

HTML WORKSHOP TAKE HOME

Link to Code Academy Tutorials on HTML & CSS: <https://www.codecademy.com/learn/web>

OUTLINE

- Recap of HTML learned in workshop
- Styling and Colors
- Margins, Paddings, and Borders
- Align
- Inspecting the console
- Some basic javascript

Recap of HTML from Workshop

Today we learned about how different HTML tags worked. HTML code can make the `` *Content between tags* `` changes based on the tags.

- `<html> </html>`
 - Your entire html document should be within these tags. Put an `<html>` at the start of your file and a `</html>` at the end.
- `<header></header>`
 - The header tag. The header of your page should go between these tags. (This could be the title of your page, etc).
- `<body></body>`
 - The body tag. The content of your page should go between these tags.
- `<div id="MyDivID"></div>`
 - The div tag is for a division or section of your page. It is used to divide your html into sections. Tags can be nested inside each other so each div can contain more tags other content like images, text, other divs, etc. If you give a div an id as shown above, you will be able to reference it later.
- `<p></p>`
 - The paragraph tag. Text within these tags will appear as normal text on your webpage.
- `<h1></h1>`, `<h2></h2>`, `<h3></h3>`, `<h4></h4>`, `<h5></h5>`, `<h6></h6>`
 - The heading tag. Text within these tags will be larger and styled like a heading. Size will vary depending on which number(1-6) you use.
- ``
 - The emphasis tag. Text within these tags will be *italicized*.
- ``
 - The strong tag. Text within these tags will be **bolded**.

● ``

```
<li></li>
<li></li>
```

```
</ol>
```

- The ordered list. The `` tags specify that they contain an ordered (numbered) list 1. 2. 3. Each item of the list goes between a set of `` tags. For example:

```
<ol>
  <li>First list item</li>
  <li>Second list item</li>
  <li>Third list item</li>
</ol>
```

Would appear as

1. First list item
2. Second list item
3. Third list item

● ``

```
<li></li>
<li></li>
```

```
</ul>
```

- The unordered list. The `` tags specify that they contain an unordered (bulleted) list. Each item of the list goes between a set of `` tags. For example:

```
<ul>
  <li>First list item</li>
  <li>Second list item</li>
  <li>Third list item</li>
</ul>
```

Would appear as

- First list item
- Second list item
- Third list item

● ``

- The link tag. The text between the `<a>` will act as a hyperlink and when you click on it it will send you to the url specified in "" after `href=`.

For example:

```
<a href="http://pollard.needham.k12.ma.us/main/">Pollard</a>
```

Would look like this:

[Pollard](http://pollard.needham.k12.ma.us/main/)

● ``

- The image tag. This is how you put images on your webpage. Put the image you want to appear inside the "" after src=.
- `<center></center>`
 - The center tag. Text within these tags will be centered on the page.

Styling and Colors

You can also change the colors on your webpage. You can even change the background color for a particular div or line!

Here is how:

Background Colors

Add this to your `<body>` tag:

```
style="background-color: blue;"
```

So that it looks like this:

```
<body style="background-color: blue;">
```

Type a different color name to change the background to another color. If you want a more specific color, you can type in a code like this:

```
<body style="background-color: #33ccc;">
```

[Check out this website to find more color codes!](#)

To change the color of just one div or section, add the `style="background-color: blue;"` line to the beginning tag of that div.

```
<div style="background-color: blue;"> Some content here. </div>
```

[You can practice changing background colors by editing the code on this page.](#)

Text Colors

To change the color of any text, surround that text with `<style></style>` tags. Within the beginning tag, include `=“color:red”` or whatever color you would like!

For example:

If I want this text to be red, I can type my html code like this:

<p> I want <style="color:red">this text</style> to be red. </p>
And that will make the text inside the <style></style> tags turn red like this:

I want **this text** to be red.

Just like we did for background color, we can use [color codes](#) to get more options for text colors!

<p><style="color:#ff00ff">This text</style> is color code #ff00ff. </p>
Would show up as

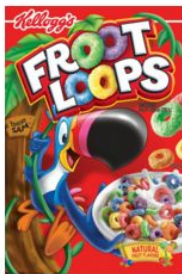
This text is color code #ff00ff.

Margins and Borders

Now let's talk about making things a bit prettier. I made a website about my favorite things. My webpage looks like this:

This is Casey's webpage about her favorite things.

Some of my favorite things include:



- Froot Loops are the bomb!



- Gouda Cheese is the best cheese everrrrr!



- Chocolate is amazing because it makes everything awesome. My favorite in particular is dark chocolate.

The pictures are so close to each other and so close to the text. Let's learn about margins, borders, and padding.



We can see above that there are 3 layers around the content. The padding is the area around the content; the border can have many different styles and colors, it frames the content and the padding; and the margin is the space between this content, border, and padding, and the surrounding HTML code. By default, these are 0px (where px means pixels), but we can change them to make our image look good on the page.

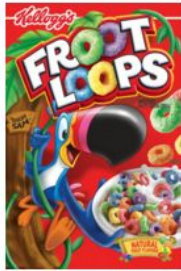
First, we can increase our padding. Here is the code for the froot loops image with some padding:

```
<li> Froot Loops <img src=
'http://www.miltontrainworks.com/MTW/services/KCC/images/FL_frontPanelDesir
ed_fromKCC.jpg' width=150px style= "padding:10px;"> are the bomb!</li>
```

My webpage looks like this now:

This is Casey's webpage about her favorite things.

