# Virtual Production Practice

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(ADPA5033)




Disney (2019)

# AI Statement

To the best of my knowledge, I have not used any AI. I confirm that I have not used any AI tools in the research and creation of this assignment. I confirm that I have not presented any AI generated materials as my own work. I confirm I have copies of my drafts, notes, and other resources I used, which I may be asked to provide in evidence.

# Module Brief

- You will be asked to complete the following four tasks for this module:
- Task 1 - You will focus on compiling a process workbook – a record of all the areas covered in your lectures along with ideas on how this newfound knowledge contributes to your methodology. This process workbook will take the form of a written and illustrated document (digital or physical) or sketchbook. Your process workbook will outline your journey through the module and reflect on your learning and skills gained, it should include - Research and development, technical logs of processes undertaken, A clear pathway of your decision-making process. You must use Harvard referencing and create a bibliography for your reading and research. This will be submitted via Turnitin or handed in directly to the lecturer. You will be assessed on your ability to select a range of appropriate methodologies and procedures – • Research and testing • Development of ideas • Progress pictures and explanation of set/prop/scenic art/technical development Page 3 of 11 • Problem solving and technical drawings • White card/finished models/maquettes • Completed working set/props/costume/technical elements etc.
- Task 2 – Produce physical and digital production elements for given brief (description above)
- Task 3 - At the end of the module, as a group, you are to give a 10-minute presentation. The presentation will inform the audience about how you have solved the practical problems demanded by the brief, focusing on production technique, methods and problem solving. Although this is not considered a full ‘performance’ you will need to understand the context that your elements exist in and show its full potential for a ’performance’. You will speak for approximately 10 minutes each.
- Task 4 - Reflect upon what you’ve learnt throughout the module and commit those thoughts and reflections to a five-hundred-word evaluation. This will be at the end of you process workbook

# Module Brief

In groups make/ source physical set, props and costume to be used against a digital screen, designed as a screen test (not a finished version of the film).

- The scene possibilities (all with window possibilities)
  - Train seats and window with moving scenery.
  - Spaceship window in space passing planets or landing
  - Submarine interior exploring the deep sea with a viewpoint from a window.
  - An open cockpit single seater race car with moving scenery
  - Victorian horse and carriage with moving scenery through the window.
  - A sandstone cave that is high and deep
  - A café scene Infront of the Trevi fountain
- Must have some kind of motion in the backdrop
- We will be hiring lights, lenses, camera from Liam in Digital Media
- We will be using Premiere Pro and After effects to edit the film together
- Lloyd from Media Motion will be teaching us how to use Premiere Pro, on the filming days in the immersive room, he will be present to help with the filming process
- The Immersive Room is bookable on Mondays and Tuesdays – however February 25th there is maintenance.



Rigard LED Screen Manufacturer (n.d)

# Module Brief

You must demonstrate:

- Model making – scale model of the room, any set we would like to make and Rostra
- Maquettes – could be a 3D model
- Problem solving
- Compare and contrast of suitable processes – why did you choose that process/ technique
- Your ability to create and develop ideas as a group and individually – how have you shown this physically and in your process workbook
- Correct approach to filmmaking and organising – Scheduling, storyboards etc.

**Notes:**

- Set base is 6x4 foot Rostra – that is the size of our set, which is small scale. You will have a physical set and a virtual one that work in conjunction to each other.
- The presentation is Thursday 19th of March in the afternoon, we can use the morning for rehearsals.
- Presentation format:  could be 60-90s viewing of the video in a screening room then we show the set up in the immersive room of how it was put together. The video must be finished and edited before the presentation.
- Marking return date longer because of Easter Break (20 working days)
- There is a small budget of £100 per group – this can be used for prop sourcing, materials, paint or buying video rights.
- Use Parry and the props we have here, we can also use Facebook market-place and eBay etc for sourcing any other props we would like

# Schedule

Week 1 w/b 23rd Feb – Learn the software, research ideas for design

- Monday 23rd - all day
- Tuesday 24th - all day
- Friday 27th - all day, Immersive room introduction 9-10am, Immersive Room with Lloyd from 2pm

Week 2  w/b 2nd March – Start designing and making

- Monday 2nd – all day in Immersive Room
- Tuesday 3rd - all day – morning with Llyod
- Wednesday - 4th morning
- Thursday 5th – all day

- Week 3 w/b 9th March – Filming, designing and making (digital and physical)
- Monday 9th – all day Immersive Room TBC
- Tuesday 10th all day – morning with Llyod
- Wednesday 11th – morning
- Thursday 12th all day - 10-1 in Immersive room (an hour per group)

- Week 4 w/b 16th March – Filming, edit, put together presentation
- Monday 16th – Filming day with Lloyd in Immersive Room
- Tuesday 17th – Immersive Room booked 9-4
- Thursday 19th – Rehearsal presentation in the morning, final presentation in the afternoon

# Reading list

- Special effects, The history and technique Richard Rickitt
- Industrial Light and Magic, Into the digital realm, Mark Cotta Vaz
- Cinematography essentials Painting with light, Michael Edgar Lawrence
- Digital cinematography, David Stump
- Design for screen, Production design and Art Direction, Georgina Shorter
- Breaking the Frame, Jake Stanley Brown
- The filmmakers Guide to Production Design Vincent LoBrutto
- The Five C’s of Cinematography, Joseph Mascelli

# Watch list

- Disney Gallery, Star Wars: The Mandalorian
- Star Wars
- The Mandalorian
- 300
- Gravity
- The Grand Budapest Hotel

For me

- Fantastic Mr Fox
- Poor Things
- Dune

# What is a Screen Test?

Described by Neville, L for *Backstage* (2023), A screen test is ‘a filmed audition that helps determine whether an actor is right for a particular role’. Unlike a standard in-person audition, a screen test allows both the actor and the director to evaluate how the character translates on camera. It is a more focused stage of the casting process, typically held after callbacks, when only a few candidates remain. Screen tests may involve working in costume, performing under specific lighting setups, or acting opposite a co-star for a chemistry test. This process helps the Director, DP and casting director see not just the actor’s abilities, but how the character truly comes across on screen and fits within the overall vision.

Differently, a camera test is conducted prior to production to assess and experiment with various cameras, lenses, and lighting. Its purpose is to evaluate the technical performance of the equipment while also exploring creative choices that best support the intended storytelling. These tests often involve collaboration between key members of the production team, such as directors, producers, and post-production specialists, to ensure the selected setup aligns with both the artistic vision and technical requirements (ProductionHub, 2023).

# What is the Theatre equivalent?

Research and Development (R&D) in theatre, is an early, exploratory phase where theatre-makers develop and shape new work before it goes into full production. It is a time to try out ideas, explore characters and themes, and experiment with staging in a low-pressure environment. As Joseph, N. for Spotlight explains, R&D is ‘a chance to experiment and adopt blue-sky thinking,’ meaning creatives are encouraged to think freely and test bold ideas without worrying about the final outcome. R&D is usually collaborative and less formal than regular rehearsals. Writers, directors, actors, and designers can all share ideas and see what works best. Scenes might be rewritten, characters adjusted, or staging changed based on what is discovered during the process. Because the focus is on exploration rather than perfection, mistakes and changes are seen as part of learning. Overall, R&D helps the team decide whether the idea is strong enough to move forward into full production.

# The Star Wars Franchise

When it comes to the recent history of the relationship between digital and physical design realisation, you need look no further than the Star Wars franchise. Spanning from 1977 with A New Hope directed by George Lucas, to the present day, with productions such as The Mandalorian and Andor, it provides a clear example of the evolution of visual effects, and the shifting balance between practical and digital techniques.

Central to this evolution is Industrial Light & Magic (ILM), founded by George Lucas in 1975. The company has consistently pushed technological boundaries, helping to transform practices in the art, HMU, costume, SFX and VFX departments across multiple decades.

In the original trilogy, visual effects were achieved primarily through physical means, with extensive use of miniature models, puppetry, and constructed sets. At the time, CGI was virtually non-existent, requiring filmmakers to rely on hands-on craftsmanship and inventive analogue techniques. As noted: ‘much of the visual effects work involved actual physical creation of models, puppets, and sets. Computer generated imagery (CGI) barely existed in 1977, and Lucas and his team went on to transform the visual effects industry and set the new standard for the years to come’ (Platt College, n.d.).

Star Wars (2014)
Star Wars Visual Effects, from AT-ATs to Tauntauns
https://www.youtube.com/watch?v=mllYk7KQe-s&t=

A detailed behind-the-scenes film about the making of the first Trilogy of Star Wars and how they used rotoscoping and models against a blue screen.



The film opens with the chess game played between Chewbacca and C-3PO in Star Wars: Episode IV A New Hope. ‘The creatures in the game were animated via stop-motion then superimposed onto the chess board, with a visual trick giving them a holographic appearance. The scene took place on the Millennium Falcon, itself a model, photographed by a computer-controlled camera. It was shot stationary on a blue screen, which allowed for different backgrounds and other moving objects to be added later. The same technique was used to create the film's dogfights and Death Star trench run.’

The snow speeders from the Hoth sequence were ‘miniatures and shot on blue screen, either stationary and filmed with a computer-controlled camera, or controlled on a line for explosions and crashes.’

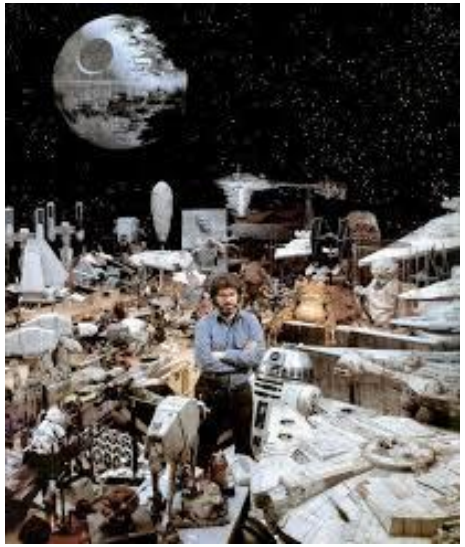
# Star Wars 1977 Behind the scenes

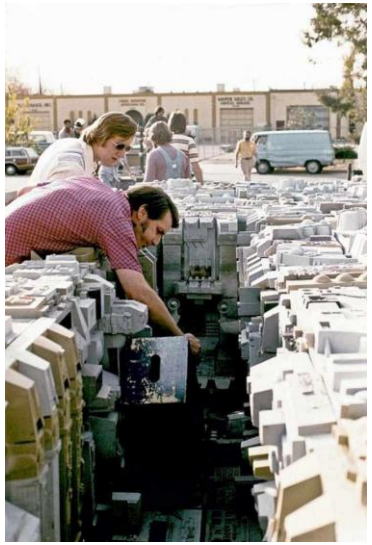
*Some Behind the scenes of the ILM model shop working on Star Wars (1977)* (ILM, 2023)





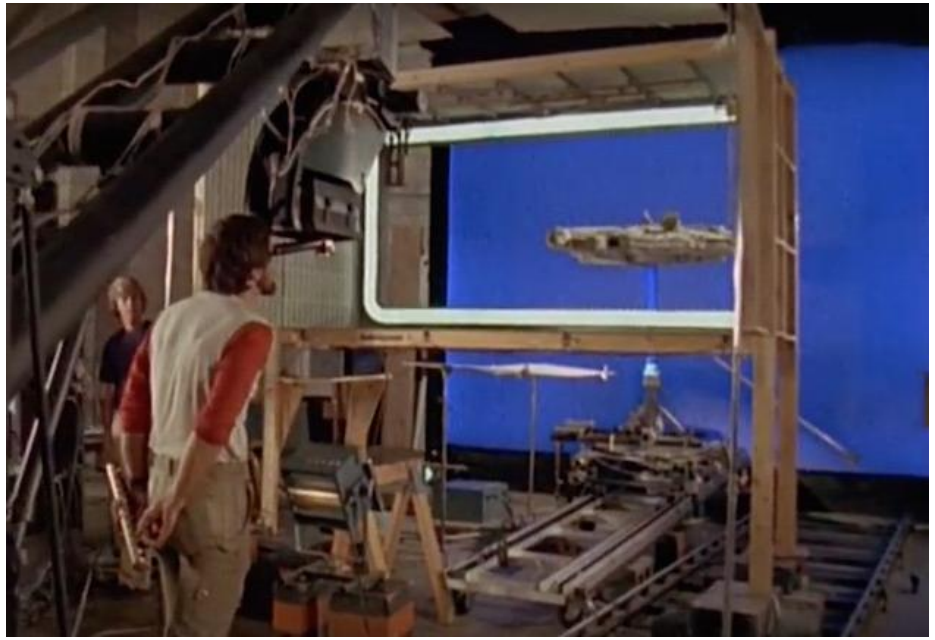












# The Star Wars Franchise (1977-2026)

With the release of Star Wars: Episode I: The Phantom Menace and its sequels, (1999-2005) the Star Wars franchise marked a major turning point in the use of digital technology in filmmaking. Advances in CGI allowed for the creation of entire environments, characters, and action sequences that would have been impossible using purely practical methods.

**Techniques used for the Prequel Trilogy (Episodes I–III, 1999–2005):**

- CGI was used extensively to create large-scale environments, such as cities and alien worlds
- Digital characters became more prominent, most notably Jar Jar Binks, one of the first fully CGI main characters in a live-action film.
- Green and blue screen technology became central to production, allowing actors to perform within digitally constructed environments.
- Practical elements such as miniatures and prosthetics were still used, often combined with CGI to enhance realism.
- This era demonstrated the industry's growing confidence in digital tools, while also revealing some of the limitations of early CG

Beginning with Star Wars: Episode VII: The Force Awakens, the 2015-2019 franchise returned to a stronger emphasis on practical effects, blending them more seamlessly with advanced CGI.

**Techniques used for the Sequel Trilogy (Episodes VII–IX, 2015–2019):**

- CGI was used to extend environments and enhance action, rather than fully replace physical elements.
- Motion capture technology allowed for more realistic digital characters
- Advances in rendering and compositing made it increasingly difficult to distinguish between practical and digital effects. This trilogy reflects a more balanced integration of techniques

Recent Star Wars series such as The Mandalorian and Andor represent the latest stage in this evolution, particularly through the use of LED 'volume technology. This is thanks to ILM's StageCraft system, which replaces traditional green screens with LED walls displaying real-time rendered environments.

**Techniques used today for shows such as The Mandalorian (2019), The Book of Boba Fett (2021), Obi-Wan Kenobi(2022) and Andor (2023):**

- LED volumes allow digital environments to be displayed live on set, reacting to camera movement in real time.
- This enables actors to perform within visible environments, improving immersion and performance compared to green screen.
- Lighting from the LED screens naturally interacts with actors and physical sets, increasing realism.
- Virtual production blends physical and digital elements simultaneously, rather than combining them in post-production.

# 300 (2006)

300 directed by Zack Snyder (2006), is an action-packed film following the story of King Leonidas and 300 Spartan soldiers who make a final stand against the vast Persian army at the Battle of Thermopylae. It is a key example of how CGI became more widely used in filmmaking during the mid-2000s. Unlike earlier films that used digital effects to support real sets and props, *300* was filmed almost entirely using blue screen. Most of the backgrounds, locations, and overall look of the film were added later using CGI. This approach allowed the filmmakers to closely match the bold, stylised look of Frank Miller's graphic novel, focusing on recreating its distinctive visual style rather than aiming for realism.

The choice to rely so heavily on CGI was both creative and practical. By building environments digitally, the team could create dramatic landscapes, intense skies, and controlled lighting that would have been very difficult to achieve on a physical set. It also gave them more control over the final image during editing. However, this meant actors often performed in front of blue screens with very little around them, which could make acting more challenging and required strong direction and imagination.

The heavy use of blue screen became one of the most well-known aspects of the film and helped make it famous. While this technology had been used before, *300* showed how it could be used for almost an entire film, not just for certain scenes. The result was visually striking and widely recognised, although some critics felt the strong use of CGI made it feel less realistic.





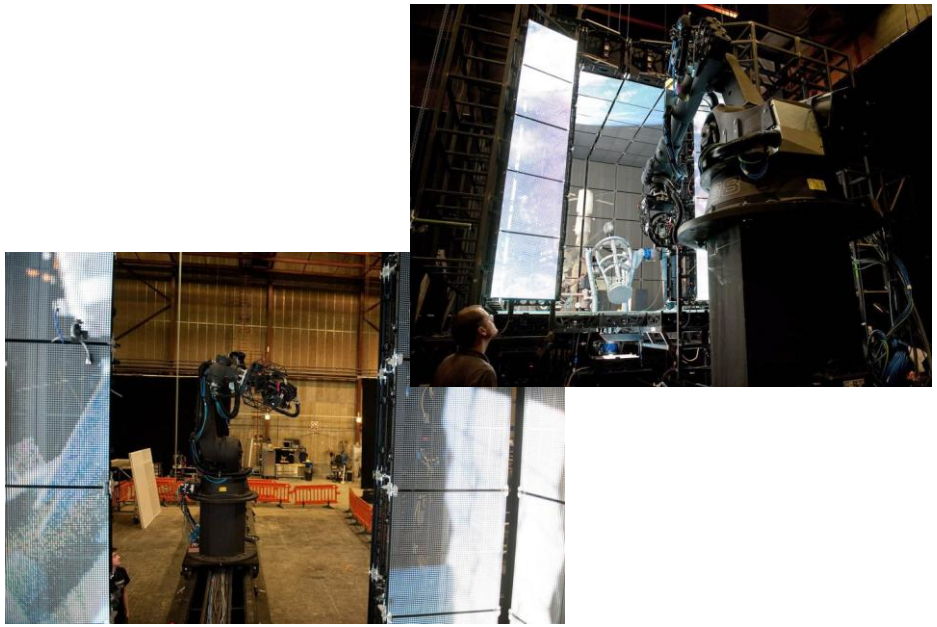
Screenshots taken from behind the scenes film 'Warner Bros. Entertainment: 300 | A Glimpse from the Set: Making 300 the Movie.' Here you can see the partly real sets – straw floors, faux boulders and constructed carriages, against the blue screen so the environment and sky could be computer generated and imported during post-production

# Gravity (2013)

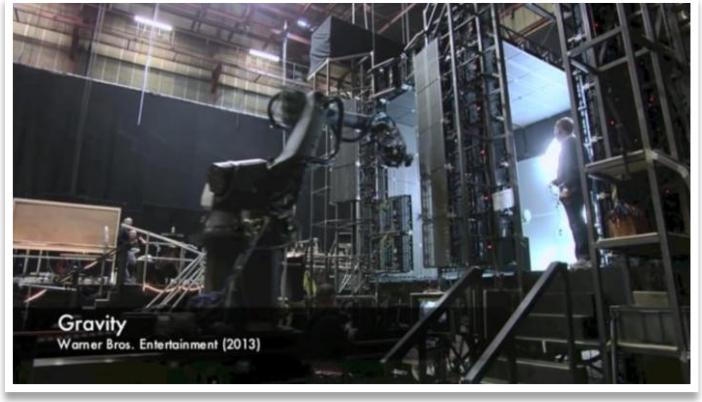
Gravity (2013) is a sci-fi thriller directed by Alfonso Cuaron, starring Sandra Bullock and George Clooney. The film follows Dr. Stone (Bullock), a biomedical engineer on her first space shuttle mission, and veteran astronaut Kowalski (Clooney), who is commanding his final flight. While performing routine repairs outside their spacecraft, debris from a destroyed satellite hurtles toward them, causing catastrophic damage to their shuttle and killing the rest of the crew. Left stranded in orbit with limited oxygen and no communication with Earth, Stone and Kowalski must navigate the vast, unforgiving emptiness of space to find safety.

Gravity is widely considered one of the most digitally constructed films ever made, with around 80% of what is seen on screen created using CGI (Fxguide, 2014). While the actors' faces and some costume elements were real, almost everything else, including environments, movement, and even parts of the suits during fast motion, was digitally created.

The filmmakers chose this approach in order to recreate the experience of space in a realistic way, something that would have been nearly impossible to achieve using traditional sets or green screen alone. Much of the work was carried out by Framestore, who developed new technology specifically for the film. One of the most important innovations was the 'light box,' a large LED cube that displayed pre-rendered digital environments. This allowed lighting to move accurately across the actors' faces, synchronised with the CGI backgrounds. Actors were often kept relatively still, while robotic camera systems, such as the 'Iris' rig were pre-programmed to move around them, creating the illusion of long, continuous shots that would be impossible to achieve with handheld or human-operated cameras.



(bottom left) *'What Sandra saw',* (top right) *A view of the LED Cube from the outside.* (Fxguide, 2014)
The lightbox was a hollow cube over 20 feet high and 10 feet wide. Its interior walls were made up of 196 panels, each about 2 by 2 feet, with each panel containing 4,096 small LED lights.



