

Animation Research

I will be researching the interpretive effects of character animation and trying to implement the methods I have learnt into my animation.

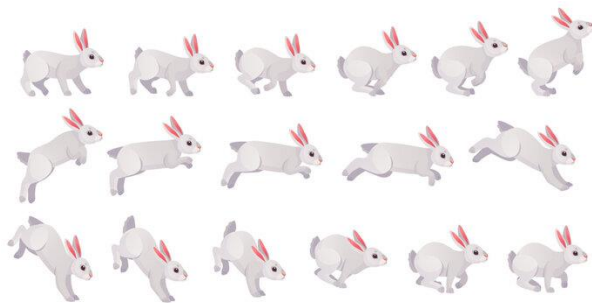
Research

To begin with, I had the idea to do an animation with two rabbits as I could use my research on character animation to implement personality into the characters through small effects and movements. I thought that rabbits would be quite easy to show this as they can be very energetic and bouncy which I wanted to portray in my animation.

I researched into rabbit movement and run cycles by looking at videos and images.

Videos I studied;

- <https://youtu.be/miWk76wqlbs?si=BfOMCcsHvjJXFHWd>
- <https://youtu.be/Ae5F8qTb7tE?si=dFEsV910efd7GZGc>



Rabbit hop cycle image [1]

After this research, I concluded that I would easier be able to showcase more personality with a bipedal model of a rabbit rather than a quadrupedal model and could also add a larger range of motion and interactions with the environment or another model in the animation.

With this, I researched body language in animation and ways to present rabbit-like personality in a bipedal model. With my research, I found that ‘strong poses are preferred to communicate emotions and inner states of characters’.[2]

I practiced this by drawing cushions and attempting to present emotion through them without relying on a face but simply the silhouette and posing.



Finding a model

I began looking for models I could use to further give me inspiration and ideas for animation. I made a moodboard to give me an idea for the aesthetic, style and kind of model I would like to use.