Some of my favorite things include:



- Froot Loops are the bomb!



- Gouda Cheese is the best cheese everrrrr!



- Chocolate is amazing because it makes everything awesome. My favorite in particular is dark chocolate.

Now, let's put a border on all of these images! We can update our image tag to include a border style, the border color, and the border size like this:

This will make a red, solid 10px border around the froot loops:

```
<li> Froot Loops <img  
  src=  
'http://www.miltontrainworks.com/MTW/services/KCC/images/FL_frontPanelDesir  
ed_fromKCC.jpg' width=150px style= "padding:10px; border:10px;  
border-style: solid; border-color: red;"> are the bomb!</li>
```

This will make a green, dashed, 10px border around the dark chocolate.

```
<li> Chocolate <img src =  
"https://authoritynutrition.com/wp-content/uploads/2013/06/chipped-dark-cho  
colate.jpg" width=300px style= "padding:10px; border:10px; border-style:  
dashed; border-color: green;">
```

This will make a dotted on the top, dashed on the right, solid on the bottom and double on the left 10px border.

```
<li> Gouda Cheese <img src =  
"http://goldenagecheese.com/wp-content/uploads/2014/03/gouda.jpg"  
width=300px style= "padding:10px; border:10px; border-style: dotted dashed  
solid double; border-color: black;"> is the best cheese everrrrr! </li>
```

This is what my webpage looks like now:

This is Casey's webpage about her favorite things.

Some of my favorite things include:



- Froot Loops are the bomb!



- Gouda Cheese is the best cheese everrrrr!



- Chocolate is amazing because it makes everything awesome. My favorite in particular is dark chocolate.

Feel free to check out W3 schools for more border options,
http://www.w3schools.com/css/css_border.asp and you learned about different colors for border colors above.

Finally, we can talk about how to set margins.

We can set the margins on each image like this: `<img src=`
'http://www.miltontrainworks.com/MTW/services/KCC/images/FL_frontPanelDesir
ed_fromKCC.jpg' width=150px style= "padding:10px; border:10px;
border-style: solid; border-color: red; margin: 20px">

The webpage now looks like this:

This is Casey's webpage about her favorite things.

Some of my favorite things include:



- Froot Loops are the bomb!



- Gouda Cheese is the best cheese everrrrr!



- Chocolate is amazing because it makes everything awesome. My favorite in particular is dark chocolate.

Align

Let's say we have an image of this cute puppy. With the following code, we can include it on our page.

```
<p> Below is an image of a puppy </p>
<div style="width: 100%">
<img src =
"https://s-media-cache-ak0.pinimg.com/736x/62/47/15/62471536e3fb27c61aff001
e33310b2a.jpg" width= 150px style="padding:10px; border:10px;
border-style:solid;">
</div>
```


Notice how we put the image in a div. This is important to aligning the image later and it is good practice. Also notice that the div width is 100%, this means we want the div to take up the width of the entire screen. My page looks like this, currently:

Below is an image of a puppy



By default the puppy is aligned left. What if we want to center the image center? We can include the following style attributes:

```
<p> Below is an image of a puppy </p>
<div style="width: 100%">
<img src =
"https://s-media-cache-ak0.pinimg.com/736x/62/47/15/62471536e3fb27c61aff001
e33310b2a.jpg" width= 150px style="padding:10px; border:10px;
border-style:solid; display: block; float:center; margin:auto">
</div>
```

The display property specifies how to display an element. There are many values (which you can read about [here](http://www.w3schools.com/css/css_display_visibility.asp)). The block value means the element starts on a new line and takes up as much width as necessary. Here is a link to more info on the display property:

http://www.w3schools.com/css/css_display_visibility.asp

The float property tells the element to align center relative to the div that stretches the entire screen, therefore, the dog picture will be center on the screen. Other options include left and right. Here is a link to more info on the float property:

http://www.w3schools.com/cssref/pr_class_float.asp

Finally, setting the margin (we learned about these above) property to auto will let the image center on the screen. Here is a link to more info on the margin property:


