ACME ANIMATION ONLINE

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12 PRINCIPLES OF ANIMATION

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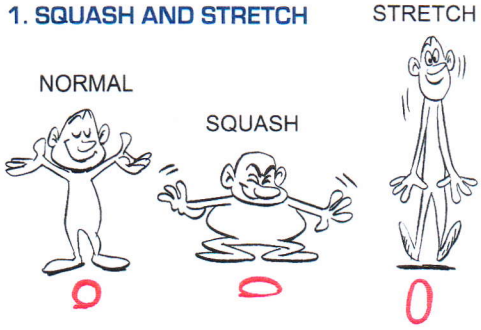
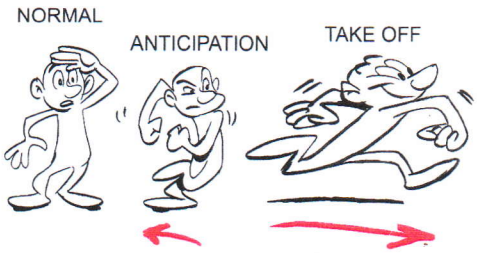
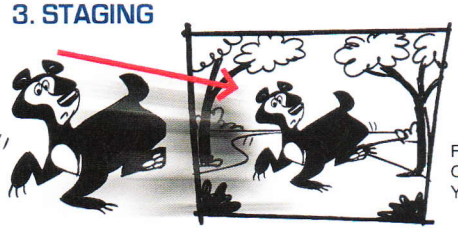
1. SQUASH AND STRETCH



