



# RWD

## Class 6

@rwdkent

# Overview

**CSS Box Model Video + Review**  
(30 min)

**CSS Basics 2** (15 min)

**Responsive Markup** (30 min)

**Break** (10 min)

**Responsive Markup Hands-On**  
(1 hour)

**Fonts & Media Queries**  
**Assignment** (15 min)



# CSS Box Model Video



**Every element on the  
page is a box.**



# Border/Padding/Margin



**BORDER**   **MARGIN**   **PADDING**



# Important Image CSS

```
img { max-width: 100%; }
```

I recommend adding this to every stylesheet.



# Important Box-Sizing CSS

Take padding and borders into account when calculating box size

```
* {box-sizing: border-box}
```

I recommend adding this to every stylesheet.



# DIV and SPAN

Generic ways of grouping elements or words together to relate them or apply style.





# HTML 5 Elements

header

footer

nav (use ul)

article

aside

section

hgroup

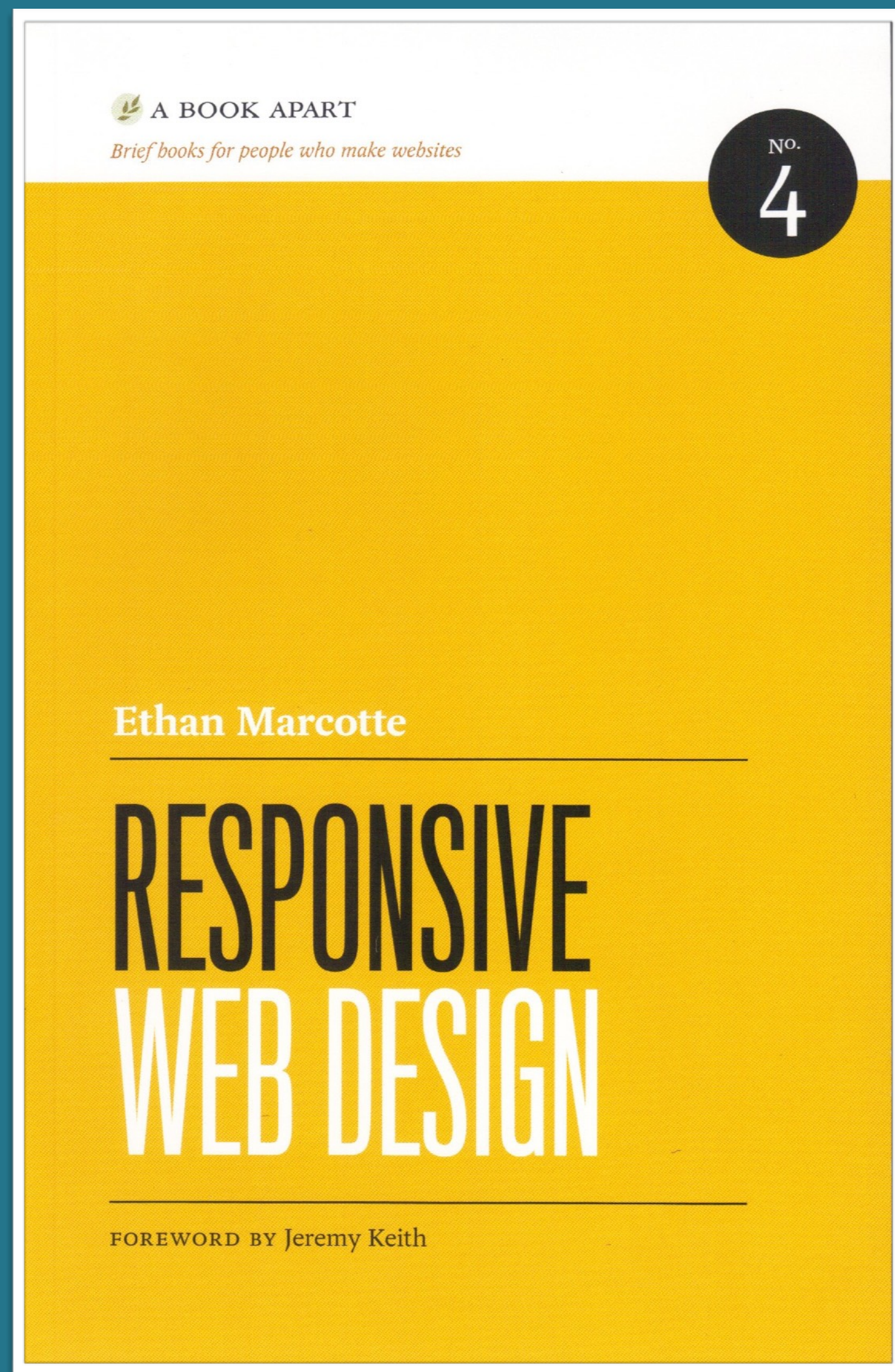
figure



# CSS Basics 2 Review







# RWD Book





**Why does the concept of  
the canvas, used in print  
design, not translate well to  
the web?**



**What challenges do separate  
mobile/tablet experiences  
present vs. using responsive  
design?**



# Responsive Web Design

Percentage-Based Grids

Flexible Images

Media Queries



# Percentage-Based Grids

target / context = result

<http://codepen.io/challahan/professor/EVEGMv>

<http://codepen.io/challahan/professor/WQzPbQ/?editors=1100>



# Fluid Images

<http://codepen.io/challahan/professor/yYKZbb/>

```
img {  
  max-width: 100%;  
}
```





