

Stick Figure Animation

NAME: _____

Assignment:

For this project you will create a short cartoon animation that touches on the following principles of animation. There are short videos that give a description of each principle of the website. Keep in mind there are 12 principles shown in the videos. You only need to incorporate the following 9 in your animation. This can be done using stick figures, objects, or a combination of both interacting in the scene.

Grading Rubric

(25 Points Total)

Categories	Points
Squash & Stretch - 5 The most important principle is " squash and stretch ", the purpose of which is to give a sense of weight and flexibility to drawn objects. It can be applied to simple objects, like a bouncing ball , or more complex constructions, like the musculature of a human face. Taken to an extreme point, a figure stretched or squashed to an exaggerated degree can have a comical effect. In realistic animation, however, the most important aspect of this principle is the fact that an object's volume <i>does not</i> change when squashed or stretched. If the length of a ball is stretched vertically, its width (in three dimensions, also its depth) needs to contract correspondingly horizontally	
Anticipation – 5 points Anticipation is used to prepare the audience for an action, and to make the action appear more realistic. A dancer jumping off the floor has to bend his knees first; a golfer making a swing has to swing the club back first. The technique can also be used for less physical actions, such as a character looking off-screen to anticipate someone's arrival, or attention focusing on an object that a character is about to pick up.	
Staging – 5 points This principle is akin to staging in theatre , as it is known in theatre and film. Its purpose is to direct the audience's attention, and make it clear what is of greatest importance in a scene; Johnston and Thomas defined it as "the presentation of any idea so that it is completely and unmistakably clear", whether that idea is an action, a personality, an expression, or a mood. This can be done by various means, such as the placement of a character in the frame, the use of light and shadow, or the angle and position of the camera. The essence of this principle is keeping focus on what is relevant, and avoiding unnecessary detail.	

Follow Through / Overlap / Drag – 5 points

[Follow through and overlapping action](#) is a general heading for two closely related techniques which help to render movement more realistically, and help to give the impression that characters follow the [laws of physics](#), including the [principle of inertia](#). "Follow through" means that loosely tied parts of a body should continue moving after the character has stopped and the parts should keep moving beyond the point where the character stopped to be "pulled back" only subsequently towards the [center of mass](#) and/or exhibiting various degrees of [oscillation damping](#). "Overlapping action" is the tendency for parts of the body to move at different rates (an arm will move on different timing of the head and so on). A third, related technique is "drag", where a character starts to move and parts of him take a few frames to catch up. These parts can be inanimate objects like clothing or the antenna on a car, or parts of the body, such as arms or hair. On the human body, the torso is the core, with arms, legs, head and hair appendices that normally follow the torso's movement. Body parts with much tissue, such as large stomachs and breasts, or the loose skin on a dog, are more prone to independent movement than bonier body parts. Again, exaggerated use of the technique can produce a comical effect, while more realistic animation must time the actions exactly, to produce a convincing result.

The "moving hold" animates between similar key frames, even characters sitting still can display some sort of movement, such as the torso moving in and out with breathing.

Slow in / Slow out – 5 Points

The movement of the human body, and most other objects, needs time to accelerate and slow down. For this reason, animation looks more realistic if it has more drawings near the beginning and end of an action, emphasizing the extreme poses, and fewer in the middle. This principle goes for characters moving between two extreme poses, such as sitting down and standing up, but also for inanimate, moving objects, like the bouncing ball in the above illustration.

Arcs – 5 Points

Most natural action tends to follow an arched [trajectory](#), and animation should adhere to this principle by following implied "arcs" for greater realism. This technique can be applied to a moving limb by rotating a joint, or a thrown object moving along a [parabolic](#) trajectory. The exception is mechanical movement, which typically moves in straight lines.

As an object's speed or momentum increases, arcs tend to flatten out in moving ahead and broaden in turns. In baseball, a fastball would tend to move in a straighter line than other pitches; while a figure skater moving at top speed would be unable to turn as sharply as a slower skater, and would need to cover more ground to complete the turn.

An object in motion that moves out of its natural arc for no apparent reason will appear erratic rather than fluid. For example, when animating a pointing finger, the animator should be certain that in all drawings in between the two extreme poses, the fingertip follows a logical arc from one extreme to the next. Traditional animators tend to draw the arc in lightly on the paper for reference, to be erased later.

<p>Timing – 5 Points</p> <p>Timing refers to the number of drawings or frames for a given action, which translates to the speed of the action on film. On a purely physical level, correct timing makes objects appear to obey the laws of physics; for instance, an object's weight determines how it reacts to an impetus, like a push. Timing is critical for establishing a character's mood, emotion, and reaction. It can also be a device to communicate aspects of a character's personality.</p>	
<p>Exaggeration – 5 Points</p> <p>Exaggeration is an effect especially useful for animation, as animated motions that strive for a perfect imitation of reality can look static and dull. The level of exaggeration depends on whether one seeks realism or a particular style, like a caricature or the style of a specific artist. The classical definition of exaggeration, employed by Disney, was to remain true to reality, just presenting it in a wilder, more extreme form. Other forms of exaggeration can involve the supernatural or surreal, alterations in the physical features of a character; or elements in the storyline itself. It is important to employ a certain level of restraint when using exaggeration. If a scene contains several elements, there should be a balance in how those elements are exaggerated in relation to each other, to avoid confusing or overawing the viewer.</p>	
<p>Appeal – 5 Points</p> <p>Appeal in a cartoon character corresponds to what would be called charisma in an actor. A character who is appealing is not necessarily sympathetic – villains or monsters can also be appealing – the important thing is that the viewer feels the character is real and interesting. There are several tricks for making a character connect better with the audience; for likable characters a symmetrical or particularly baby-like face tends to be effective. A complicated or hard to read face will lack appeal, it may more accurately be described as 'captivation' in the composition of the pose, or the character design.</p>	
<p>Total Points</p>	