http://www.w3schools.com/css/css_margin.asp

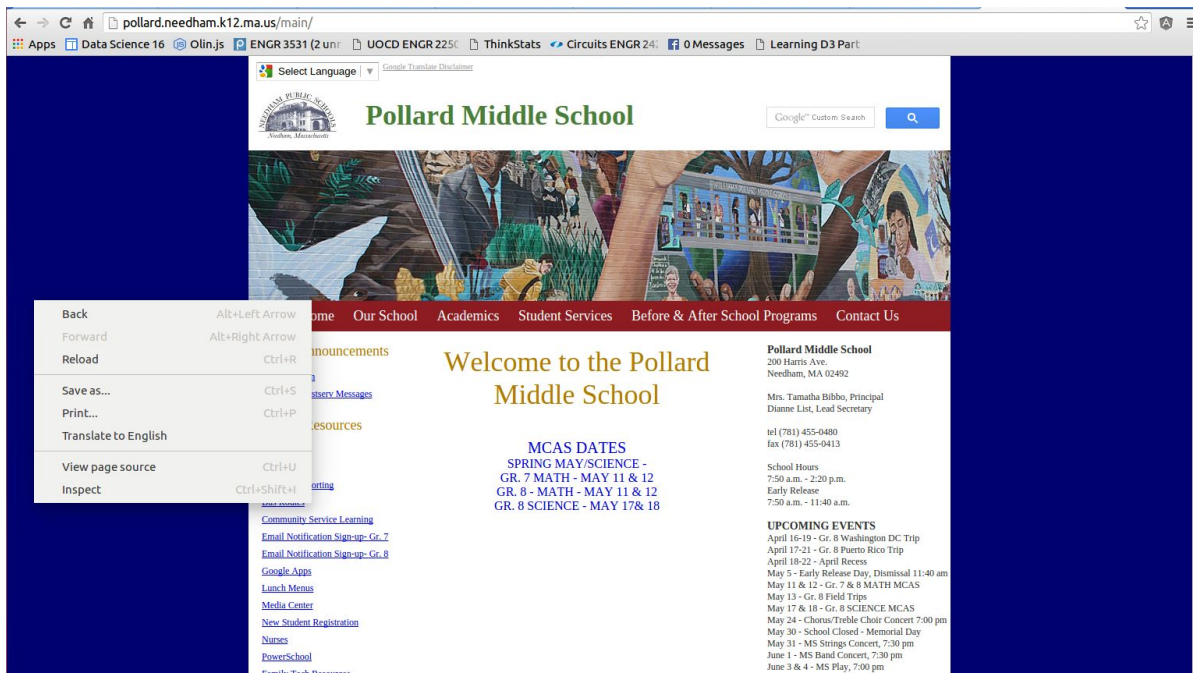
Now my webpage has a centered puppy image:

Below is an image of a puppy

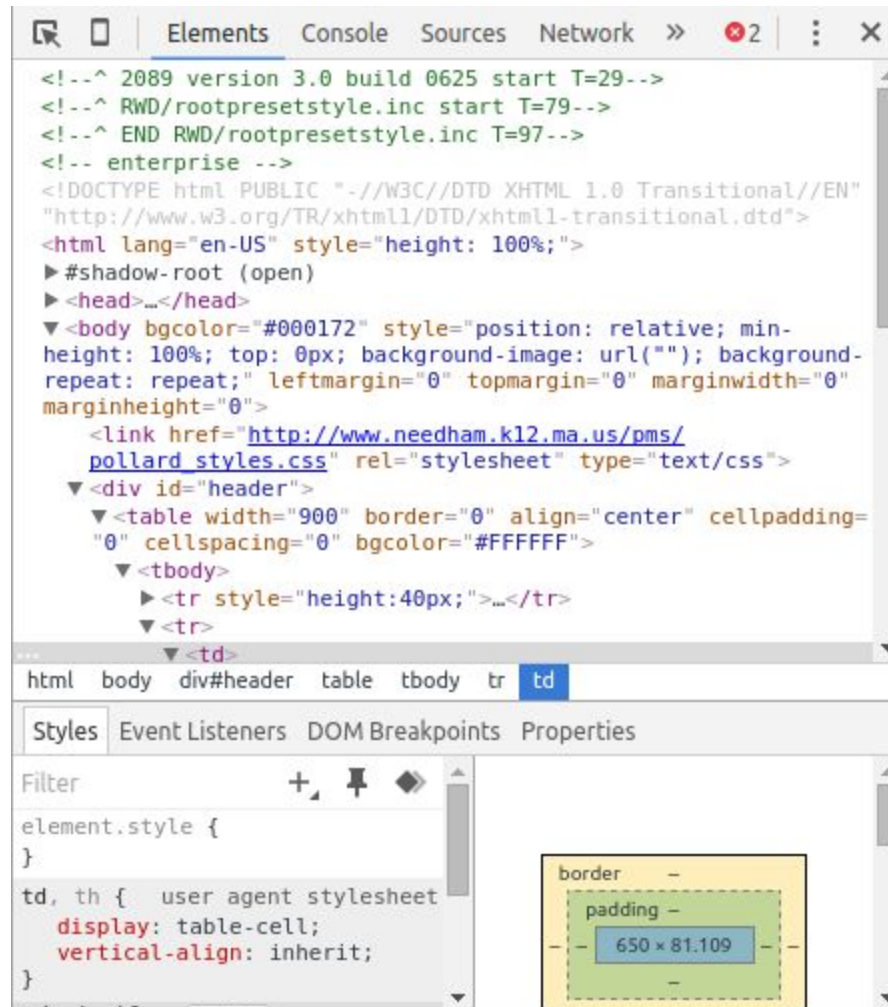


Inspecting the console

1. Open the web browser, Google Chrome. The button to launch Google Chrome looks like this: . If you do not have Google Chrome installed on your computer, then look go to this url for instructions on how to download it: <https://support.google.com/chrome/answer/95346?hl=en>
2. Go to your favorite web page. If you do not have a favorite web page, feel free to go to your middle school's website: <http://pollard.needham.k12.ma.us/main/>
3. Right click anywhere on the page that is not a link. Then press the “Inspect” on the menu. It should like this:

