

Production Diary

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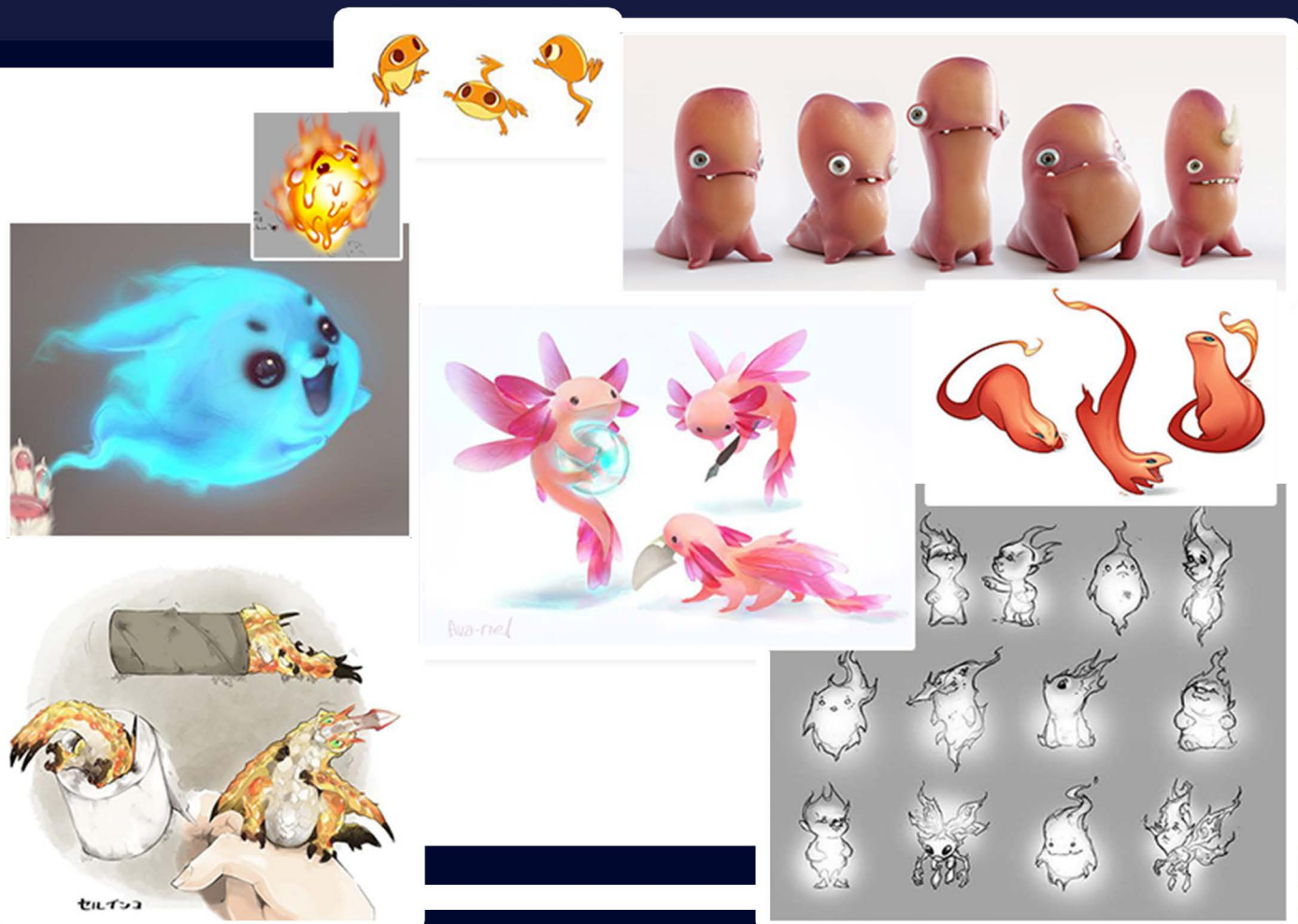
For this module there were a few techniques and software I wanted to become more acquainted with. These predominantly consisted of Z-brush and Substance Painter- to learn the basic work-flows in the software to be able to apply them in future projects. Zena and I discussed what we could possibly achieve in the time given. We liked the idea of creating an advert animation. One that would challenge our creative skills, but wouldn't need to have a long narrative running through it. Just a chance to illustrate a thought through digital art. After throwing about ideas one which we both gravitated to was "Starts with a Spark" an ad to raise wildfire awareness in a new interesting way. We wanted it to be informative, conscientious and have a slight dark humorous tone. The subject matter is not something that should be taken lightly; last year we have seen some of the worst wildfires across the world. However, we want to put across the idea that fire has no motive. The true perpetrators are people who are careless; and we felt a lighter comedic tone would contrast well with the dark reality.

