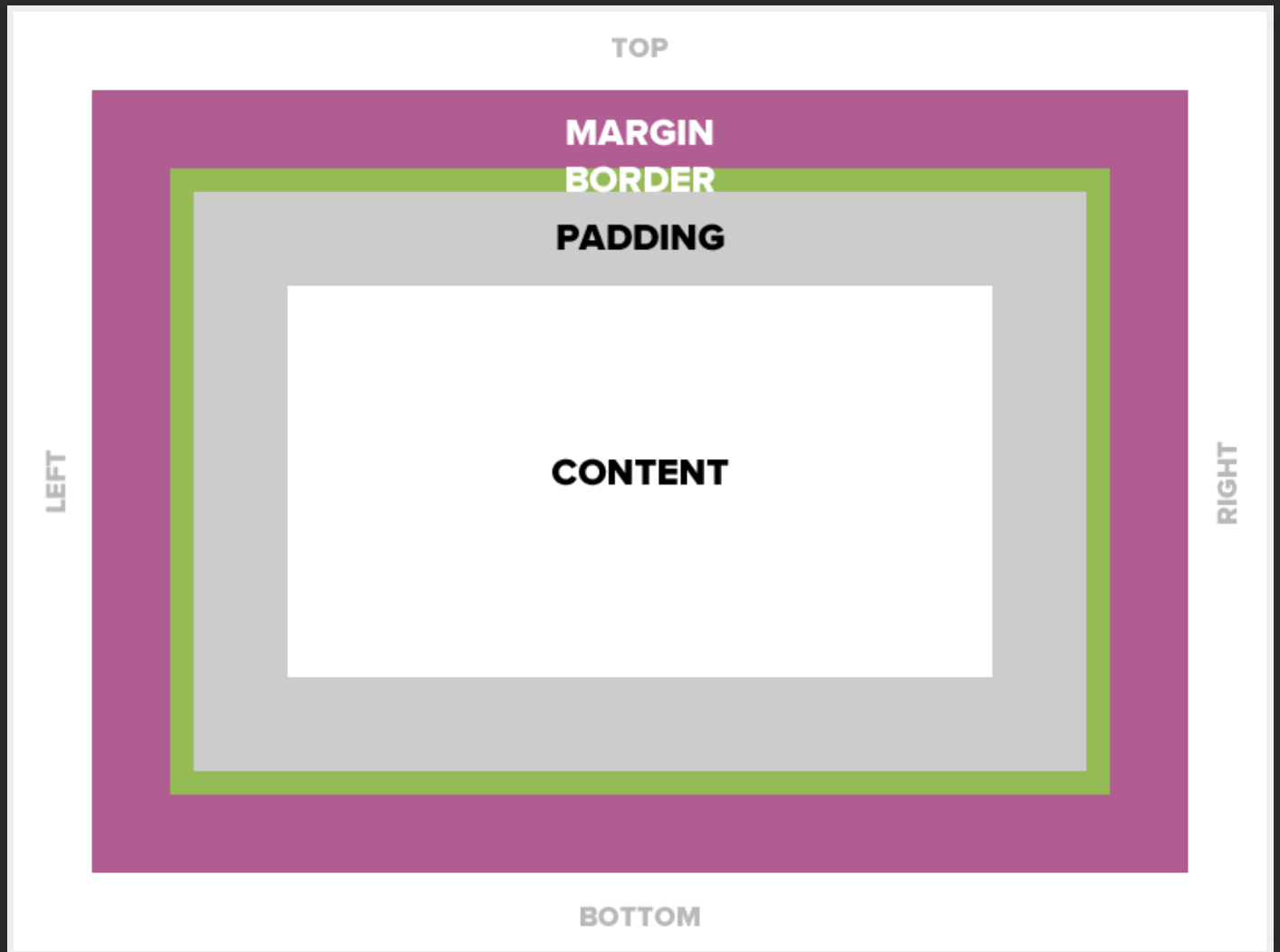
```
padding: 10px 5px 3px 5px;
```

PADDING

```
padding: 10px 20px 30px 40px;
```

BORDER
PADDING 10px

40px **CONTENT** 20px

30px

BORDER

The edge around the box, specified as "thickness, style, color."