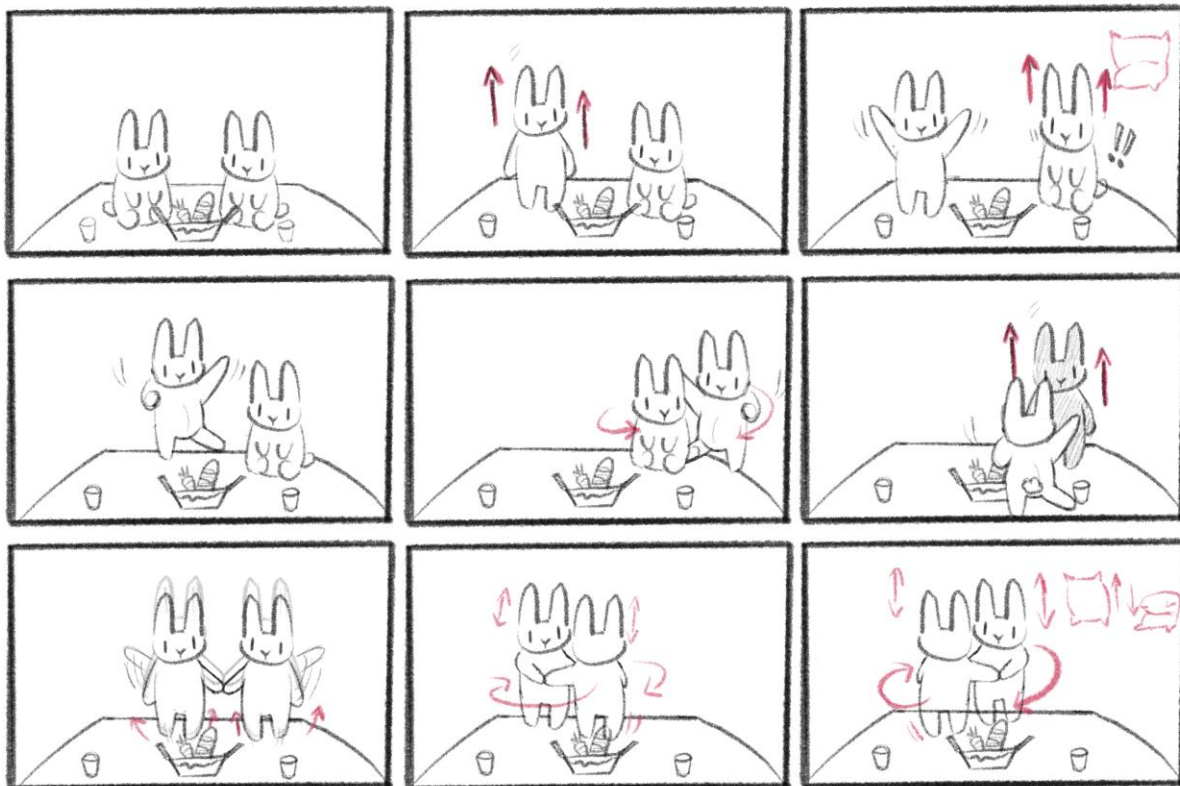
Links to models-

<https://www.turbosquid.com/3d-models/3d-model-cute-bunny-2282565>

I found these models which I chose as they had long enough limbs for a wide range of motion to be animated and were not too complex for skinning.

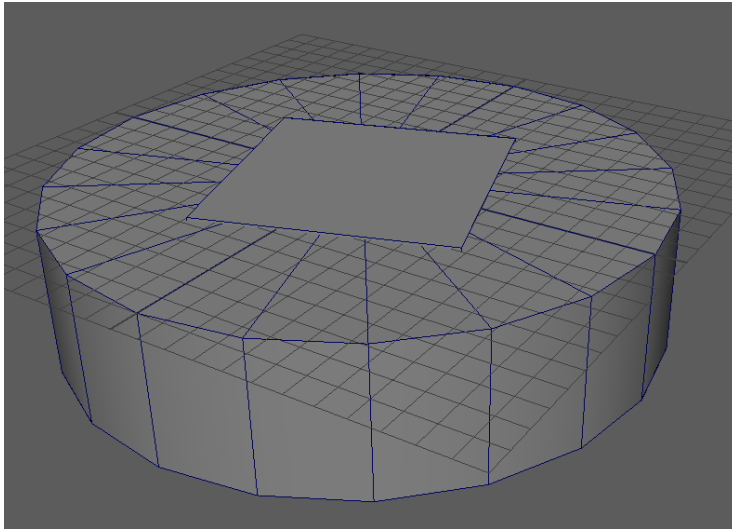
Creating a storyboard

I then began to create a story board setting the base narrative and idea of the animation so that I could have a reference to follow while animating.

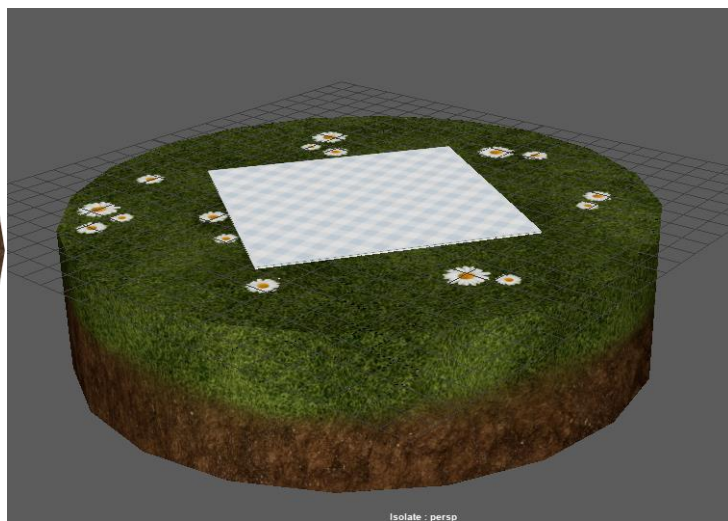
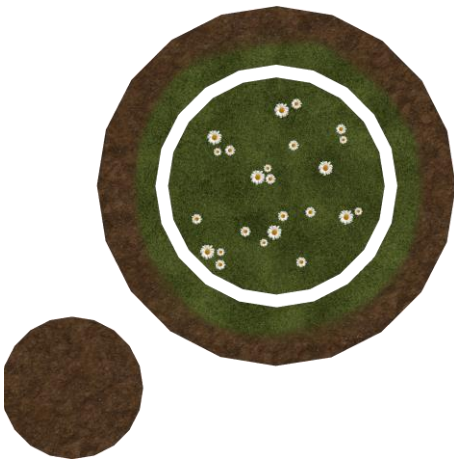


Setting the scene/stage

I then began to set the stage. I wanted them to be having a picnic on a grassy field, so I modeled a basic floor with a picnic blanket for the animation to take place on.