RESEARCH

After deciding our main idea we each created a character mood-board. This way it became easier to visualise what we were going to be creating, and allowed Zena to express her creative views and have further input throughout the project. This also helped to narrow down key features and future decisions such as anatomy; we wanted to widen our previous experience and create a quadruped, rather than bi-pedal character. This would challenge not only the modelling, but would have a significant impact in the animation choices.

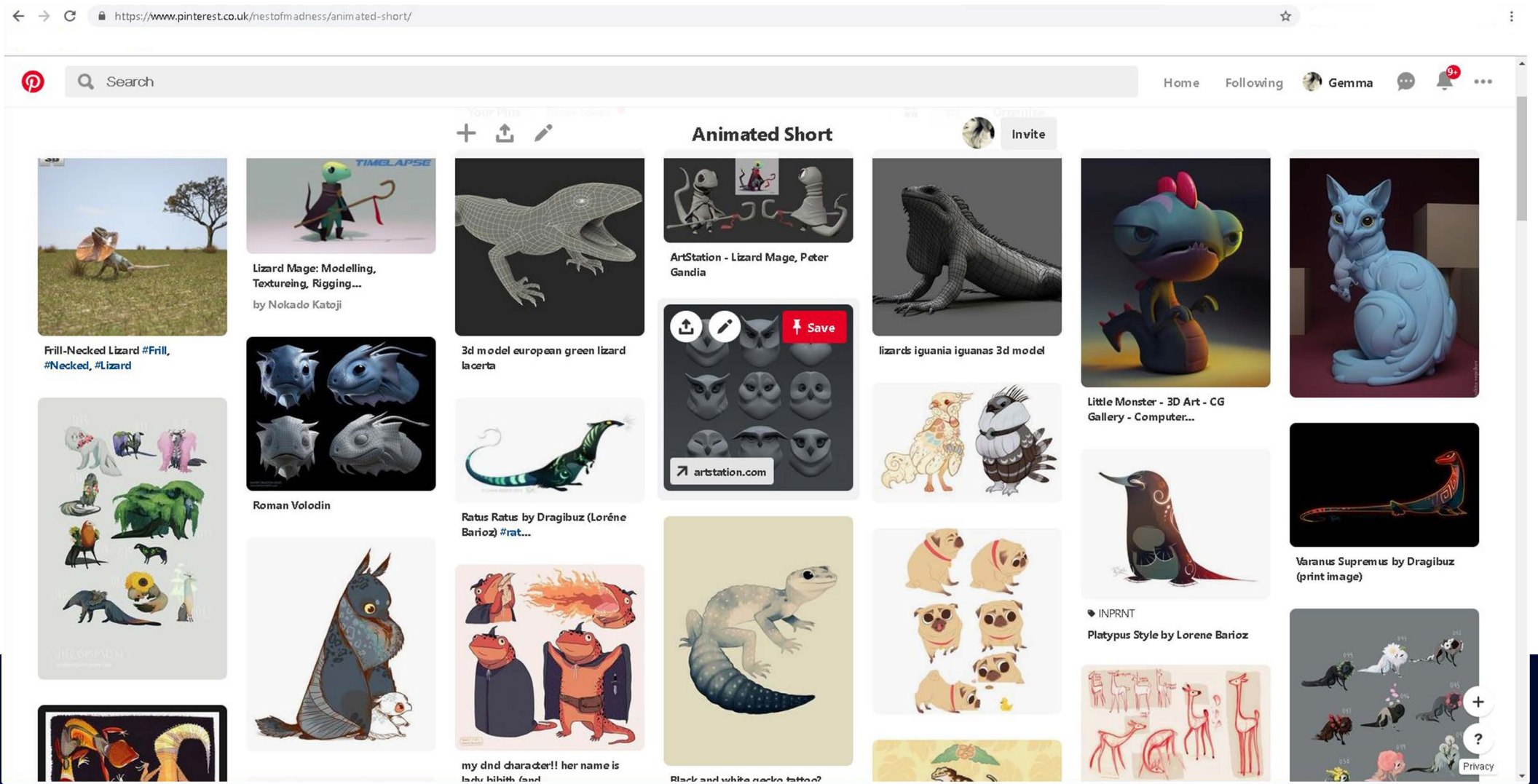
Key features that I gravitated to:

- Emotive
- Full of personality
- Visually appealing
- Fun and Innocent qualities;
- Big eyes, soft round edges, shorter limbs, closer to the ground centre of mass and elude to fire in their design in some way.



FURTHER CHARACTER RESEARCH

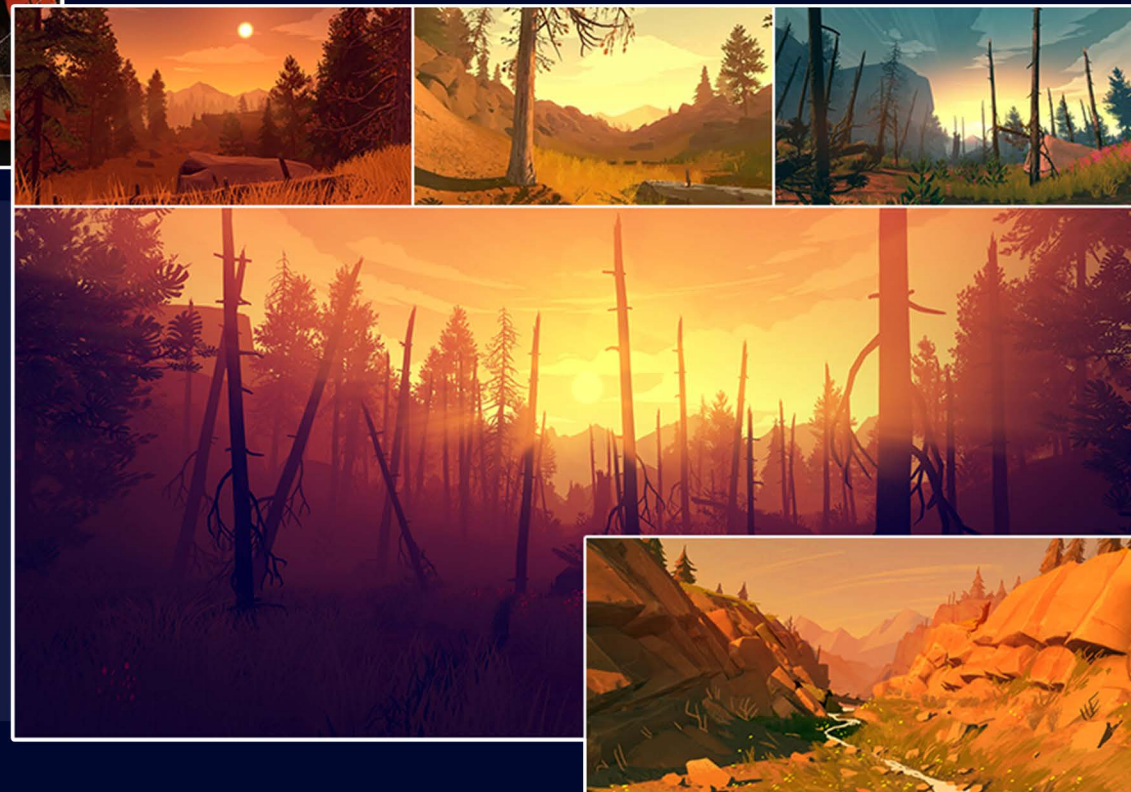
I created a Pinterest board where I could easily build up further references and inspiration, that both Zena and I had access to. Again making the process much easier for both of us and provide access to other creative and research more on their artistic process and techniques.