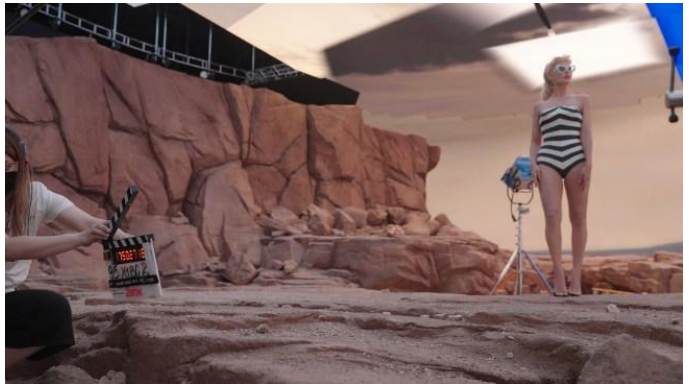

A detailed showreel exhibiting the work of Bot&Dolly's Iris camera rig and how it worked with the LED cube. *On the set of Gravity* (Mo-sys, 2015)
https://vimeo.com/137235425?fl=pl&fe=vl

# Barbie (2023)

In the opening of Barbie (2023), Margot Robbie is pictured recreating the opening to 2001: A Space Odyssey in a desert landscape, this was shot inside an LED volume. You'd probably expect a lot more of the expansive set *named 'Barbieland'* to have been computer generated. However, Greta Gerwig's approach involved marrying both practical and virtual effects together.

Greta Gerwig and her production team embraced 'authentic artificiality' creating a world that is both stylised and tangible. Production designer Sarah Greenwood explains: "One of the most important things for Greta was the idea that when children play, they play with touch as much as anything... these toys were real, they were there" (The Guardian, 2023). Nearly all of Barbieland was built as practical sets and miniatures, then later scanned and composited by the visual effects team to create expansive backgrounds without relying solely on CGI (Cined, 2023). Large-scale environments, including the Barbie Dreamhouse, were constructed on sound stages at Warner Bros. Studios in London, with painted backdrops, oversized miniatures, and carefully scaled props and furniture to evoke the feeling of a dollhouse.

The team also drew on theatrical techniques and early cinematic practices to create motion and transitions, such as sequences where Barbie and Ken travel to the 'real world.' Moving panoramas were often used to generate the illusion of movement without relying on blue or green-screens maintaining that tactile, interactive feel. By blending physical builds, miniatures, and digitally enhanced backgrounds, *Barbie* achieves a playful, vivid world much like that of a child's imagination.



*Greta Gerwig and Frame-store embraced the LED Volume for The Dawn of Barbie sequence, which blended in-camera VFX, matte painting, and real-world foreground props.* (Indiewire, 2023)



*A behind-the-scenes view of the driving scene from the "Barbie" movie. '*(WarnerBros, 2023)




StudioBinder (2023) Making of Barbie
https://www.youtube.com/watch?v=rBleWc47MJA

# Poor Things (2024)

In Poor Things, a visually striking, art-house style film known for its surreal design and unconventional storytelling, director Yorgos Lanthimos used LED volume technology in a very different way to more realism-focused productions like The Mandalorian. The LED volume was set up at Origo Studios in Budapest, where a large curved LED wall displayed surreal skies and seascapes behind the actors during key scenes, particularly on the steamship (Kadner, 2024). Rather than aiming for realism, Lanthimos deliberately used the technology to recreate the look of early cinema techniques, such as rear projection and painted cycloramas, where the artificiality of the image is visible and part of the style.

The decision to use an LED volume instead of green or blue screen was both practical and creative. The ship set included reflective surfaces like glass, which would have made traditional chroma keying difficult, whereas the LED wall provided real-time lighting and reflections that naturally interacted with the set and actors. At the same time, the filmmakers often used 2D background plates rather than fully 3D environments, reinforcing the intentionally theatrical, slightly unreal look. This shows how LED volumes are not only used for realism, but can also support stylised, deliberately artificial aesthetics.

*Actor Emma Stone, as Bella, looks out upon the CG seascape.*



*'A 197'x33' LED wall — built with 2,400 Infiled 2.6mm LED panels — displayed surreal ocean vistas for scenes aboard a steamship'* (American Cinematographer, 2024)





*'To sync the film camera's shutter speed to the LED wall's frame rate, Weber notes, "The sync signal was generated by a Rosendahl Nanosyncs HD, converted to analogue, and it was processed in the camera via the Arricam "SCB" Speed Control Box — which originally was designed to match the recording frame rate to old TVs — which also supported sync-shift to match the image playback.'* (American Cinematographer, 2024)

# Dune (2021-2026)

As part of my investigation into the use of LED volumes, I wanted to explore an example that shows that, while they are a valuable tool in filmmaking, they are not essential. I went to see the first Dune film in London's Science Museum Imax Cinema and it left a mark, I'm sure it wasn't only the sheer size of the screen that left me feeling totally immersed in the story. I wanted to look into what technologies they used to bring Arrakis to life...

The recent Dune films, directed by Denis Villeneuve, demonstrate how visual effects can be used extensively without relying entirely on artificial CGI environments. Instead, much like for Barbie, the filmmakers prioritised real locations and practical elements, filming in vast desert landscapes in Jordan and Abu Dhabi to capture the scale of Arrakis. Villeneuve deliberately avoided heavy use of green screen, believing that shooting in real environments would create a more immersive experience for both actors and audiences (Business Insider, 2021). While this approach can be more expensive and time-consuming, due to travel, logistics, and environmental challenges, it results in a level of realism that is difficult to replicate using CGI and sound stages alone. Large sound stages were still used for interiors, allowing digital effects to extend these environments rather than replace them.

A key technique used in the film was 'sand screen' which replaces traditional blue or green screens. These were large backdrops painted in desert tones that matched the natural environment. Although they appeared realistic on set, they could still be digitally removed in post-production, functioning similarly to chroma keying. This approach prevented unnatural colour spill and ensured that lighting and reflections on the actors remained consistent with the surroundings (Failes, 2021).



*A Sandscreen on set of Dune*. I, Failes (2021)



*Timothée Chalamet and director Denis Villeneuve on location in Jordan for Dune: Part Two.* (Warner Bros. Pictures, 2024)




*Scene for Dune: Part Two shot on location in Fuimei Road Cemetery, Budapest, Hungary.* (Warner Bros. Pictures, 2024)

# Wes Anderson

In an extreme example of straying from the use of CGI, is the master of practical filmmaking: Wes Anderson. Anderson's films consistently prioritise practical effects, model making, and craftsmanship over digital techniques. This is especially evident in Fantastic Mr. Fox, a stop-motion animated film that fully embraces a handmade, fairytale aesthetic. Every element of the film was physically created, from the miniature sets to the puppets, to create a tangible, handmade aesthetic that reflected the story's rustic woodland nature.

Anderson's commitment to this approach extended to even the smallest details. Effects that might typically be created digitally, such as smoke, fire, or liquids, were instead made using simple physical materials. For example, smoke was often created using cotton wool, while flowing liquids were represented using materials like cellophane. These choices emphasise the film's deliberate artificiality, inviting the audience to appreciate the craft behind what they are seeing rather than aiming for realism.

However, while Anderson strongly favours practical techniques, digital tools were not entirely absent. CGI and digital compositing were used subtly in post-production, primarily to remove rigs, enhance movement, or combine elements, rather than to replace the physical work. This highlights an important point across all of these examples: even in films that appear entirely handmade, digital technology still plays a supporting role, and new technologies are not there to replace craftsmanship but to support and enhance it.



Screenshot from: Screen Themes via YouTube (2021)
Fantastic Mr. Fox (2009) - 'Grand Choral' scene



Just the Best Senes (2022) Fantastic Mr Fox - Diving Scene
https://www.youtube.com/watch?v=f91QXN8JfgQ

# SFX, VFX or CGI?

Before delving into the world of computer-generated imagery, I wanted to understand the difference between SFX, VFX and CGI. Then I wanted to investigate the reason we use CGI vs practical effects. Is this something that the Art Department should be concerned about? If VFX films with hardly any physical elements are being produced, where does that leave us?

**Key differences:**

- **SFX (Special Effects)**
  - Practical, physical effects created on set.
  - Examples: explosions, prosthetics, animatronics, rain machines, mechanical rigs.
  - Often built or coordinated in collaboration with Art Department.
- **VFX (Visual Effects)**
  - Effects added or enhanced in post-production.
  - Combines live-action footage with digital elements.
  - Includes compositing, digital matte paintings, environment extensions.
- **CGI (Computer-Generated Imagery)**
  - A subset of VFX.
  - Fully digital models, characters, or environments created in software.
  - Can replace physical sets entirely.

**LED Volumes (Virtual Production)**

- Large LED screens displaying real-time CGI environments.
- Blend practical set pieces (foreground) with digital backgrounds.
- Reduce green screen reliance.
- As in The Mandalorian (2019) and Gravity (2013), CGI is prepared for pre-vis so the camera and lighting dept can use the environment to plan shots. Unlike when sing green/blue screen in which the environments are added in post-production.

**Why Use CGI Instead of Practical Effects?**

Reasons productions favour CGI include:

- Safety (no real explosions or dangerous stunts).
- Cost control (long-term, reusable assets).
- Flexibility in post-production.
- Creative freedom beyond physical limitations.
- Reduced physical material waste (though replaced with digital energy consumption).

However, CGI has its own environmental footprint: high-powered rendering farms, data storage, and global digital pipelines consume significant electricity, often invisibly.

# Pros and Cons of CGI vs Shooting on Location

As members of the art department, sustainability should be at the heart of our work. Film and television production is inherently resource-intensive and environmentally damaging. This is due to reasons such as large crews travelling internationally, sets being constructed and dismantled at a high-rate, materials getting frequently discarded after short-term use and high energy consumption from the demand for powerful cameras and lighting. According to Ecologi (n.d.), 'just a single hour of television production in the UK creates 13 tonnes of $CO_2$. That's more than the average British person emits in a whole year. And a big-budget blockbuster film will produce an average of 2,840 tonnes of $CO_2$ during production. This would take 3,700 acres of matured forests a whole year to absorb.'

**Where Does This Leave the Art Department?**

If fewer physical sets are being built, there may be less immediate material waste, but there are also fewer opportunities for reuse, restoration, and hands-on craftsmanship. At the same time, more design work is moving into digital asset creation, which means the Art Department needs to develop hybrid skills and work more closely with VFX supervisors and virtual production teams. Rather than removing the Art Department, virtual production is transforming it. As creatives, this is actually where our strength lies. We are problem-solvers by nature, and sustainability can become part of that creative challenge. This means thinking sustainably from the concept stage, choosing recyclable and reusable materials, building modular sets that can be adapted for different uses, reusing props and set pieces where possible, employing local crews to reduce travel, and adapting to productions that blend practical and digital elements.

Part of our 'tool kit' is adaptability, and while there is still an importance to do 'real' filmmaking, like the work of Wes Anderson that we need to finance and support no matter how barmy or ambitious the idea, we also need to keep sustainability at the forefront of our thinking. That means learning to repurpose, store, and reuse assets wherever possible, and being open to retraining and developing digital skills so we can evolve with the industry rather than fall behind it.

# Pros and Cons of Green Screen vs LED Backdrop

**Green Screen**

- Backgrounds are added in post-production rather than pre-production
- Green and blue is keyed out – these are the furthest colour from our skin tone
- Uses less space than the real size of the scenery being used, you can use a green screen just around the subject you want to capture
- This method was used in original Star Wars trilogy
- Colour correction challenges – green and blue colour can spill onto lightly coloured objects and skin tones
- Lighting is challenging, the green screen has to be equally lit with no shadows to achieve an even effect
- Green screens don't mimic real locations - they can't be reactive, which makes it harder for the to performer

**LED Backdrops**

- LED volumes have real time interaction with performers
- Volumes are added in pre-production and work with the camera for real time scenery realisation
- They can work in 2D, 2.5.D and full 3D – depends on how much movement is needed and the scene's requirements
- Actors can see their surroundings, and it helps them in their performance
- Streamlines the post-production process, as it makes editing quicker as the digital back drop is already captured in camera
- Light from the back-drop accurately lights performers in real time

**Challenges include**

- LED walls are a high investment (expensive) whereas green screen spaces or screens per day cost much less
- LED volumes can encounter glitches – costs the production company time and money to fix
- LED volumes require more physical space – bigger studio
- More decisions need to be made preproduction – if scheduled to have plenty of pre-vis time, this can be a huge advantage. Directors can see the design in VR ahead of the filming day, and this can be used to plan the shots.

# Pros and Cons of Green and Blue screen

Blue and green are used for chroma keying as they are the furthest pigment from what is found in skin tones, as these colours lie on the opposite side of the colour wheel to red. When using green screen, you have to consider hair colour as green spills onto blonde easier than blue. Costume design also needs to be considered in terms of colour of the costume – someone wearing green can't be in front of a green screen or their body will disappear!

**Blue Screen**

- Produces less colour spill, especially on skin tones, making it useful for detailed edges like hair
- Can be preferable for darker or more controlled lighting setups
- Requires more lighting because blue has lower luminance and does not reflect light as strongly as green
- Can introduce more image noise, especially in digital cameras with lower sensitivity to blue channels
- Blue is a common clothing colour, increasing the risk of unwanted transparency if not planned carefully

**Green Screen**

- Produces a cleaner key with less digital noise due to higher luminance
- Requires less lighting, making it more efficient and cost-effective in studio setups
- Modern cameras are more sensitive to green, improving overall image quality
- Spill can create a green outline (halo effect) if not properly managed

What is keying?

Keying is a visual effects technique used in filmmaking to remove a specific colour from a shot and replace it with another image or background in this case the blue or green. This is typically done by selecting the green/ blue screen colour and digitally removing it using editing software. The removed area becomes transparent, allowing a new background (such as a landscape or CGI environment) to be composited in From practical experience, keying involves using a colour picker tool to select the backdrop colour and adjusting settings (such as tolerance, edge softness, and spill suppression) to remove all traces cleanly

# Framestore

One name that I kept coming across throughout my research was Framestore. As part of my research, I wanted to explore this highly influential company, known as the lead in new visual effect technologies.

Framestore is a London-based VFX studio that has played a major role in advancing virtual production. It was one of the early pioneers of LED volume technology, particularly through its work on the film Gravity, which won multiple Academy Awards and showcased innovative use of digital environments and lighting.

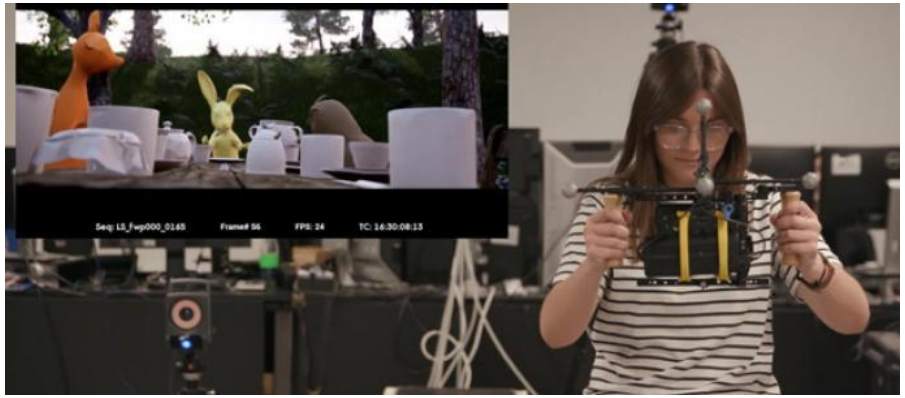
‘**Framestore pioneered the use of LED technology with its Oscar-winning work on *Gravity*. Today, it continues to make creative strides in this growing field across film, episodic and advertising. From expansive, boundary-pushing projects like *1899* that use the volume from beginning to end to films like *Barbie* that integrate the technology as part of a wider filmmaking palette**’ (Framestore, 2026).

Since then, Framestore has continued to build its reputation by working on major productions including 1899 and Barbie. Their teams specialise in both the technical setup of LED volumes and the creative integration of virtual environments, allowing directors and cinematographers to work more intuitively on set.

The company has won multiple Academy Awards (Oscars) for Best Visual Effects, including for Gravity, as well as other major industry awards such as BAFTAs and VES Awards. This track record highlights their position as one of the leading innovators in both VFX and virtual production work.



*1899 Virtual Production* (Framestore, 2022)



*Virtual Scouting and Camera* (Framestore, 2026)

# Silver Town Studios

Silvertown Studios is a virtual production facility offering LED volume stages, mobile LED setups and in-house virtual production services, allowing filmmakers to create immersive environments in real time. Their studios support a range of productions, from smaller creative shoots to larger commercial projects, through their offering of flexible spaces.

The company focuses on combining technical LED setups with creative work, supporting productions from pre-production through to final delivery. Their use of mobile LED volumes also allows virtual production to take place on location, expanding its uses beyond traditional studio environments.

Alongside Silvertown Studios, another key company in this field is iMAG Displays Ltd, an award-winning LED provider founded in 2013. iMAG specialises in specialised LED screen setups, virtual production, and technical project management, working across film, television, live events and brand launches.

iMAG's work highlights how LED volume technology is not limited to studio filmmaking, but is also widely used in live events, fashion, and commercial production, showing the versatility of LED technology across the creative industries.

*LED Stage, advertising* (Silver Town Studios, 2026)






*London's Virtual Production Studios & Spaces* (Silver Town Studios, 2026)



*Advanced Video & LED Technology for Extraordinary Visual Experiences* (iMAG, 2026)

# Software’s

**Premier pro**

- Adobe Premiere Pro is used for editing video footage, arranging clips, adding effects, transitions, titles, and audio, and producing polished, professional-quality videos.

**After Effects**

- Adobe After Effects is used for creating motion graphics, visual effects, compositing, and animated elements for video and film projects.

**Igloo**

- Software that runs immersive room
- The immersive room has right angles  - would be better on a curved screen but the curves cost as much as a wall and the fourth wall with a door entry way costs as much of the whole room.
- Where you stand in the room changes the colour and appearance of the pixels
- There is a door mat in the room that you can stand on to get the best view of the immersive space, so it blends into your peripheral
- In the space we could use one wall (say the left) as the virtual background and the other wall to light the space– could try dropping in squares or circles of colour to see how that lights our scenery

# Software’s

**Other software's**

- Da Vinci Resolve for colour grading, motion graphics and audio mixing, Free to use
- AVID for collaborative long form editing
- Capcut
- Final cut pro – exclusive to mac

**LED screen software's**

- Igloo (ours)
- Unreal engine from Epic games is industry standard
- Disguise (formerly known as D3 Technologies) for XR and dual production, manages the sequences across multiple servers
- Strictly Come dancing used to use Green hippo – projection for the floor. Multiple computers with synchronised heartbeats, if one goes down the others can take over See their site for Event projection mapping. The walls in strictly come dancing are LED walls. And they might use multiple projections to bypass shadows
- Ventuz
- Resolume Arena for Live VJing (mixing live visuals)
- Millenoum - favoured by mac users
- Mad Mapper for projection mapping
- QLab for sound and visual cues
- Touch Designer

# Initial Ideas

Dave gave us a list of possible scenes, but he is also happy for us to create our own. Here are some initial thoughts I had after our morning introduction to the module and some common virtual production practices:

- I had one idea of a doorway that could be a portal that leads to different locations or periods of time. For a sci-fi approach, our interior could be a time ship or spaceship, inspired by a set like the Tardis from Doctor Who. It could be an alien spaceship from another planet visiting earth, and it could be interesting to explore our planet through a foreign entity – what would they see through the doorway, and how might they react? One thing we would need to consider if we went with an idea like this, is how we could implement motion. Could there be a window in the doorway that shows the view from the ship when it lands on planet earth? Then the door can open so the aliens can step out and explore.

- A similar idea could be applied to a window or doorway that can see the same scene as seasons progress. This thought made me think of a scene in Twilight (2009) where the protagonist, Bella, sits by her bedroom window. The scene shows how her partner leaving her has left her in a state of such low mood that she barely moves from that seat as the months and seasons go by, waiting for him to return. It next occurred me how this was done, and how it could be done with an immersive screen. The idea of using the LED screen as a window showing time passing can be applied to any location or time period. We could use this idea as an exercise in visual storytelling, in how we convey a short narrative just from a windowsill. I next thought about how it could be a story like the opening sequence of Up! (2009) And we could show someone becoming a widower through signs of loss and neglect shown in everyday items like flowers wilting, growing dust etc.

- Down the barrel of a gun like the James bond intro could be a really fun way to paly around with shapes and use the 'window' as a POV shot. This is a heavily stylised idea but interesting to think about how you could 'build' the inside of an item. This could be done with the inside of a camera lens, or a washing machine or a pair of binoculars, for example.



BBC Studios/Bad Wolf (2024). We could create a similar effect like this or shoot from the interior of our spaceship looking out.



*'very little CGI was used to make it happen... a specially rigged robotic camera did multiple, exact circling passes of the same scene with and without Stewart present.'* Singh, O. for Business Insider (2023). Between takes, the art dept. redressed the outdoors to make it seem as though seasons change. Alternatively, this could have been achieved in one take with a curved LED screen.



Kotze, R. (n.d.) *Washing Machine POV*

# Group Allocation

I am group 1 with...

- Annie
- Charlie

**Job roles**

Since our second module of the year, as a class we have elected no job roles for our projects. I believe this works for our class dynamic, especially when working in small groups. Job roles tend to be a good way to set out clear personal responsibilities as well as holding yourself accountable for your contribution. However, I find working in a small team is enough of a pressure to carry out tasks because there is less people to complete them. Everyone must be proactive within the team, and not having job roles allows us to float between tasks wherever the help is needed. It is also a great way to expand on skills and leave your comfort zone. I am not a freehand sketcher or white card model maker but working with classmates who have a skill or interest in those areas, gives me the confidence to explore these design methods. This shared knowledge means we can support each other in playing to our strengths to produce our best possible work.

