

## Frame by Frame, Motion Tween, + Shape Tween Animation Exercise

- 1) Create a Flash Movie including Frame by Frame, motion tween, and shape tween animation. Incorporate the animations into the same .FLA/.SWF file.
- 2) Animations should be staggered/offset in time so each animation can be watched in sequence (*not all at once*).
- 3) The animation should be concrete not abstract in content so it is recommended you start with a simple storyboard idea on paper before beginning in FLASH to ensure your idea is simple yet cohesive in story.

### Animation Type Requirements:

#### 1. Create a frame by frame animation

*Each key frame of this type of animation contains a different shape or object within it; this method is best used when creating intricate changes to your form or shape and is similar to creating each frame of a character animation. This can be memory intensive and hard on the processor of your computer.*

*On the other hand, the animator has complete control over the subject and each drawing is created manually. Sometimes there is a drawing created every 2 frames (double frames). Sometimes a drawing is created in every frame (single frames). Key frames represent 'key' changes (each a different object) and frames in between each frame represent the timing.*

**Macromedia Flash:** You can do a frame-by-frame animation using any objects on as many or as few layers as needed. Versatile but expensive when it comes to playback and file size. HINT: use the onion skinning option with this animation method!

#### 2. Create a Motion Tween animation

*Each key frame should contain a single instance or object (no shapes). When a motion tween is applied Flash calculates the in between states from one key frame to the next. Any change in position, for example, will be interpolated by the computer and the frames in between the key frames will change automatically. This method is good **only** if you are changing position, rotating the object, scaling the object or fading it out so it disappears. It takes little memory and fewer objects to create a nice motion tween.*

**Macromedia Flash:** This is the most effective method for animation in Flash. It keeps the file size low and calculates faster so the animation plays back better. It is best used with reoccurring instances in a series of key frames. Basic color, alpha, scale, rotation and position changes can be motion tweened. No shapes are allowed to be tweened, ever! Groups and text boxes as well as bitmaps (not broken apart) can be motion tweened. One object per layer is mandatory. Use the new menu item *Modify > Timeline > Distribute to Layers* to take all selected objects and put them onto their own layers instantly.

#### 3. Create a Shape Tween animation

*Each key frame contains a different shape or shapes. This is the only Flash tween that can have more than one object in each key frame. A shape tween is applied to the first key frame similar to the technique for applying a motion tween. You could also refer to the shape tween as SHAPE MORPH. This is best for creating changes in the actual shape of an object such as facial expressions of the mouth.*

**Macromedia Flash:** This method morphs one or multiple shapes. The shape can be morphed as can the actual color. This is an inefficient method of tweening and is processor intensive and creates a larger file size since it does not rely on instanced symbols. Use economically. HINT: Use in conjunction with shape hints to control the way an object morphs into another (*Modify > Shape > Add Shape Hint*) No instances or grouped objects are allowed! Text boxes cannot be shape tweened. Broken apart text (*break apart 2 times! Modify > Break Apart*) (shapes) can be shape tweened. Bitmaps cannot be shape tweened.

#### 4. Show me your open .FLA + .SWF file for credit!