# Media Query

```
@media screen and (min-width: 600px) {  
    /* CSS Styles That Apply Go Here */  
}
```

```
@media screen and (max-width: 1200px) {  
    /* CSS Styles That Apply Go Here */  
}
```



# Media Query

```
@media screen and (min-width: 600px) and (max-width: 1200px) {  
    /* CSS Styles That Apply Go Here */  
}
```

```
@media screen and (min-height: 600px) {  
    /* CSS Styles That Apply Go Here */  
}
```



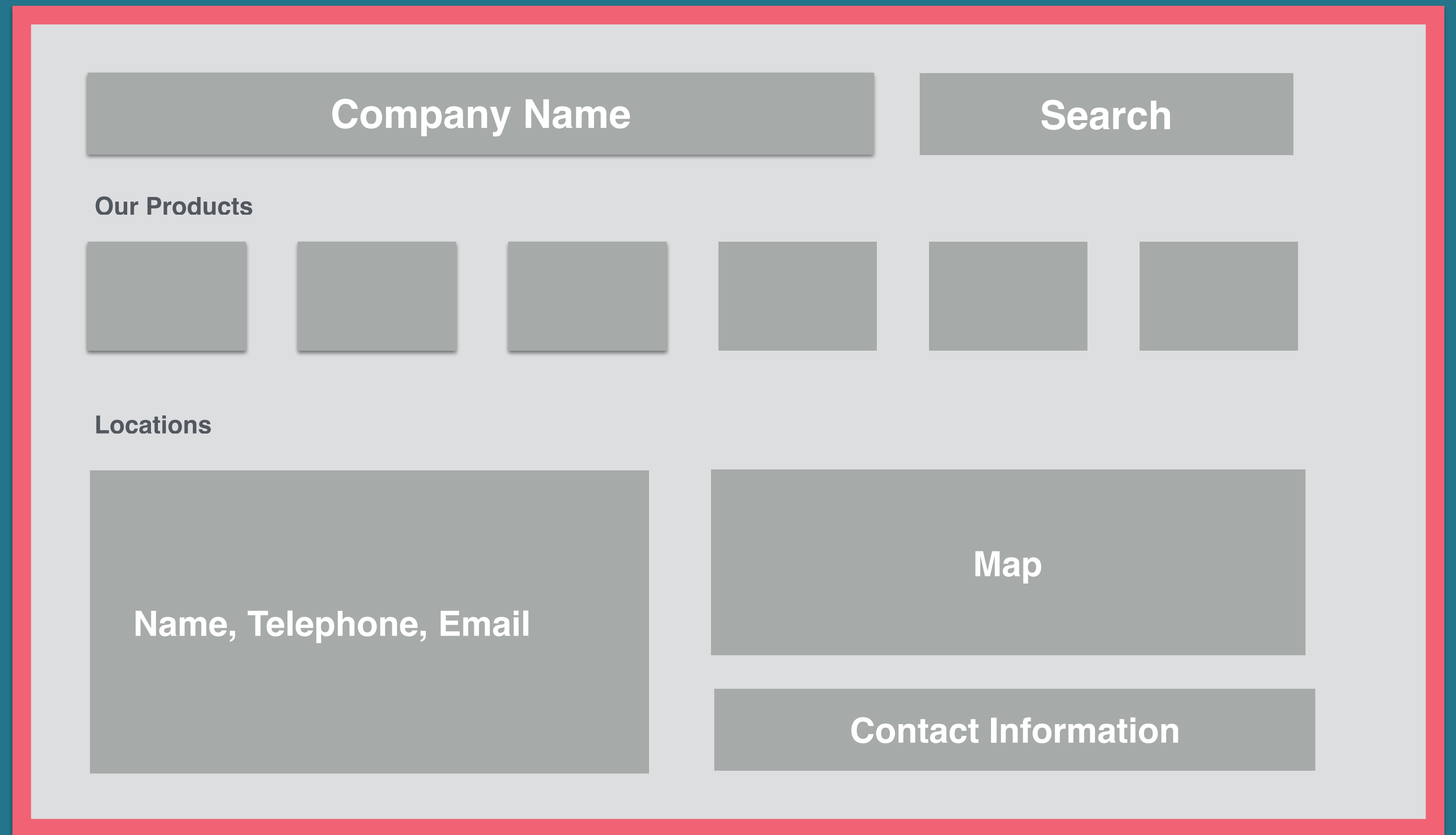
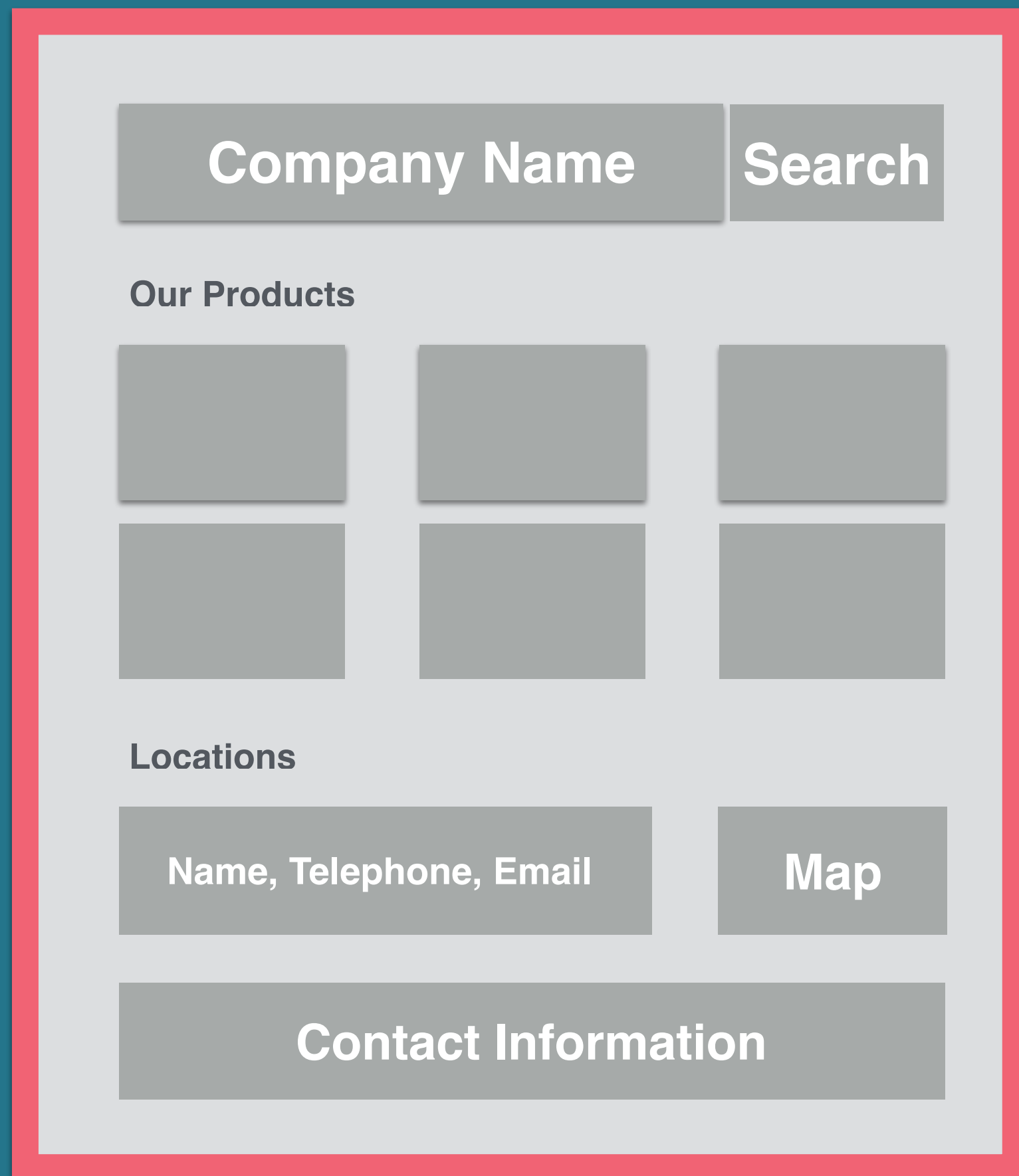
# Breakpoint

