

Responsive Web Design

- Start with Fluid Layout, using percentages for widths instead of pixels
- Continue by using media queries to change your page layout, responding to the browser width.

CSS Widths defined as percentages

If you want a 750px of 1000px

Target size ÷ Base (Context) size = Result

$$750 \div 1000 = .75 \text{ (75\%)}$$

If you want a 700px of 1024px

$$700 \div 1024 = .6836 \text{ (68.36\%)}$$

Remember the CSS Box Model

You can't simply change the widths of DIVs, you have to change all widths. Include margin, padding, and borders as well.

Media Queries

- Link to a separate CSS file based on the query *or*
- Keep all of your CSS in one file and have have separate sections of code based on queries
- Build pages mobile first (smallest size loads first, largest last)

Separate CSS files (*HTML code*)

```
<link href="tablet.css" rel="stylesheet" type="text/css"
media="only screen and (min-width: 321px)
and (max-width: 768px)">
```

One CSS file with sections of code by query (*CSS code*)

```
@media screen and (max-width: 320px) {
  #container {
    width: 320px;
  }
}
```

One CSS file with sections of code by query *(CSS code)*

```
@media screen and  
(max-width: 320px) {  
  #container {  
    width: 320px;  
  }  
}
```

Proportional type sizes: *em*

- font sizes in relation to a standard
- `<p>` is typically 16px by default (default browser CSS)
- in that case $1em = 16px$

Setting type sizes in em

If you want your `<h1>` to display at 24px

Target size ÷ Base size = Result

24 ÷ 16 = 1.5

24px = 1.5em

Additional Notes:

- Fonts sizes are often increased a bit for mobile devices
- Hover effects don't work on touch screens (be careful with drop-down menus)
- Change navigation style/type for different sizes/devices