

# Design 3D Environment

*Folio*

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# Focuses + Diorama ideas

## Focuses

Vibrant colours/colours not normally found in nature (can either be using a similar colour palette as the website, or inverted colours)

Lighting is the main focus of the diorama

Diorama could be something that might not ordinarily be using vibrant colours

## Diorama ideas

- A secret cafe in a hidden alleyway of a dystopian city
- Assets: seats, trashbags, crates, smashed cars, graffiti on walls,



# Diorama ideas (cont.)

- A jungle full of colourful flora (shapes may be tricky to create)
- Assets: trees, shrubs, ponds, rocks,



- Small rustic cabin in the middle of a snowy forest
- Assets: axe, fireplace
- Tree logs could have a colourful sap



- Rooftop
- Assets: boombox, clothesline, burn barrel



- Treehouse (could be in the woods or jungle)
- Assets: beanbag, slingshot, tire swing, hammock (exterior)



- Small bank with a vault
- Assets: piles of money, bars of gold, gemstones
- Could turn it into a mini puzzle game where the player must find the code to unlock the vault

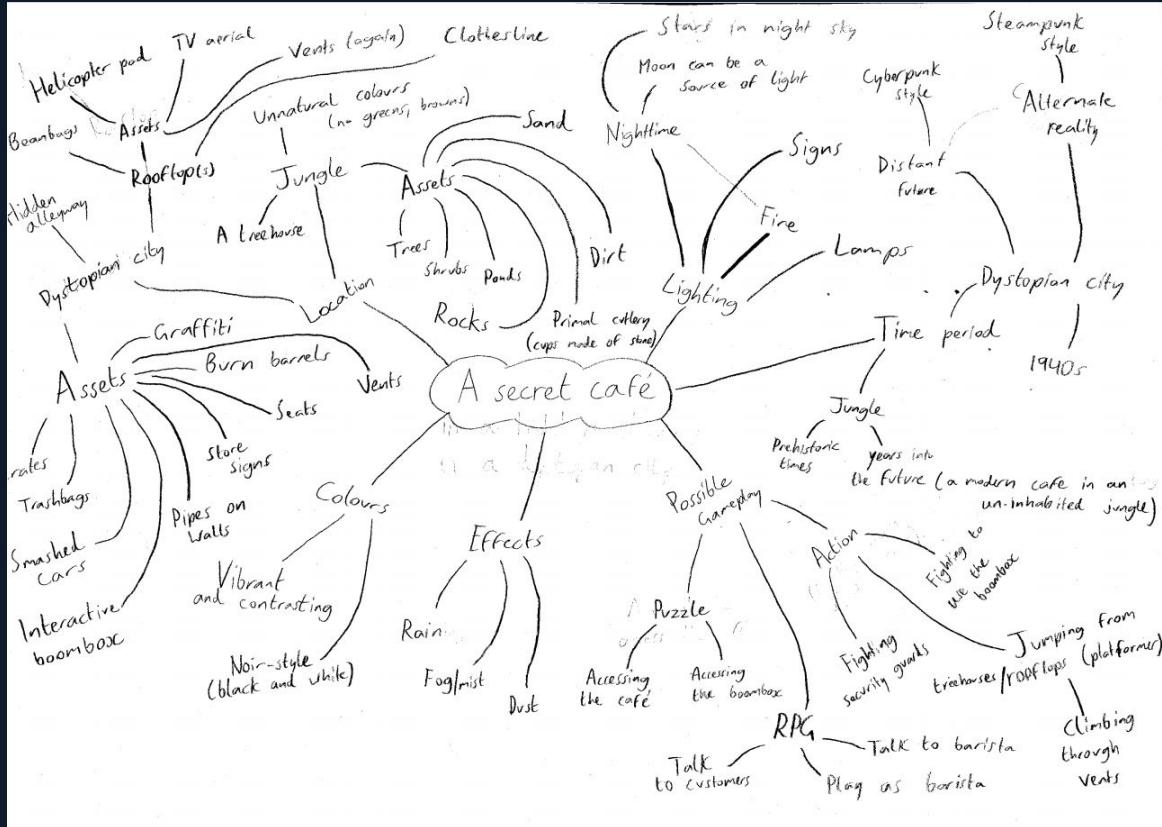


# Define your brief

## A hidden cafe in a vibrant and unnatural jungle landscape

- A blend of 2 different ideas into one
- Incorporates lighting by making the plant life glowing
- Final output will be a 3D diorama

