

## Week 8 – Chapter 8 – CSS3 Transforms and Transitions

### Transforms Property

-Translate, rotate, scale, and skew elements

-Translation-move elements left right up or down

*transform: translate(x, y);* (from the top)

*transform: translateX(45px);* (only x axis)

*transform: translateY(-30px);* (only y axis)

-doesn't work on inline elements. Must be changed to inline-block or just block if for a span

-Scale-

*transform: scale(x, y);* (horizontal then vertical)

grow outward or shrink inward from its center.

(when using multiple transforms, don't redeclare. *transform: translate(x, y) scaleY(y);*)

Alternatively an element's height, width, and font-size could be changed.

-Rotation-

*transform: rotate(10deg);* (positive is clockwise, negative is counterclockwise)

-Skew-

*transform: skew(xdeg, ydeg);* (if only one provided, only x will skew)

-Changing the Origin-

*Transform-origin: 0 0;*

-If a circle rotates from center, there's no visible change. If it rotates from its edge, it looks like those gear toys from the 90s.

-with transform, order matters. It happens in the order they are written.

### Transitions

-Causes change to happen over time.

-example. When you add a transition to a color change on hover, the color will slowly transition over whatever amount of time you set.

-all transforms can be transitioned so they look animated.

-Transition-property-

- the default position of the element-

- make sure any elements you are changing are set, even if they need to be set to 0

*Transition-property: transform, color;*

- Transition-duration

- declare the amount of time it will take for the transition to happen

*Transition-duration: 0.2s;* (.2s is usually considered the optimum time without it seeming slow)

- Transition-timing-function-

- ease, linear, ease-in, ease-out, ease-in-out

- helpful to set relatively long duration when testing to see how each of these work

*Transition-timing-function: ease-out;*

- Transition-delay-

- add delay before it starts.

*Transition-delay: 50ms;*

- usually set to 50ms so that if someone accidentally mouses over it quickly it doesn't trigger.

- Shorthand-

*transition: transform 0.2s ease-out 50ms;*

any order, but if delay is there a duration has to be included and must precede the delay.

## **Animations**

Transitions are limited, so CSS3 also has animations that you can have more control over using keyframes

- keyframe- snapshot that defines a starting or end point of any smooth transition.

- better to use for simple state changes on mobile device and to use javascript for more complex.

## **Keyframes**

- syntax is fairly in depth. Probably best to look it up when using.