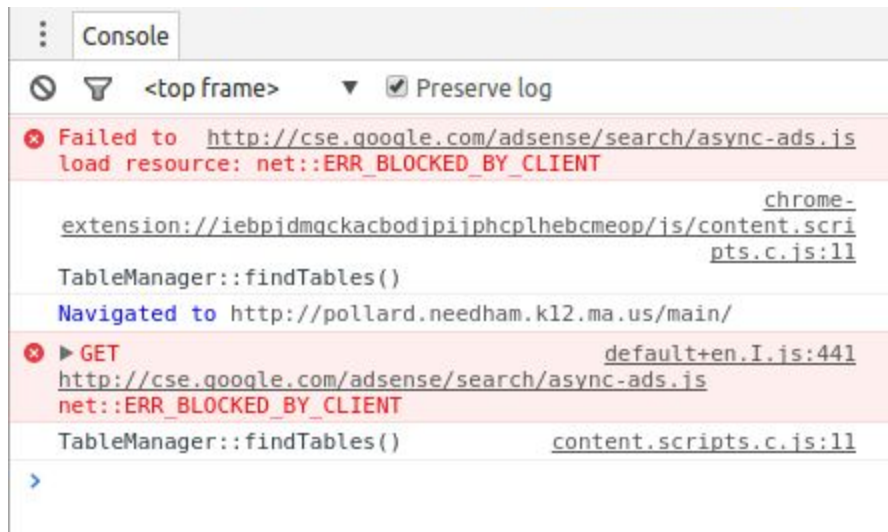


You will notice that on separate window appears. On the top we have the “Elements” or the HTML Elements of this web page. This is the HTML for this webpage. It looks like this:



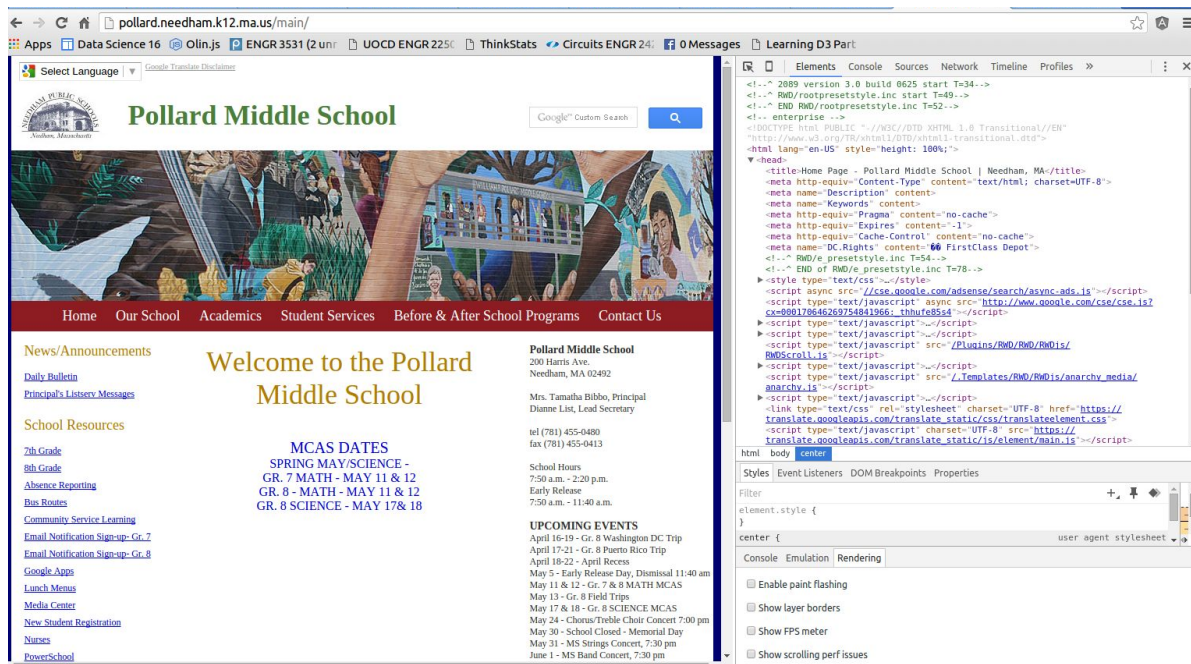
Feel free to play around and find all of the text on the webpage. It's okay if this seems little overwhelming right now. Hopefully, with the tools we showed you today, you will be able to recognize some of the HTML code that makes this webpage. Notice the console on the bottom of the webpage. When developers print something to the console, this is where it will appear.

The console looks like this:



