

# Internet Safety & a Few New HTML Tricks

\*\* We are highlighting Grace Hopper this week as our SHEro of the month! You can view her plaque at the Lancaster Science Factory at any time.

Grace Hopper Video - <https://youtu.be/oN3C1FscM-w>

Prompts: What did you like about the video? What did you learn about Grace Hopper?

## **INTERNET SAFETY**

Internet safety is SO important! Once you put something online, it can be up there forever. Because of this, we shouldn't be putting anything personal online.

Prompt: What are some examples of information you should NOT put online?

Internet Safety Video -

<https://jr.brainpop.com/artsandtechnology/technology/internetsafety/>

Internet Safety Quiz #1 -

<https://jr.brainpop.com/artsandtechnology/technology/internetsafety/easyquiz/>

Internet Safety Quiz #2 -

<https://jr.brainpop.com/artsandtechnology/technology/internetsafety/hardquiz/>

Exercise: Come up with a **username** that we can use for our CodePen projects. This username will tell us which project is yours, but no one else online will know it's you. Your username can include letters, numbers, and symbols! Write your username on your nametag. Your username can **not** include things like your real name or birthday.

## **NEW HTML TRICKS**

### **VIDEOS**

Last month we learned about adding images to our websites. Now we'll take that a step further and learn how to embed a YouTube video so a visitor can laugh at funny dog or cat videos without leaving your website.

```
<iframe width="500" height="350"  
src="https://www.youtube.com/embed/jKF3H-qdmWU"></iframe>
```

Notice that we're using a tag called `<iframe></iframe>`. This tag has an opening and closing tag.

Just like our image tag, there is nothing between those opening and closing tags.

We can tell an iframe what the height and width should be using height and width properties. Just like with an image tag, an iframe has a source (src) that is the link to wherever your video is online.

### **IMPORTANT NOTE FOR VIDEOS:**

*Please make sure that your video is appropriate for class. Steps for creating your src:*

- Find the video that you want to add
- Find the URL - it will look something like this:  
<https://www.youtube.com/watch?v=jKF3H-qdmWU>
- Copy everything after the `?v=` and paste it after add it to <https://www.youtube.com/embed/>
- Example: `https://www.youtube.com/embed/jkF3H-qdmWU`

If we have time at the end of class, we can show off our videos!

## **FORMS**

Forms are a big part of a website, from simple ones like log-in forms to much more complicated ones like placing orders on e-commerce websites like Amazon. The two basic form elements we will learn today are: **text boxes** and **buttons**.

All of the form elements we want to use have to be contained within a <form> tag on our website so that a browser knows it is a form. A form has opening and closing tags with all of the form contents inside. You can add this to your HTML to create a form with a text box asking for the user's username, a text box asking for their favorite Halloween candy, and a button to submit their answers.

**<form>**

**<input type="text" id="MyUsername" placeholder="My username is..." />**

**<input type="text" id="MyCandy" placeholder="My favorite candy is..." />**

**<input type="button" value="SUBMIT"></input>**

**</form>**

### **Bored? Take it one step further.**

We can make our form's submit button DO something when it's clicked with Javascript. Last session, we made an analogy between websites and people. HTML would be your bones, CSS would be the clothes that make you unique, and Javascript would be jumping up and down or dancing!

Button click action: <https://codepen.io/mathysp/pen/GRgREve>

Example of a styled button:

<https://codepen.io/davidjsealey/pen/MWKEOdN?editors=1100>

Buttons with loading effects:

<https://codepen.io/lucasgruwez/pen/ZpOoRY>

## **EMOJIS!**

Most people are familiar with adding emojis from their phone or even from their computer, but we can add them to our website using a more robust process than copying and pasting them into our code. Browsers determine what character/emoji we are trying to display based on the entity characters we specify. You tell the browser you want to display a character by starting with &# and end it with ; (semicolon).