Mind map (pictured right)



# Restrictions

Some restrictions that could impact the project would be:

- **Coronavirus, and going into lockdown** - Working from home can be a struggle as some resources cannot be accessed from home in order to complete the project, like the computers in the classroom. It can also interfere with my workflow, going to and from my classroom and my home and having to readjust after prolonged periods of time in each.
- **Amount of time given, and managing that time** - It can be easy to get distracted by things especially when I am at home and not in the classroom.

# Reference images



Ori and the Blind Forest (2015), art made by Johannes Figlhuber



Album covers from the artist *glass beach*, illustrated by Daxe Shaeffer



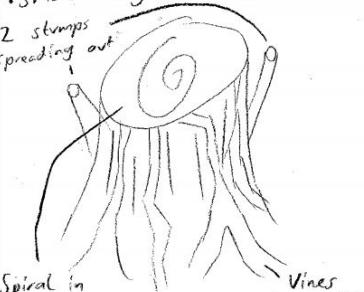
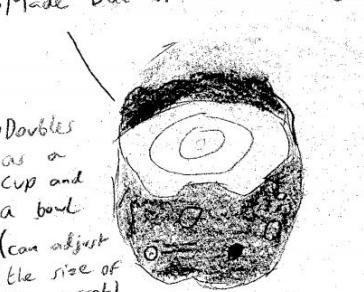
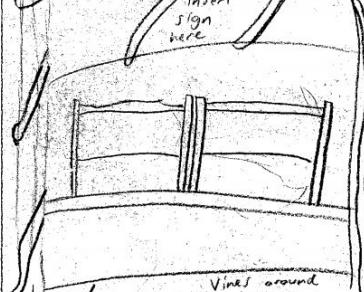
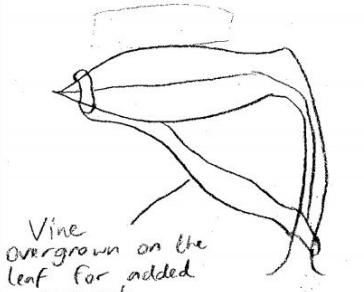
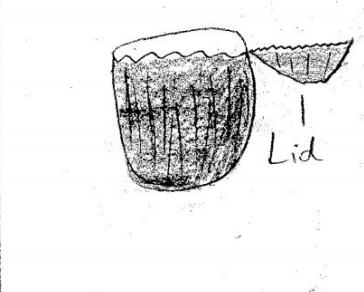
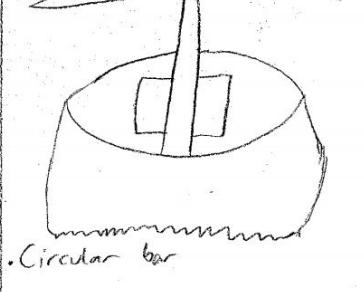
# Environment description + Tasks and schedule list