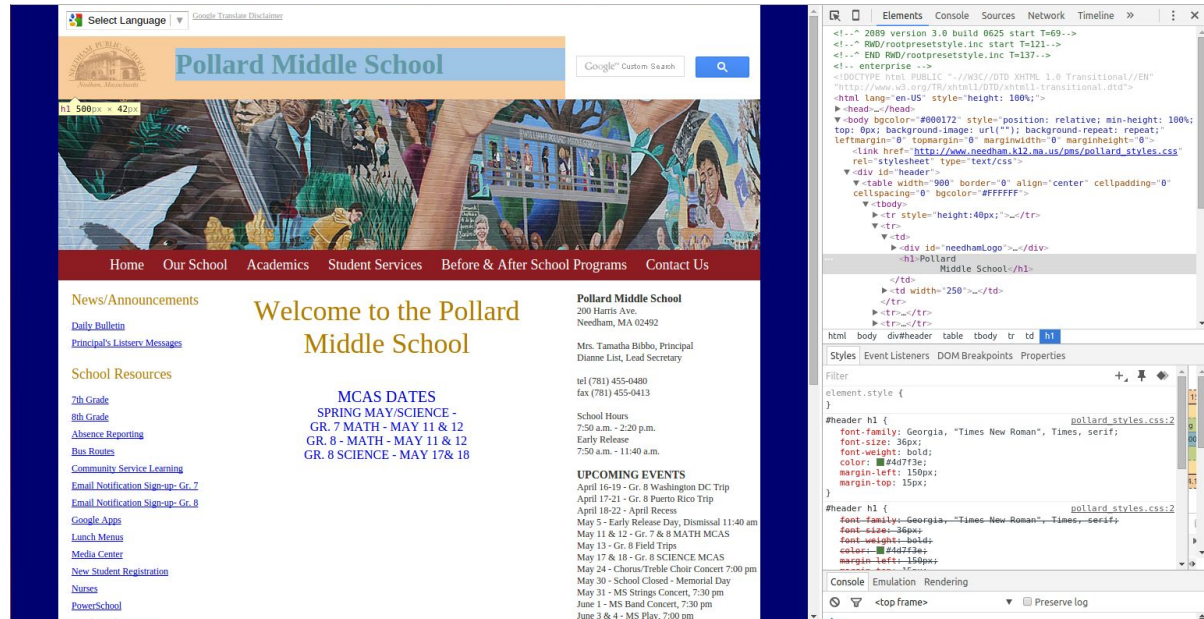
4. Right click something on the page you would like to change.
Click "Inspect"!

You should see the console appear on the left.

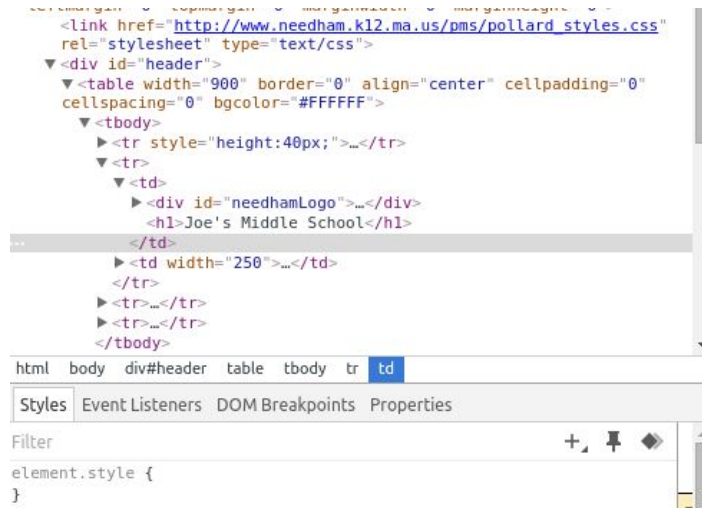


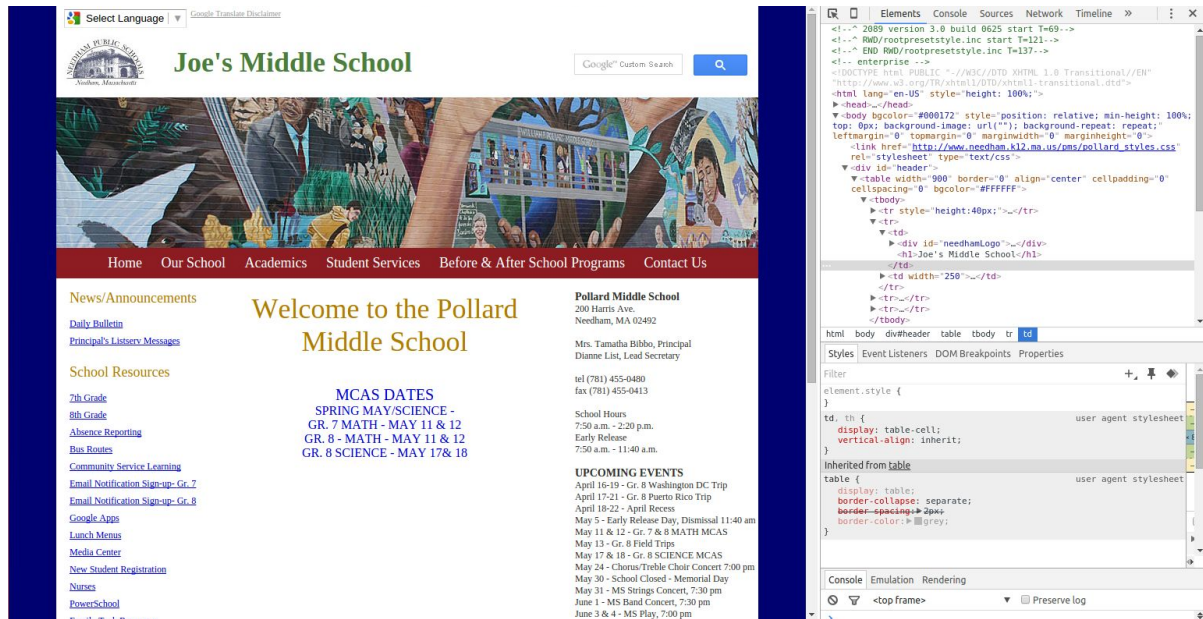
Explore the div dropdowns in the console.