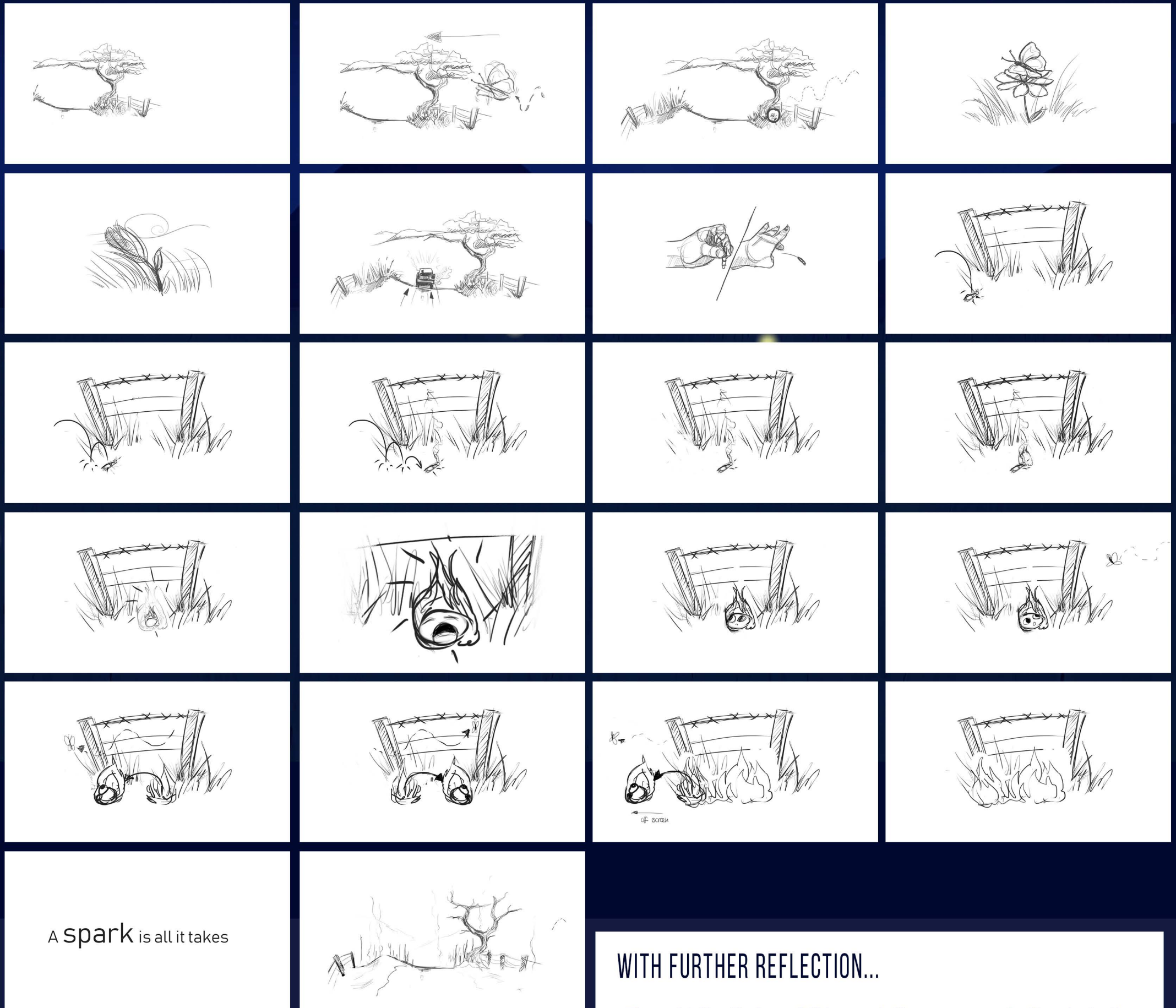
ENVIRONMENT RESEARCH

In the early stages of production, I wanted to have a chance to explore matte painting techniques. Instead of building a full complicated environment in 3D; a simple rough 3D environment would be made and I would then paint the environment on top. Done in layers to that they could be animated and match the 3D timing and animation.

I was really interested in finding a visual style in the environment that would be unique and interesting. I liked work that had texture and showed the artists layers and decisions. Also a big inspiration where the environments and art work for the game "Firewatch" I particularly love the atmospheric choices they made; through colour and composition.



-STORYBOARDS-



I created rough story boards illustrating the sequence of events along with the different camera movements and scenes. In total there would be three backdrops. The before and after of the flames along with a close up of the road side. This seemed much more manageable in scope. This also helped Zena create a 3D block animation, giving us a better idea of timing for the overall animation.