If we were in a role, I think I would go for Production Designer, as this is something I have always wanted to try but never had the courage to put myself forward for. It is an intimidating thought to me that if something goes wrong with the design, it is solely my fault, and the quality of my work has a knock-on effect to everyone else's experience. That being said, I am feeling inspired by the brief, and I think I will enjoy working with Charlie and Annie to design a fictional setting.

My strengths lie in AutoCAD, generating production paper-work like shooting and call sheets and general scheduling which we'll do for the module - Annie is also someone who likes a clear to-do list, so we'll be sharing the responsibility of staying on track. I also have a bit of a filming and editing background from college, so I feel comfortable approaching the shooting and editing process.

I would really like to get round to generating a 3D render of our design, possibly even look into how I would go about 3D printing this. As someone who doesn't enjoy model making, this could a good idea to look into, so I can generate physical models of my designs.

# Group initial ideas

This module brief is unscripted, unlike our previous modules. The primary requirement is to establish a clear relationship between digital scenery and a corresponding physical environment. Given the creative freedom within this project, we have the opportunity to explore a range of approaches through experimentation. This may involve testing multiple concepts, conducting trial shoots, and prototyping set pieces and props to refine our design.

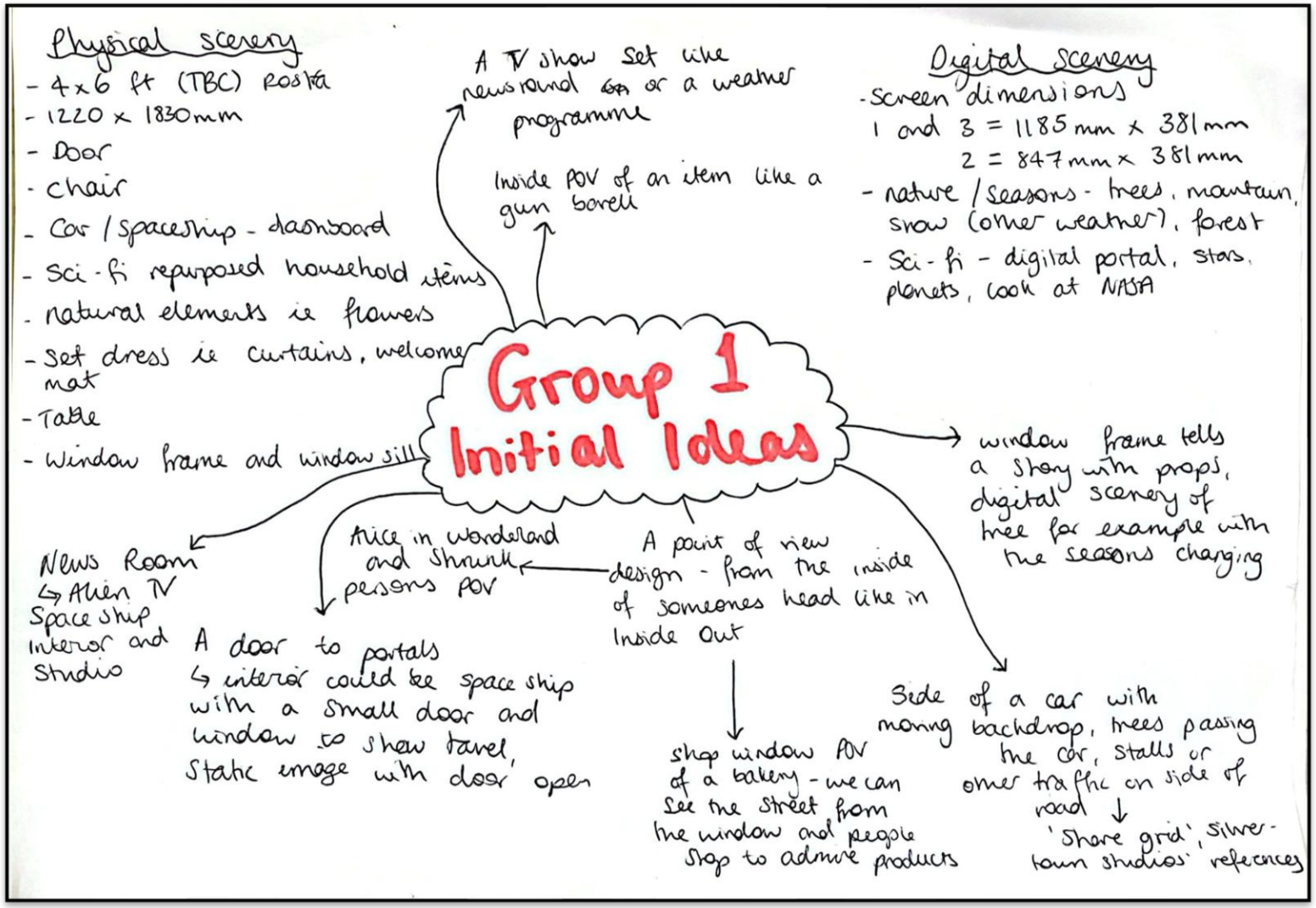
**Some notes on the Immersive Room:**

- We have 1x rostra and can't fix anything to the floor of the Immersive Room, ceiling and walls, but can fix items to the rostra
- We can download source videos for our digital backdrop or film it ourselves. We can also artificially generate it using it AI if we wish. We have a £100 budget so could put part of it into purchasing the rights to a video so we can use it in online portfolios.
- The budget can also be used toward props and set - utilise Fakebook Marketplace and eBay for cheaper and greener alternatives to buying first hand.
- Look at the R&D process for theatre (research and development) and how this can help us in developing our idea.
- Make sure to play in the space – light quality may affect the look of your set, play around with how the camera works and captures the screen and if this works, how big your frame is – how much are you dressing? And seeing on Camera?
- Liaise with Liam about equipment borrowing, Dave will make a risk assessment that we can use for kit rental.

By the end of the day, we will have a few design options per group. Using these design ideas we can look in the Props and Parry Store to see what we already have that could be used toward our idea.

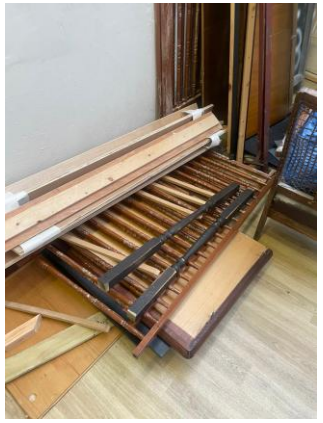
# Group initial ideas

On Monday afternoon, now in our groups, we had a group discussion of ideas and threw these together into a mind map:



# Visit to Parry

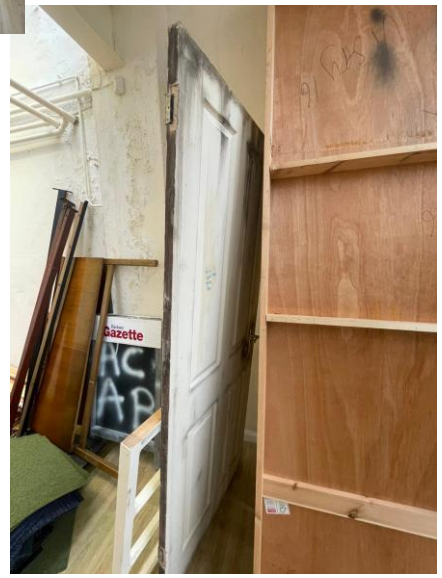
Next, we tried to enter the Immersive Room to measure its actual size, since we had only been given the dimensions in pixels. On the way, we went through the Parry Room to remind ourselves what was available and we took a couple of photos. It was still very early on in our process, so we weren't sure what we might want to borrow, but it was helpful to see what was there. We were unable to access the Immersive Room, so Annie emailed Glyn, the IR technician to ask for the room's measurements in metres. In the parry room, I was looking for set pieces like doors and windows we could repurpose, as well as railings, tables, chairs and props for inspiration on different time periods or settings we could build using these items.





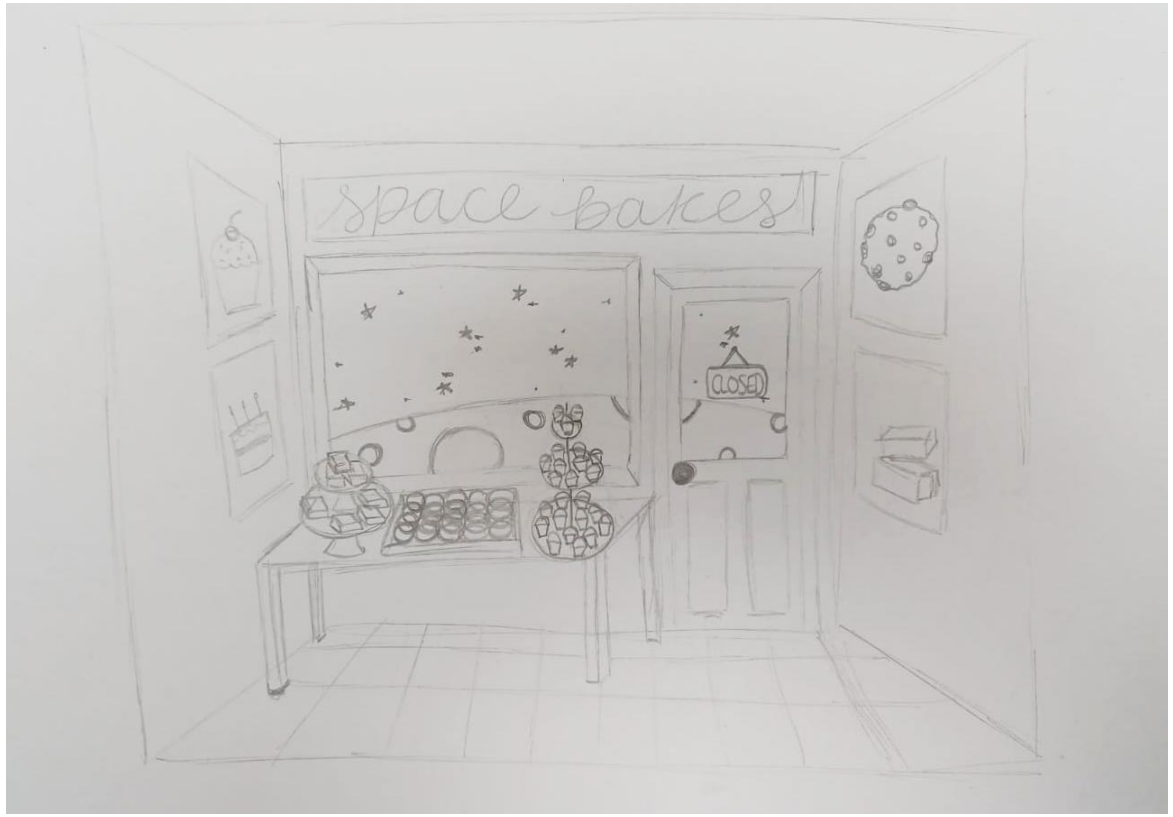


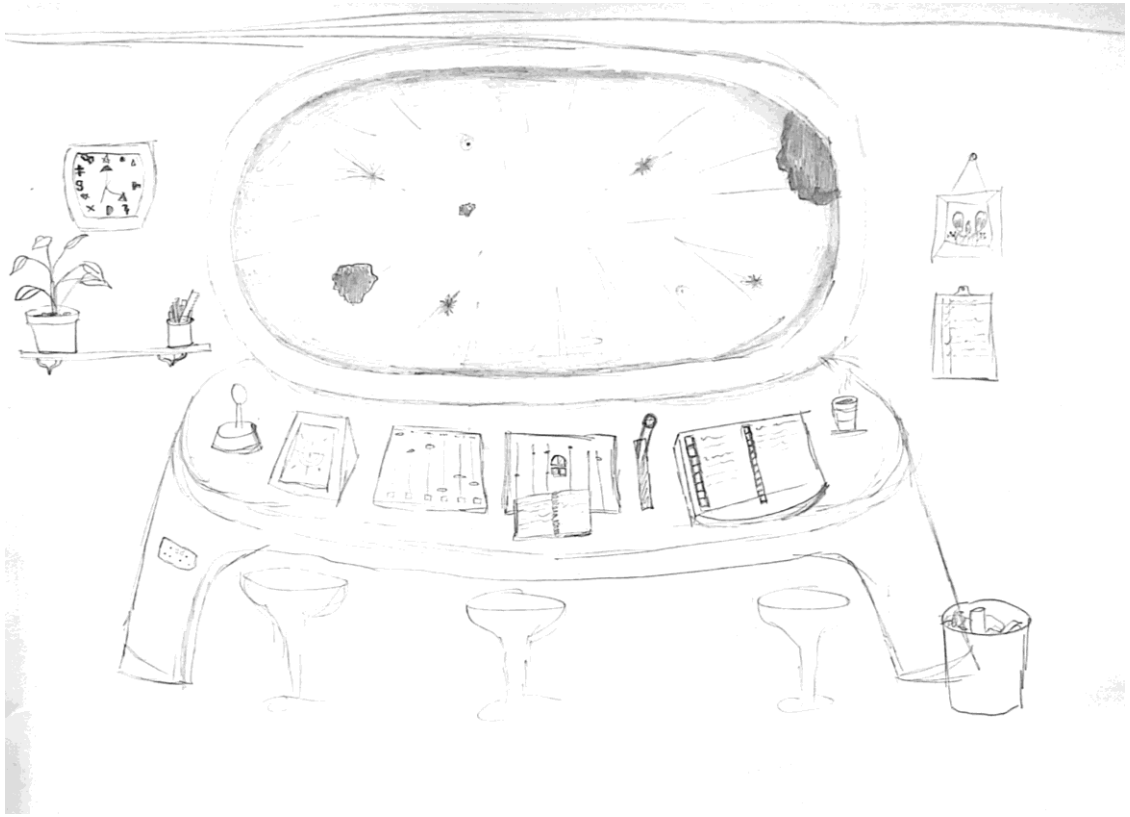


# Group Sketches

After mind mapping some ideas, we did some sketching to get our ideas onto paper:




Annnie's 1st sketch – a space travelling bakery. The interior inspired by a traditional bakery with a display table and baked goods themed artwork. Beyond the window (to be digital), a space backdrop



My 1st sketch of a Spaceship interior, everything apart from the space scenery could be physical, including walls, window frame and desk. Through the window on the screen, we can show the ship travelling through space

# Meeting with Dave Tuesday 24th Feb

**What is our plan is for the day?**

- Make Mood boards for 3 or 4 of our main ideas from the mind map
- Make a model of the space – including the immersive room walls and Rostra once we get the dimensions from Glyn (these didn't come through until the end of the day so we decided to move this to Monday 2nd March)

**Remember to consider:**

- What is the purpose of the scene – come up with a narrative, we are between a narrative that depicts time progressing or a TV show intro
  - → Telling a story? The windowsill idea of a house could tell a simple story of domestic life and how time moving is shown in scenery and set.
  - → An introduction to a children's show – so we can show different planets/worlds out of our set window.
- Remember to think about implementing camera angles, or if you choose no variation in angles, you must still show editing skills like cutting between a wide shot and super close up, or try adding a stylised shot. Considering different angles when working with a static screen is tricky, what are the possibilities? Using all three walls? Just the two long walls? Switching between them for different shots?
- This can be figured out in R&D phase – experiment with the different wall sizes, possible camera angles and shot types.
- On our to do list is: make a schedule and weekly to do list, make a plan for what we want to do by our next scheduled meeting (Friday 27th) As I am working in the unscheduled days of the week, Annie and I plan to work independently then regroup on Friday.

# Group Schedule

After our meeting we decided our next step should be to make a group schedule. For this, Annie and I used Dave's rough weekly schedule of the filming and presentation dates to make our Group focused aims for each day/week in an excel sheet.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Learn the software, research ideas for design | **Monday 23rd**<br>10am - 5pm<br>Mind map<br>Individual sketches | **Tuesday 24th**<br>10am - 5pm<br>Group mood boards for 3 or 4 key ideas<br>Model make the Immersive Room space - walls and Rosta | **Wednesday 25th** | **Thursday 26th** | **Friday 27th**<br>10am - 5pm<br>Immersive Room induction 9am - 10am<br>IR with Lloyd 2pm - 5pm | **Saturday 28th** | **Sunday 1st** |
| Start designing and m | **Monday 2nd**<br>10am - 5pm<br>IR 10am - 5pm | **Tuesday 3rd**<br>10am - 5pm<br>Lloyd 10am - 1pm | **Wednesday 4th**<br>10am - 1pm | **Thursday 5th**<br>10am - 5pm | **Friday 6th**<br>Creative Industry 10am - 5pm | **Saturday 7th** | **Sunday 8th** |
| Filming, designing and making (digital and physical) | **Monday 9th**<br>10am - 5pm<br>IR 10am - 5pm | **Tuesday 10th**<br>10am - 5pm<br>Lloyd 10am - 1pm | **Wednesday 11th**<br>10am - 1pm | **Thursday 12th**<br>10am - 5pm<br>IR 10am - 1pm (R&D) | **Friday 13th**<br>Creative Industry 10am - 5pm | **Saturday 14th** | **Sunday 15th** |
| Film, edit, put together presentation | **Monday 16th** | **Tuesday 17th**<br>IR 9am - 4pm | **Wednesday 18th** | **Thursday 19th**<br>Rehearsal presentation 10 am - 1pm<br>Final presentation 2pm - 5pm | **Friday 20th**<br>Creative Industry 10am - 5pm | **Saturday 21st** | **Sunday 22nd** |
| | **Monday 23rd**<br>PWB due 10am | | | | | | |

All day
Morning
IR
Loyd
What we're going to do
What we did that day
Creative Industry

Next, Annie and I started putting together mood boards. Although we agreed we loved the idea of a space bakery, we didn't want to narrow down our options too early. To develop our three favourite ideas: of the spaceship interior; a travelling bakery and a windowsill that tells a story of family life, we made these into mood boards. (see the next few slides) The 4th mood board is a combination of our spaceship bakery idea -the option we ended up going with for our scene, as Annie and I were feeling very inspired and could think of lots of ideas to play with.

After completing our mood boards, Annie and I made a list of end of the weeks aims. We had the next two days unscheduled so in this time, we made a plan to each individually write a story synopsis, put together some more visual character and scenery references and, think about what elements of the scenery will be physical vs digital, to present back to each other on Friday.


Spaceship




160
VESUVIO
BAKERY




Bakers
S.H.FERRELL & SON
Confectioners


BAKERY
&
COFFEE


PAINS FRANÇAIS


gettyimages
Credit: Jupiterimages






Bakery


SANDWICHES
BAGELS
QUICHE
SALAD







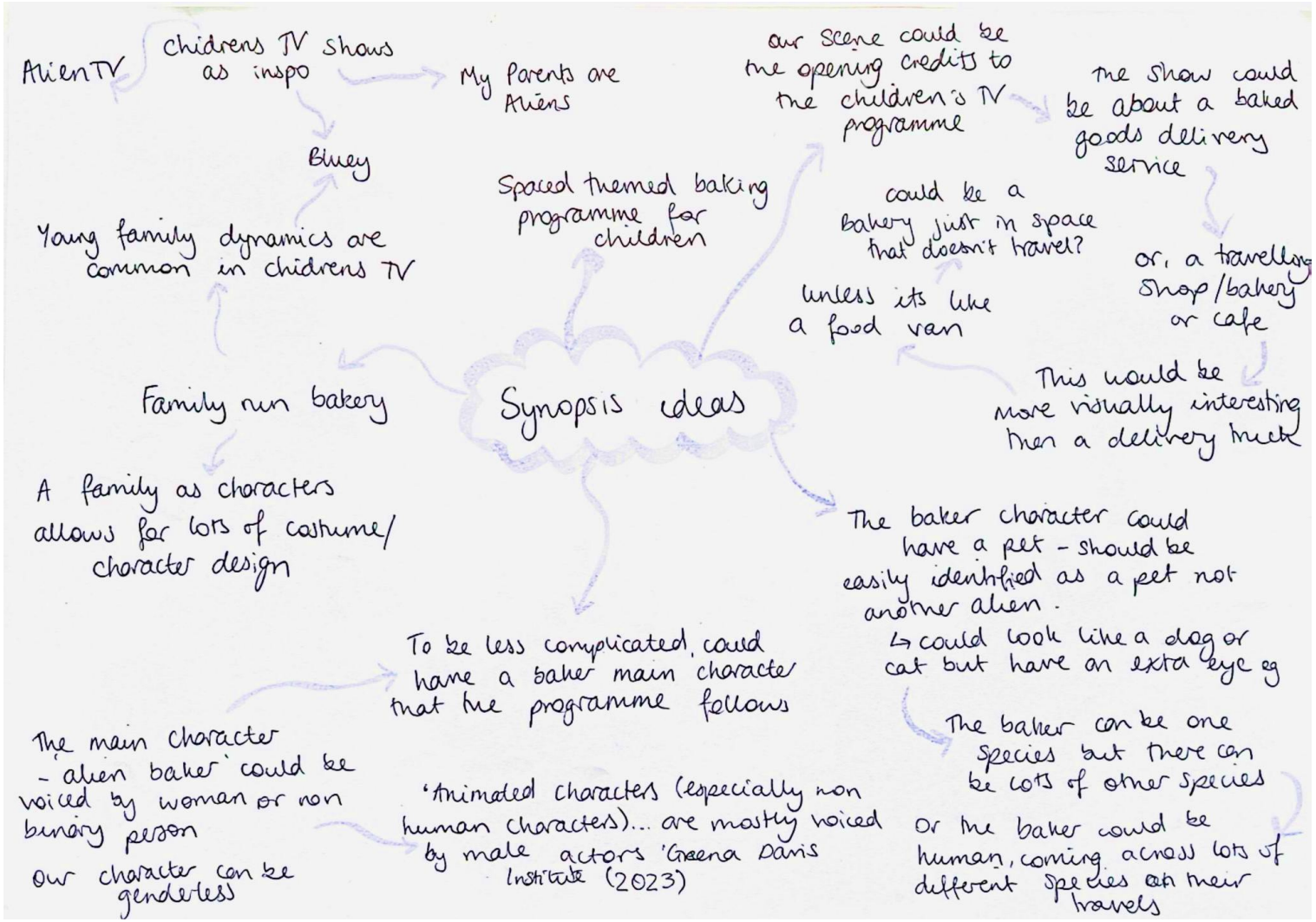


Window frame and nature view/seasons


Spaceship bakery

# My Personal Synopsis Idea

Before writing up my final synopsis idea, I made a mind map of possible narratives and characters I could think of for our space bakery.



