***ANIMATION RESEARCH –***

***THE 12 PRINCIPLES OF ANIMATION:***

1. **SQUASH AND STRETCH –** provides objects and/or characters with a sense of flexibility, gravity, as well as a feeling of mass/weight. General principle regarding how when something is stretched is will become thinner, when something is squashed it will get wider.
2. **ANTICIPATION –** increase the feel of realism to the animation. Can also personify an object and increase the viewers interest in the content made. Means including a feeling of the natural wait for something to happen.
3. **STAGING** -this is basically ensuring that what is intended for the viewers attention to be on, is what is being highlighted in the animation. Includes framing the scenes correctly to ensure the composition is correct and as desired.
4. **POSE TO POSE Vs STRAIGHT AHEAD -** this is a concept in which animators should chose the type of movement that is best suited to their desired outcome. At it most basic form, straight ahead = realism, fluidity, whereas pose to pose = increased drama.
5. **OVERLAPPING ACTION AND FOLLOW THROUGH –** overlapping action occurs when different parts of an object or character will move at different rates. This has to be accounted for when drawing up each frame to include the different rates of action. Follow through is the way in which when an object or character comes to a stop, parts of the object may still be moving, i.e., sway to hair after stopping running.
6. **SLOW IN SLOW OUT –** the principle that an object will always start slow when beginning to move, will then gain momentum during action, and will slow down again as it comes to a stop. Changing the number of frames allows for this affect to take place, e.g., slower movement, more frames with little movement of object.
7. **ARC -** referring to the fact all objects animated should obey the laws of physics – especially gravity. This principle talks about how objects follow a path of movement of arc, due to gravity effect on the object itself.
8. **SECONDARY ACTION –** this describes how dimension and interest can be increased in your work by creating supporting secondary actions that add interest but don’t take away from the main action.
9. **TIMING –** this refers to keeping timing in line with physics. Objects must move at a rate that is believable to ensure the viewer sees it as natural. Even if the laws of physics are not abided by in the animation’s reality, consistency must at least be kept ensuring believability and ensure smooth, fluid action.
10. **EXAGGERATION –** although realism is important, it’s also important to over exaggerate actions to ensure interest in kept in the animation. This can prevent simple actions from becoming tedious and/or boring to the viewer.
11. **SOLID DRAWING –** the basic concept that the animator must have a good understanding of the basics of drawing to ensure consistency in their work.
12. **APPEAL –** this includes making sure the work created is easy to take in, consistent, and contains flair and personality. This ensures the animation will be appealing.

*^reference for above information*

* Tammy Coron (2022). Understand Disney's 12 principles of animation. [online]. *Creative Bloq*. Available from: <https://www.creativebloq.com/advice/understand-the-12-principles-of-animation>. [Accessed 01/11/22].

***RESEARCH INTO AN ANIMATOR:***

Stephen Hillenburg

Known for – ‘Spongebob Squarepants’ animator

His take on animation – big fan of balance and not over-exaggerating when animating

Combined his interest in animation and his personal interests to create his best work