Size at which the page layout or design “breaks”

Can have multiple breakpoints per layout

Let design (not device) dictate breakpoints





Breakpoint: 1000px wide



# Media Query

width

height

device-width

device-height

orientation

aspect-ratio

device-aspect ratio

color

color-index

monochrome

resolution

scan



# Magic Meta Tag

```
<meta name="viewport" content="initial-scale=1.0, width=device-width" />
```

Example: <http://codepen.io/challahan/professor/yYKZbb/>



# Magic Meta Tag

```
<meta name="viewport" content="initial-scale=1.0, width=device-width" />
```



# Default HTML Code

```
stylesheet.html Raw
1 <!DOCTYPE html>
2 <html lang="en-us">
3   <head>
4     <meta charset="utf-8">
5     <meta http-equiv="X-UA-Compatible" content="IE=edge">
6     <meta name="viewport" content="width=device-width, initial-scale=1">
7     <title>Page Title Goes Here</title>
8     <meta name="description" content="Page Description Goes Here">
9   </head>
10  <body>
11    <!-- The page content goes here -->
12    <link href="style.css" rel="stylesheet" type="text/css" media="screen" /> <!-- Add your stylesheet here, before the closing body tag -->
13  </body>
14 </html>
```

<https://gist.github.com/challahan/08eddc8da7152f483f99>





# Default CSS (Reset)

```
normalize-with-responsive.css
1  /* Additional Default Styles for Responsive */
2
3  html {
4    box-sizing: border-box;
5  }
6
7  *,
8  *::before,
9  *::after {
10   box-sizing: inherit; }
11
12  img, object, video, iframe {
13    max-width: 100%;
14    height: auto;
15    -ms-interpolation-mode: bicubic;
16    display: inline-block;
17    vertical-align: middle;
18  }
19
20
21  /*! normalize.css v4.0.0 | MIT License | github.com/necolas/normalize.css */
22
23  /**
24   * 1. Change the default font family in all browsers (opinionated).
25   * 2. Prevent adjustments of font size after orientation changes in IE and iOS.
26   */
27
28  html {
29    font-family: sans-serif; /* 1 */
30    -ms-text-size-adjust: 100%; /* 2 */
31    -webkit-text-size-adjust: 100%; /* 2 */
32  }
33
34  /**
```

<https://gist.github.com/challahan/33beaed4647a8e1f077c90085545c383>



# No Media Query



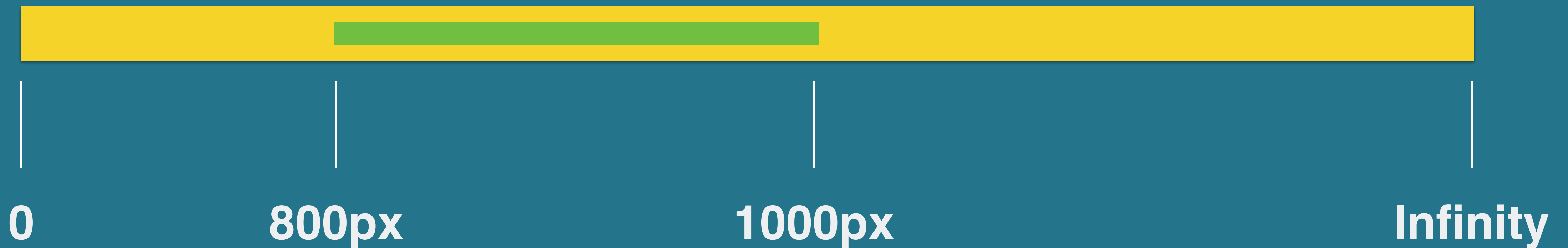
# @media screen and (max-width: 600px) { }



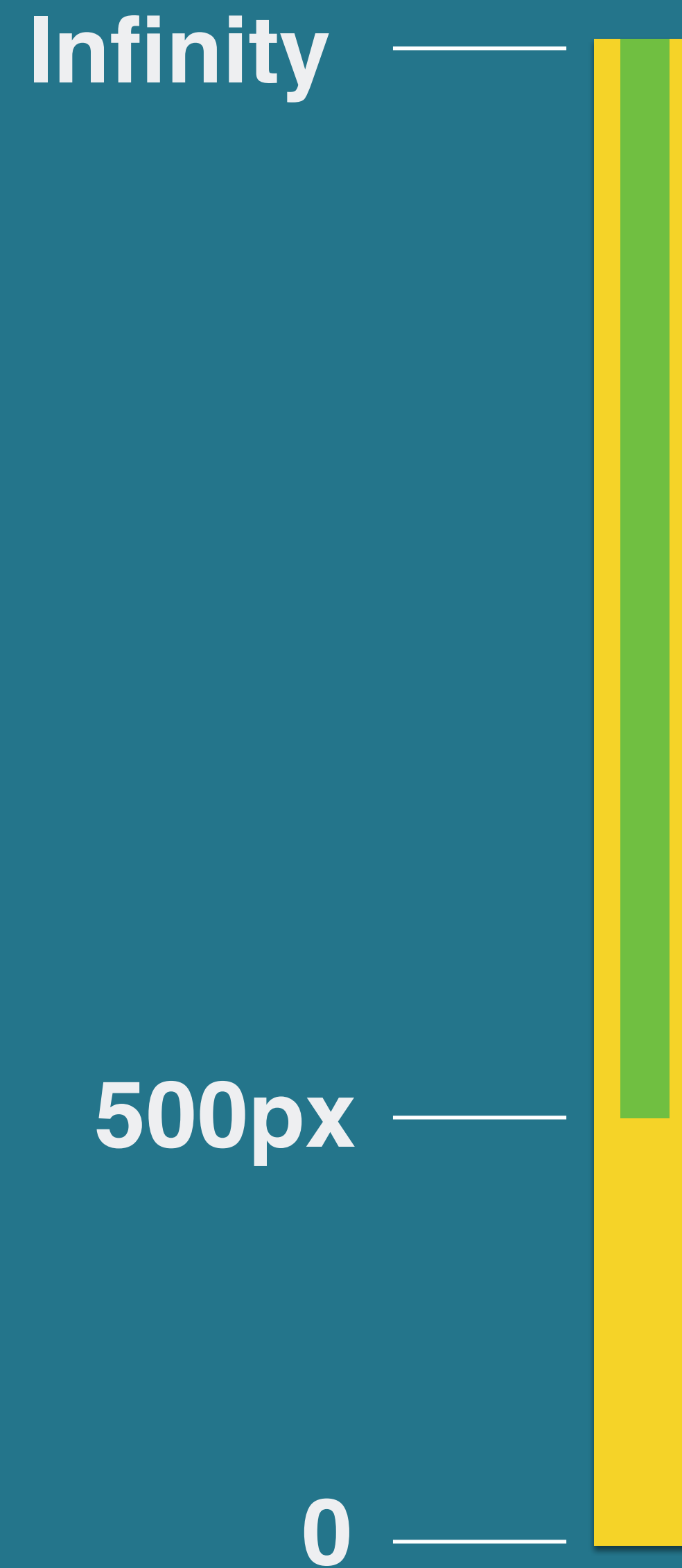
# @media screen and (min-width: 1200px) { }