BORDER

A solid red border

```
border: 1px solid #ff0000;
```
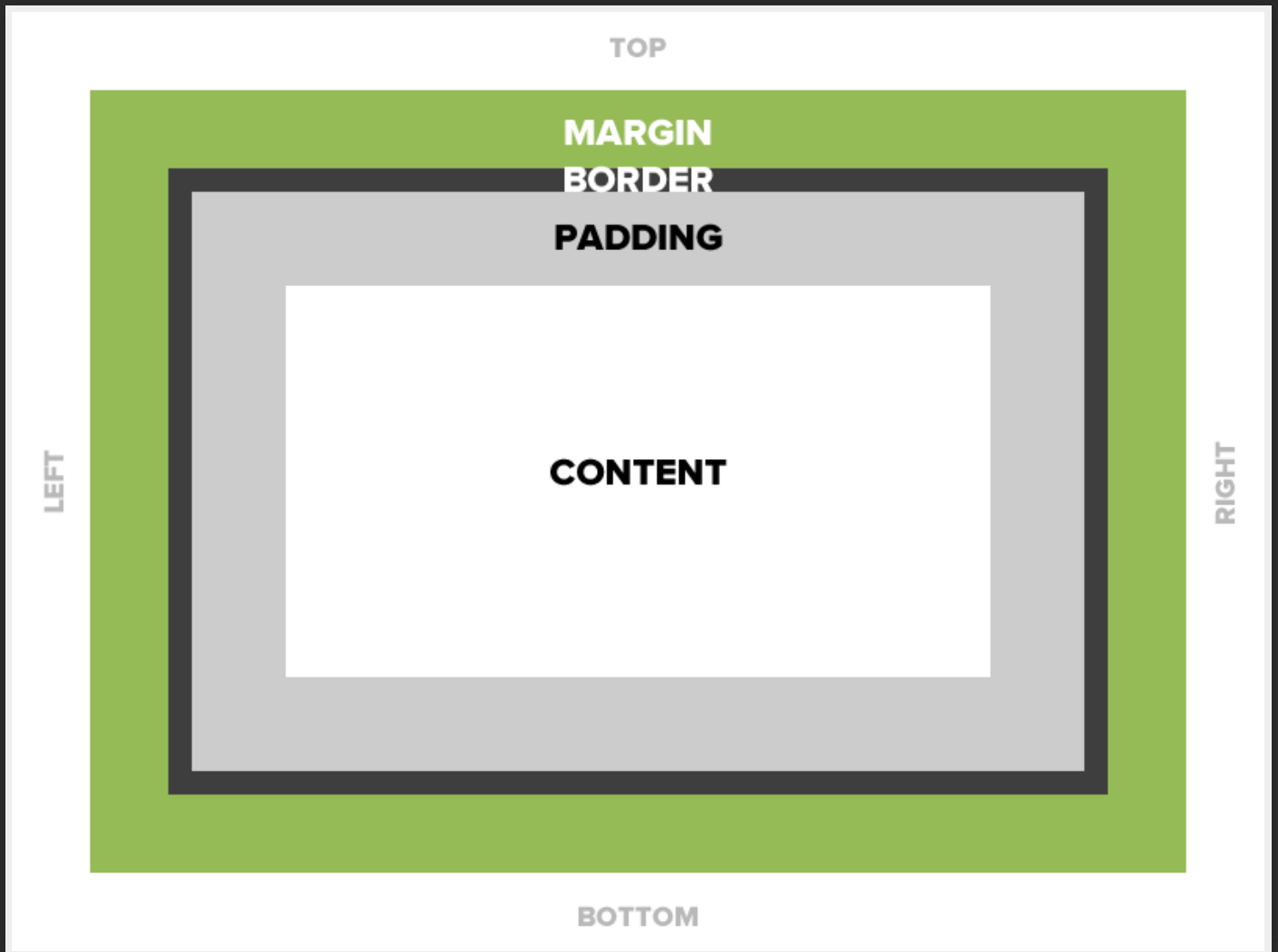
A thick dotted black top border

```
border-top: 4px dotted #000000;
```

Two different border styles

```
border-top: 1px solid #ff0000;
border-bottom: 4px dotted #000000;
```

MARGIN

The transparent area around the box that separates it from other elements.

MARGIN

15 pixels on all sides

```
margin: 15px;
```

10 on top, 5 on right, 3 on bottom, 5 on left

```
margin: 10px 5px 3px 5px;
```

10 pixels on top

```
margin-top: 10px;
```

PROPERTY: WIDTH

Sets the width of an element.

Does not include padding or borders, remember these add to the width.

```
width: 300px;
```

LET'S DEVELOP IT!

Let's add some padding, borders, and margins to our divs.

COLUMNS: FLOATING

"How do I get things to sit next to each other?"

```
.float{
  float:left;
  width:300px;
}
```

- "Floating" an element takes it in the normal flow, as far to the left or right as possible.
- Other elements, like paragraphs or lists, will wrap around the floated element.
- Always specify a width when floating an element.
- You can specify if an element is floated or not - and which side it floats on (right or left).