## Environment description

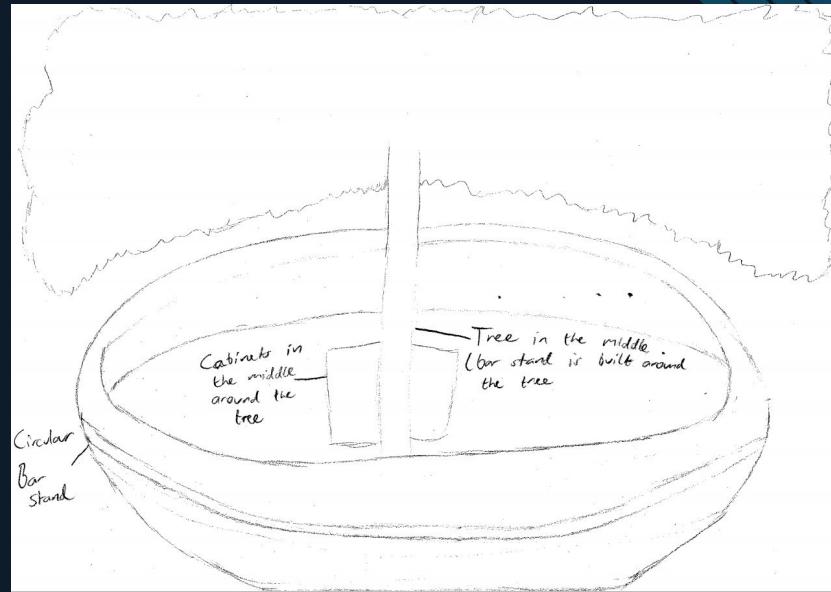
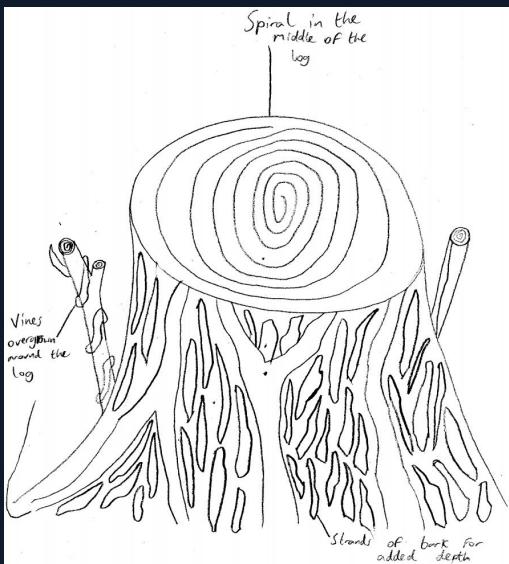
- My environment is a secret cafe that is located on a tall mountain in a jungle.
- The theme is fantasy, and the art style that I am going for is based around the album artwork for the artist glass beach which was illustrated by Daxe Schaeffer.
- I am aiming to use shades of blue, green, purple, pink and red.
- The materials and textures of my assets will be mostly wood, but one of my assets will be different as the asset is an egg that has been cracked open.
- The log asset is intended to be a stool for the cafe.
- The egg asset is intended to be used as a cup to be drunk out of, hence the reason why it has been cracked open.
- The bar stand asset is the main focus of the environment as it is where the other assets will be placed to create the environment.

Asset	Description	Tools and materials	Due date
Log stool	A log stump that has been cleanly cut, with vines wrapping around it	<b>Software/tools:</b> Photoshop <b>Physical materials:</b> Greylead, paper, coloured pencils, eraser, mouse	24th May - end of class
Egg cup	An egg from an unknown animal. It has been cracked open to be drunk out of	<b>Software/tools:</b> Photoshop <b>Physical materials:</b> Greylead, paper, coloured pencils, eraser, mouse	26th May - end of class
Bar stand	A circular stand built around a tree, with cabinets surrounding the tree. Like the log, the tree also has vines surrounding it	<b>Software/tools:</b> Photoshop <b>Physical materials:</b> Greylead, paper, coloured pencils, eraser, mouse	27th May - end of class