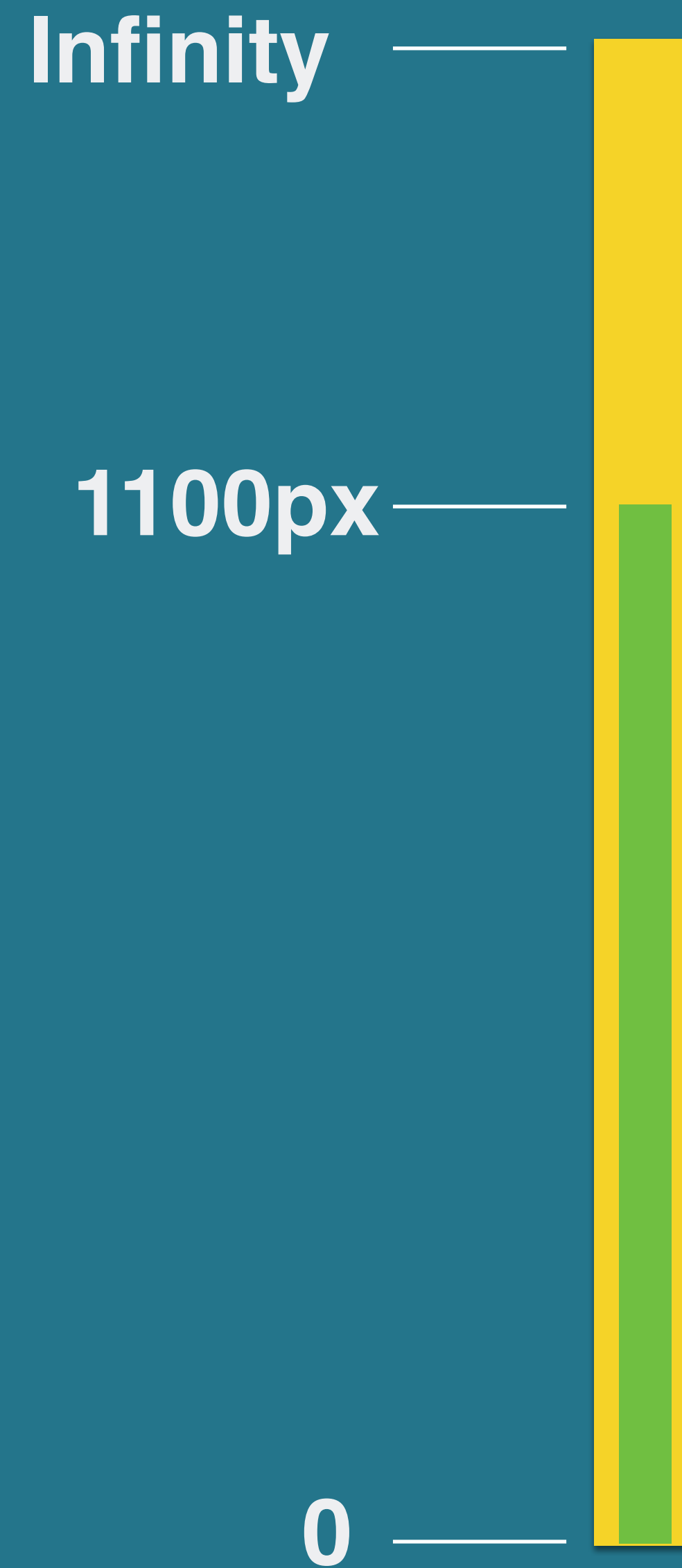
`@media screen and  
(min-width: 800px) and  
(max-width: 1000px) { }`



@media  
screen and  
(min-height:  
500px) { }



@media  
screen and  
(max-height:  
1100px) { }



# Media Query

```
@media screen and (min-width: 600px) {  
    /* CSS Styles Inside Here Only Apply at  
    600px and higher*/  
}
```

```
@media screen and (max-width: 1200px) {  
    /* CSS Styles Inside Here Only Apply at  
    1200px and lower*/  
}
```





# Media Query

```
@media screen and (min-width: 600px) {  
  p {  
    color: purple;  
  }  
}
```

```
@media screen and (max-width: 1200px) {  
  p {  
    color: purple;  
  }  
}
```



# Media Query Examples

[http://codepen.io/challahan/  
professor/yawgyZ/](http://codepen.io/challahan/ professor/yawgyZ/)



# Targeting Elements with CSS



# Use Element Type Selector

In HTML

```
<p>Hello</p>
```

In CSS

```
p {  
    font-weight: bold;  
}
```



# Descendant Selector

In HTML

```
<p><a href="#">Hello</a></p>
```

In CSS

```
p a {  
    font-weight: bold;  
}
```



# ID and Class

Ways to identify elements so that you can make changes to just those elements.