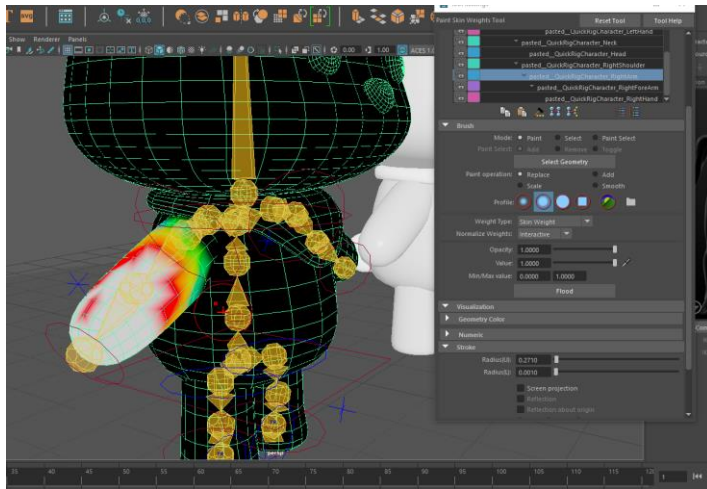


I then created textures for the assets to further set the scene.



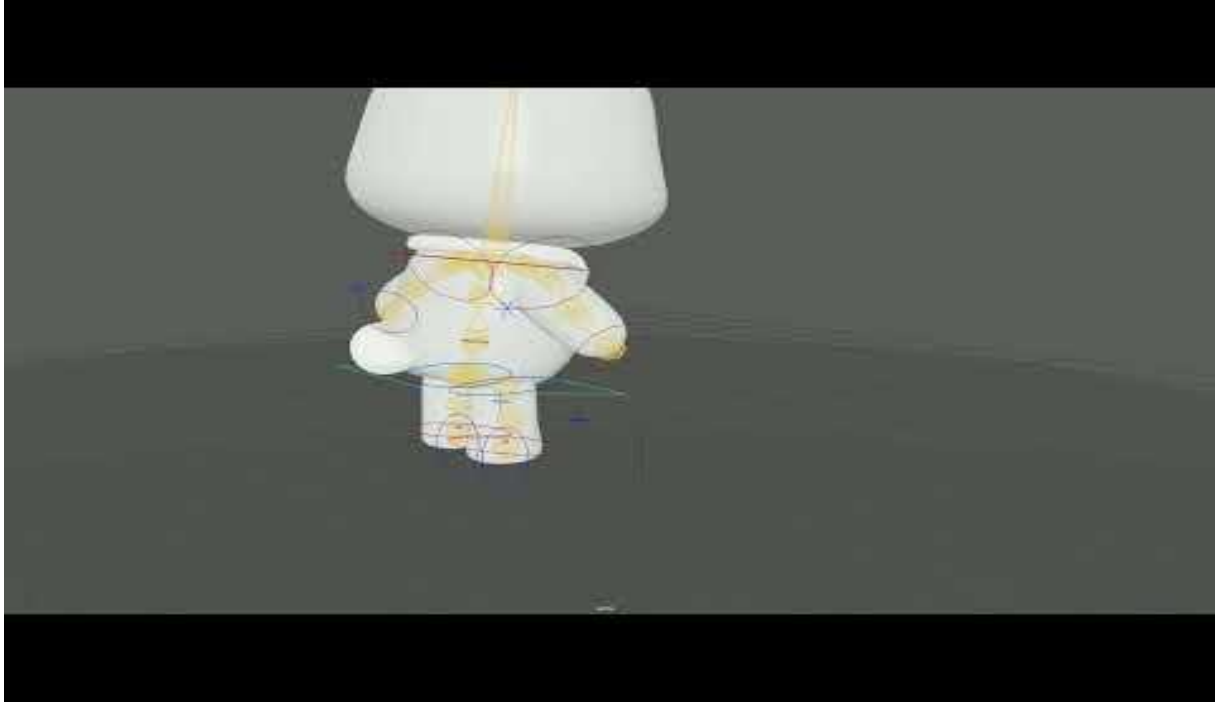
Adding bones and skinning the models

I then began to add bones to the models using the maya quick rig function and moving the guides to the correct positions. After this I began the skinning process. I had a few trials and errors in this process due to the skinning being unpredictable.