Right click something on the page that you would like to change. Select Inspect again from the dropdown. You will see the html of the thing you clicked highlighted in the console. If it is text, try changing it.



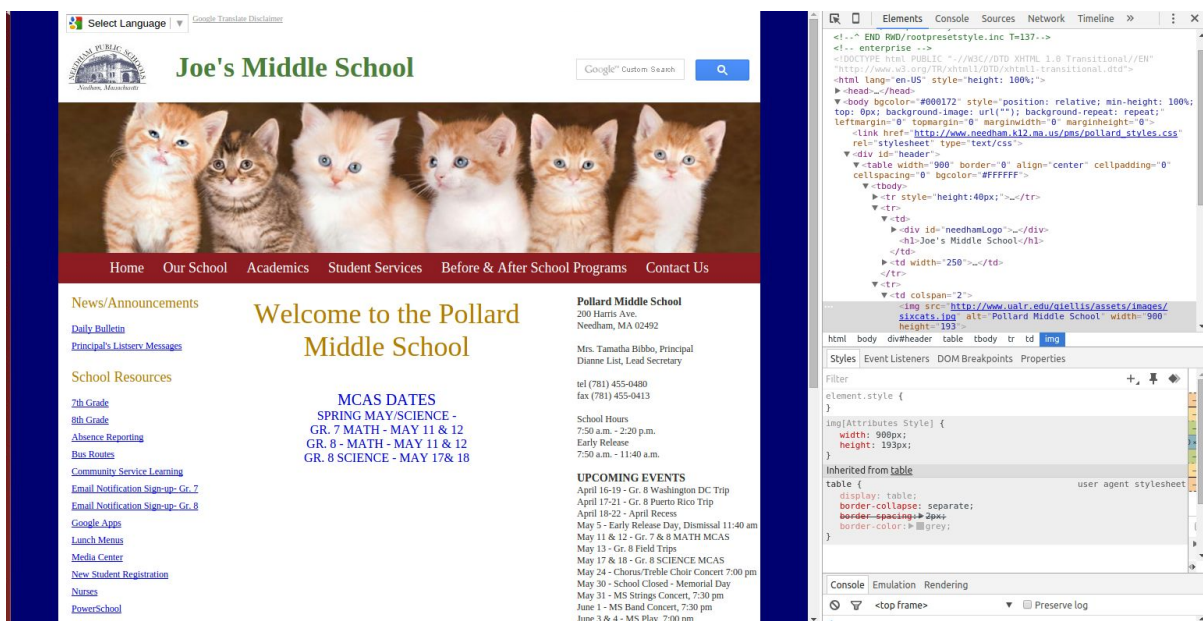
You can change it to say whatever you would like.
For example:





You can change images as well by changing the `` link the same way you did in today's lesson!

For example:

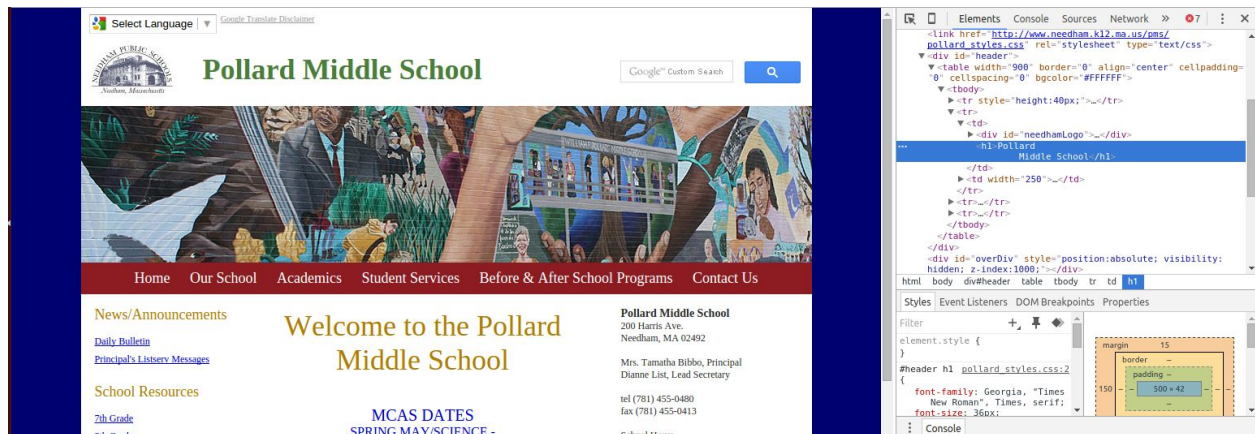


Optional: Changing the text on a webpage with code

So how did we change the name of your school before? We had to go through the HTML in the console and find the div (which we learned about in the workshop and if you need a quick recap, feel free to read the “Recap of HTML from the workshop” section above) with the header in it and then we double clicked to edit the header text. Right? Well we can also change this header text with code!