WITH FURTHER REFLECTION...

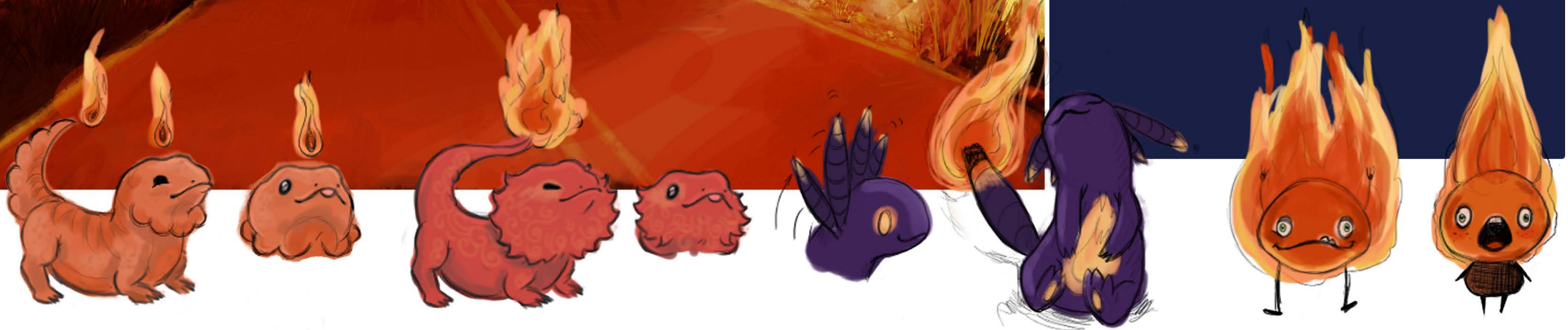
Thought the timing of this revelation was way further in to the development stage than the storyboarding stage. I would say not long after week 9. I think we underestimated the scale of what we planned to achieve in the time scale given. Especially due to the fact I was trying to learn the basics in and outs of software that I've never used before. Unsurprisingly I came up to a lot of new issues that I have never encountered before- thus took much more time to work through and trouble shoot.

We decided to simplify the idea down an make a small animation test instead. Where instead of rushing and making sub-par models and elements. Instead, work to improve what we had and make a small piece we can have in our portfolios.



SETTING THE SCENE...

When making the concept for the environment I wanted to give a feeling of a saturated, warm and dry summer afternoon. I also really enjoyed this stage as a found myself building upon a creative style I been working on with my environmental concept art. Seeing a consistency form is really satisfying.



FINAL CHARACTER CONCEPT...

