Units of measure for screens

Using fluid layouts we can deploy responsive websites without running media queries. We can do this using methods we have already dabbled in such as using % widths and relative units. We can also add some fluidity with text sizes using relative units. In this short lecture we will explore these options.

Absolute units

Static units of measure are units that stay the same. They will never change when they are set.

PX

Pixel

A common unit of measure. It sizes things

in pixel length. (1px = 1/96th of 1in)

CM

Centimeters.

MM

Millimeters

IN

Inches (1in = 96px = 2.54cm)

PT

Points(1pt = 1/72 of 1in)

PC

Picas (1pc = 12 pt)

Relative units

The name “relative units” suggests exactly what it sounds like. We are using a unit of measure that is relative to something else. Each are different but knowing what they are and how they work will help you use them. There are a few of these we will go through, rem units, em units, vw and vh units. Remember, these units of measure can be used in any case that you could use a px value.

!important Keep in mind that the default px amount for font size is 16px keep this in mind as we go through the explanation.

rem and em units are relative units of measure in CSS when you use them they

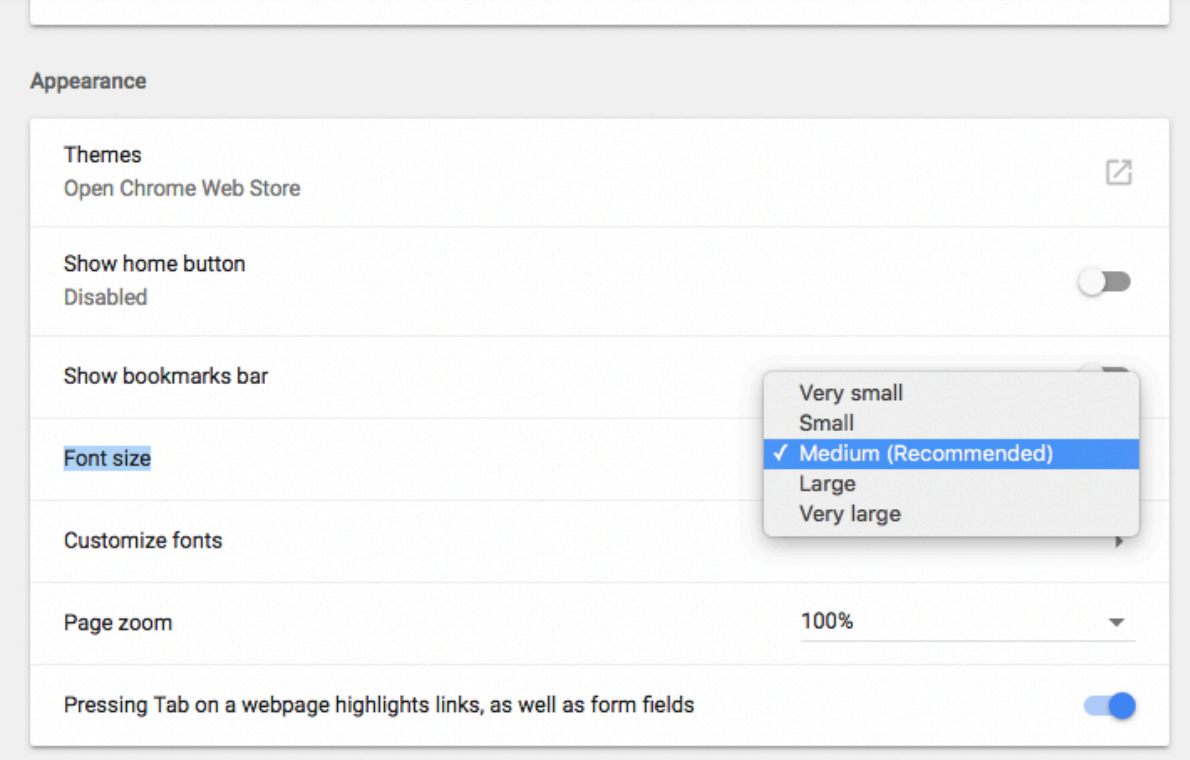
allow for more usability and a more accessible experience by the user. If you use rem or em units for a font size or border size for example, the user can then increase the font size by changing the font settings in their browser, this is a great tool to use for inclusion as many people with vision issues can use this to change the size of the things you use relative units for.