**If my HTML looks like:** `<p>#129409; and #128047; and #128059; oh my!</p>`

**Then people will see:**  **and**  **and**  **oh my!**

List of emojis and entity characters:

[https://www.w3schools.com/charsets/ref\\_emoji.asp](https://www.w3schools.com/charsets/ref_emoji.asp)

## **HTML - ADDING NEW THINGS**

```
<html>
<body>
  <h1>Hi, my name is GIRLS CODE CLUB!</h1>
  <p>I am attended by some really awesome girls who love programming.</p>
  <p>Some of my favorite things are:</p>
  <ul>
    <li>computers</li>
    <li>coding</li>
  </ul>
  <iframe width="500" height="350"
src="https://www.youtube.com/embed/jKF3H-qdmWU"></iframe>
  <p>Here are some emojis that describe how happy I look when girls are
programming!</p>
  <p id="emojis">&#127752; and &#127775; and &#127876; and &#127881; and
&#127905; and &#127942; and &#128081; and &#128158; and &#128165; and
&#128513; and &#128571;</p>
  <p>Can you tell me a little about yourself?</p>
  <form>
    <input type="text" id="MyName" placeholder="My name is..."></input>
    <br><br>
    <input type="text" id="MyAnimal" placeholder="My favorite animal
is..."></input>
    <br><br>
    <input type="button" value="SUBMIT!"></input>
  </form>
</body>
</html>
```

## **CSS – STYLING NEW THINGS**

```
iframe {  
  margin-top: 20px;  
}
```

```
p#emojis {  
  font-size: 45px;  
}
```

```
input[type="text"] {  
  font-size: 24px;  
}
```

```
input[type="button"] {  
  font-size: 24px;  
  color: white;  
  background-color: black;  
}
```

## **CHALLENGE – STYLING ELEMENTS BY CLASS AND ID**

You may have noticed one thing that stuck out unexplained in the code above:

```
<p id="emojis">
```

Sometimes we have the same HTML element in use in multiple places on our website. This is especially common for elements like <p> or <img>. We've already seen how to refer to these elements in CSS to change their color, size, etc.

But what if we don't want all of our images to always be that size? Or if we want some paragraphs to be bold text and others to be much smaller or a different color? Enter styling in CSS by classes and IDs.

In both cases, classes and IDs allow us to apply specific styles to only a subset of all of that type of HTML element on our page. The difference is that we want to use **classes** if we expect to have **multiple** elements use the same specific styles and **ids** if we expect it to be just one element. In the example above, I used an id because I only intended to have one <p> element that contained all of my emojis, and I wanted to change their font-size to be much larger than the text around them so they would look kind of like big funny pixelated pictures. Once we set up the id in the HTML element, we can refer to it in our CSS like this, with the name of the HTML element plus # plus the ID we want to use (make up whatever you like, but try to have it describe the element):

```
p#emojis {  
  font-size: 45px;  
}
```

If I wanted to change the size of several (but not all) images, I would use a class that had a broader name, like:

```
</img>
```

And then in my CSS, I could set the height of all images with the class "smaller", with the name of the HTML element plus . (period) plus the class name we want to use (again, make up whatever you like, but try to have it describe the class):

```
img.smaller {  
  height: 75px;  
}
```

How many different kinds of styles can you apply to the elements on your website?



## What do these HTML elements stand for, anyway? (Continued)

### **<iframe></iframe>**

iframe - this element stands for "inline frame", and it is how you embed or insert content from another site (like a video from YouTube.com) into your site

**<iframe width="600" height="400"**

**src="http://www.youtube.com/embed/6-DRAV6JS00"></iframe>**

Learn more: [https://www.w3schools.com/tags/tag\\_iframe.asp](https://www.w3schools.com/tags/tag_iframe.asp)

### **<form></form>**

Form - this is the parent element that tells your website where your form begins and ends, with all the form elements contained and nested inside.

### **<input type="text"></input>**

Form input - this is a text field element, used inside a form to create a box where users can type text. Every input element should have an id attribute, so we can access it with our JavaScript code (we'll learn all about this in later sessions).

### **<input type="button"></input>**

Form button - this is a button element, used inside a form to trigger an action on submitting the form.

### **&# \_\_\_\_\_;**

This isn't an HTML element, but still a helpful reference. This allows you to tell a browser that the numbers found in between the #& and ; represent an emoji or other character you generally can't type on a keyboard.