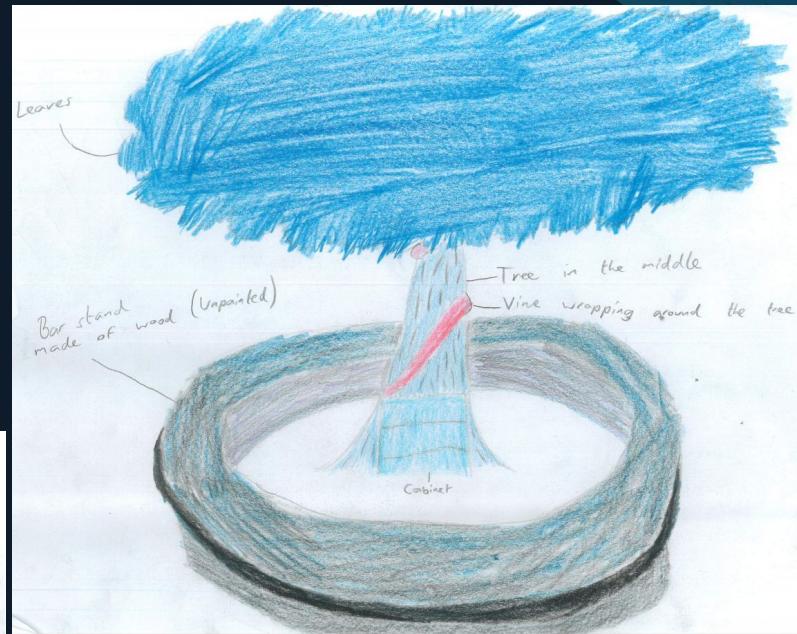
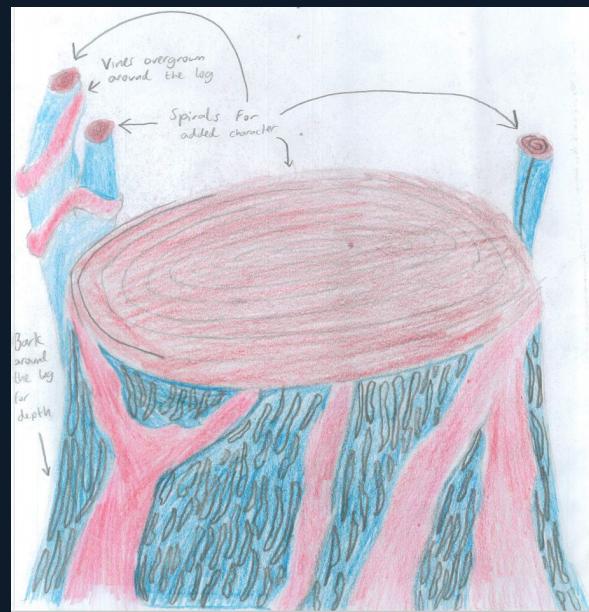
# Thumbnail drawings of 3 assets

<p><b>Stool 1st drawing</b></p> <ul style="list-style-type: none"><li>• Small log cut down</li><li>• 2 stumps spreading out</li><li>• Spiral in the middle</li><li>• Vines around the log</li></ul> 	<p><b>Cup/bowl 1st drawing</b></p> <ul style="list-style-type: none"><li>• Made out of an animal egg</li><li>• Doubles as a cup and a bowl (can adjust the size of the arrot)</li></ul> 	<p><b>Small bar stand 1st drawing</b></p> <ul style="list-style-type: none"><li>• Insert sign here</li><li>• Mostly made of long sticks</li><li>• Vines around the bar stand</li></ul> 
<p><b>Stool 2nd drawing</b></p> <ul style="list-style-type: none"><li>• Large leaf</li></ul>  <p>Vine overgrown on the leaf for added support</p>	<p><b>Cup/bowl 2nd drawing</b></p> <ul style="list-style-type: none"><li>• Made out of a coconut</li></ul>  <p>Lid</p>	<p><b>Small bar stand</b></p> <ul style="list-style-type: none"><li>• Circular bar</li></ul> 

# Rough sketches



# Refined sketches



# PMI Table

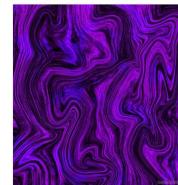
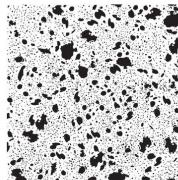
Myself	Peer	Teacher
<b>Plus:</b> Colours and patterns are pleasing to look at Drawings are simple but still showcases perspective	<b>Plus:</b> i like the overall idea with all the color and all the different looks, another plus would be the texture that is going to be used with the assets.	<b>Plus:</b> Great concept. The natural textures will look great in UE4. The use of unexpected/unnatural colours makes the assets feel unique.
<b>Minus:</b> Not much shading on the drawings Bar stand feels empty without other assets Could use a little more variety in colours	<b>Minus:</b> more assets near the bar, to have that feel of a classic/different style bar for example. Taps drinks bottles.	<b>Minus:</b> Consider how you might simplify certain features as natural shapes can be really challenging to execute in Maya. A tree for example contains a lot of branches, curves in the trunk and leaves.
<b>Interesting:</b> Vines growing around the tree and logs Egg being cracked open to be drunk out of The bar stand built around a tree	<b>Interesting:</b> the amount of detail and the different style of the bar is very interesting, and I find the natural resources as assets for the bar very interesting as well.	<b>Interesting:</b> Keep working on your colour palette in Photoshop - perhaps go with really bright colours against some natural wood tones.