# ID: unique element

```
<p>Water and air. So very commonplace are  
these substances, they hardly attraction  
attention and yet they vouchsafe our very  
existence.</p>
```

```
<p id="first-pullquote">Every time I view  
the sea I feel a sense of calming  
security, as if visiting my ancestral  
home; I embark of a voyage of seeing.</p>
```

```
<p>Mystery of mysteries, water and air are  
right there before us in the sea.</p>
```



# Class: Multiple Elements

```
<p class="important">For a one-year period from November  
2010, the Marugame Genichiro-Inokuma Museum of  
Contemporary Art (MIMOCA) will host...</p>
```

```
<p>Each will showcase works by the artist thematically  
contextualised under the headings...</p>
```

```
<p class="important admittance">Hours: 10:00 - 18:00 (No  
admittance after 17:30)</p>
```





# Use a Class

In HTML

```
<p class="hello">Hello</p>
```

In CSS

```
.hello {  
    font-weight: bold;  
}
```



# Mix Elements and Classes

In HTML

```
<p class="hello">Hello</p>
```

In CSS

```
p.hello {  
    font-weight: bold;  
}
```



# But There's More!

You'll use these much less frequently, but know that they're available.



# Additional CSS Selectors

ID Selector: `#introduction { }`

Direct Child Selector: `li > a { }`

Adjacent Selector: `h1+p { }`

General Sibling Selector: `h1~p { }`

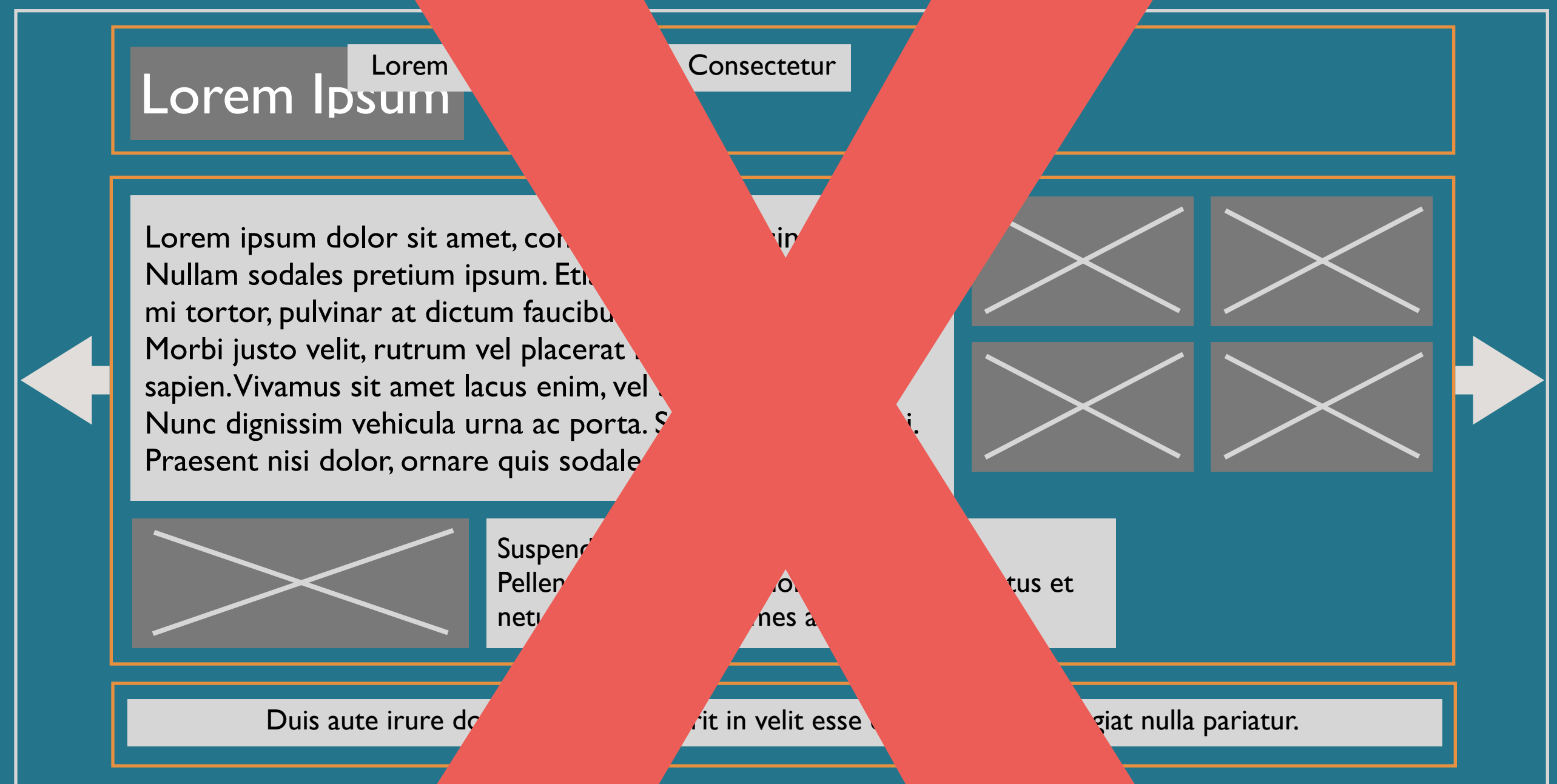


# Creating Layouts



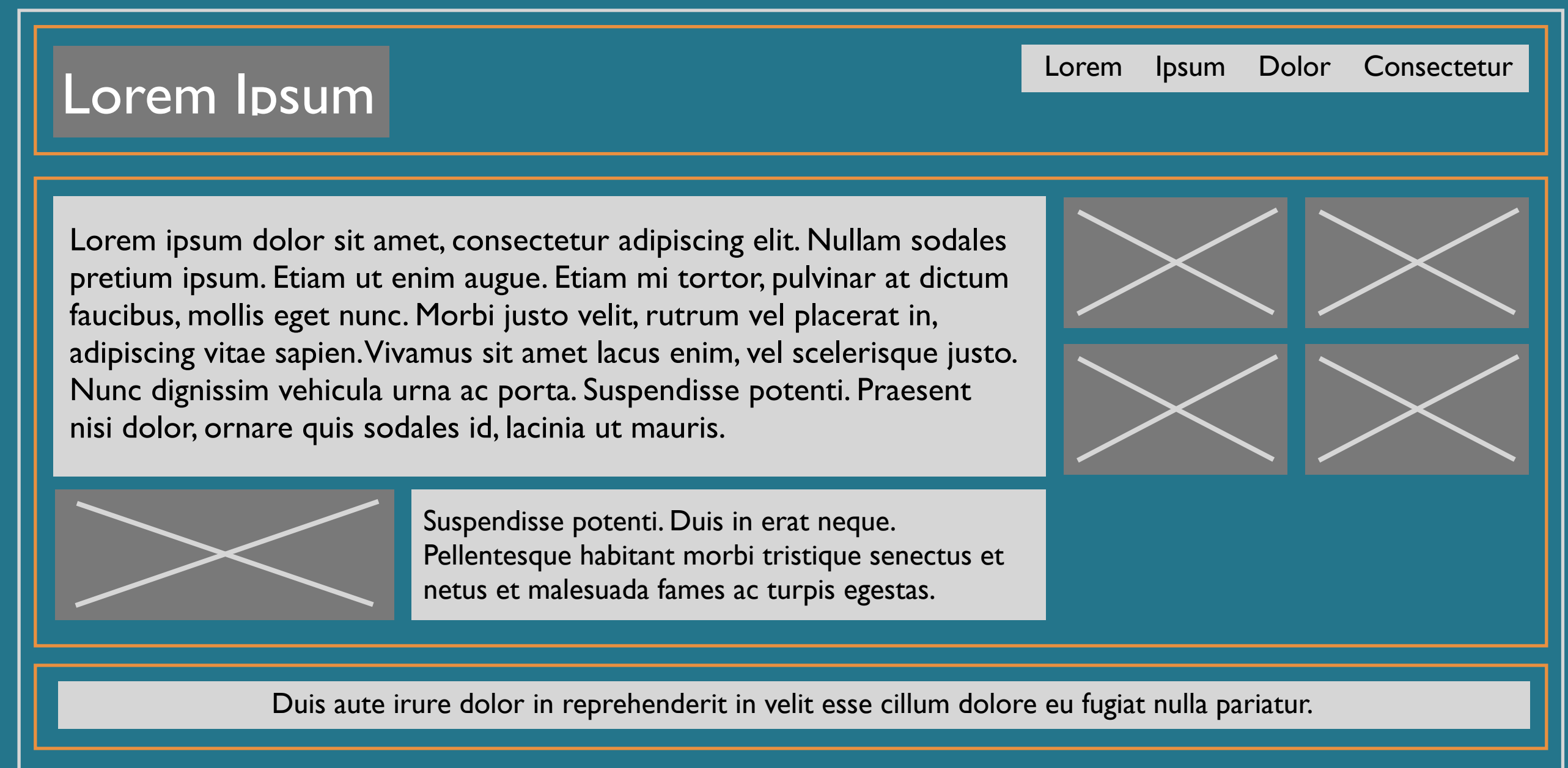
# Fixed-Width (Pixel) Layouts

```
body {  
  width: 960px;  
  margin: 0 auto;}  
  
.column1, .column2, .column3 {  
  background-color: #efefef;  
  width: 300px;  
  float: left;  
  margin: 10px;}  
  
/* ... */
```



