The 12 Principles of Animation were first shared in a 1981 book written by Disney animators Ollie Johnston and Frank Thomas. This worksheet is based on a You Tube video demonstrating the principles with many examples. The video is created by Alan Becker (user: AlanBeckerTutorials) and can be found at the following address:

https://www.youtube.com/watch?v=uDgjldl4bF4

INTRO 1)	and are the legendary animators that first described								
I)	andare the legendary animators that first described the 12 principles of animation.								
PRINCIP	PLE #1								
2)	An object's,,,, are emphasized by this principle.								
3)	A object should have more squash and stretch while a object should have less squash and stretch.								
4)	Between a water balloon and a cannonball, which should have more squash and stretch?								
5)	When using this principle, one must keep the of the object consistent. If the height is increased, ther the width should be decreased, and vice versa.								
6)	True or false? A moving ball should be stretched in the same direction as the movement.								
7)	True or false? A slow moving ball should be stretch and squashed more than a fast moving ball.								
PRINCIP	PLE #2								
8)	This principle helps communicate actions to the audience by preparing them for the								
9)	True or false? Anticipation is the addition of an extra minor action to help the viewer anticipate the upcoming main action.								
10)	True or false? Anticipation makes it easier for the audience to follow the action.								
11)	actions are two actions that happen at the same time. This can be confusing to the viewer if not done correctly.								
12)	2) True or false? We can use multiple levels of anticipation by adding several consecutive extra actions. While this allows the audience to better understand the action, it does add considerably more complexity for the animator								
PRINCIP	PLE #3 -								

¹³⁾ This principle is the presentation of any idea so that it is completely and unmistakably ______.

- 15) True or false? Staging involves controlling where the viewers should be focusing on the screen.
- 16) True or false? Bad staging is when different elements are competing for stage presence at the same time causing confusion as to where on the screen the viewer should focus.
- 17) True or false? To demonstrate a character's reaction to an event, the camera should be far away.
- 18) True or false? For large action scenes, the camera should be close up.
- 19) True or false? The main action in the scene should usually be in the center or on one of the "third" lines.
- 20) True or false? If a character is looking to the right side, that character should usually be placed near the left hand side of the stage. This usually allows the viewer to see what the character is looking at. _____
- 21) True or false? After creating the main action in a scene, the animator should proceed to fill all available space with as much detail and action possible. ______
- 22) Proper ______ involves making sure one action is completed before another begins. It might also involve inserting short pauses between actions.
- 23) Important text that the viewer needs to read should be left on screen so that it can be read out loud _____ times.
- 24) True or false? It is often useful to go over the top in order to convey a message to the audience. For example, to show that a character is a fitness guru, one might insert several random exercises during a normal morning routine.

PRINCIPLE #4 - _____

- 25) This principle describes two methods for animating. The first method, _______, is when you create the first frame, then the second, then the third and so on.
- 26) The second method described by this principle is named _______. In this method, animators draw the first frame and then the last frame of each main pose and then go back and fill in the rest later.
- 27) True or false? Pose to pose animation makes it easier to be certain that the character's size doesn't accidentally change from the beginning to the end of the action.
- 28) True or false? Straight ahead animation is best for animations that are unpredictable such as smoke and explosions.
- 29) In pose to pose animation, the main poses (frames) are called ______ and the secondary poses are called ______. The remaining poses are called ______.

PRINCIPLE #5 - _____

30) True or false? This principle involves having body parts or clothing drag behind a moving character's body and then continue for a little bit after the body stops. ______

31)	This principle,	which consists	two closely relate	ed techniques,	, is often	associated v	with another	technique o	called
	·	All three tech	niques are very s	imilar.					

- 32) _____ deals with how parts of the character continue to move after the character comes to a stop.
- 33) ______ deal with the idea that body parts have a tendency to move at different rates.
- 34) _____ describes the technique of delaying the movement of body parts in relation to the main body.

PRINCIPLE #6 - _____

35) This principle refers to the way that most ______ should start slowly, build speed and finish slow.

36) True or false? This principle is important to achieve life-like motion.

37) True or false? It is generally best to have many frames of a character at the start and end of a movement and less frames in the middle of that movement. ______

PRINCIPLE #7 - _____

38) True or false? Most character movements should follow straight lines. _____

39) Circular paths are called ______.

PRINCIPLE #8 - _____

40) True or false? Adding secondary actions to a character adds more dimension to character.

41) True or false? Secondary actions can completely change the feel of a primary action.

42) True or false? Secondary action cannot negatively impact the feel of the primary action.

PRINCIPLE #9 - _____

- 43) The ______ and ______ of an animation is affected by the number of frames between each main action.
- 44) True or false? An action will always look like the same action no matter how many frames exist between the start and end frames.
- 45) Drawing on every frame is called ______

47) True or false? Drawing on twos as opposed to drawing on ones cuts the work down in half.

48) True or false? Drawing on twos can be smoother than drawing on ones for slow moving animations.

49) True or false? Drawing on ones is often needed for very fast motions.

PRINCIPLE #10 - _____

- 50) True or false? Every action, pose and expression can be taken to the next level in order to increase the impact on the viewer. _____
- 51) True or false? Quick motions often need to be more exaggerated to be more noticeable.
- 52) True or false? When exaggerating, it is important that every still frame look realistic.
- 53) True or false? A good rule to follow when trying to figure out how much exaggeration to use is to keep pushing until you get too far and then dial it back to where you are happy with the product.

PRINCIPLE #11 - _____

- 54) This principle is about making sure that forms feel like they are in ______ space having a volume, weight and balance.
- 55) True or false? An animator needs to develop the skill of drawing a character from all different angles.
- 56) For rectangular objects, animators should make lines converge to the ______ instead of being parallel.
- 57) True or false? Animators can build characters using simple 3D shapes such as spheres, cylinders and cubes.
- 58) ______ allows the viewer to understand how different surfaces meet. Without this, everything seems to be on a single plane.
- 59) ______ is when two opposite body parts such as arms or legs are doing the exact same thing. This should usually be avoided.

PRINCIPLE #12 - _____

- 60) This principle states that characters should be ______ to look at. They should somehow be interesting for the viewer to look at.
- 61) Three steps to increasing the appeal of a character:
 - 1-_____
 - 2-_____
 - 3-_____