# My Personal Synopsis Idea

A children's TV show about a Bakery in a spaceship. The story follows a young baker that travels daily to new planets and markets in the galaxy to sell their baked goods.

**Setting**

- ‘Space Bakes’ or ‘Space Cakes’ Bakery
- a fusion of spaceship and Parisian bakery with a couple of tables and chairs
- A display window at the front of the shop shows space themed baked goods croissants, cookies and cakes.

**Characters – Indigo and their pet cat Marsh**

- Indigo – looks human, but is an alien, they are a young adult or mid-late teen, they have crazy orange hair and wear an apron constantly. I think it would be interesting to design a character that wears something that looks futuristic yet still has hints of ‘Baker’ to their clothing. Maybe something like a chef’s jacket, but in the material of a Storm Troopers armour. For our protagonist, I feel inspired by the likes of Luke Skywalker who is human but lives in a galaxy *far far away.*




Wikipedia (2026) *Galidor: Defenders of the Outer Dimension, 2002. Follows the story of a boy who accidentally enters alien realms when he discovers an alien spaceship*



Ben10 Wiki (n.d) *Ben and Gwen, Ben 10 Race Against Time, 2007*




IMDB (2026)*The Journey of Allen Strange, Nickelodeon, 1997.* A children's show in which an alien, who looks human, has to navigate human life



Universal (1982) *E.T still.* I’m inspired by the connection between E.T. and Elliot for our protagonist and pet/accomplice





United Workwear (2025) *Fashion & Functionality*

RS Prop Masters (2026) *Stormtrooper Empire Pro Built Suit (ESB)*

# My Personal Synopsis Idea

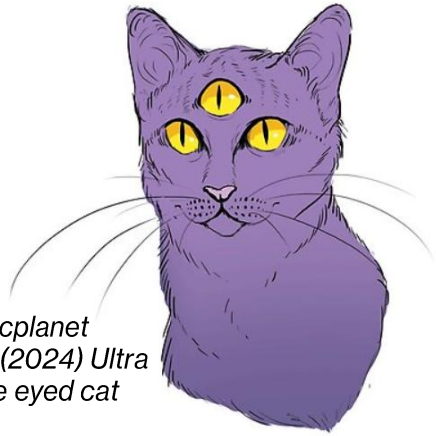
**Their relationship** - why they bake etc what kind of obstacles do they face?

- Indigo and their cat (who could be a teddy or puppet), left their home planet to explore and find independence. Baking is Indigos absolute passion and they travel daily (or episodically) to new planets or realms to deliver their confectionary or to open shop. Challenges they face could include, being late to a special client of the galaxy's birthday party; having a bumpy journey and dropping a wedding cake to be delivered in under an hour; opening a shop where the alien kind don't like sugar but prefer vegetables and commonly disliked foods.
- Alternatively, Indigo could be a human who has joined this universe by accident but is still achieving their dreams, as the only humankind in the galaxy.

**The synopsis of our scene**

- The TV show intro – with music and titles. Could be quick cuts of Indigo and their pet landing on a planet then setting up shop.
- Could be the bakery stood on a foreign planet's main high street and alien life forms come up to the window to admire the display.

In the style of mixed media, I would love to implement an animated cat as our protagonists companion. This isn't suitable for this project, but I found this artwork very inspiring.



*@nomadicplanet via RedBubble (2024) Ultra spooky three eyed cat*



@mailodmice via Pinterest (2026) *Three Eyed Cat*

I looked at some examples of sets designed for children's television shows. I noticed they don't have to look realistic at all, and designs that are colourful and eclectic are favoured. This works well for our brief as a seamless blend between digital and physical scenery may not be realistic looking.

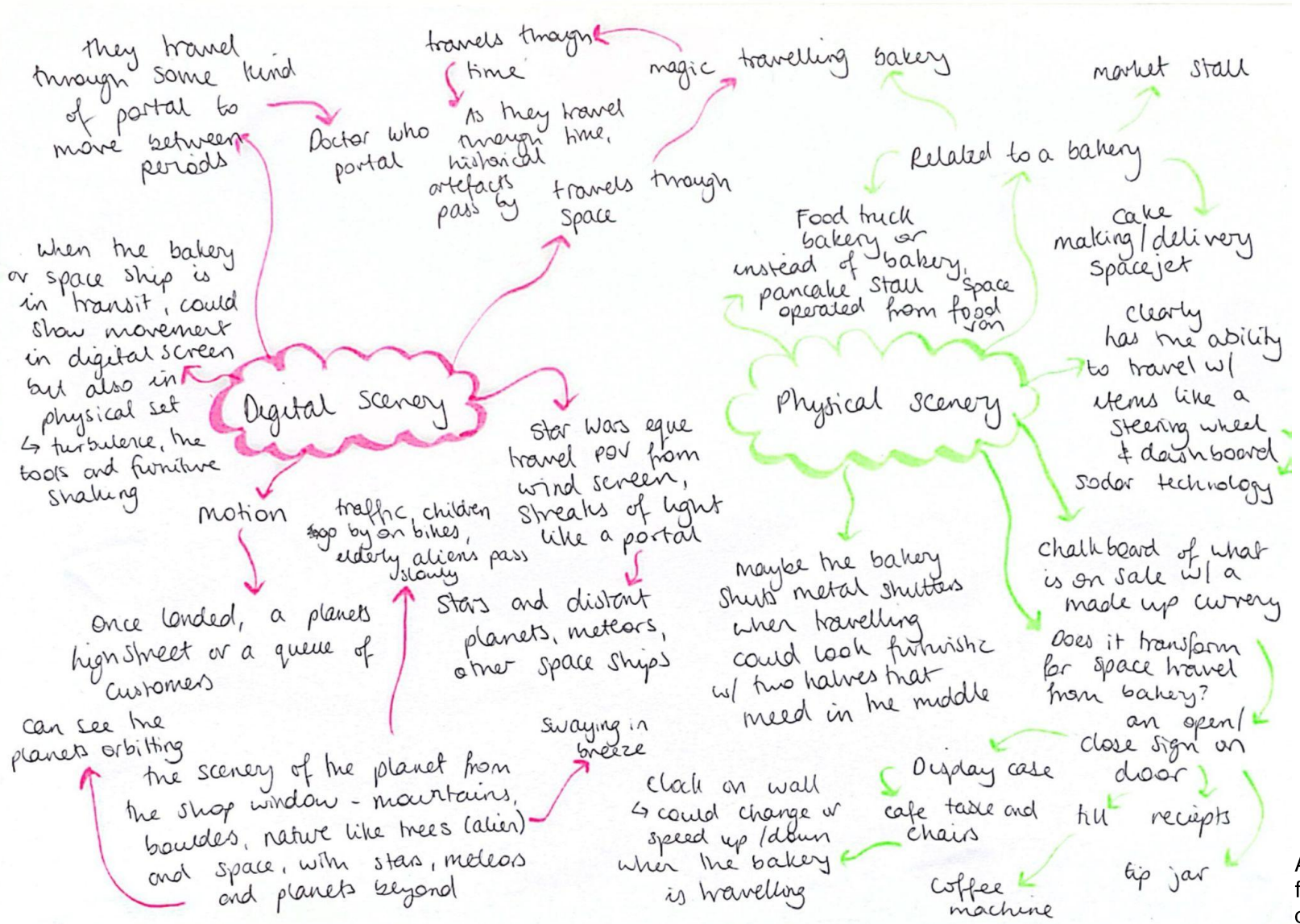


Mark Hoefling Design (2026) *Wizards of Waverly Place: The Movie (2009)*



IMDB (2026) *My Parents Are Aliens, TV Series, 1999-2006*

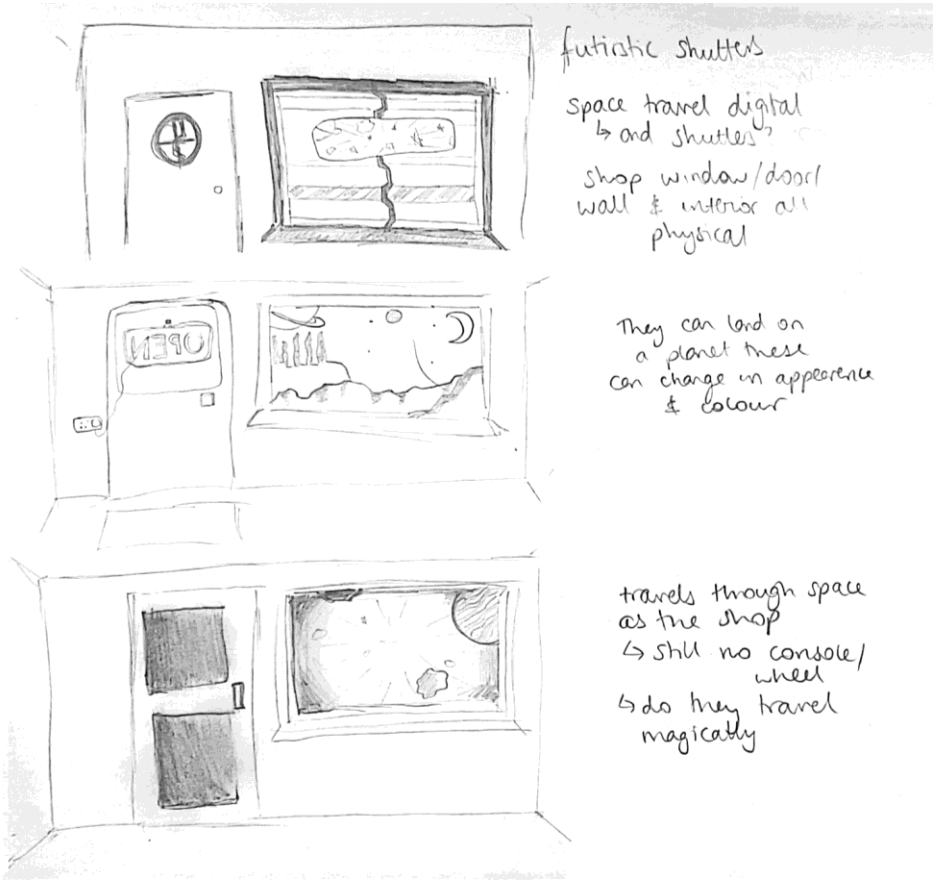
# Digital VS Physical set ideas




A mind map which shows my ideas for what components of our set could be digital vs physical

# Some further developmental sketches and visual references

**Playing with the idea of how we combine a shop window and spaceship:**




**A digital version of my sketch made with stock imagery and masking these in Procreate to show how it could be achievable in the Immersive Room:**

**Inspiration for Indigo's accomplice or pet:**
As our scene is designed to be a hybrid physical and digital set, we could have a physical puppet as Indigo's pet – either a furry friend or an alien creature made of recycled materials. Alternatively, their pet could be live action CGI, so we have a real looking pet but give it three eyes, for example, or it could be from the human realm like Indigo. This wouldn't be achievable for this project, but it is interesting to consider both options from a designer's view.



Hands Up Puppets (2026) *Justin's House CBeebies, Visiting Aliens, 2023.*



Wikipedia (2026) *Nev The Bear, Bear Behaving Badly, 2007*



Hands Up Puppets (2026) *The Little Twists, Puppet Designs in Development: April*



eBay (2026) *PETKIT Backpack.* Looks like it could be a space suit for Indigo's cat







Alamy (2019) *Interior of a café looking out onto street, Reefton, South Island, New Zealand.* Stockcake (2026) *Futuristic Space Colony.* Stockcake (2026) *Futuristic Alien Marketplace*

# Personal refined mood board

It seems common for bakeries to use a strong colour palette to give them a sense of identify, they us one colour for the walls or exteriors





Since we are going for a window display idea, I want to prioritise creating depth with different levels of displayed items, these examples have used cake stands, shelves, jars, chopping boards etc.









My final sketch design, I made it too large so we could think about how we could construct the space to look as if it continues in length. We could have the beginning of a shop counter or show the corner of a table and chair to make it seem the shop goes on beyond the camera






I looked at examples of spaces designed for children like bedrooms and museums, to see what textures, colours and graphics are implemented to appeal to a young audience



I like the aesthetic of mismatched furniture, as long as it's made from similar materials they go together in a harmonious way







Examples of baked-good layouts





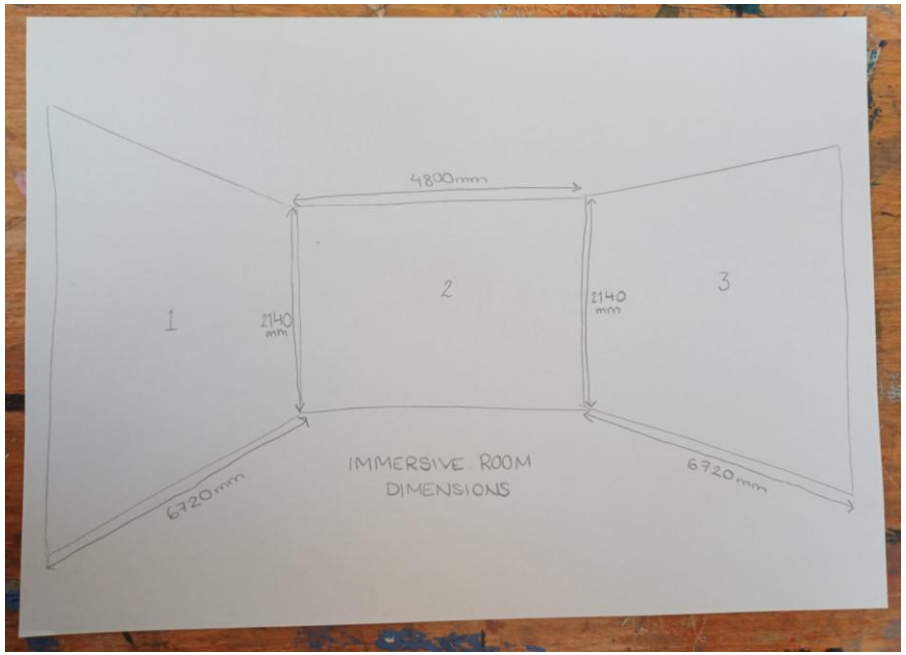


These are examples from Bake Off which again uses this teal colour which appears a lot in these settings and connotes calmness – could be popular with adults but not necessarily children

# Making a model

After getting the measurements of the Immersive Room, we made these walls into a 1:20 scale model using white card:

- Long walls (1 and 3) are 6720mm x 2140mm
- The smaller wall (2) is 4800mm x 2140mm
- We'll need 8x braces to place along our walls (3x for each long wall and 2x for the smaller wall)
- The Rostra is 1980mm x 1220mm x 155mm
- We didn't add any furniture until we had a finalised design for the space and walls




Annie's sketch with the IR's dimensions









Images from the beginning of the white card model making process

# Immersive Room Induction

**On Friday morning we had an induction from Calum in the Immersive Room. I took the following notes:**

- Uses igloo software, undergoing an update over the next few weeks
- Bare mechanics will stay the same but there will be developments in how content is displayed
- Things might look/act different between now and when we use it on the filming day - 16th/17th March, or they can hold the new version back so it's not updated just before our shooting days and mess it up
- The system runs similarly to how we've used it last.
- Can mute pin hide review layers
- Can adjust aspect ratio - make a display wrap across the whole screen or repeat on each screen
- 360 version display - true perspective option gives you the chance to edit the part of a 360 degree video you display
- Handles any 360 format
- System runs 60fps but adaptive to whatever we put on
- 30fps could cause stuttering so make the project 60fps
- Can cause issues with the system reading and writing the pixel
- Likes H264 formats will handle h265, ultra 4k or 8k stock, filming
- Also likes lotless formats
- Other encoder formats include apples x44
- There is igloo encoder on the pc so we can recode .mov formats to the correct format so it can be read by igloo - quick encoding method work around if your file fails
- File size - pretty limitless
- Transfer your video to the server not an external drive. To do that there is a couple ways, main way is teams unless you're doing huge file sizes. Each immersive room has a teams chat - IR CARM. Go onto shared and drag and drop file into there
- Another quick file transfer method is Blip. One of the main creative transfer platforms like WeTransfer. The immersive room use Blip. Your video data isn't stored anywhere, both devices have to be online for the transfer.

# Immersive Room Induction

- When it comes to imagery, the software will turn on sphere morphing so 360 images can appear across all screens
- The system is 64 bit, allowing a huge colour range but try keep it to 32 as this is what igloo prefers
- Photo example is 32 bit then 16 bit - still plenty of image clarity
- Screen controlled on touchscreen, mouse and keyboard or use the iPad (code 123456). The iPad has a simplified version of the Igloo software - can turn on and off layers, give layer commands, mute music, start video
- A content bank will involve all of your videos within your sequence - which you click to play so it can be live ‘edited’, last years were just hiding and showing layers to display their work and added transitions within premiere
- Entire Pixels: 12160x 1440. We have a template of the screens on Moodle since we aren’t using every screen together at once we’ll want to use separate screen sizes (possibly only the two long ones)
- To hide corners you can darken the screen edges with a vignette effect to avoid colour distortion from corners to disguise the corners If working in adobe and want to preview
- the IR can pick up NDI feed in immersive room so you don’t have to export it- you can can’t the preview into the immersive room Use adobe cloud based system for ease of picking up the file in the IR Can install other software’s we use of editing if need be but we’ll be using premiere
- Can use Resolume Arena (free version available but will be watermark it)  in the space and touch designer (completely free but you’re limited by your device and knowledge - possibilities are endless within the software - popular with interactive art displays - possibly as seen in Van Gogh interactive experience and projection mapping i.e. Kew Gardens light displays) This is like a software called Linnex, Resolume is a VJ software for concert visuals in

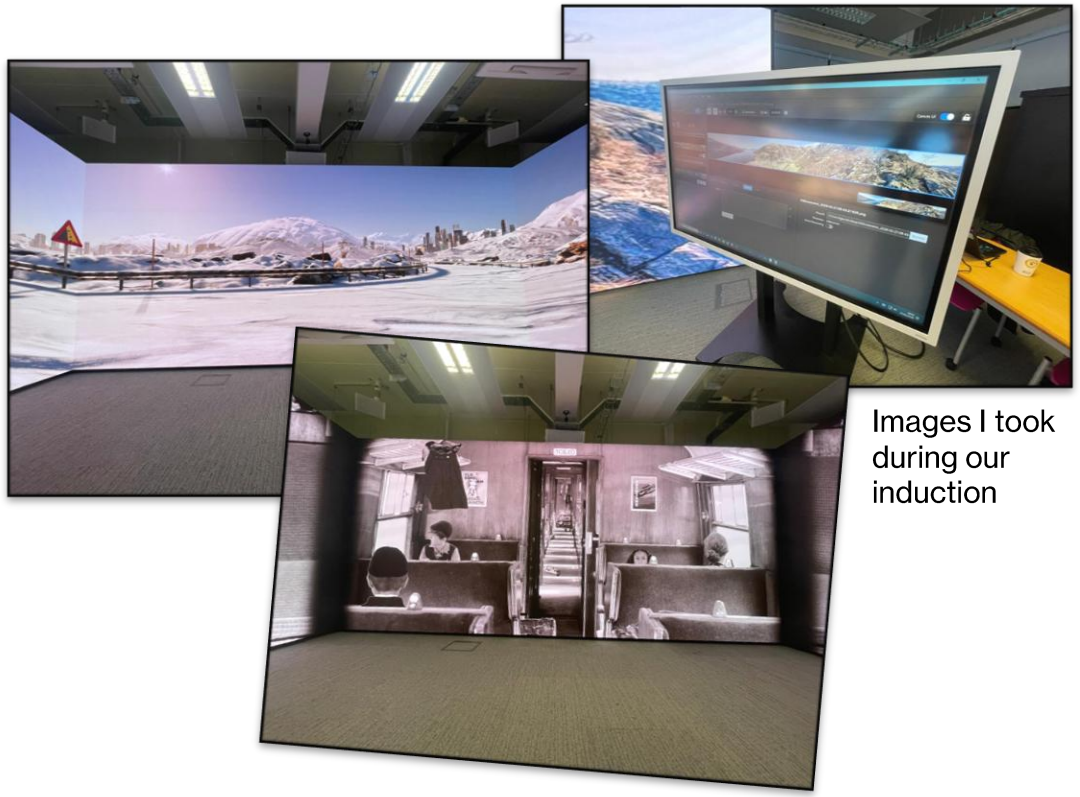
# Immersive Room Induction

**Tips from Callum:**

- keep previewing and testing your video in the Immersive Room as you go to make sure final design is polished and works
- Experiment with lots of images, styles and placement
- Will play surround sound if using this feature - could edit panning with video effect