At first thought of the character, I had the idea of making it an anthropomorphic flame/fire. Something along the lines of "Calsifer" from the Studio Ghibli's film "Howl's Moving Castle". However, the logistics of not only making fire in 3D that could be easily manipulated, but also be able to emote- would be far too complicated. It would also possibly hide most of the character model. Instead, I moved more to the idea of a character that represents fire which has a small detail of fire which we could control much more ease.



CHARACTER MODELLING

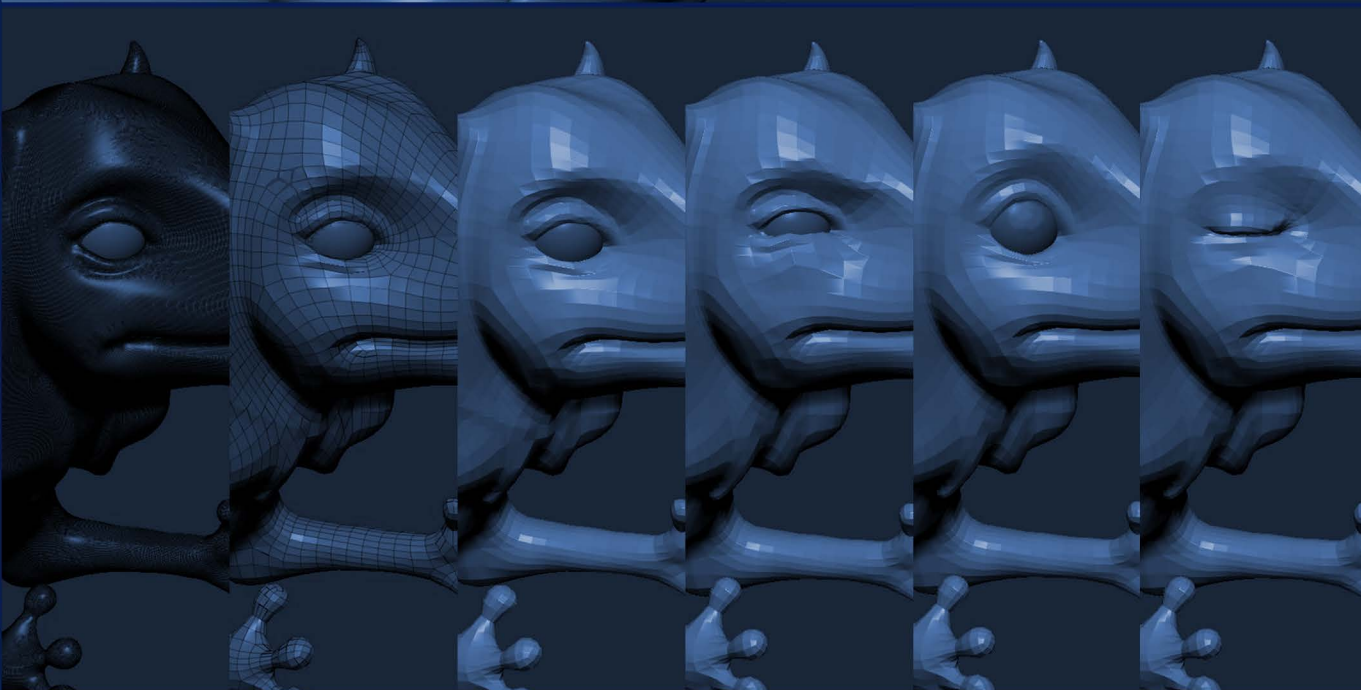
MODELLING IN Z BRUSH...



Being the first time using Z brush properly, getting acquainted with it took far longer than what I first thought. My first sculpt of the character shown above in the head bust; at first I was pretty proud of it. However, the high poly count made it almost impossible to base out the body. Instead we stripped it back-down to a rough base, sacrificing the initial detail. I worked on the main body using lizards as a reference for the anatomy. The odd mix shown above...



Im so glad I re-made the face sculpt again, this time I was much more confident navigating Zbrush. Realising that I can work back and forth from a low poly model to a high poly model, also gave me significant control in my sculpt.