2. ANTICIPATION

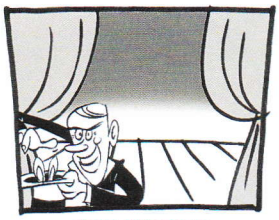


3. STAGING



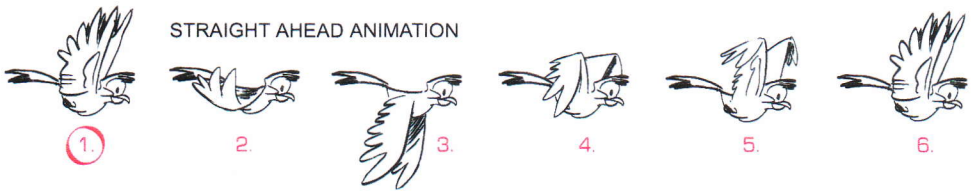
FITTING YOUR CHARACTER IN YOUR SCENE

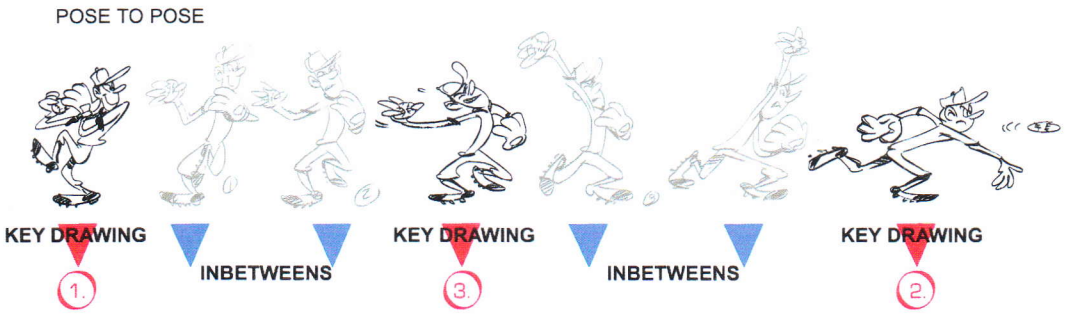
GOOD STAGING



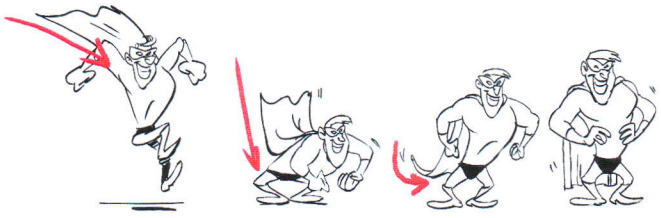
BAD STAGING

4. STRAIGHT AHEAD ACTION AND POSE TO POSE ACTION





5. FOLLOW THROUGH AND OVERLAPPING ACTION



6. SLOW IN AND SLOW OUT

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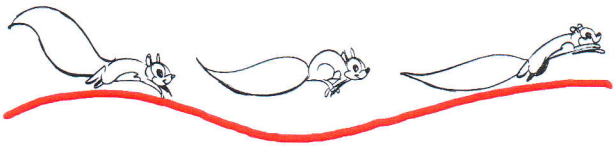
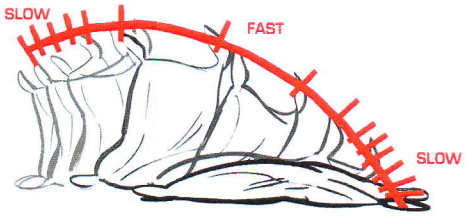
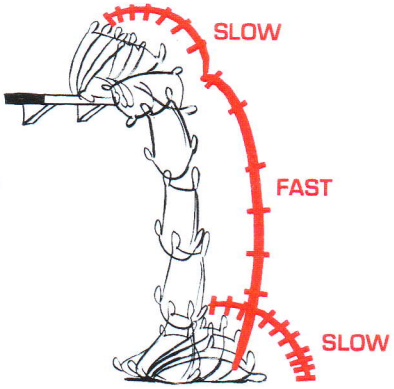
7. ARCS



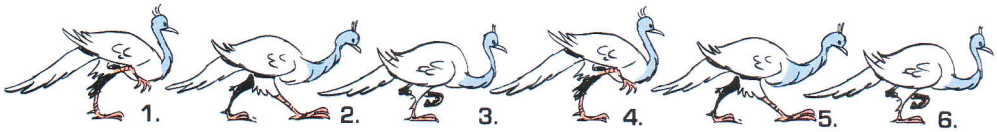
8. TIMING





9. SECONDARY ACTION

HEAD (SECONDARY ACTION)

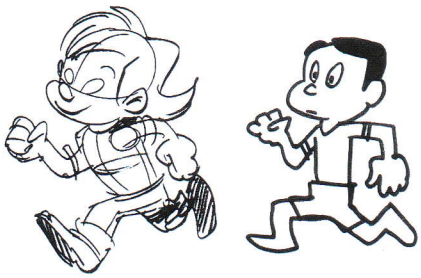


FEET (PRIMARY ACTION)

10. EXAGGERATION

EXAGGERATION!

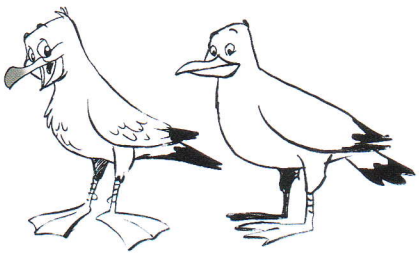
11. SOLID DRAWING



RIGHT WRONG

BELIEVE THAT YOUR CHARACTERS
EXIST IN A 3-DIMENTIONAL WORLD

12. APPEAL



GOOD BAD

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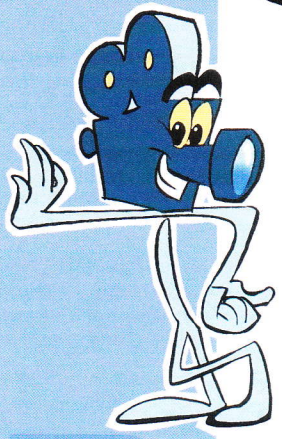

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12 PRINCIPLES OF ANIMATION

Animators make many choices to make their visual stories clear, compelling and believable. The more you use and learn the following principles, the more likely you'll get the audience reaction you're looking for!

1. SQUASH AND STRETCH

The first element of animation to master is Squash and Stretch. Living things and many objects change shape when they move or act. Making slight changes, drawing to drawing, will convey the illusion of weight and volume to your animation. Depending on the animation style you are using, too much or too little Squash and Stretch will enhance or detract from your scene.