**For health and safety:**

- No hanging anything from the ceiling - blocks air con units
- Anything that does come into the space needs to be stable so it doesn't fall onto screen
- There are 90 led panels within the screens woven together - you could damage multiple and this would take a long time to fix
- Weigh down tripods and set etc to the floor
- Assess the risk of your set to people in the room and the screen
- No water or misting practical effects but dry ice is okay as it's not water Vapor
- up and down movements can cause motion sickness - left to right usually okay if not too quick Advice on getting stock videos

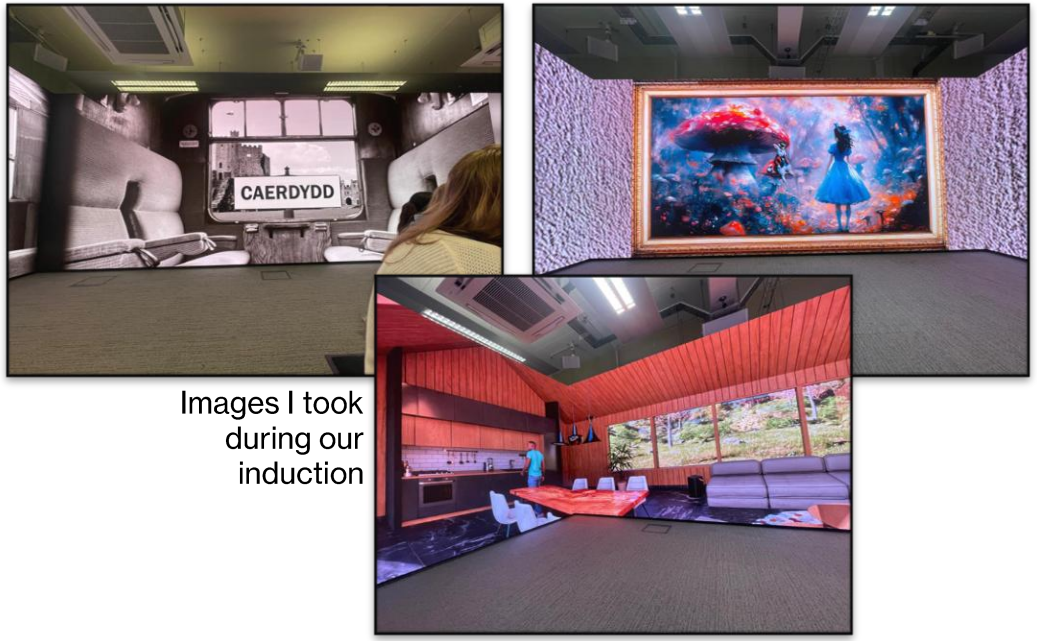


Images I took during our induction

# Immersive Room Induction

**Other notes:**

- We have access to adobes stock footage and adobe firefly AI image generation. Staple diffusion is good for combining AI images and working across canvases
- X rectangular and ultra wide format can be used across the three screens
- Pixabae is usually royally free and accessible to students or, you may need to credit artists when using
- Matterport then hashtag to define search parameters i.e. ‘Egypt’ so type into google ‘Matterport # Antarctica’ can access 3D environments then copy the code at the end of the hyperlink and add info igloo control panels and enter the code under ‘space Id’ to import the 3D environment into the immersive room
- Can also use google street view for environments. Because it’s American there are no Middle Eastern or Chinese environments. Can use google street view environments as your back-drop
- By directly copying something from street view you are protected within the university environment but if you take an image of the room and put it on an online portfolio or linked in it could get copy righted - take an image of the room in a way it can’t be located by google like a close up or obscure angle Will need to consider shooting settings so they match fps Get around this with correct exposure and shooting in the same frame rate as your video - be adaptable and consider the variables of shooting i.e. shutter speed.




Images I took during our induction

# First session with Lloyd

During our first session with Lloyd, Annie followed the tutorial on the Mac as I took notes. Once my Premiere was up and working, I caught up and experimented with multiple layers and using chroma key to add in YouTube green screen effects like a rocket ship. I made a mock up also adding in some shop window shutters as an example of what we could create for our digital backdrop.

To the right are my notes from Lloyd's session

Premiere Pro notes 27/02/26

- Discussed rough idea with Lloyd and what we have in mind for physical vs digital set – bakery interior, digital space scenery
- He suggested inputting realistic looking aliens could be challenging so we could source and animate cartoon aliens that admire our cake displays
- Having a mix of real actors and animation lends itself to children's TV which can be a combination of formats - like in Charlie and Lola, which uses a layered collage style.
  Other examples of mixed media animation include:
  - The Brilliant World of Tom Gates *(2D/stop-motion/live-action)*
  - The Amazing World of Gumball *(2D/3D/photographic backgrounds)*
  - Blue's Clues *(cutout/live-action)*
- Consider if we want a realistic image or stylistic result – as we are doing children's TV, we have the option to play around with mixed media
- Start collecting footage you'd like to use and put it in a folder, even if its not exactly what you want. Make sure you have sourced and downloaded the footage ahead of sessions with Lloyd

**Ways you can use AI**

- Masking – when rotoscoping
  - We could source a video of an alien and cut it out of the background to use on our own background video
- Extending video length
- Extending video dimensions

**Opening and using premiere**

1. Click on premiere
2. Log in with student email (that's our license)
3. Click new project
   Within dialogue box:
   - Name it
   - Select its location – on your hard drive or one drive (hard drive better) and keep all of your footage here too
   - When selecting the location, make a folder for your entire project – including all sourced images, video, audio and projects
4. In same dialogue box: under templates can select social media template for portrait or broadcasting for broadcasting purposes, for our project select 'None'
5. Then click create, this will open the premiere work-space, if it opens 'sample videos', select the edit folder (top right) as you're currently in 'import' folder
6. In window ➡ workspace ➡ editing (workspaces changes to cater to how you are using premiere). For our purpose, we need to view:
   - our source list (clips) (top left)
   - Video preview (top right)
   - Project of raw files (bottom left)
   - timeline (bottom right)

You can edit your workspace and move these windows around depending on what you'd like available.

   - double click on a sub folder (top left list) and it takes up the whole screen, don't panic, double click on 'source' to see your project again
7. To import a video, drag and drop the downloaded file into Project ➡ 'import file' box
   - You can view your media as a list or thumbnails
   - Double click on the thumbnail or video in your list to preview it in 'video preview' or 'audition' (top left box)
   - Here you can begin editing
8. In the top top right on the mac menu, select file ➡ new ➡ sequence.
   - Here you can adjust the sequence settings i.e. frame rate. Always build in 1080p as 4K could be too large (of a file size) for your computer to run and mean you lose quality when importing smaller files.
   - The first video you import, if you just drag it into your timeline, will be the format of your entire sequence. Choose your sequence settings first and select 1080p.

**To build a sequence**

1. Select file ➡ new ➡ sequence.
2. Available sequences will appear, open folder in drop down menu: HD 1080p
   - Note on frame rates: make sure all video, audio is the same frame rate so nothing is sped up or compressed
   - Put simply: frame rate is how many images the camera takes to create a video
   - When using the cameras, check what frame rate you film in and edit in the same frame: use 23.976fps (this is standard)
   - Immersive room is 60fps but we can try 23.976 and experiment with if that works
   - Name sequence = 'Alien Bakery backdrop'
   - Click 'Create sequence'

# First session with Lloyd

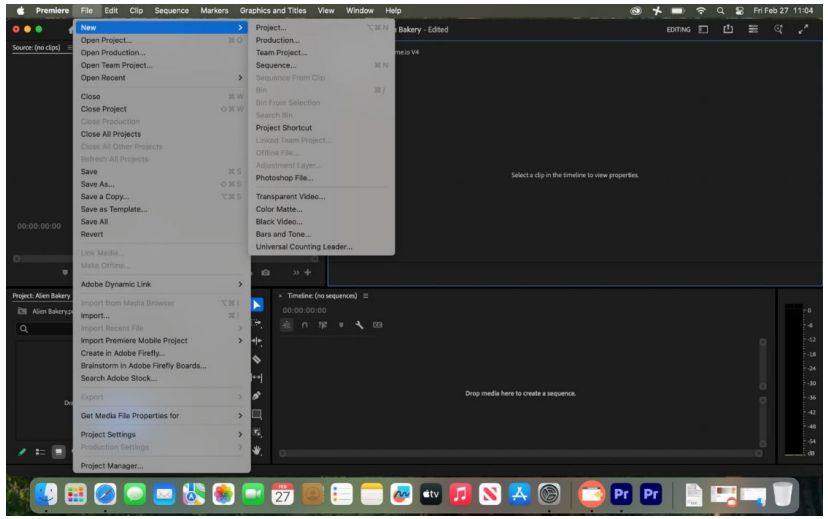
9. In premiere, we have 4 audio tracks (A1-4) and 4 video tracks (V1-4)
10. Double click file in your project window (bottom left) to preview it, mark the Inpoint (shortcut I) and output (shortcut O) this is the selection you want in your timeline - then drag and drop into timeline (hover over frame symbol for video only or audio symbol for audio only)
11. Or to delete audio or video after clipping, lock the layer you want to keep ie video, to delete the audio by selecting lock symbol on the left side of the timeline

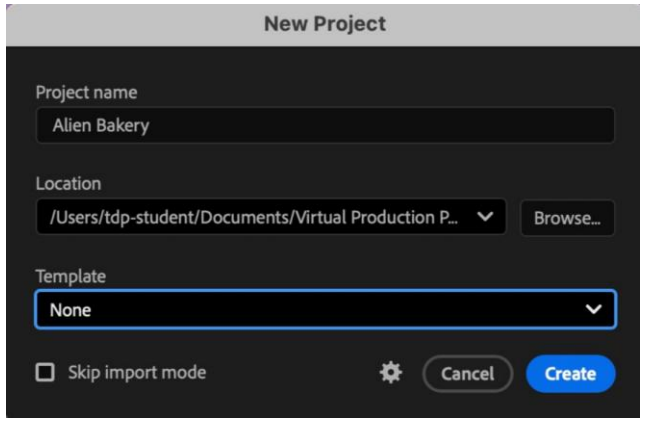
Do any fine tuning within the timeline using

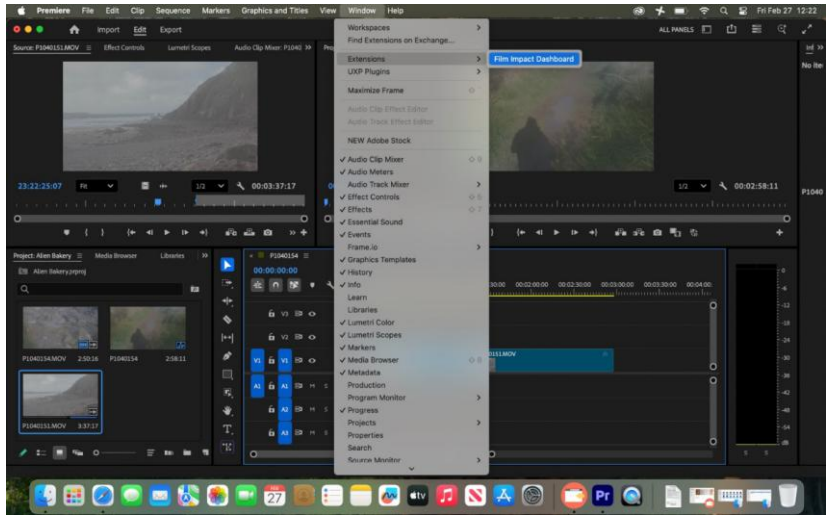
- Razor tool – this splices the clip wherever you hover and select on the video
- Selection tool - To trim the inpoint and outpoint

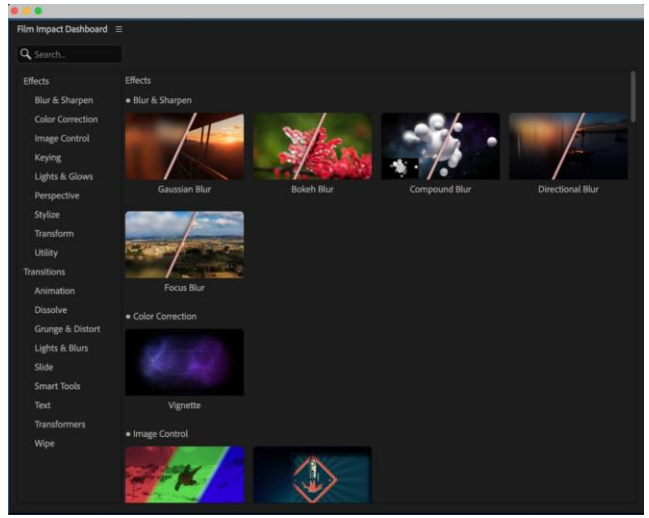
12. Use effect control panel to adjust the scale, position, orientation of video
13. Can create 'key frames' which are actions for your video ie its scale. As an example: start with a keyframe where the video is tiny then create another keyframe 10 seconds later with the video in full screen to make an expanding effect or transition. The same principle can be applied to any controls.
14. For 'Extension' window of effect samples: window ➞extensions➞ effect ➞film impact dashboard
15. In 'effects panel' you can add transitions
16. In 'Lumetri colour' you can adjust brightness, shadows, highlights, exposure etc.
17. In 'Creative' you can adjust the LUTs aka colour grade. You can download premade LUTs. We may want to colour grade the backdrop to look cohesive with the colours of our physical set and so they look as though they belong to the same world.

Screenshots from Annie's process





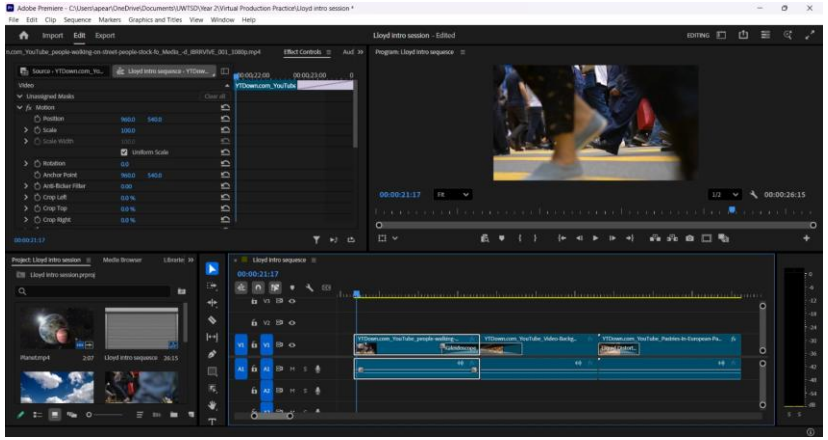


# First session with Lloyd

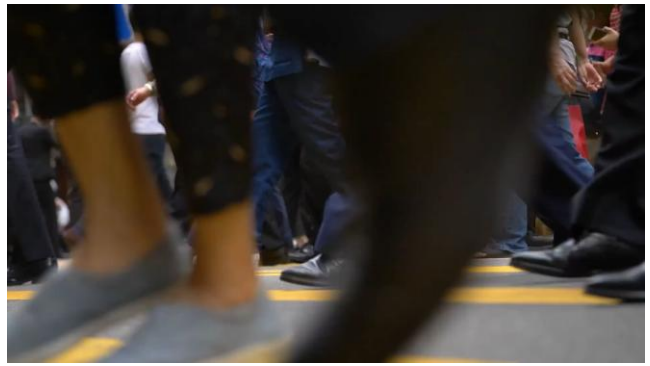
Whilst Annie used some of Lloyd's supplied footage to play around with, I had sourced some stock videos. Using these and the film impact dashboard extensions, I played around with adding transitions. In my example to the right, I had inserted three clips and used the transitions 'kaleidoscope' and 'liquid distort'. For our digital backdrop, we may be able to find zoom or blur transitions to mimic space travel and transition between different clips of space travel.

Next, I downloaded some videos from YouTube that are green screen effects. I was experimenting with three layers and using chroma key to take out the green screen and overlay clips.

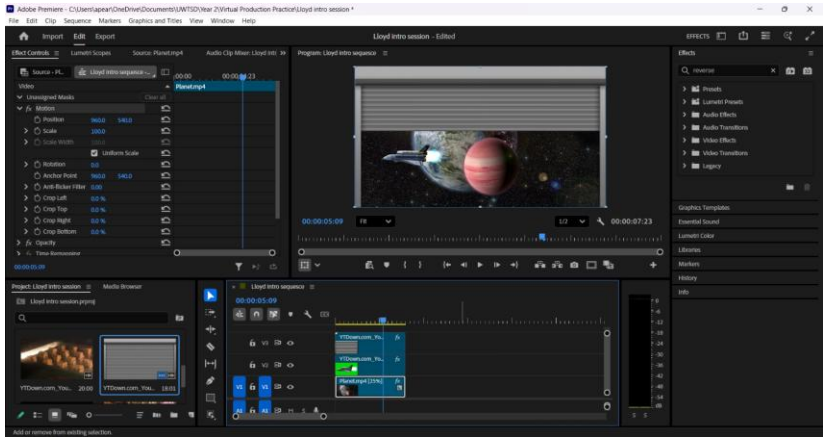
We can recreate this mock up with our own drawings of space ships/shutters or sourced videos or filmed items for our own version.



My timeline where you can see the transitions



Exported result, link: Alice transitions (first premiere session, 27-02-26).mp4



My timeline where you can see the layering of clips



Exported result, link: Alice layering and chroma key (first premiere session, 27-02-26).mp4

# Finalising the Synopsis

After lunch, Annie and I had a group meeting to share our synopsis ideas. We combined the elements of our designs we liked the most or felt suited the brief best, creating a mind map with our final synopsis ideas.

We had coincidentally agreed, the less characters the better (as that's less cast availability relied upon). We had also both gone with gender neutral names, since this is a fictional TV show for children, we can let our imagination run wild – this applies to character names, backstory and outfits.

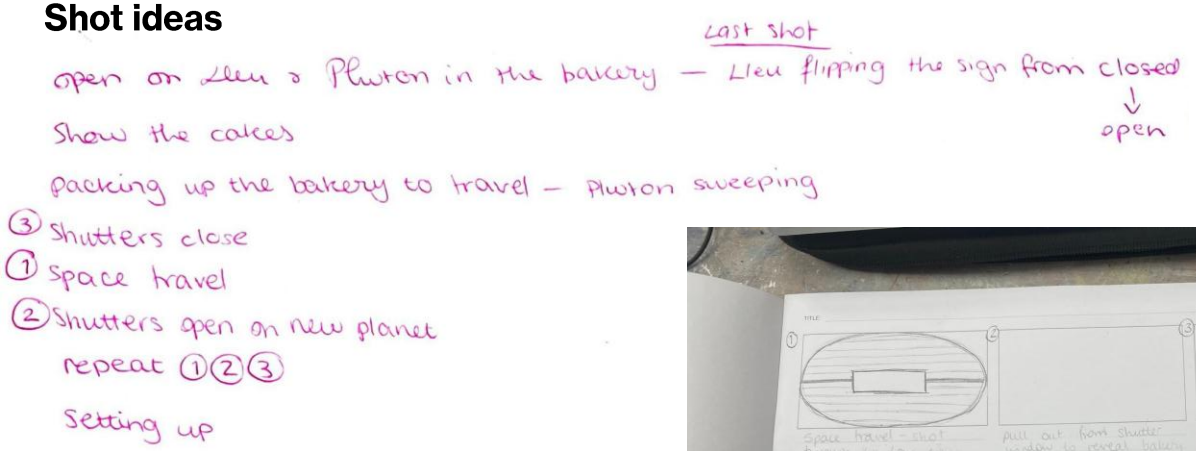
However, we still needed to keep our idea realistically achievable with the time and resources we have. This is what helped us guide our conversation and narrow down on decisions as demonstrated to the right in our mind map:

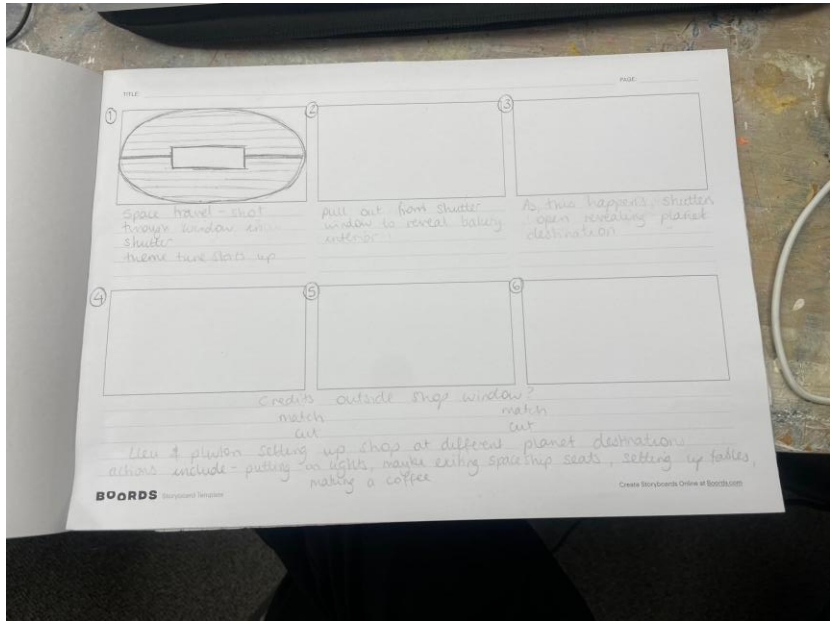


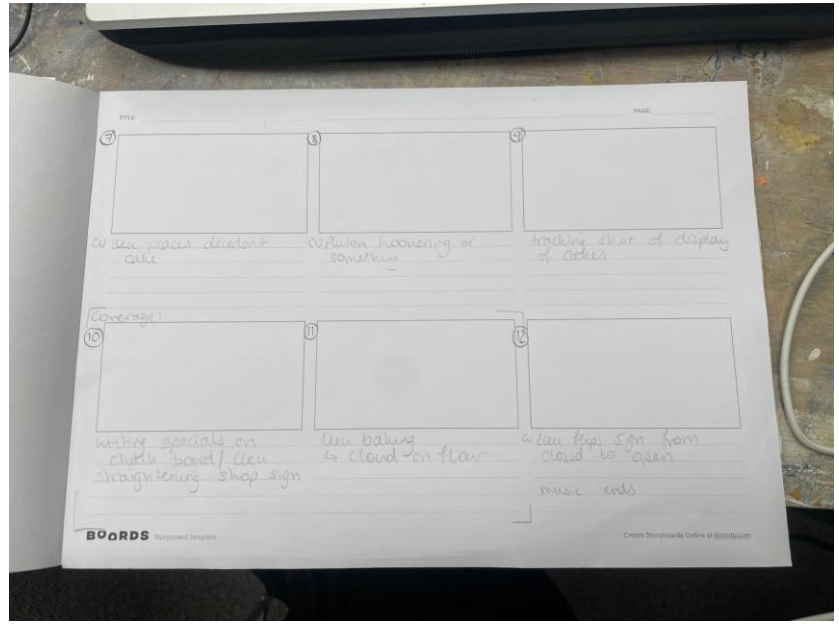
# Storyboard

To make our storyboard, we printed off a template and made a list of possible shot ideas. We then pencilled these into the template where we felt they should go, adjusting the placement of shots as the process developed. We added any initial details for camera movement or transitions. Then, over the weekend, Annie coloured in the final concept design and added the drawings of the final set design to the storyboard.