I exported the mesh into 3Ds Max, and used the re-topology tools to bring down the poly count to a much more manageable level. This took longer than first planned- mostly due to the anatomy of the character.

I knew I wanted to have the character be able to emote, and the level of mesh control in Z brush made me really want to export the expressions from the software. However, the mesh kept breaking in 3Ds Max when the morphers where applied. My many attempts to troubleshoot the issue where useless; and after a week, I gave up on creating them from Z brush.



SUBSTANCE PAINTER

I UV unwrapped the mesh in 3Ds Max, making some of the limbs overlap so that they would mirror the textures. This was the first time working in Substance Painter; similar to Zbrush it took a few weeks to figure out the properties of the materials and how to build up the layers and the effects. I found however, that knowing the properties of blend modes, similar to Photoshop, really aided what I could produce.



These were some of the combinations I played around making. Above I was able to create a dragon scales effect for the texture. I used reptile and frog brushes for building up a more realistic colourisation along the spine and arms. It was interesting using the blend modes to create a wide library of choices for the character. Also had fun making a metallic feel to some of the examples.

FINAL TEXTURE DECISIONS...

At the end of the testing even though I really liked the Dragon Scales, I still need to figure out how to have more control of the flow of the scales. Instead I went with a more classic rough reptile skin. The same colourisations I played with above I tested along with the new skin texture. My favourites were these two on the right. I made the decision to go with the warm red, being more faithful to the concept art.

I also had so many issues being able to export the texture files for 3Ds Max; in the export library there was no pre-set for Max. Thus I had to try my best to match up the textures in a "Physical Arnold Material". I couldn't quite capture the same depth as my Substance Painter textures.



CHARACTER RIGGING AND MORPHERS



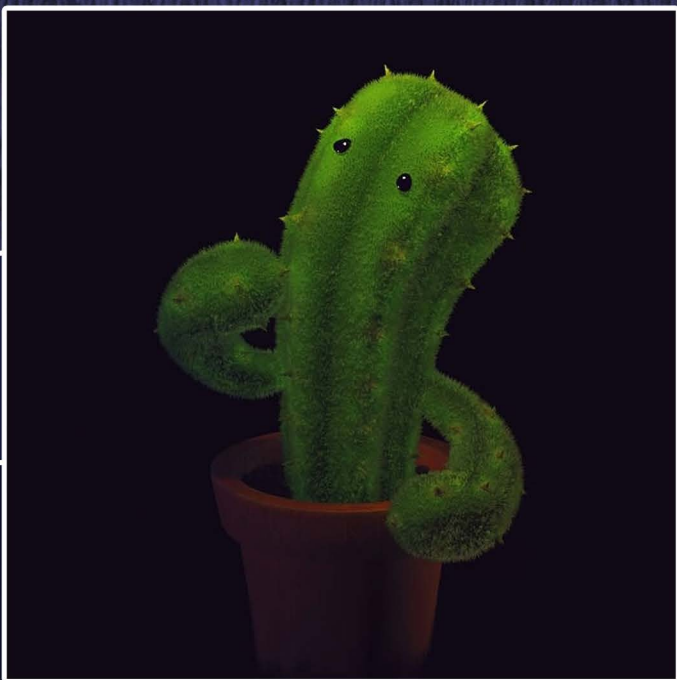
I should have ultimately left the rigging for Zena to do as she would be animating. However, a lot of modelling choices were made to go along with the skinning and rigging. At lots of points I had to re-model the mesh to allow easier skinning and movement. I feel that Zena might not have wanted to mess with my original model; which I would have had no issue with- but instead she might have tried to make it work in spite of the problems. This way I could easily make adjustments as I skinned. Once the original sweep of skinning was done; I passed the files over to her so she could start animating her passes. Then working on the file she was animating I could further skin issues that were prevalent in some of the joint movements.