FLOAT: EXAMPLE

Below a <blockquote> is floated to the left, allowing text to wrap around it on the right

That's when they discovered Are You a Human. After switching to PlayThru, HiredMyWay
40% decrease in the amount of time it takes an average user to sign up for the site, from 4
minutes, 24 seconds to 2 minutes, 39 seconds. That's almost **two minutes saved** per user.

66 The technology behind
Are You a Human seemed
like a breath of fresh air."
—Wes Weiler, CMO

Even better, after implementing PlayThru, the
percentage of HiredMyWay users who comple
profile after signing up Wes Weiler
CMO
HiredMyWay That's no surprise—CAPTCHA's
studies indicating that one in four people will

And PlayThru didn't just improve HiredMyWay's numbers—it also improved their overall cu
coming onto my site, and that's a bad experience," says Wes. "Everything's an emotional
site."

FLOAT

```
.float{
  float:left;
  width:200px;
  background:yellow;
}
```

Hi, I'm a yellow box with black text.
I like to hang out on the left side.

Not floating element Not floating element Not floating element with wrapping Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

USING FLOATS TO PLACE ELEMENTS SIDE BY SIDE

If you want two block level elements to be side by side, you need to float both elements. One left, and one right.

WIDTH: 300PX;
FLOAT: LEFT;

WIDTH: 400PX;
FLOAT: RIGHT;

LET'S DEVELOP IT

Let's add two columns

You'll need specify their widths and float them

RESPONSIVE DESIGN

The practice of building a website that works on every device and screen size, no matter how large or small.

Term was coined by Ethan Marcotte.

The site layout responds to different viewport sizes.

RESPONSIVE WEB DESIGN HAS 3 MAIN COMPONENTS

Flexible Layouts

Media Queries

Flexible Media

FLEXIBLE LAYOUT

- Flexible layout = flexible grid
- Built using relative units, usually percents.
- Width, margins and padding all declared in percentages.

But we just built everything in pixels!

There's a formula for that:

target / context = result

LET'S KEEP IT SIMPLE

100% = total width of your page

left-column = 60%

right-column = 40%

STILL KEEPING IT SIMPLE

```html
<div class="container">
  <div class="left-column">...</div>
  <div class="right-column">...</div>
</div>
```

```css
.container{
  max-width:960px; /* think of this as 100% */
}

.left-column{
  float:left;
  width:60%;
}

.right-column{
  float:left;
  width:40%;
}
```

STILL KEEPING IT SIMPLE

Margin, border, padding, adds to the space needed

```
.container{
  max-width:960px; /* think of this as 100% */
}

.left-column{
  float:left;
  width:58%;
  margin:0 1%;   /* margin and padding add space to our columns */
}

.right-column{
  float:left;
  width:38%;
  margin:0 1%; /* everything must add up to 100% */
}
```

MEDIA QUERIES

Media queries allow us to specify different styles for individual browser and device circumstances.

For example, we can specify CSS based on the width of the viewport.

RECOMMENDED WAY TO USE MEDIA QUERY

In your css file

```
@media all and (min-width: 768px) {
  /*styles you want to change */

  body{
    background-color:#f1f2e4;
  }

}
```

LET'S DEVELOP IT

Let's add a media query to our css file

Change something obvious, like background color, or text color

MOBILE FIRST: IDEA

Web sites should first be designed for mobile devices

"The constraints of the mobile medium force designers to focus on what's truly important to a product or service."

- Should only include things that are essential to users
- Great opportunity to reevaluate what content/functionality is necessary.

MOBILE FIRST: BUILDING

Also a way of building your CSS

Put shared styles at the top, things you want on all devices

Then introduce elements for larger screens later (in those media queries)

Mobile-first styling results in smaller, more maintainable and easier-to-read code.

```css
@media all and (min-width: 768px) {
  /*styles you want to change */

  ...
}
@media all and (min-width: 1024px) {
  /*styles you want to change */

  ...
}
@media all and (min-width: 1200px) {
  /*styles you want to change */

  ...
}
```

QUESTIONS?

?

RESOURCES

- CSS Reference:
  http://www.w3schools.com/css/default.asp
- Color palettes:
  http://www.colourlovers.com/
- RGB to Hex:
  http://www.javascripter.net/faq/rgbtohex.htm
- Patterns of markup & style
  http://pea.rs/
- HTML and CSS guide
  http://learn.shayhowe.com/

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