Now as stated earlier the default px amount of font in HTML is 16px, so if you tell the CSS to make the <p> text 1rem it will not change from the default. However if you tell the css to make the <p> text 2rem it will be double the size in other words 32px as these units are multipliers. You can use decimal amounts like 1.1em.

REM units

Are relative to the root element, AKA the

HTML element. As you know, you can change the font size for the html selector. If you did and changed it to say, 12px then 1rem would equal 12px.



Example: font-size: 1.2rem;

Let's take a look at the percents folder and examine.

Refer to the folder rem.

EM units

Are relative to the parent element. As you

know, you can change the font size for a parent elements selector. If you did and changed it to say, 24px then 1em would equal 24px in that particular case.

Example: font-size: 1.2em;
Let's take a look at the percents folder and examine.

Refer to the folder em.

VH - Viewport height units measure the size of an element relative to the viewport so, if you made a for example and told the CSS .header { height:50vh; than no matter what you resized the window to, the div would always stay 50vh or half of the height of the viewport.

Example: height: 100vh;

VW - Viewport width, works the same as

VH but for width. Example: height: 100vw;
Percent Widths - As you know, we can also use % values.

To increase responsiveness in web pages/ apps. Pixel amounts are rigid, they never change. We can mitigate this using @media yes, but we can also mitigate this using % amounts. Not only for structure items but also for sizes of other aspects of a page.

Let's take a look at the percents folder and examine. Refer to the folder percents.

When it does come to structure elements however, we can easily deploy responsive elements using % amounts which will be relative to its parent element, if no parents element is there than it will be relative to the

html selector. Using these units will increase the responsiveness of any page without having to run @media queries.

Heading Structure

In HTML we can make several headings. By default, HTML will facilitate h1 too h6 and they all have their own HTML sizes by default. We can also change them in CSS if we need to.

H1 is for most important top level headings.

H2 is for subheadings and to break up content into content blocks.

H3 is for tertiary subheadings.

H4 It is rare that you will need these for text unless your text is very long and technical. If you are writing a white paper for example

you may need to use these to further break down content into small sub sections. In other use cases these can be used for certain links or for copyrighting a webpage.

H5 Also rare to need to use these. Can be used for links, tags, keywords.

H6 Also rare to need to use these. Can be used for links, tags, keywords.

SEO Implications

There are SEO implications for using these headings. You must make sure that the h1 tag is clear, concise and to the point. It must also reflect the content in the paragraph text.

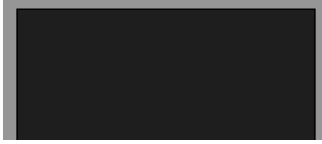
If h2 headings are used, they must also reflect the h1 and paragraph content. The h2 text will give a little more info than the h1

and further get the reader prepared to read the paragraph text.

Transformations

Transformations transform an element. This can be done *with* a transition or an animation but does not have to be.

Rotate



```
<h1>Heading 1</h1>
<h2>Heading 2</h2>
<h3>Heading 3</h3>
<h4>Heading 4</h4>
<h5>Heading 5</h5>
<h6>Heading 6</h6>
```

Heading 1

Heading 2

Heading 3

Heading 4

Heading 5

Heading 6

These are all default, however we can change them by calling the desired element in CSS and changing it:

```
h1 {
    font-size: 38px;
}
```

This will change every instance of an h1 tag to 38px font size.

Markup Semantic Tags

There are more tags we can use for our text in HTML. Semantic tags are tags that are human readable. The word more specifically means that the usage of the word is inline with the correct meaning of the word. In HTML semantic tags just mean

that the tag is what it says it is.

  The text wrapped in these tags will make text bold

<mark> </mark> The text wrapped in these tags will make text highlighted

  The text wrapped in these tags will make text italic

<u> </u> The text wrapped in these tags will make text underlined

<cite> </cite> Cite tags can be used to cite a source for the original text.

<blockquote> </blockquote> is used to quote text