2. ANTICIPATION

The element of Anticipation allows your audience to prepare for any action that is about to occur. Without a smaller movement, expression or gesture to set up the next movement, the audience is likely to miss it and become confused because you haven't created Anticipation, or an expectation that it will happen. Slight backwards movement before a run or jump is one example.

3. STAGING

Staging is all the visual choices you make to help the audience see your animation clearly and to follow along with your story. Like a stage design for a theatrical production, staging conveys the setting, mood, and time, so the action is clear and understood. Design elements such as lighting, texture, line quality, proportion, perspective, symbols, shapes and colors are all important Staging considerations. [Tip: Plan your staging with thumbnail drawings!]

4. STRAIGHT AHEAD ANIMATION AND POSE TO POSE ANIMATION

Deciding which of these animation processes to use in a scene is important for planning, clarity, appeal, variety of movement, timing and efficient use of your time as an animator. Straight Ahead Animation starts with your first drawing and continues until your scene or movement is complete. In Pose to Pose Animation, you first draw your character or object at the important points of your scene. These poses become "Key Drawings" or "Key Frames" that can be "inbetweened" later. Generally, Pose to Pose gives more control to volume, shape and timing of the movement. Straight Ahead is more spontaneous and free-flowing. (See #5)

5. FOLLOW THROUGH AND OVERLAPPING ANIMATION

Watch the natural movement of a character or object in a scene when it stops or changes direction. Notice that its different parts stop at different times. Capes, dresses, long hair, floppy ears, long tails (and even different parts of the main body itself) continue on the path of action until the momentum ends or changes direction. This is called Follow Through. Such elements Overlap at times when the main body of your character or object changes direction, and Follow Through a few frames later.

6. SLOW IN AND SLOW OUT

Most animation has many actions, points-of-view, themes, angles, etc. It is important that your audience have enough time to perceive the changes you've planned. Slow In and Slow Out is the principle of placing inbetween frames from scene to scene and action to action, so the audience can locate the action. Sometimes, it's not wise to Slow In and Slow Out between scenes, such as following an action through a scene change, and you want your character to "snap" into movement.

7. ARCS

All natural movement occurs on curved, or circular paths of motion. Notice humans, animals or even tree branches blowing in the wind. Contrast these with mechanical/robot kinds of movement. Use the principle of Arcs and your animations will look more natural to your audience.

8. TIMING

Knowing when to add (or not to add) drawings (inbetweens) in a scene takes practice. It is called Timing. Quick movement requires fewer drawings and slow movement requires more. But it's not only fast or slow. Timing is also speeding up or slowing down—fewer drawings as your character or object accelerates, more as it decelerates.

9. SECONDARY ACTION

Secondary Action adds dimension to your animation by adding a second level of movement or opposing movement. For example, a walking bird....as she walks, her head swings forward...The head's movement is Secondary Action. The Primary Action of running controls the Secondary Action.

10. EXAGGERATION

Animators are artists, so they characterize reality in a dynamic way. Like novelists or poets, who use language powerfully to bring out the essence of reality and not to copy it, animators use the strength of visuals for this kind of emphasis. Exaggeration, or "pushing" a pose, action, expression or attitude for emphasis at key moments—and not past the point of distortion—makes animation compelling and clear.

11. SOLID DRAWING

Animation isn't just pretty pictures. Whatever look it has, it must be believable. Solid Drawing makes the audience believe that the physical forces of a 3-dimensional world are actually acting on your character or object. When you draw, believe that your objects and characters exist in a 3-dimensional world.

12. APPEAL

Appeal takes Solid Drawing farther. Are your drawings and movements pleasing to the audience? Are your characters and stories compelling? Have you used the visual and storytelling principles to show something that people want to watch?

FOR MORE INFORMATION ON THESE PRINCIPLES YOU CAN REFER TO THESE BOOKS:

The Illusion of Life: Disney Animation
by Frank Thomas, Ollie Johnston
Publisher: Hyperion; Revised edition (October 1995)
ISBN: 0786860707

The Animator's Survival Kit: A Manual of Methods, Principles, and Formulas for Classical, Computer, Games, Stop Motion, and Internet Animators
by Richard Williams, Publisher: Faber & Faber; (January 2002)
ISBN: 0571212689