I still really wanted to be able to have the character emote. I ended up using the "Free-form" tools in 3Ds Max; they don't allow as much control as Z brush, but with a bit of patience and many tries, I was able to create the morpher shapes for the character. Along with modelling an interior mouth and tongue- to be able to open the mouth and create some simple emotions.



ENVIRONMENT + LIGHTING

We decided to change our idea to an animation test with the character. We thought it would be nice to show him "hunting" a fire fly. Allowing a wide range of emotions to be shown; also made much more sense to have him in a night scene as the fire effects would be nicer in a night scene. I made very simple mountains in the backdrop that after lighting would give the illusion of being further away. Then after a few tests I added the Hair and Fur modifier; which I was able to set to live; so in theory it would show the grass moving with the collision object (the character) also along with a wind effect. However, even though it moved in the scene, it didn't render- I had no time to fix this issue.



- A Hair and Fur modifier test I made on an old Cactus character model to get use to the settings and parameters. Also my first test and time using Arnold lighting and rendering.

Even though it looks rather dark in this render, I used an Arnold "Sky-dome" light to create a night scene, with the a nice gradient rising from the horizon line. I used a "point" light for the tail flame light; we decided to create the fire effects in After Effects to save time and have more control. Also added another point light for the firefly to stand out from the grass.

AFTER EFFECTS & POST PRODUCTION

As I was rendering to such a large quality; there were a couple of timing issues that I fixed in the first sweep of post production before I moved on to the overall look of the animation. For example having a pause at the beginning of the animation allowing the fireflies to form and move.

My first colour correction was to make a more exaggerated night feel to the scene by adding more blues and subtracting greens from the shadows I also brightened the scene more. A possible issue I may have is my screen calibration is different than some of the University screens. I fixed this issue in the following steps.

I made a separate render just with the character. I then rearranged the lights to illuminate the character more without worrying about the environment changing. Some parts didn't quite line up properly but, a few key frames fixed that issue; also helped give the illusion of motion blur. This made him pop out more in the scene.

I made a separate render where only the eyes rendered. This way we could control the reflectiveness better, and have a small eye glint be present through out the animation. Some parts didn't quite line up properly but, a few key frames fixed that issue. This really helped to add more life to the character.

Added a gradient with some stars slightly coming through to add to the night feel...

I animated the fire fireflies and the single one that he attacks in a separate layer...
A really nice effect called "Find Edges" by itself it looks sort of crazy, but if you invert it and set it to blend with the original to about 90%; it adds the most slightest glow around your edges; which made a huge difference in the overall polish.

Handing off the file to Zena she added in her lovely fire effect, which I'm sure she had to key frame animate along with masking. She finished up the post processing with adding the logo and credits; along with the lovely music she chose.

I used the CC Particle Systems II on top of a solid layer. Making the Birth Rate 0, gravity 0, velocity 0.1 and made the producer size really wide to distribute the particles. Animating it to move off screen along with the camera. With some other particle tweaks and a Glow fx added, I really like the final Fireflies look.





CONCLUSION

Looking back at this module, I've been able to reach some of my initial goals; and also learned a huge lesson on how much time is needed in the development process. I could have pushed myself to drop things sooner and make the environment matte paintings and other ideas we had initially. However the quality of everything I made, would have been a drastic drop. I wouldn't have spent as much time doing sweeps for each step; and I think it would of had a roll on effect on the rest of the project. I wished I could of got stuff out much faster than what it took as she could of started animating much sooner; we might of had more to show.

I really proud of what me and Zena made together; she was really supportive and helpful in every step of the way. We created a solid character and animation to match it. I'll definitely come back to the character to create further shorts; I'd also like a chance to animate him myself.

I reached my goals in expanding my knowledge in Z Brush and Substance Painter; skills which I will be using in the summer for DARE. Moving forward, I want to expand my knowledge on Arnold Renderer, or rendering in general. I want to be able to bring the over all look of my work to the next level.

Overall, I happy with what we produced and how well we worked together. We might of failed on our initial plan, but we quickly adapted and made or losses into positive outcome.