Skinning test video:

https://youtu.be/0jBrXedC_pw

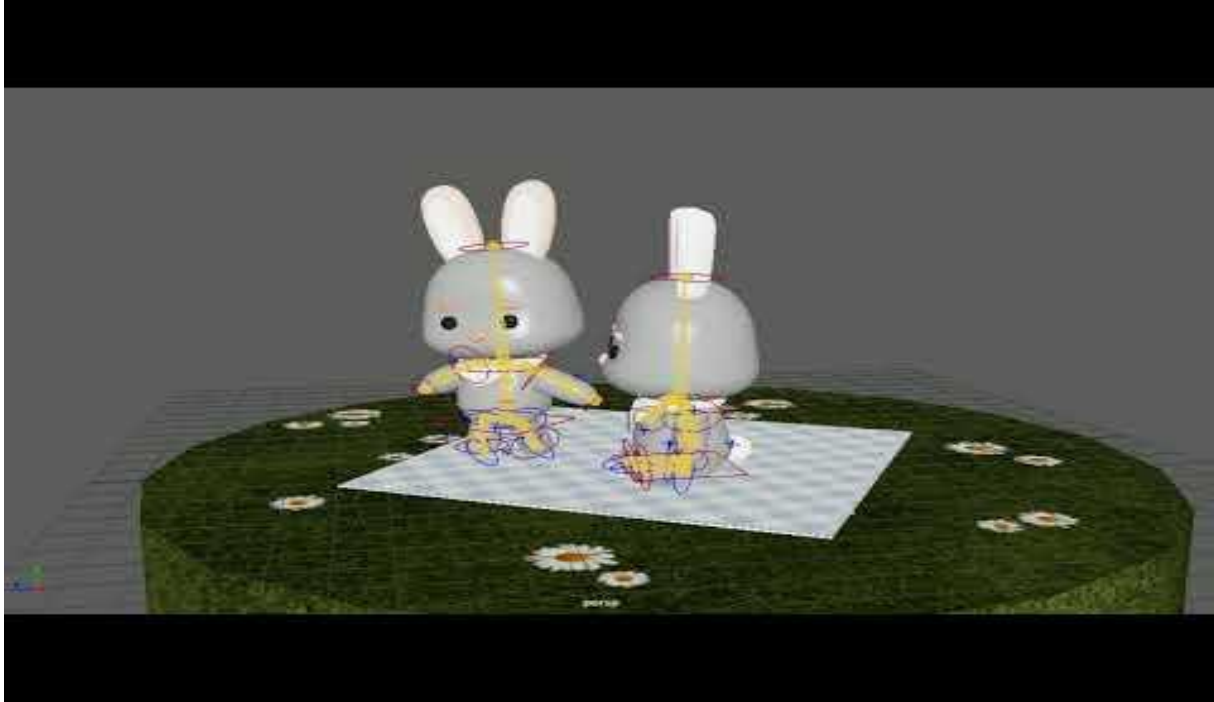


After some trial and error, I was able to fix the issue with the unpredictable skin weights.

Animating

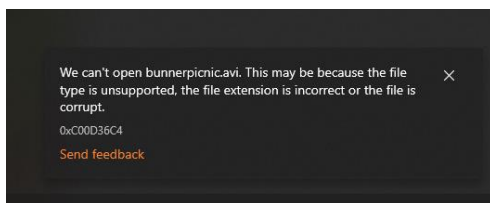
When animating, I decided to stick to timing movements every 5, 10 and 15 frames and making minor adjustments along the way. I did not want to overcomplicate the timing between movements as I wanted to be able to keep the same base speed throughout and only speed up movements in specific moments. Keeping track of how I timed my frames for specific movements helped me achieve this.

<https://youtu.be/WFU3Fak3J5A>



I created my first playblast to test the frame timings to see if the movement was fluid and natural. I made some slight adjustments to the timing and frames based on this to improve the animation.

