**Do Not Write**

Overview:

This animation was built in blender using a chalk modeled from a simple cylinder and a black board eraser made from two boxes combined of varying sizes. I used very simple models as I figured the emphasis of the assignment was the animations, plus I had a simple story I wanted to make as well using chalk an eraser and a black board.   
The story is a simple Pixar inspired one, there’s a board that isn’t suppose to be written. A piece of chalk sees it and being cheeky writes on the board but then a patrolling eraser comes and the chalk pretends to play dead. The eraser sees it and erases it but the chalk quickly writes on it again then leaves. Moments later the eraser sees writing again, gets mad and erases it quickly then leaves, or so everyone thinks. The chalk takes a look around comes back and writes on it again but gets caught by the eraser who erases the chalk’s work. However the chalk does not give up and writes on it again proceeding to get into a fight with the eraser over writing on the board but grinds itself into dust fighting against the eraser. The eraser realizing that the chalk is gone becomes sad only for a box to fall from the sky with another piece of chalk in it and the cycle continues all over again much to the erasers dismay.

Elements of Design:

Both the chalk and the eraser express a variety of emotions though to be completely honest it was pretty hard to make them realistic human emotions as the models were too simple as I found out when I had to express anger in the eraser. From laughter emulated from the chalk in the form of fast up and down motions to surprise through shaking and small jumps in another scene of surprise. The chalk also has a scene where it gets disoriented and its head goes in circles though I didn’t animate that scene well and it isn’t that clear.

The eraser has more emotions shown in the animation. It shows surprise when the eraser sees writing on the board after it erases it the first time. Anger as well which was portrayed in a large jump and shaking furiously, and sadness after the chalk disappears. The eraser also shows it is tired after the chalk and it finish fighting over the board. The eraser also at the end shows an attempt at making it look like it had given up or was tired with overexerted movements.

The main principles of animation from John Lasseter I used were squish and stretched, anticipation, arcs, exaggeration and I hope appeal with some minor secondary action and timing.

Squish and stretch for a lot of the jumps was used though not needed because these objects are realistically rigid I liked the cartoony look from the stretched and squashed look so I decided to emphasize them.

Anticipation was used a bit when the chalk looks in after the eraser leaves peers around then disappears off the screen just to jump back in, also the eraser watching the chalk draw you could anticipate what would happen next.

Arcs were the main animation choice for the jumping motion of both the chalk and eraser.

I tried my best to exaggerate all emotion from the two models as it was very hard to show any emotion on such a simple two models. I especially exaggerated the surprise of the chalk when it sees the eraser.

Secondary action was from the eraser jumping and hitting the floor causing the chalk to bounce up just to make it look as though the eraser was much heavier though later on it doesn’t effect it because the eraser isn’t jumping as high and shuffles along more.

Timing was the least apparent one as I had to go in after I made the entire animation and change some of the times with the graph editor on some of the jumps. Basically this is suppose to just show gravity better effecting the objects. And the chalk is faster then the eraser to show the different in speed from their sizes.

Technical Aspects:

First thing to note is the model creation was very simple with such simple real life objects to animate however how to get them to move the way I did took a little bit of research. I started with the approach in tutorial of using multiple bones to make it seem as though it had multiple parts and joints but it was too rigid. The next technique was the one suggested of weight painting or vertex painting where I adjusted the weight of each vertices being effected by connecting bones however to do this well was hard and the end result was my low complexity objects actually made weight painting much harder as there wasn’t enough vertices even when subdivided to make realistic movements from the vertices.

The last technique I tried was rigging I believe its called which involved making many bounding boxes. Thankfully my models were simple so this worked well. The method involves making a bottom box an interior spine a top box and a bounding box around the whole thing. Each part represents a section of motion with the exterior box being the method of translating the entire object and the spine adds realistic bending motion which I believed turned out quite well.   
As for the rest of the animations I used manual key framing, this wasn’t hard as I drew out a story board of what I wanted from each scene (of course with changes during development) and graph editor at the end to fix some time problems mainly with the jumps at the start of the animation.   
To render out my scene I first rendered out every frame as a png image and then put it into an AVI video file and used a strip editor, speed control to slow down my animation as it was too fast at the end result.

Problems:

I had a bunch of problems setting up the animation at the start, firstly the modeling phase. Creating the models were easy but making them move realistically was hard but thanks to rigging after many tutorials I found the means of making realistic movement with bending and even squishing which wasn’t needed but I like the cartoony effect so I kept the squishing in. As for the animation the first jump in by the chalk was animated using a curve originally but I could not figure out a way to piece multiple curves together without them all messing up the original position of the chalk. So the very first jump in was made with a curve which I just copied the positions from it with key frames the rest of the movements were all key frames greatly lengthening the time it took to create this animation.

Lastly I had a lot of issues with rendering out the original png images. For some reason when I rendered them out I would get nothing on the screen. This was caused by somehow moving what was being rendered on different texture layers which I don’t remember touching. I resolved this by turning on all render layers but this was such an obscure error it took me a while to find it.

Summary:

Overall the process was long and had a fair amount of issues but it was fun and I really like how it turned out especially the story and the emotions of the objects I tried to portray near the end, as at the beginning I was still messing with stuff so the motions don’t look as good.  
I will however say I would have liked to add more to it such as sound if I had the time but I don’t know how I would have done that. Also after I rendered the pngs I still found some errors but this took hours to render out so I didn’t want to mess with it but there are somethings I would like to change such as the writing on the board from the chalk I used a white cube and it is very apparent I would have liked to hide that better.