**Shot ideas**




Starting the storyboard process

# Shot List

Using the storyboard, I developed a shot list over the weekend. I looked up some online templates for inspiration for possible headings and chose what best suited our project. I decided to add columns for the shot, shot size, camera movement, action and description. I left out options for INT/EXT, scene no. and dialogue as this doesn't apply to our project. I plan to keep coming back to this and developing it as we make progress in our making phase, as their may be items we want to shoot that we didn't consider when making the storyboard.

**Space Bakery Shotlist**

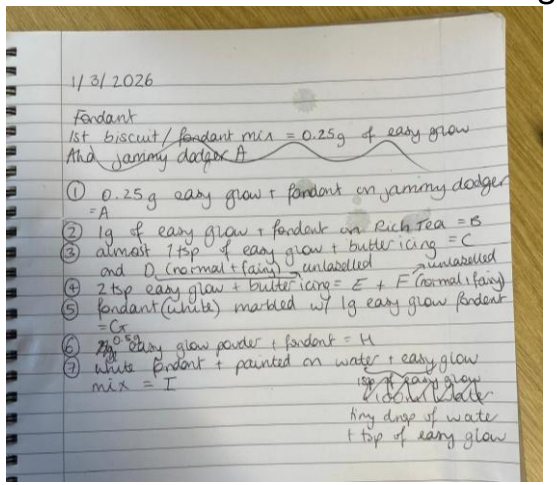
| SCENE | SHOT | SHOT SIZE | CAMERA MOVEMENT | ACTION | DESCRIPTION |
|---|---|---|---|---|---|
| 1 | 1 | SCU | static | NASA Space travel footage, shot through shop shutter window | Theme tune starts up, camera on tripod, shot through shutter wndow |
| | 2 | SCU | static | NASA Space travel footage, shot through shop shutter window | |
| | 3 | SCU | static | NASA Space travel footage, shot through shop shutter window | |
| 2 | 1 | Mid shot | Pull backward | Pull from shutter window to reveal bakery interior | Dolly shot, as the camera pulls away, the shutters begin to open revealling the planet scenery where the bakery has landed |
| 3 | 1 | Mid shot | static | Lleu & Plwton setting up shop - Lleu enters frame, puts on lights | Credits through window, match cuts between different planet scenery. |
| | 2 | Mid shot | static | Lleu sets up a table or the till | |
| | 3 | Mid shot | static | Plwton dusts the display table | |
| | 4 | Mid shot | static | Lleu makes and sips a coffee | |
| 4 | 1 | Overhead medium close up shot | static | Lleu places a decedant cake on a cake stand | |
| 3 | 5 | Mid shot | static, handheld | Plwton uses a dust pan and brush on the floor | |
| 4 | 2 | Overhead medium close up shot | Tracking, handheld | Lleu contunies to place the days baked good out on the table in the window | |
| 3 | 6 | At ankle level - Plwton's eye level | static | Lleu picks up Plwton and places them by the till | |
| 5 | 1 | mid shot | static | Lleu moves over to the door and flips the closed sign | Music ends |

**Optional Extra Coverage**

| SCENE | SHOT | SHOT SIZE | MOVEMENT | DESCRIPTION | NOTES |
|---|---|---|---|---|---|
| 6 | 1 | Medium CU, low angle from below the counter | tracking toward the shop counter | Lleu writes the specals on the a chalk board | |
| | 2 | Mid shot | static | Lleu straightens the shop isgn over the window | |
| | 3 | mid shot of Lleu at the counter | Static | Lleu whipps up some icing to touch up a cake, flour in the air | |

# Experimenting with prop bakes

On Sunday March 1st, Annie and I met up to experiment with some UV reactive food colouring. We wanted to see what space themed bakes we could come up with using an iridescent pigment in different icings, cake batter and jelly. We noted the amount of food colouring added to each prototype of fondant, buttercream, cake batter etc. increasing the amount of UV food colouring in small increments in case this made a difference to their outcomes and how well the UV glow effect works.




Noting down the ratios I used in case we wanted to repeat any for our final design





Increasing amounts of UV powder added to cake batter




Combining the UV colouring with different food colours to see if it effects the UV and the food colouring's shade

My different experiments with fondant, buttercream and glacier icing



Amazon (2026) *Special Ingredients Easy Glow 100g Make Glow in The Dark Food and Drinks*





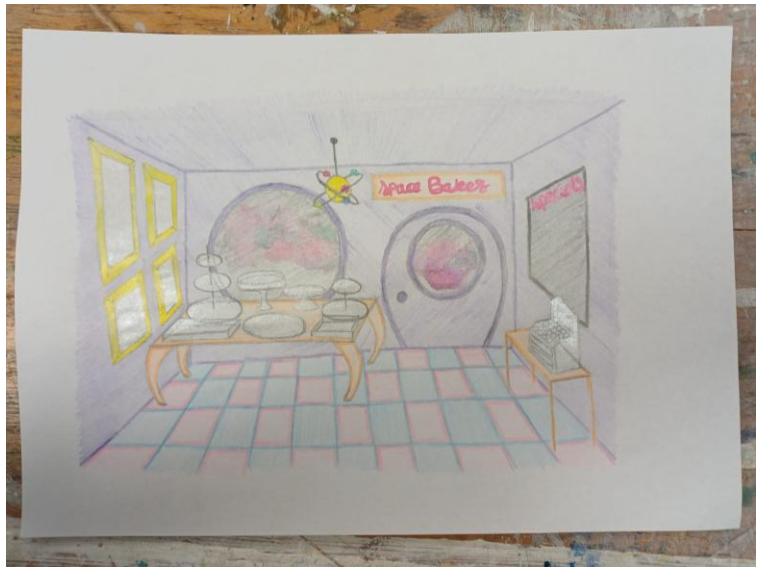

Annie adding the easy glow colouring to white chocolate and butter cream with varying food dyes



# Finalising the design

Over the weekend, Annie finalised the concept art for the Space Bakery. On Monday afternoon, we tried to begin modelling the design in AutoCAD and Fusion, but we were facing technical difficulties. Instead, we decided we would make a white card model. Using our existing 1:20 model of the space and rostra, we marked out the size of the back wall of our shop, which will have the door and window.

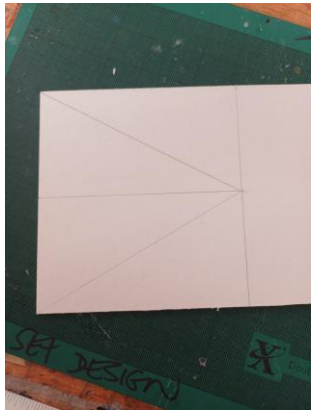
- We thought our walls could be off the rostra to not take up floor space, and the back wall should be longer than the rostra itself so we can conceal where our flats join at their corners
- We also made the side walls slightly longer than the short length of the Rostra to give ourselves back up of wall space in case for the sake of coverage we want to use another angle in the filming process. We made both the back wall and side walls approximately 300mm longer than the length of the rostra at 1220mm



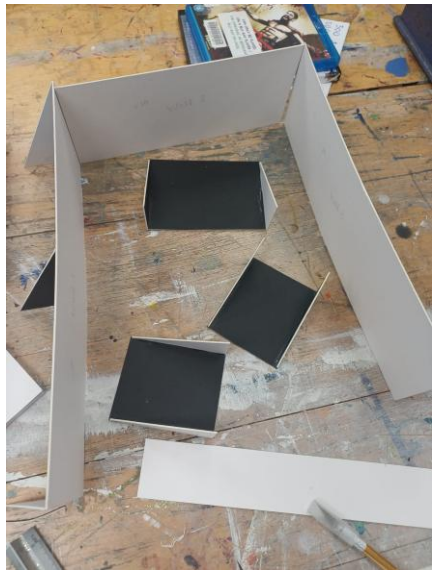

Final concept art of the bakery by Annie







The drying braces on our bakery walls within the immersive room we constructed earlier

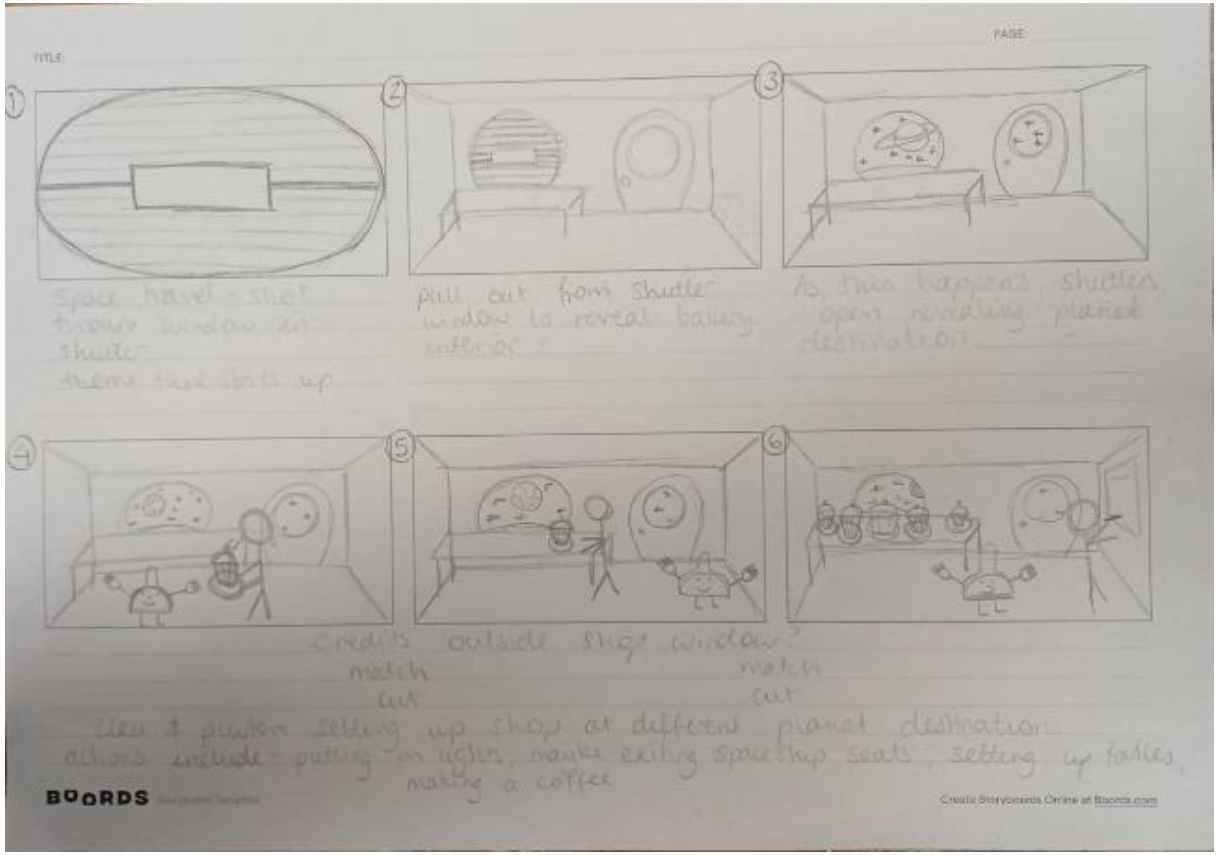


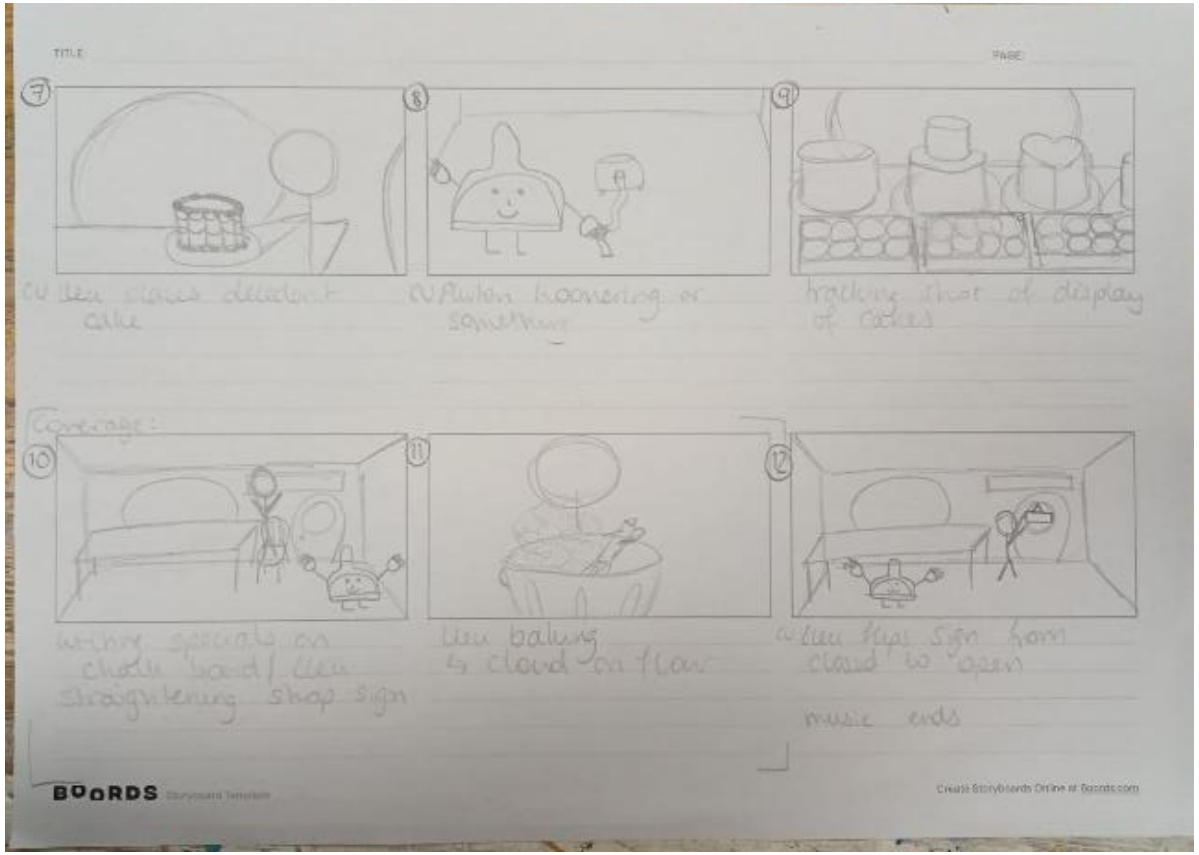
Some images of the building of the immersive room and rostra white card model



# Finished storyboard

This is the finished storyboard, refined by Annie. This was a useful early-on design process, so we knew how big we needed to make our space and all the elements within it that would need dressing, as these would be seen on camera. This also helped me form our shot list and schedule for the filming process later on.



# Monday 2nd Immersive Room session

In the immersive room, we laid out our cupcakes, jelly and biscuits on a table which we positioned in the middle of the room to best pick up the ‘UV’ light. On the touch screen in the immersive room, we uploaded a video of UV light from YouTube. With this effect, the plain cupcakes with the UV food colouring mixed into the batter, and the jelly worked the best in producing a fluorescent effect. We were not using a real UV torch but just the colour from a YouTube video, the effect may work far better with an actual UV light, producing the correct ultra-violet wavelengths.

Next, we tried using an LED wash head. We were wondering if this would work as Callum from the third year had created a club scene for their production ‘Blood Wedding’, and Alaya’s hair had glowed under the LEDs. Alaya uses UV reactive hair dye, specifically Manic Panic’s Electric Lizard hair dye. We thought if we used the same LEDs Callum used, we may be able to get our cupcakes to glow. This didn’t really work either but could be partly down to the bakes themselves. For the food colouring to pop, it may be that it needs to be a liquid based product like jelly or a drink, which is why it didn’t work at all with the fondant or butter cream. Our next idea is to ask Liam from digital media if they have any UV lights or, look into buying one.



Adding the close-to-UV shade by pasting a YouTube video into Igloo









It didn’t come up very well on camera, but the Jelly and plain cupcake were very vivid in colour, however there was no glow effect from the buttercream icing.

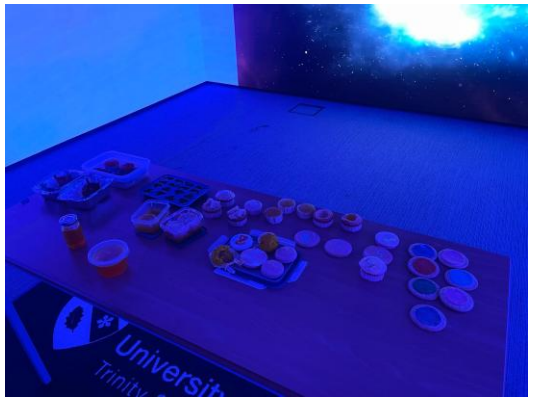


Funnily enough, the brightest item in the Immersive Room under the UV was the technicians water bottle which was glowing orange.

We tried adjusting the position of the bakes to the screen in case that made a difference, but it did not. Our best bet would to be use a UV torch.

# Monday 2nd Immersive Room session

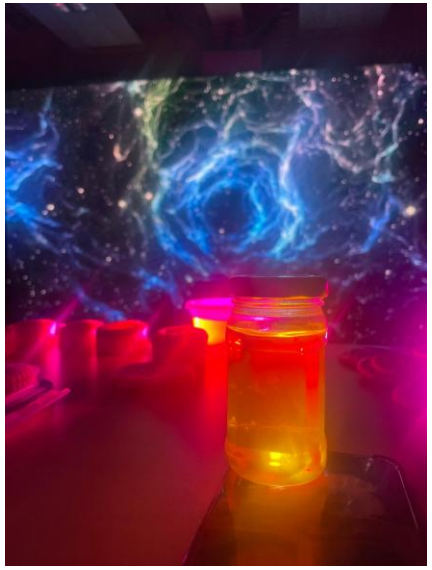


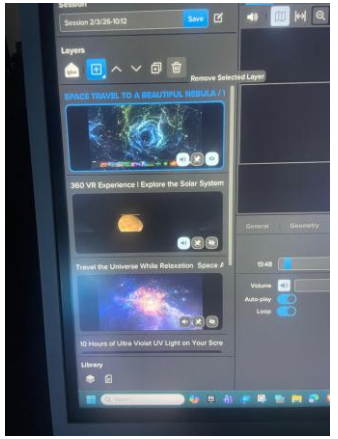



We tried adding some space travel videos into the immersive room, playing around with the 360° view option. We then tried layering a space travel clip on the centre screen, combining the violet backdrop beneath it cast across all three screens to light the space.



We tried using different shades of violet and lavender, and though we couldn't get the UV glow effect to work, we were able to light up the jelly by just shining light through it.



Here you can see our different layers; these can be rearranged and resized to fit the screens as required.



Out of curiosity, Annie and I took a look behind the LED screens, these are mad up of monitors which control 12 LED panels each.

