

SLIDES FOR THIS CLASS: <http://bit.ly/DPLjs4>

Events

An event in JS is an object that is created when a user interacts with a webpage, like clicking a mouse or pressing a button. You can find a full list of events here:

<https://developer.mozilla.org/en-US/docs/Web/Reference/Events>

SOME COMMONLY USED EVENTS

mousedown	A pointing device button (usually a mouse) is pressed on an element.	click	A pointing device button has been pressed and released on an element
mouseenter	A pointing device is moved onto the element that has the listener attached.	dblclick	A pointing device button is clicked twice on an element.
mouseleave	A pointing device is moved off the element that has the listener attached.	keydown	A key is pressed down.
mousemove	A pointing device is moved over an element.	keypress	A key is pressed down and that key normally produces a character value (use input instead).
mouseout	A pointing device is moved off the element that has the listener attached or off one of its children.	keyup	A key is released
mouseover	A pointing device is moved onto the element that has the listener attached or onto one of its children.	resize	The document view has been resized.
mouseup	A pointing device button is released over an element.	scroll	The document view or an element has been scrolled.

Event Listeners

To be able to tell if an event has occurred on or at a specific element, we need to put an event listener on the element.

```
target.addEventListener(type, listener);
```

type = the type of event (click, mouseover, etc.)

listener = the object that is notified when the event happens.

Animation using window

`window` is an object created when you run JS in a browser. It has a lot of useful properties and methods. It's the assumed global object on a page, so: `window.alert('hi!')` === `alert('hi!')`

To animate something on the screen with `window`, we have two options:

Call a function after a delay:

```
window.setTimeout(function, delayMilliseconds);
```

or

Call a function repeatedly with a set interval in between:

```
window.setInterval(function, delayMilliseconds);
```

for example:

```
function makeImageBigger() {  
  var img = document.getElementsByTagName('img')[0];  
  img.setAttribute('width', img.width+10);  
}  
window.setInterval(makeImageBigger, 1000);
```

Stopping animations

Store your timer in a variable and clear with one of the following methods:

```
window.clearTimeout(timer);
```

```
window.clearInterval(timer);
```

for example:

```
timer = setInterval(watchKittyFall, 1000);  
window.clearInterval(timer);
```

WHERE TO GET MORE HELP:

The CTC: come to the desk and ask for help, schedule a 1-on-1 tutoring lesson, come to more classes, or attend one of our open labs to answer your questions.

Mozilla Developer Network: exhaustive documentation on all things JavaScript, HTML, CSS, and more. developer.mozilla.org/en-US/docs/Web/JavaScript

Codecademy: free, online, and gamified courses in Javascript, HTML/CSS, PHP, Python, and Ruby. www.codecademy.com

Eloquent JavaScript: a great book on the basics of programming, using JavaScript, and the digital version is free: eloquentjavascript.net

Code Combat: learn to code in JavaScript by playing a game! codecombat.com