# Responding to feedback

**The feedback I received from the PMI table was very helpful in the development of my final assets in Photoshop:**

- I experimented with shading like with the vines on the stool for example, however I think I can improve the shading on my assets in the future.
- I also tried using wood textures in my bar asset.
- I was also able to achieve more variation in the colours I used in my assets while using Photoshop.
- I also considered using the bar stool asset as my central piece in my 3D diorama, as it would use less time than if I were to build a diorama filled with trees and bushes.

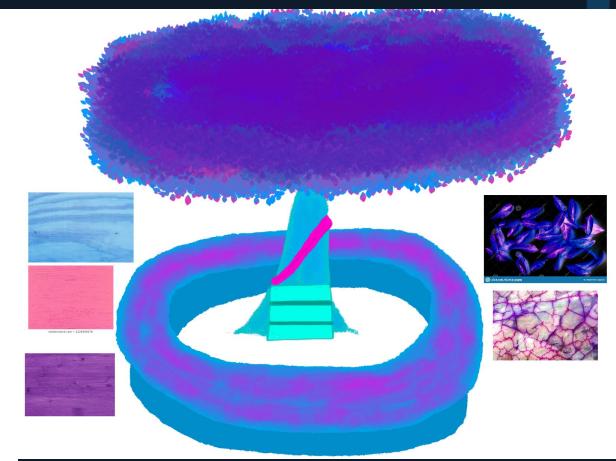
# Final Photoshop assets + materials



Bar stool

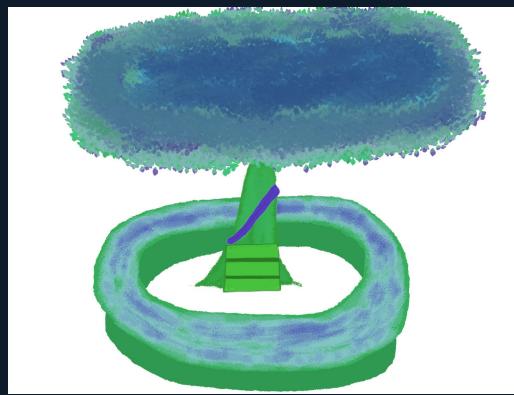


Egg cup



Bar stand

# Colour experimentation of assets

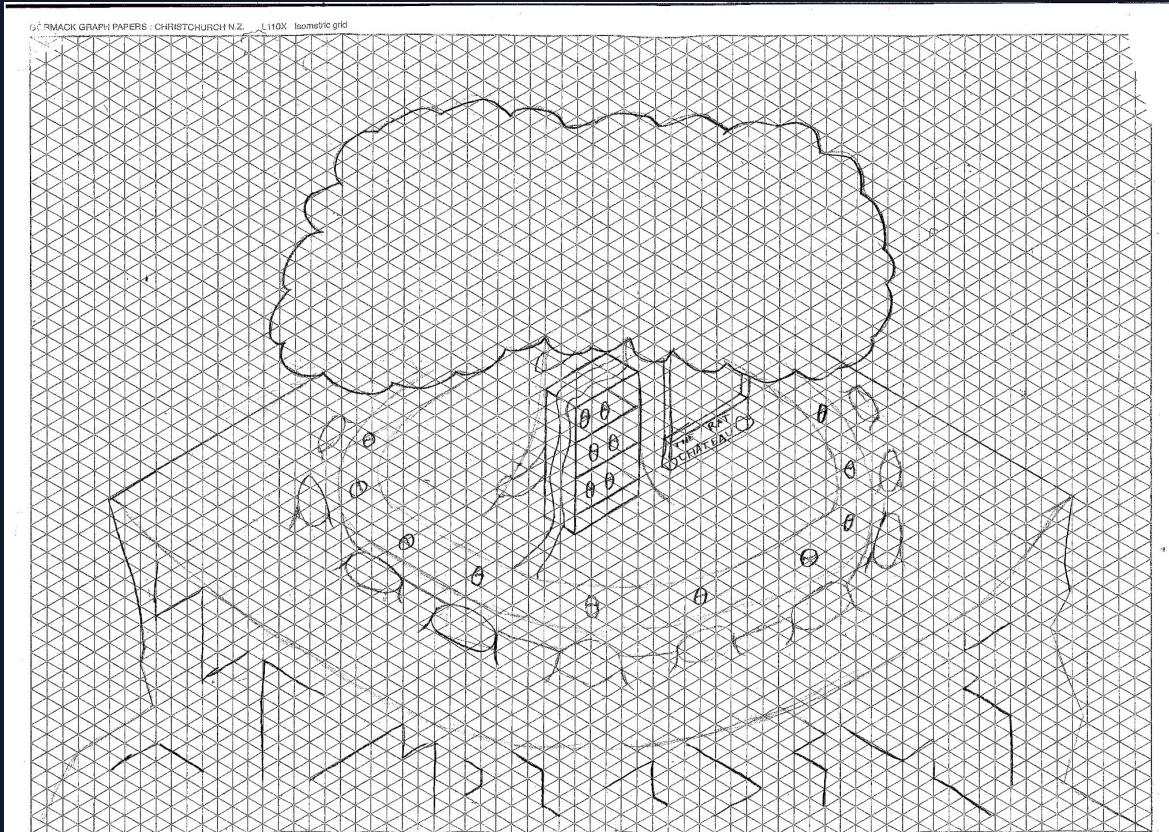


Bar stool

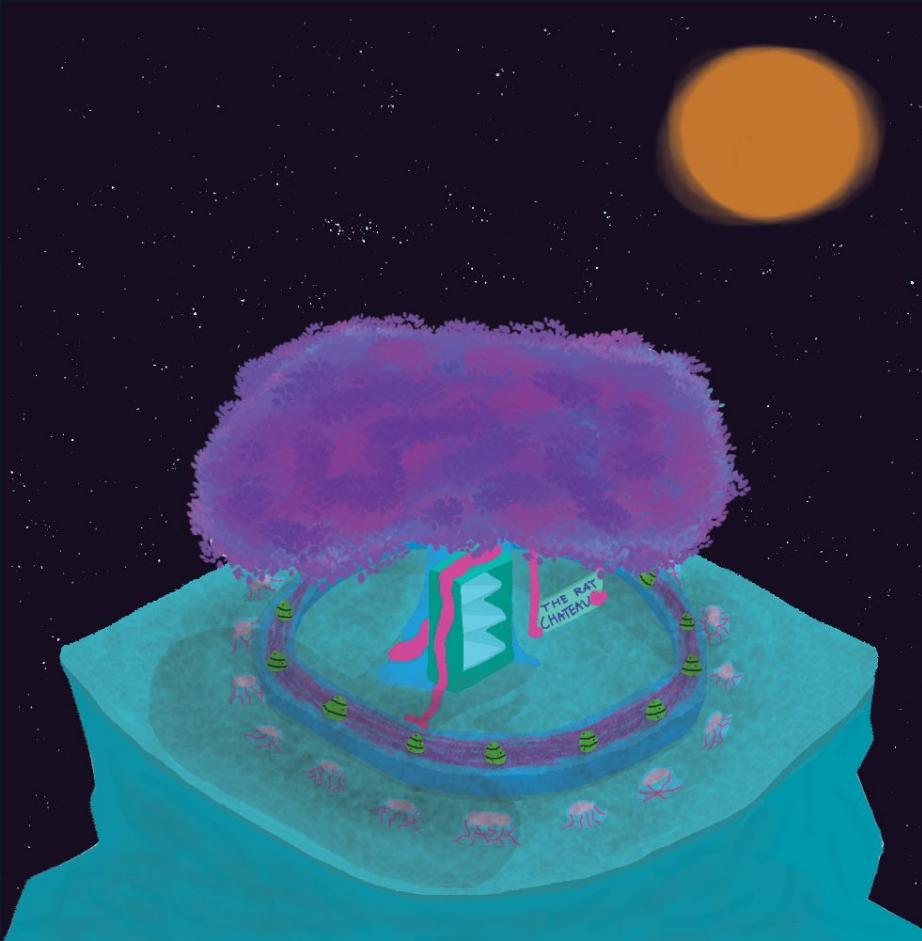
Egg cup

Bar stand

# Isometric sketch of environment design



# Photoshop version of environment design



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# PMI Table for environment design