# Liquid (Percentage) Layouts

```
body {  
  width: 90%;  
  margin: 0 auto;}  
  
.column1, .column2, .column3 {  
  width: 31.3%;  
  float: left;  
  margin: 1%;}  
.column3 {  
  margin-right: 0%;}
```

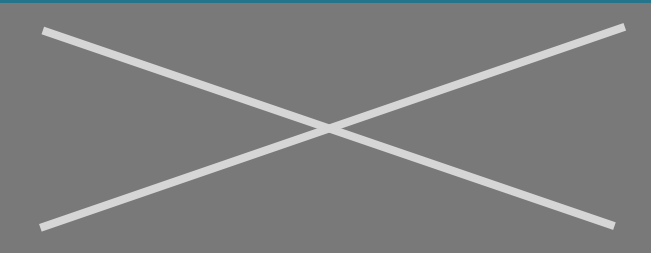


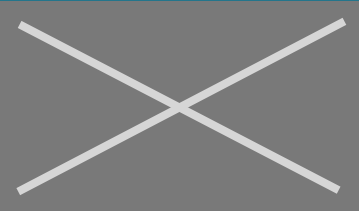
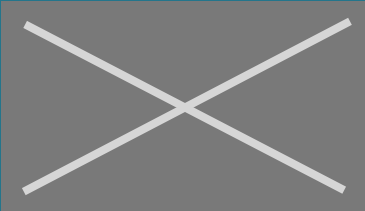
# Responsive Layouts

Lorem Ipsum

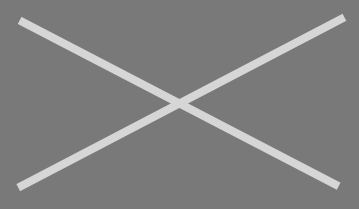
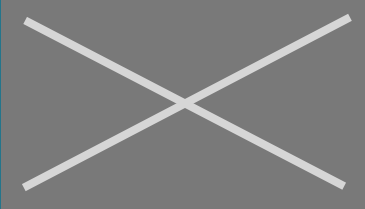
Lorem Ipsum Dolor Consectetur

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam sodales pretium ipsum. Etiam ut enim augue. Etiam mi tortor, pulvinar at dictum faucibus, mollis eget nunc. Morbi justo velit, rutrum vel placerat in, adipiscing vitae sapien. Vivamus sit amet lacus enim, vel scelerisque justo. Nunc dignissim vehicula urna ac porta. Suspendisse potenti. Praesent nisi dolor, ornare quis sodales id, lacinia ut mauris.





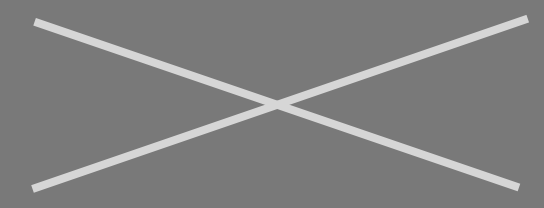
Suspendisse potenti. Duis in erat neque. Pellentesque habitant morbi tristique



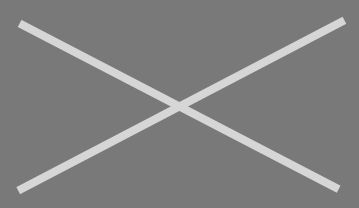
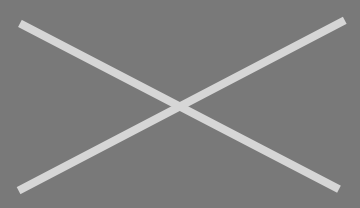
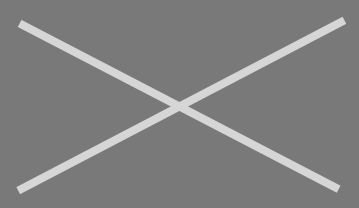
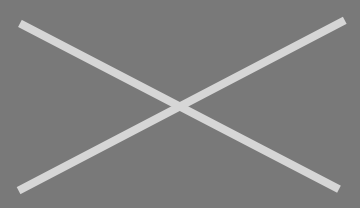
Lorem Ipsum

Lorem Ipsum Dolor Consectetur

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nullam sodales pretium ipsum. Etiam ut enim augue. Etiam mi tortor, pulvinar at dictum faucibus, mollis eget nunc. Morbi justo velit, rutrum vel placerat in, adipiscing vitae sapien. Vivamus sit amet lacus enim, vel scelerisque justo. Nunc dignissim vehicula urna ac porta. Suspendisse potenti. Praesent nisi dolor, ornare quis sodales id, lacinia ut mauris.



Suspendisse potenti. Duis in erat neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas.



Duis aute irure dolor in reprehenderit in velit esse cillum dolore eu fugiat nulla pariatur.





# Hands-On Exercise

<http://codepen.io/challahan/pen/ZLgPoR>



# Fonts & Media Queries

Due Next Week



# For Next Class

READ: Flexbox Articles, Responsive Web Design Ch. 5

DUE: Fonts & Media Queries Assignment

