

## HTML TAGS

- We create a web page by editing a text file and saving it as filename.**html**
  - (HTML stands for hypertext markup language)
  - Once you create an html file, you can view it in a browser

- Web (html) **commands** are formatted like this `<command>`

There will almost always be a start and end command: `<command>`      `</command>`

We start the file with these commands to tell the browser it's a web page

```
<!DOCTYPE html>
<html lang="en">
```

- Our file will have some major sections

```
<html>
<head>
```

```
</head>
```

```
<body>
```

```
</body>
```

*this is where we put the main content*

```
<script>
```

*this is where we put our JavaScript!*

```
</script>
```

```
</html>
```

- When writing our file, it's good to indent and use blank lines

- Some commands we learned:

- `<h1>` `<h2>` `<h3>` `<h4>` `<h5>`

creates different sized headers

- `<title>` text `</title>`

puts text in browser tab

- `<p>`

starts a paragraph

- ``

displays a picture

- ``

*must be in same folder*

- `<hr>`

draws a horizontal line

- `<!--`      some comments      `-->`

hidden comments

- Use blank lines to separate areas of code
- Use indents to show how code lines up

## JAVASCRIPT FUNCTIONS

- JavaScript Code
  - We write our JavaScript functions in the `<script> </script>` section
  - Commands always end with a semicolon: `“;”`
  - To create variables: `var name = value;`
  - Functions start with a `{` and end with a `}`
  - Use `//` to comment out lines (these are not run)
- To create code that runs **when we first load the page**
  - `<body onload="test()">` this runs a function when we load a page
  - Here's the function `test` we wrote – which just displays a message  
Look at how we use the `{` and `}` to show the start and end of the function!
 

```
<script>
    function test(){
        alert("it does");
    }
</script>
```
- To create code that runs **when we click a button**
  - Create the button in HTML
 

```
<button onclick="function()"> Click me </button>
```
  - Then create the JavaScript function named `function()`
- Most of our code will be in *functions* in the `<script> </script>` section.  
But we can create variables that are used by all functions.  
Like this:
 

```
<script>
    var randomNumber = Math.floor(Math.random() * 100) + 1;
    alert( randomNumber);
```

This lets us use *randomNumber* in our functions
- To get User Input
  - We can get input from people by using the `<input>` tag
 

```
<p>Enter your name <input type='text' id='name'>
```
  - JS can read it by looking at the `id`

```
var name = document.getElementById("name");
```
- To set a Random Number from 1 to 100
  - `var randomNumber = Math.floor(Math.random() * 100) + 1;`

## HOW TO CODE

- **To change what's displayed**

- In HTML we identify a paragraph with an id

```
<p id='message'>
```

- We change it with JS!

```
var message = document.getElementById("message");  
message.value = "This is new text";  
message.innerHTML = "<b> This is bold text </b>";
```

- **To use image or sound files**

- The files should be in the same folder as our code

```
src="filename.jpg"
```

- We can also use a file on the internet

```
src="https://aptokash.github.io/Home/ZHeadShot0.jpg"
```

- **To change a picture**

- In HTML we identify an image with an id

```

```

- We change it with JS!

```
var ourvariable = document.getElementById("name");  
ourvariable.src = "face happy.jpg";
```

- **To play a sound file!**

- ```
var audio = new Audio('filename filetype');  
audio.loop = false;  
audio.play();
```

### This week's tasks:

1. The I loaded the current Guessing Game on : [aptokash.github.io/PB](https://aptokash.github.io/PB)
2. Work on your code: Get the picture to change when the person gets the right answer
3. Change the code to use two different pictures - use your own pictures!