Myself	Peer	Teacher
<p><b>Plus:</b> Colour scheme is very pleasing to the eye and colours compliment each other well Good use of shading The stars in the sky and sign at the bar are a nice touch</p>	<p><b>Plus:</b> Colour choices are great. Great use of analogous colours. It's like a dream like limbo, it makes me feel calm. It's soft on the eyes and makes me feel safe. Also reminds me of the Aether.</p>	<p><b>Plus:</b></p>
<p><b>Minus:</b> Shading could be improved in some areas such as the vines on the tree and on the tree log stools. Moon could also have more detail More texture Canvas size could be bigger as it looks pixelated in some areas</p>	<p><b>Minus:</b> Could be very difficult to create in Maya. Possible, but a lot of time. I'm curious how you will go about the leaves and the shape in general when it comes to making it 3D.</p>	<p><b>Minus:</b></p>
<p><b>Interesting:</b> Consider how the leaves and vines could be made in Maya Consider how the egg cup and bar stool assets will be placed in the 3D diorama</p>	<p><b>Interesting:</b> Brainstorm as many ways as you can as to how you are going to do a lot of these shapes. You want it to look good, but it also should be a realistic goal. There are a few repeating objects which is great in terms of making a couple models and duplicating them to save time.</p>	<p><b>Interesting:</b></p>

# Description of tools used

Software	Materials	Equipment
<p><b>Adobe Photoshop:</b> A photo editing program. I used Photoshop to create the final designs of the assets and the environment.</p> <p><b>Google Slides:</b> An online website that allows you to create slideshows. I created my folio in a Google Slide to keep track of the work I have completed.</p>	<p><b>Pencils/erasers:</b> I used greylead for my rough sketches, then coloured pencils for the refined sketches. I also used an eraser for any mistakes.</p> <p><b>Paper:</b> I used regular paper for the sketches of the assets, then isometric grid paper for the environment sketch.</p>	<p><b>Photo Scanner:</b> After I completed the sketches of my design and asset, I put them in the photo scanner and sent them to my email for me to insert in my folio and use in Photoshop to create the final designs.</p> <p><b>Laptop/computer:</b> I used the computer in the classroom for Photoshop as it had a bigger screen and allowed me to be more versatile with the tools.</p> <p><b>Mouse:</b> This let me have more control in Photoshop than if I were to use my laptop's touchpad.</p>

# Written reflection

Overall I felt that my execution of my ideas for a 3D diorama went really well. I was able to come up with ideas for my environment and references for the idea. I chose one of them stuck with it throughout the project without feeling like using a different idea which let me put a lot more energy into the project. Using Photoshop for the first time was a little confusing at first but I learned very quickly how to use it, and my work flowed very smoothly after a few hours of using it. My time management could be improved however as there were times where I was lacking behind, but I was able to complete the project in time and I am very happy with the result. There were a few technical issues such as my access for Adobe apps being removed however it was quickly resolved and I got back to work.

I learned about many different tools in Photoshop and how to use them, like using the pen tool to cut out parts of an image, and changing the opacity of the brush to create shading for different objects. I also used pencils, paper and erasers for physical sketches. I then used the photo scanner for inserting in my folio and using as a template in Photoshop.

I would have probably experimented with more colours than the ones that I chose, maybe even using gradients to blend one colour to another. The feedback definitely steered me in the right direction, and I am excited to start creating my assets and environment in 3D in Maya. My final designs, particularly with the environment, is a lot different from what I originally imagined, however I think that the change was for the best, as my original design would have took a lot more time compared to what I have created now.

# WHS checklist

## 1. The workstation is setup ergonomically:

An ergonomic workstation requires that the position/height and angle of the monitors, chair, keyboard, mouse and desk can be adjusted to maintain a healthy posture and that there is an appropriate level of lighting in the room. Yes

## 2. Regular breaks have been scheduled:

It is important to take regular breaks when working at a computer for an extended period of time. Yes

## 3. The work environment is free of hazards:

Hazards are potential sources of injury or ill-health which may include mechanical, physical, chemical, psychological and electrical hazards. Yes