# What is UV light?

**To get a better understanding of what UV light is and how we can achieve glowing cupcakes, I looked into how UV light works:**

Ultraviolet (UV) light is a type of electromagnetic radiation, just like visible light, but with shorter wavelengths than violet light, which makes it invisible to our eyes. It sits just beyond the violet end of the visible spectrum. UV-reactive materials glow because of a process called fluorescence, when ultraviolet light hits certain substances, they absorb that high-energy UV radiation. This energy excites the electrons in the material, causing them to jump to a higher energy state. When the electrons fall back to their normal state, they release the extra energy as visible light. That visible light is what we see as a glowing effect. Importantly, the glow itself is not ultraviolet light; it is newly emitted visible light produced after absorbing UV.

Out of curiosity, I looked at **when UV light is used** and **how it is harmful**:

- Tanning beds are dangerous because they expose the skin to strong, concentrated UVA and sometimes UVB radiation. These wavelengths penetrate the skin and can damage DNA over time, increasing the risk of skin cancer. In contrast, the blacklights used in nightclubs primarily emit lower-intensity UVA light for visual effects. While they are not completely harmless, the exposure is much weaker and typically shorter in duration, which makes them far less risky than tanning beds. The difference largely comes down to intensity, exposure time, and whether UVB radiation is involved.
- You cannot set a regular LED to produce UV light because ultraviolet is not a visible colour like purple; it is a different wavelength outside the visible spectrum. Standard LEDs are designed to emit visible red, green, and blue light. Mixing red and blue light may look purple, but it does not create ultraviolet radiation. UV LEDs require different semiconductor materials specifically made to emit ultraviolet wavelengths. That is why a special UV torch is needed to cause fluorescent materials to glow. UV food colouring glows through fluorescence, which means it needs actual ultraviolet wavelengths (usually UVA around 365–405 nm) to get excited and emit visible light. A normal RGB LED simply doesn't produce enough energy at the right wavelength to trigger a strong glow.

# Props Room

On the way back to NI, Annie and I stopped by the Props Room to see what was available. There are a few items we are certain we need like a till, picture frames, table and chalk board, but first we need to finalise our design before we know the exact measurements of these components. We also took images of items that could be potential set dress for our bakery such as, fabric for a table-cloth, empty cans for holding utensils and recipe books. If anything else sparked our imagination, we picked this up too. Such as, a watering can and tall bottles that could be used as vases, and fairy lights to dress the walls and add some textural variety.







We took away this clock and a till but left the rest of the items until we had a clearer vision. We liked the idea of using tablecloths and maybe painting some fairy lights to add different colours and texture to our set.

Photos I took for possible set dress ideas. We are going for an eclectic mix of furnishings, I was looking for anything that could be a funky piece of decoration to bring life into our bakery, and make it look well loved and travelled around the universe. We have an ambiguous time setting so can play around with what we use as long as it aligns with our design and colour palette
















# Beginning the Source List

After our morning session in the Immersive room and visiting the Props room, Annie and I began putting together a source list, partly to keep track of items we could think of as set dressing, but also to keep track of what we were borrowing. Before making our order list, we wanted to check what we already had on-site but also what we could find cheaper in charity shops. Below is our initial Source and Borrow lists.

| Item | Quantity | Source | | | | |
|---|---|---|---|---|---|---|
| | | Charity Shop | Online | Props Store | Parry Store | Workshop |
| Cake stands | | | | | | |
| Picture frames | | | | | | |
| Clock | | | | | | |
| Till | | | | | | |
| Table | | | | | | |
| Blacklight | | | | | | |
| Flats | | | | | | |
| Fairy lights | | | | | | |
| Empty cans | | | | | | |
| Lamp | | | | | | |
| Tablecloth | | | | | | |
| Vases | | | | | | |
| Flowers/plants | | | | | | |

Initial Source List

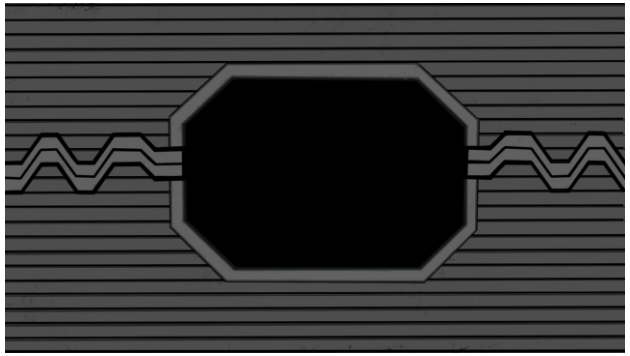
| Borrowed | | | |
|---|---|---|---|
| Item | Source | In our possession? | Returned |
| Till | Props room | ☑ | ☐ |
| Clock | Props room | ☑ | ☐ |
| | | ☐ | ☐ |
| | | ☐ | ☐ |
| | | ☐ | ☐ |
| | | ☐ | ☐ |
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| | | ☐ | ☐ |

Initial Borrow List

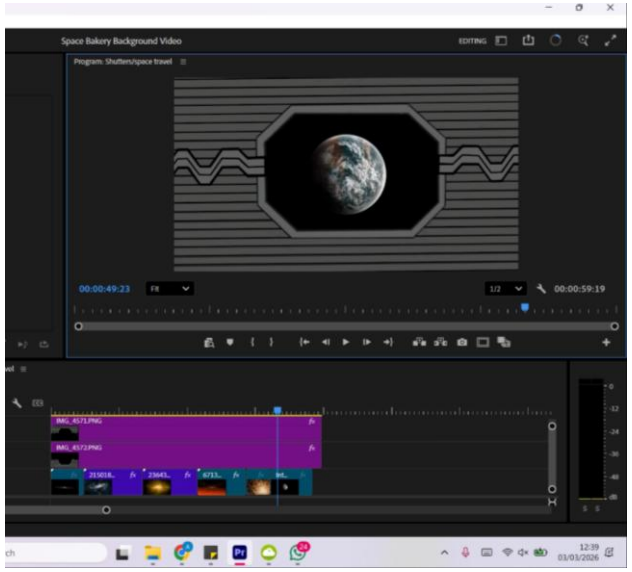
# Second Session with Lloyd

In our second session with Lloyd, I added our sourced clips of space travel to premiere under a new sequence, as well as the drawing of the shop shutters I did on procreate on a transparent layer so it could be overlayed over the videos of space. For the shop shutter overlay, I had exported this in two separate parts so I could animate them to open and separate by key framing their position as closed for the majority of the space travel footage, then open with a second key frame.

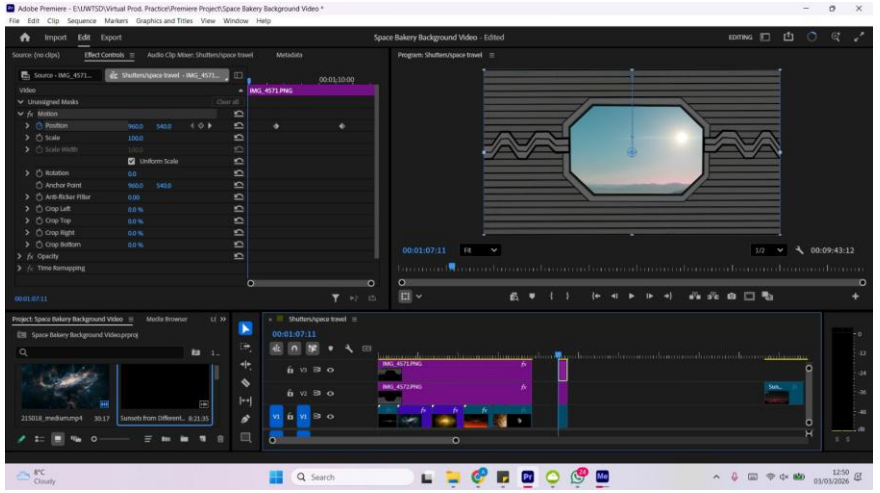
Next, I added a shake effect from the dynamic preset tab on Premiere to add some movement to the shutters to make it look like the bakery is travelling and moving about slightly. As I worked on this, Annie sourced clips that could be used to show the bakery's landing and scenery from the shop front when the bakery is open: with varying planet-scapes. I got as far as the space travel opening in this session, and I'll continue editing it before our next session with Lloyd. It should be complete by then so he can look it over and help fine-tune it.

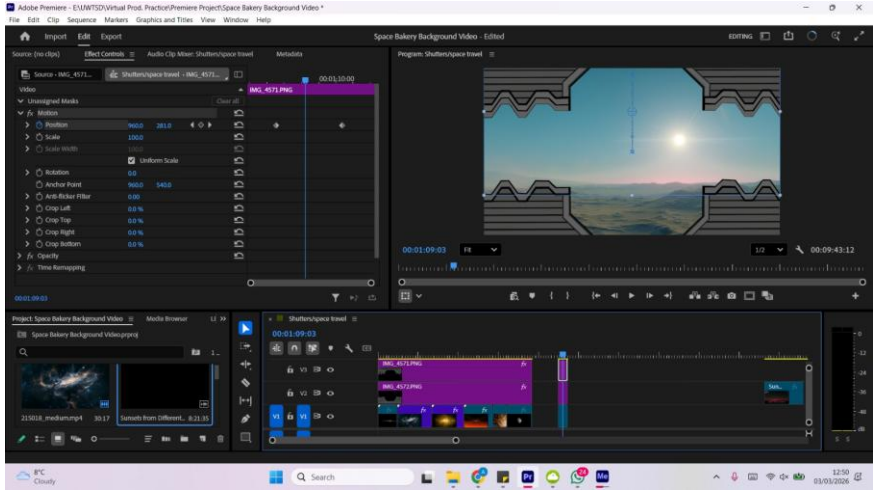


My procreate drawing for our bakery shutters



Here you can see my layers and how the overlay works





Keyframing the shutters to open

# Second Parry Visit

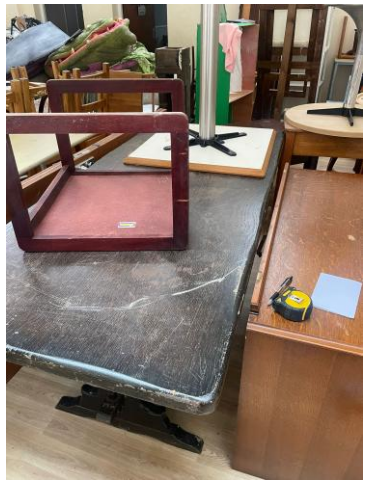
As well as begin the LED screen visual edit, on Tuesday, Annie and I also visited Parry to source a couple of tables. We needed them to fit on our rostra with also plenty of space for our shop window and door. We were specifically looking for a table to display the cakes at the window on and a side table for the till. We found 5 tables that were close to what we were looking for, we took their measurements and a picture

1. Chest of drawers - 107x42x66mm. Could be a table for the till, quite short, could be put on blocks to make taller
2. Large dark table - 166x76x74mm. Too long but a design we really like, wouldn't need a tablecloth as its colour and wear suits our scene
3. School table - 120x 60x76mm. A basic table, will allow for plenty of space for the shop door. We'd need to paint or dress the table legs somehow as they lack character
4. School table 2 - 122x68x76mm. This is a more attractive basic table (from parry) than the above. If its too tall next to the window, we could ask to trim the table legs.
5. Square desk with lift able lid - 45x56x77mm. Won't take up so much room as the first option, nice rustic look to it and tall as a shop counter should be.

We reserved options 4 and 5 with a note as tables we'd like to use.



1. Chest of drawers I thought could work a shop counter





2. A table Annie and I liked the look of but was too large



3. Basic school table that would need a lot of dressing but the correct size



4. School table 2, correct size and we prefer the look

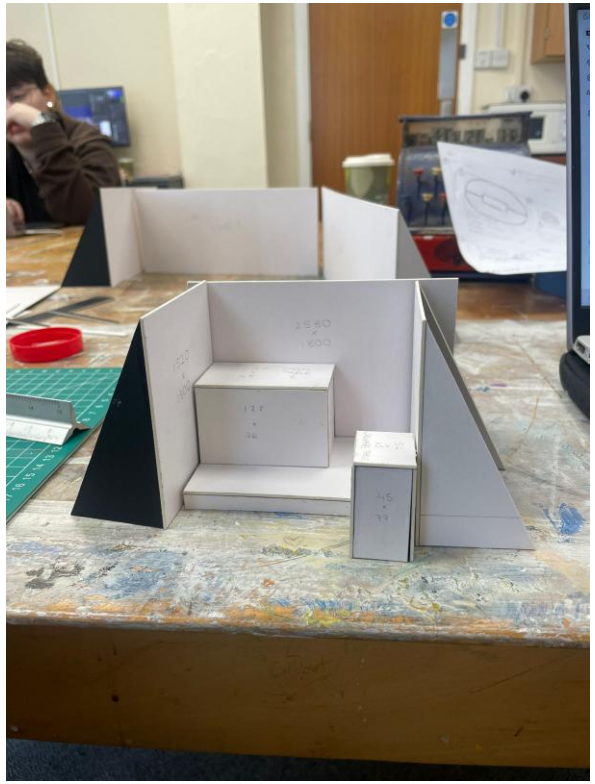




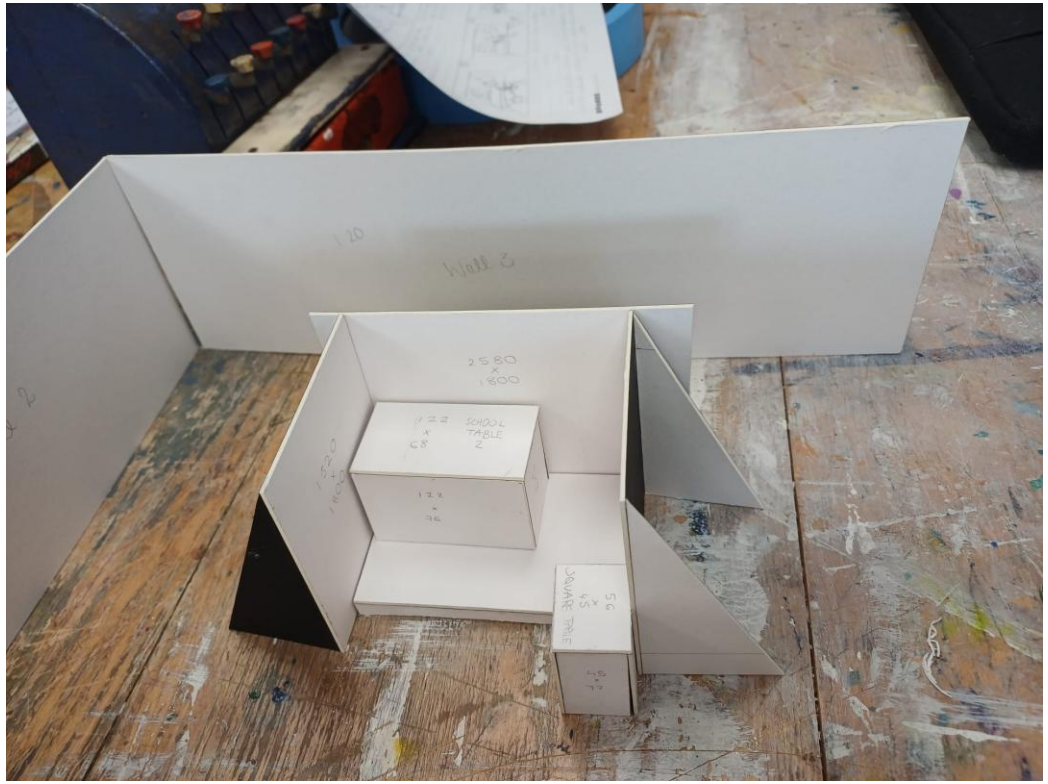
5. Square desk for the shop counter and till

# Model Making

With our scale model, Annie built cuboids in 1.20 scale to the size of our table options from Parry, to see how they'd fit in the space. We agreed the old parry desk and tall school desk would work best in terms of how much floor space they take up within our set. When it comes to the tables' heights, we can cut down the legs of the parry desk if needed, so the display table is at the height of the shop window. For the thin desk that will hold the till, we can position it off the rostra so there is enough space for our cast member to move about the space, yet if we want it to be taller to mimic a shop counter's height, we can put it on blocks to increase its height, which we can make sure are out of frame when we are filming.







# Set Dress Sourcing

On Wednesday the 4th, Annie, Charlie and I went into town to source some set dress we were unable to find in Parry and Props. I made a list of items we were missing as a shopping list.

5 March 2026 at 09:51

**From the source list**

- [ ] Cake stands or decorative tableware
- [ ] Picture frames x4
- [ ] Bunting
- [ ] Fake flowers/plants
- [ ] Table cloth
- [ ] Vase
- [ ] Books
- [ ] Fairy lights
- [ ] Pipe cleaners (for Plwton)
- [ ] Googly eyes (for Plwton)
- [x] Clock
- [x] Till
- [x] Table x2
- [ ] closed/ open sign - make
- [ ] Craft items for plwton (pipe cleaners, googley eyes
- [ ] Lollipop sticks
- [ ] Black light
- [ ] Empty cans

**Dimensions of our tables:**

- Parry table: 122x68x76 = is a more attractive basic table (from parry)
- Sqaure school desk with liftable lid: 45x56x7 = won't take up so much room, nice rustic look to it

**Items put behind desk to pay for with Dave:**

1. YMCA - bunting, cake stand, moon decorative
2. Ty - pearly picture frame
3. Salvation Army - flowers
4. Red Cross - £5 stand vase thing and decorative plate not reserved
5. Tree shop - picture frames, flowers, cake stand
6. Oxfam - small decorative picture frame x1 and one for horse group
7. The works - googly eyes, lollipop sticks (for Cam's group), pipe cleaners








(left) The 'to source' list I made in my notes app to keep track of what we were looking for and what we were able to find and keep behind the counter at shops to come back to pay for. Also, I took pictures of items we didn't keep back but were suitable back up options to come back for if we needed to (bottom right images)





I took some inspo pics inside Cofio Lounge as this was one of our references to eclectic furniture design



Here we are inside the climate shop where we found a tiered cake stand to paint



Annie and I made sure to keep track of all of our purchases by taking receipt pics and making a note in Annie's phone










# Source List

During lunch, I spoke to my boss at the Merlin restaurant to ask if it was possible to borrow some display stands for our set. He was happy to help, and we looked in the Merlin's display plate store, I picked up two more dual cake stands, a metal stand, a slate stand and some wooden crates. I made sure to note what I took and take pictures we could add these to the source list to keep track of what needed returning and to where.

Next, in NI, Annie and I sorted through what we had bought in town and added this to the Source list with images. Then, we added the items sourced from the Merlin restaurant, Props Store and Parry. We knew things could easily get muddled so it was important to keep tabs on what can be altered and damaged and what cannot and needs to be returned in the condition it was found.

| Item | Quantity | Source | | | | | | | Image |
|---|---|---|---|---|---|---|---|---|---|
| | | Charity Shop | Merlin | Online | Props Store | Parry Store | Workshop | Personal | |
| Low crystal cake stand | 1 | | | | | | | |  |
| Flat pack wooden cake stand | 1 | | | | | | | |  |
| Metal white cake stand | 1 | | | | | | | |  |
| White wooden crate | 2 | | | | | | | |  |
| Slate cake stand | 1 | | | | | | | |  |
| Wooden cake stand | 1 | | | | | | | |  |
| Beaded picture frame | 1 | | | | | | | |  |
| Gold patterned picture frame | 1 | | | | | | | |  |
| Pearl picture frame | 1 | | | | | | | |  |
| 26cm wooden picture frame | 1 | | | | | | | |  |
| 34cm wooden picture frame | 1 | | | | | | | |  |
| 35cm wooden picture frame | 1 | | | | | | | |  |
| 41cm wooden picture frame | 1 | | | | | | | |  |
| Empty cans | | | | | | | | | |
| Till | 1 | | | | | | | |  |
| Clock | 1 | | | | | | | |  |
| Fairy lights | 2 | | | | | | | | |
| Tablecloth | | | | | | | | | |
| Vases | | | | | | | | | |

# Budget Sheet

After this, Annie added our purchases from the morning to the Budget sheet, we had spent ..... so far so had plenty of budget left over for our paint order which we think will be our biggest cost. Material wise, we plan to out together an order list after completing the CAD drawing so we can work out how much building material we need and the surface area of our set for the paint order. However, in terms of building material, we are hoping to re-purpose some flats in the Parry room by taking them apart and using their ply to make our own flats, rather than spend our budget if we already have the materials we need on site.