First, remember how we talked about div-s in the workshop? Well in software sometimes you might want to change the text in each div or alter the div in some way. In order to keep track of each div, we assign each div a unique id or add it to a class. A class of divs is useful in case we want to do something to multiple divs, we can group them together. Let's say we want to assign the same text and font color to three divs in the body. We would give these divs the same class. Ids are more specialized, and they are a unique way of identifying a div on the page.

On the Pollard Middle school webpage, we can spot some ids on some divs. Let's find the id for the “Pollard Middle School” header. You probably figured out that it looks like this:



The image shows a screenshot of the Pollard Middle School website. The website has a blue header with the school's name "Pollard Middle School" in green. Below the header is a large banner image showing a group of students and a teacher. The main content area has a red navigation bar with links: Home, Our School, Academics, Student Services, Before & After School Programs, and Contact Us. Below the navigation bar, there are sections for "News/Announcements", "Welcome to the Pollard Middle School", and "Pollard Middle School" contact information. The browser's developer console is open on the right side, showing the HTML structure of the page. The console highlights the following HTML code:

```
<div id="header">
  <table width="900" border="0" align="center" cellpadding="0" cellspacing="0" bgcolor="#FFFFFF">
    <tr style="height:40px;">
      <td>
        <div id="needhamLogo">
          <h1>Pollard Middle School</h1>
        </td>
      </tr>
    </tr>
  </table>
</div>
```

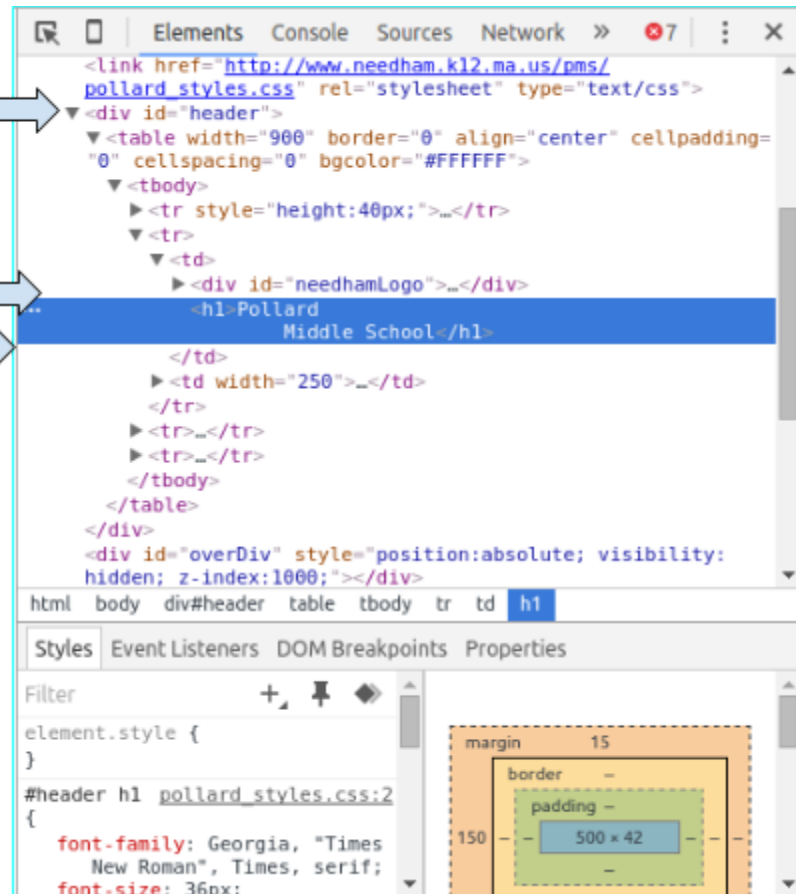
The console also shows the CSS styles for the header, including the font-family, font-size, and padding.

Let's zoom in on the console:

This is the div that contains the header, `<h1> Pollard Middle School </h1>`. It has `id = "header"`

This div has `id = "needhamLogo"`

This is the header we want to change



Upon inspection, we can see the div with the needham logo and sure enough that div has an id titled "needhamLogo". We can see that the header, which we learned from the workshop, is an h1 and it is encapsulated in a larger div that contains both the header and the needham logo and it has an id "header".

We want to change this text but with code. First, there is something called JQuery, it is a javascript library that makes HTML traversal fast and easy. If you want to learn more, here is the link to the official jquery documentation: <https://jquery.com/> Here is a link to a W3 jquery tutorial: http://www.w3schools.com/jquery/jquery_intro.asp

JQuery's big thing is finding divs by the id. If we know the id of a div, then we can find and change anything inside the div.