When I attempted to create my second playblast test, I ran into an error in which my playblasts were all corrupted.



I solved this by changing the resolution of the animation.

<https://youtu.be/ey12nab-HlQ>



With my second playblast test, I noticed an issue with the resolution as I had selected too low of a resolution. I managed to solve this problem by changing the resolution to my native resolution.

<https://youtu.be/5Yhd-swIY00>

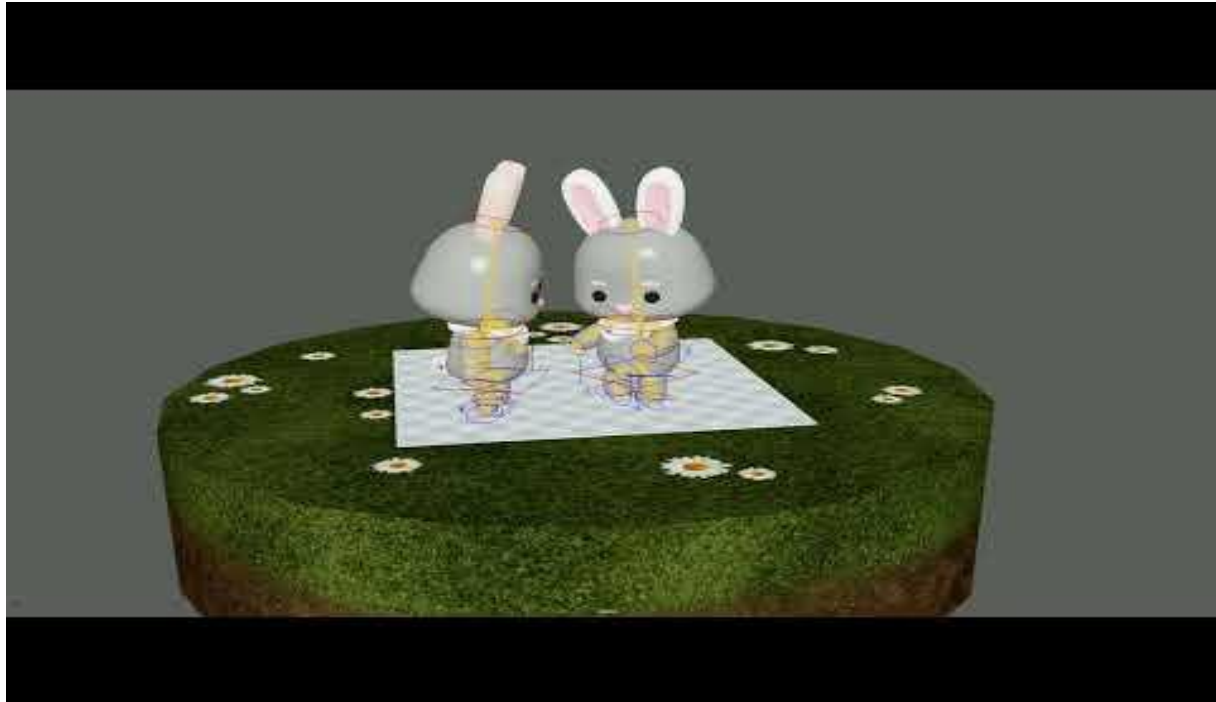


After viewing my 3rd playblast test, I noticed small issues such as the T-pose of the models being visible for a split second at the beginning of the animation, incorrect timing of some animations such as the brown rabbits head looking at the pink rabbit's head while sitting down at the end and I thought the end was cut too short.

I then solved these issues, I moved the sitting keyframe to the first frame of the animation, fixing the t-pose issue and adjusted timing of movements throughout the animation.

Test 4

<https://youtu.be/56PaBI2Ws9A>



Final animation

<https://youtu.be/SINqHdD-740?si=jdO6qwZ0WuQcFhDn>



Bibliography

[1]“Bunny Hop Cycle Animation by annabelle-l on DeviantArt,” *Deviantart.com*, Mar. 31, 2014.
<https://www.deviantart.com/annabelle-l/art/Bunny-Hop-Cycle-Animation-443918484>
(accessed Nov. 11, 2024).

[2]“21 foundations of animation |.” <https://www.angryanimator.com/word/2018/04/23/21-foundations-of-animation/> (accessed Nov. 11, 2024).