

today

view: studio 2

introduce studio 3: the archive

topic: events, arrays, images, random, preload

thursday (groundhog day!)

read: ch 4, 12, 13

book exercise: 13-the cat's hat

studio 3: sketch, image files ready to use

project: topic choice & partnerships

studio

view: studio 2...if your file does anything special, show us :)

process: topic & partnership

introduce: studio 3, the archive

winnie, li, lbdo, maggie, naveen, tiffany, darren law, patrice



debug

validate your html/css (and use **web developer toolbar**)

use `console.log()` to send messages

scale coding by starting small, getting it work and then adding complexity

do a web search of your question (w3schools, codeacademy)

print your code and read it *away from the screen*

rubber ducky (or human friend) method :)

post to Discussion & email glenda **and** Spencer, give context to post (what have you tried, what do you think the problem is, etc)

take a break; do something else that is productive

troubleshooting browsers

command-shift-r reloads from file or server but not from the cache

clear the cache

do not just refresh browser page...close and reopen file

close and restart your browser

try a new browser

js changes the html and the css

js finding html elements

```
document.getElementById(id)  
document.getElementsByTagName(name)  
document.getElementsByClassName(name)
```

```
var myMsg=document.getElementById("myMsg");
```

js change html

```
element.innerHTML = new html content;  
element.attribute = new value;  
element.setAttribute(attribute, value);
```

js change css styles

```
element.style.property = value;  
  
element.className = class;  
  
element.classList.add("classname");  
element.classList.remove("classname");  
element.classList.toggle("classname");
```

```
document.body.style.display= "none";  
document.body.className = "hide";
```

```
var myMsg = document.getElementById('myMsg');  
myMsg.style.display="none";  
myMsg.className = "hide";  
element.classList.add("hide");
```

events

events for html elements

```
onload // browser has finished loading the page  
onunload // browser is going to new url  
onresize // when the window is resized
```

```
onsubmit  
onreset
```

with event listeners

```
"click" // html element clicked  
"mouseover" // user mouses over element  
"mouseout" // user moves mouse away from element  
"keydown" // user pushes a keyboard key  
DOMContentLoaded // when the DOM is parsed and ready
```

list of events: http://www.w3schools.com/jsref/dom_obj_event.asp

attaching event listeners

```
<button id='but'>click me</button>
```

```
var but=document.getElementById('but');  
  
but.addEventListener('mousedown', function () {  
  console.log ('mousedown on but');  
  but.innerHTML='that tickles';  
});
```

anonymous

```
var but=document.getElementById('but');  
  
but.addEventListener('mousedown', function () {  
  console.log ('mousedown on but');  
  but.innerHTML='that tickles';  
});
```

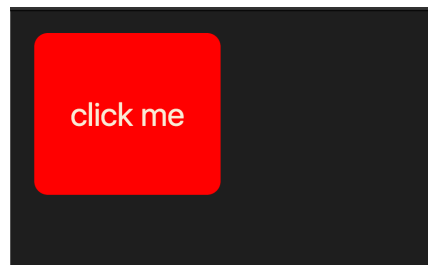
named (or custom) functions

```
var but=document.getElementById('but');  
  
but.addEventListener('mousedown', changeText);  
  
function changeText(){  
  console.log ('mousedown on but');  
  but.innerHTML='that tickles';  
}
```

remove event listeners

```
element.removeEventListener('mousemove', myFunction);
```

codepen: events demo



codepen: eventful



image rollovers

!!!
SIZE
YOUR
IMAGES
IN PS OR AI
OR SKETCH!

js finding html elements

```
document.getElementById(id)  
document.getElementsByTagName(name)  
document.getElementsByClassName(name)
```

```
var myMsg=document.getElementById('myMsg');
```

js change html

```
element.innerHTML = new html content;  
element.attribute = new value;  
element.setAttribute(attribute, value);
```

image hovers

html

```

```



js (change the src)

```
bfly1.addEventListener('mouseover', function() {  
  bfly1.src='images/butterfly_h.png';  
});
```



note: images must be the same size...interactive concept...only the item interacted with should change

codepen: image hover demo



practice: hover template



arrays and preload

javascript array

arrays: lists of objects

```
var classes=["des37", "des117", "des157", "des198"];
```

arrays begin counting position (index) at 0

what is classes[0]?

length determines the number of objects in the array:

classes.length is 4

jQuery image preload

```
//create array to hold images
var imgs = ["images/tree.png","images/tree2.png","images/tree3.jpg","images/sign.png","images/leaves.png",
"images/Penelope.png", "images/sky.jpg"];

//create an empty array to hold the images as objects
var preload=[];

//traverse the array for preloading images
for (var i=0; i< imgs; i++){

    //create a new image at position of i in the array
    preload[i] = new Image();

    //assign the src for each new image
    preload[i].src = imgs[i];
}
```

best practice: preload hover images!

codepen: add a preload to image hover demo

```
//create array to hold images
var imgs = ["images/tree.png","images/tree2.png","images/tree3.jpg","images/sign.png","images/leaves.png",
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    //assign the src for each new image
    preload[i].src = imgs[i];
}
```

practice: add preload



random

Math.random()

```
Math.random(); // returns a number between 0 (inclusive) and 1 (exclusive)
```

the result could be 0.5295967489150062

return a number between 1 and 10

```
Math.floor((Math.random() * 10) + 1); // other methods include Math.round() and Math.ceil()
```



codepen:
image demo preload random

practice: add random



what do you call this...hahahaplop?

codepen:
show hide lightbox

codepen: set of thumbnails that use this to update through one function