For example, if we go to the console and we type:

```
$("#header")
```

Then you will see that we will get everything inside the div with the id = "header". You might be wondering, why the "\$"? This is just calling jquery and asking it to find the div with the class or id inside the parenthesis. It should output the entire header div. It will look like this:


```
⋮ Console
⊗ 🔍 <top frame> ▼ ☒ Preserve log

> $("#header")
< ▼<div id="header">
  ▼<table width="900" border="0" align="center"
    cellpadding="0" cellspacing="0" bgcolor="#FFFFFF">
    ▼<tbody>
      ▼<tr style="height:40px;">
        ▶<td colspan="3" bgcolor="#fff">...</td>
      </tr>
      ▼<tr>
        ▼<td>
          ▶<div id="needhamLogo">...</div>
          <h1>Pollard
            Middle School</h1>
        </td>
        ▶<td width="250">...</td>
      </tr>
      ▶<tr>...</tr>
      ▼<tr>
        ▶<td colspan="2">...</td>
      </tr>
    </tbody>
  </table>
</div>

> |
```

Now let's say that we know that the header div only has one header, or one h1 tag. Let's find the h1 tag inside the header div, we can do this by typing this into the console:

`$("#header h1")`

It should return "Pollard Middle School" HTML code like this:

```
⋮ Console
⊗ 🔍 <top frame> ▼ ☒ Preserve log

> $("#header")
< ▼<div id="header">
  ▼<table width="900" border="0" align="center"
    cellpadding="0" cellspacing="0" bgcolor="#FFFFFF">
    ▶<tbody>...</tbody>
  </table>
</div>

> $("#header h1")
< <h1>Pollard
  Middle School</h1>

> |
```

Now let's say that we want to only get the "Pollard Middle School" text, not the HTML. We can type:

```
$("#header h1").innerText
```

We should get only the text, like this:

```
⋮ Console
⊗ 🔍 <top frame> ▼ ☒ Preserve log

> $("#header")
< ▼ <div id="header">
  ▼ <table width="900" border="0" align="center"
    cellpadding="0" cellspacing="0" bgcolor="#FFFFFF">
    ▶ <tbody>...</tbody>
  </table>
</div>

> $("#header h1")
< <h1>Pollard
  Middle School</h1>

> $("#header h1").innerText
< "Pollard Middle School"

> |
```

Now comes the fun part. If we want to change this inner text, then we can write:

```
$("#header h1").innerText = "Hogwarts"
```

```
> $("#header")
< ▼ <div id="header">
  ▼ <table width="900" border="0" align="center"
    cellpadding="0" cellspacing="0" bgcolor="#FFFFFF">
    ▶ <tbody>...</tbody>
  </table>
</div>

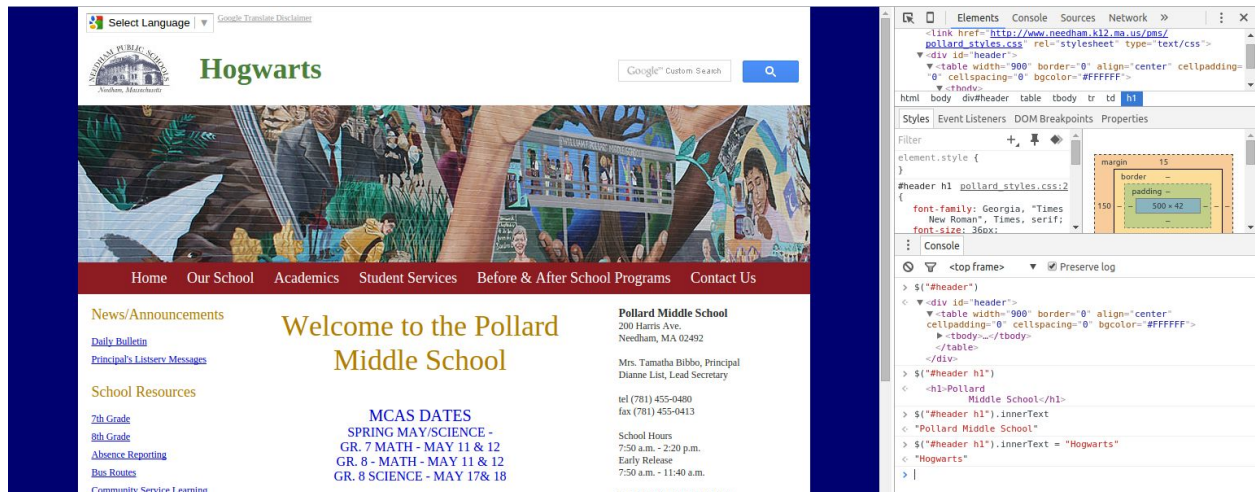
> $("#header h1")
< <h1>Pollard
  Middle School</h1>

> $("#header h1").innerText
< "Pollard Middle School"

> $("#header h1").innerText = "Hogwarts"
< "Hogwarts"

> |
```

Now what happens? What school is it now? What does your webpage look like? Mine looks like this:



Challenge: Try changing the text “Welcome to the Pollard Middle School” right above the spring MCA dates to “Welcome to the Hogwarts Middle School”!

Hint: First start by right clicking on the text, inspect the element (as described above), find the div by id, and then change the text manually or through code like we just learned!

Some Basic Javascript

[Codecademy also has a javascript tutorial if you want to learn more!](#)

console.log()

You just learned how to use the console in a web browser. In your HTML file, you can print messages to the console that you can see when inspecting the console on your website.

To do this you will need the script tags: `<script></script>`

You can add this anywhere you like in your document.

Inside the tags you will include your message:

```
<script>console.log("My message here")</script>
```

console.log() tells it to print your message in the console.

Try this with your own website!

alert()

By including

```
<script> alert("My message here")</script>
```

An alert window will appear in your browser!

Try it!

Also you can learn more about alert boxes and confirmation windows in javascript [here](#).

Thank you for joining us for the IgniteCS HTML Workshop!

If you have more questions or comments please feel free to reach out to us through email at:

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