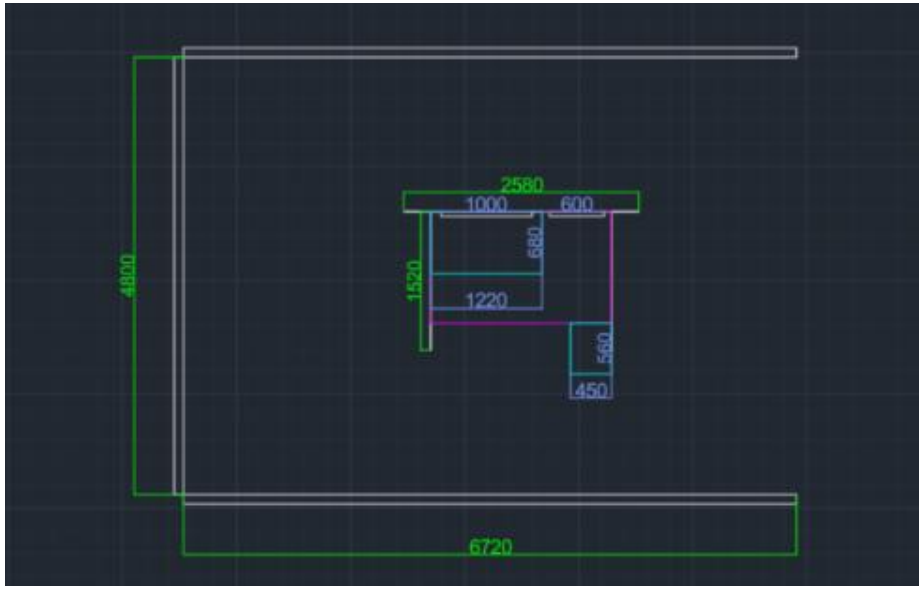
| Item | Quantity | Source | Price | Total |
|---|---|---|---|---|
| Calla lilies x5 | 1 | Salvation Army Charity Shop | £ 2.00 | £ 2.00 |
| 34cm wooden picture frame | 1 | Salvation Army Charity Shop | £ 0.50 | £ 0.50 |
| Rocket moon decoration | 1 | YMCA Charity Shop | £ 2.50 | £ 2.50 |
| Low crystal cake stand | 1 | YMCA Charity Shop | £ 3.00 | £ 3.00 |
| Floral bunting | 1 | YMCA Charity Shop | £ 0.50 | £ 0.50 |
| Googly eyes pack | 1 | The Works | £ 1.00 | £ 1.00 |
| Craft kit (pipe cleaners) | 1 | The Works | £ 2.00 | £ 2.00 |
| Pearl picture frame | 1 | Tŷ Hafan | £ 2.50 | £ 2.50 |
| Beaded picture frame | 1 | Oxfam | £ 1.99 | £ 1.99 |
| Picture frames x4, flat pack wooden cake stand, purple flowers, silver holder | 1 | Climate Store | £ 3.00 | £ 3.00 |
| **TOTAL** | | | | £ 18.99 |
| Remaining | | | | £ 81.01 |

# AutoCAD

Whilst Annie organised our Source List and added to the Budget Sheet, I used the university PC to make technical drawings of our set. Rather than wait for the AutoCAD update to come through on the macs, I thought it would be best to do this step as soon as possible, as we only had our idea demonstrated in a conceptual sketch so far, and needed precise measurements for the material order. It was also a useful process for deciding the size of our table (we could cut it down to), window and door and their placements in relation to each other and on the walls, to check they fit on the rostra with allowance for our cast member to move around the space. Since we have a very small surface area to work with, our door is thinner and shorter than the average door which is approximately 1980 x 762mm. Ours is 1520x600mm, which lends itself to the fantasy feel of our world, and our round window is also an unlikely feature for a shop front. We can lean into these slightly strange proportions by taking inspiration from children's TV programmes, using vivid colours and over-the-top set décor.

For the technical drawing, I began with a floor plan of the immersive room screens which was 6720mmx 4800mm, with one shorter side missing. This was to have available in my model space to check my technical drawing of our set would fit within the immersive room screens with plenty of space for filming equipment.

Next I built a plan view of our set design. The short walls are 1520mm, with the back wall at 2580mm (with an overhang to fit the walls together for support). And the rostra is 1220mmx 1980mm.




Plan view of the immersive room and our set within it

# AutoCAD

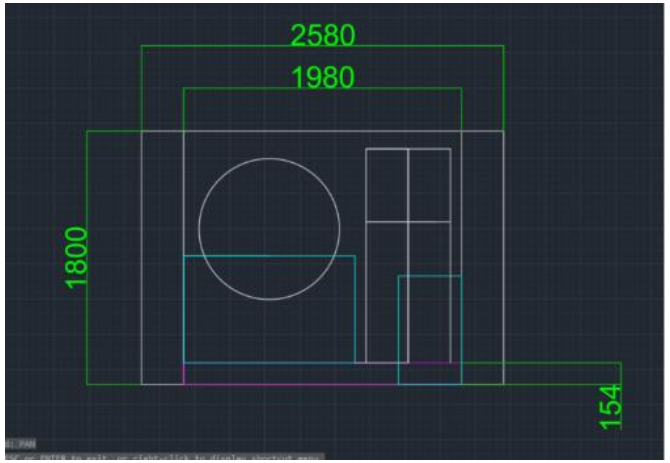
Then, using construction lines, I drew a face on view of our set, adding in the height of the rostra at 154mm. I included where our walls over-lap in this front on view. Then, I added in the circle window and door.

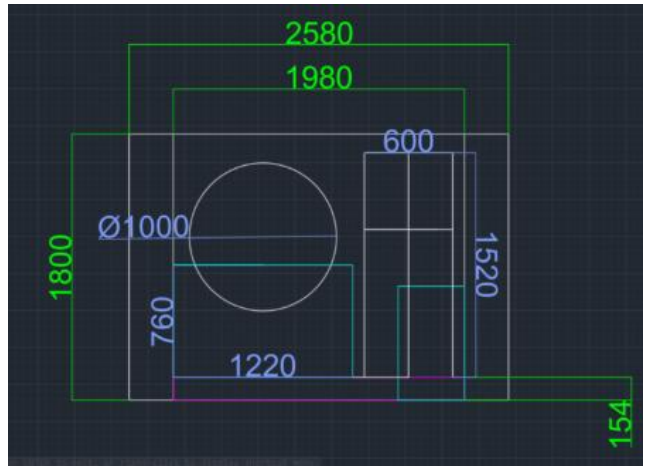
For the door I constructed it as a rectangle for the max size it can be on our back wall. When it comes to the scenic art stage of our process, we can use the 600x1520mm outline as a guide but make the shape of the door curved.

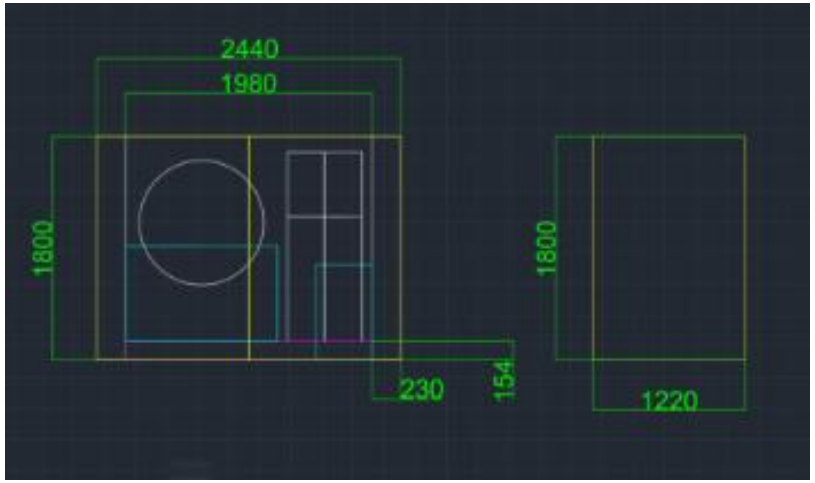
On the next day, Thursday, we had visited Parry and sourced some pre-made theatrical Hollywood-style flats. We decided we would use these in our build to quicken the construction phase. I revisited the CAD drawing and adjusted thetotal length of the back wall to be the width of two flats next to each other (2440mm) as shown in the yellow in the bottom right images.

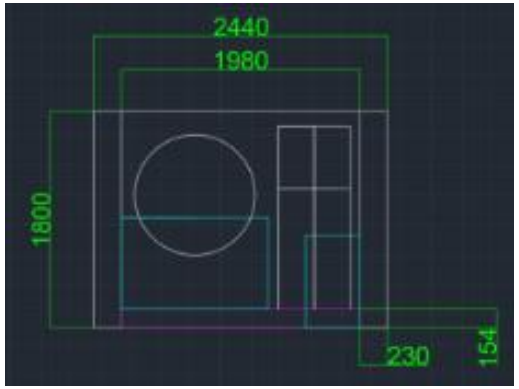
Next, I realised if the window is a perfect circle, the table height would have to be 450mm tall to sit at the bottom window edge, with the position and size of the circle now. This is too low for a table, so we adjusted the table to be 600mm high and changed the shape of the window to an oval so the window can be wider than it is tall.
We changed our original table and window design to this:

- Window oval is 1000mmx800mm diameter.
- Table height is 600mm
- We also put a window in the shop door – this is a circle with a ratio of 220mm, and 230mm from the top of the door



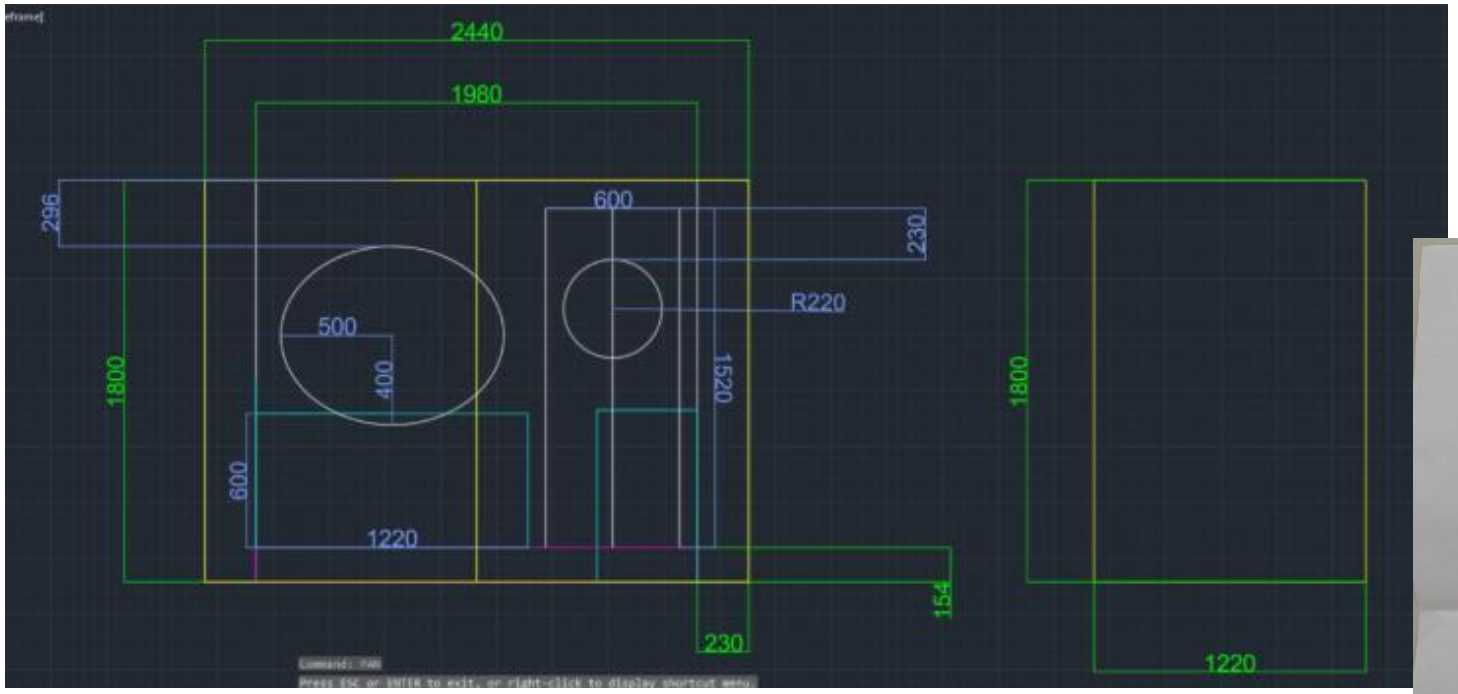



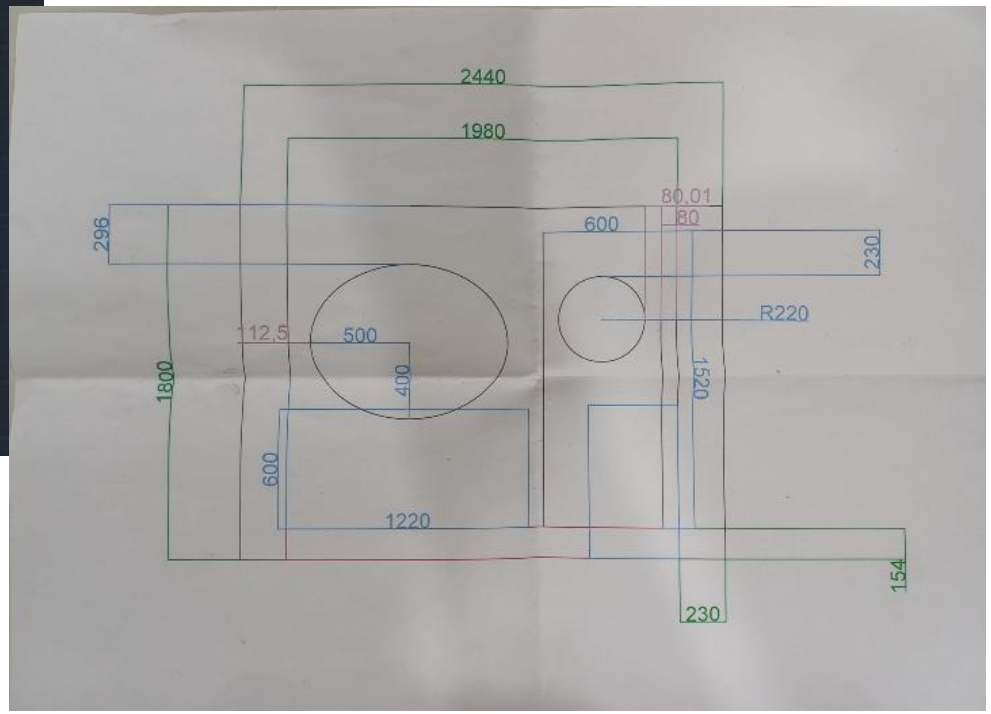



# AutoCAD

This was our final CAD drawing that we used during the construction and scenic art stages:




The printed version we used in the workshop for marking out the placement of our door and windows

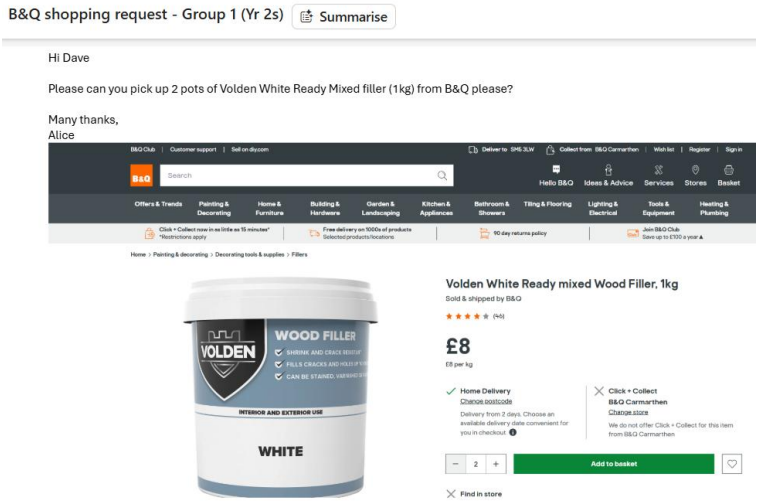
# Thursday 5th

After our day of sourcing and collating set dress and props, we decided to return to Parry to take better pics of the tables we are going to borrow and, as mentioned in the previous slides, measured the flats left over from last years Production for Screen module as we plan to repurpose these for our set. There were 4 solid approximately 12x4 flats we could use as well as plenty of scrap 3mm ply.

To keep the walls in our original design, we would need 3 8x4 flats secured along their long edge to make up the long back wall of 2580x1800mm. Then for the shorter walls, we'd need one 12x4 flat with 300mm scrap left over from another flat to make up the width of the short wall. To make our life easier, we decided to make our walls the standard flat sizes of 2440mm long (two standard flats next to each other for the long wall) and 1220mm (one standard flat to make up each of the short walls.  All of the flats will need to be trimmed down to the 1800mm height, we will need to make sure to use left over toggles to position one at the top of the flat.

I spent the rest of the day updating the technical drawing to our new standard flat sizes. Annie began a refined 1.10 scale model, as we felt making he model a larger scale would allow us to add in scenic art details a lot easier than if it were in 1.20 scale. Charlie made a start on making some book covers to fit into the space bakery world. After I completed the technical drawing, I continued to work on the Premiere back drop edit.

Finally, Annie and I put together our order list. Materials such as polystyrene and paint we already had in store, the only items we needed were the Polyfilla, scenic white paint and cake baking ingredients. For the Bristol's white paint, I filled out a flints order form in combination with Sarah's group to speed up the order process and so we weren't paying for shipping twice for individual orders. Then Annie and I put together a Tesco shopping list which can be bought in person by Dave. We also requested 2 pots of Volden White Ready Mixed filler (1kg) from B&Q at £8 per item.




Our B&Q Volden filler shopping request. Dave instead bought Volden Powdered Filler which is cheaper (£6.60 per kg) and you have more control over its consistency.

| UWTSD Purchase Order Request | |
|---|---|
| *For Internal use only, not to be sent to suppliers* | Purchase Order: |
| Date: 3/6/2026 | Credit Card: |
| Quote Number / Discount Arranged: | Requested by: Dave Atkinson |

| Quantity | Unit Cost Ex. Vat | Vat Rate | Total Cost Inc. Vat | Description |
|---|---|---|---|---|
| 1 | £15.71 | 20% | £18.85 | Flints Emulsion Glaze Matt 1L |
| 2 | £20.49 | 20% | £49.18 | Bristol SuperScenic White 1kg |
| 1 | £28.71 | 20% | £34.45 | Bristol SuperScenic Yellow Ochre 1kg |
| 1 | £11.95 | 20% | £14.34 | Shipping |
| | | 20% | £0.00 | |

Group 1 and 2's combined Flints order form, including our pot of Bristol SuperScenic White (£20.49 for 1kg)

# Fake cake making Research

Before making our fake cakes and brownies, I wanted to look at some examples of prop cakes and how they were made along with the common tools and materials used:

**Polystyrene (aka Styrofoam)**
- Most common base material because it is lightweight, cheap, and easy to shape
- Can be cut into tiers or carved into custom shapes
- Often sold as pre-made 'cake dummies' in standard cake tin sizes, we will be using off-cuts of polystyrene used by the bridge group

**Polyfilla/ Lightweight Spackle**
- Used to create realistic butter icing texture
- Easy to spread, sculpt, and pipe like buttercream
- Dries hard, allowing sanding or layering for detail

**Alternative Foam Types**
- Polyurethane foam: more realistic texture and better for fine detail
- Craft foam sheets: useful for added structure or decorative layers
- Standard washing up sponge, also close to the texture of a sponge cake – although cheap, it's hard to source in a cake-like colour

**Other Materials**
- Air-dry clay: good for sculpted decorations or full cake builds
- Silicone/caulk: flexible, durable alternative for frosting effects
- Resin used for glossy finishes (e.g. fake glaze or fruit coating)

Tools used:
- **Cutting tools** - Craft or any serrated knife for shaping the polystyrene
- **Application tools** - Palette knife for spreading Polyfilla, spatulas for smoothing icing layers
- **Detailing tools** - Piping bags and nozzles to create realistic icing patterns, sculpting tools can be used for textures (especially with clay)
- **Assembling tools** - Hot glue gun or Styrofoam glue to attach tiers and decorations, skewers/dowels for internal support in tiered cakes



(left) I liked how glossy this icing appears. For this, they used Caulk, Stays Clear (product that 'combines the attributes of polyurethane and acrylic resins to produce a clear, durable, non-yellowing finish'), gel binder and acrylic paint (Bygone Theatre, 2013). They also bought toy strawberries and dry brushed them to add some depth.

(right) Annie and I both enjoy cake decorating so it's nice the same skills transfer into the prop making side of things using a piping bag and varied nozzles to make faux butter cream. (Faux Food, 2022) https://www.youtube.com/watch?v=fklr1THxAzI



# Fake cake making Research

Before making our fake cakes and brownies, I wanted to look at some examples of prop cakes and how they were made along with the common tools and materials used:

**How to colour faux icing:**

**Mix colour directly into the icing material** - Add acrylic paint to Polyfilla/spackle to tint it (e.g. cream for vanilla effect). Food colouring can also be used for subtle tones in making the white filler less brilliant

**Layering colours** - Use different coloured spackle layers to mimic cake fillings or flavoured icing like jam or ganache

**Painting after drying** - Once dry, acrylic paint can be brushed on for details, shading, or patterns

**Realism tips** - Slight off-white tones look more realistic than pure white. Add shading (yellows, browns, pinks) for depth and 'edible' appearance

**A basic method for making faux cakes:**

1. Cut and shape polystyrene into cake shape
2. Glue layers together with a solvent-free glue such as specialised Styrofoam adhesive, low-temp hot glue, PVA craft glue, or foam-safe spray adhesives (or decorate separately first)
3. Apply Polyfilla/spackle as 'icing' using a flat knife or spatula
4. Add texture (smooth, swirls, piped edges with piping bag)
5. Allow to fully dry before adding shading or adding glued-on decor

**Alternative methods/ materials**

**Fondant over foam -** Cover sanded foam with fondant for a smooth finish

**Silicone or caulk icing** - Can be piped like real icing and is more flexible and durable

**Clay-based cakes -** Entire cake or layers can be sculpted from air-dry clay. Better for smaller props or detailed designs

**Making Fake Decorations (Sprinkles, Sweets, Toppings)**

**Using Clay -** Air-dry clay can be rolled, cut, and shaped into sprinkles (tiny rods or dots) or sweets and fruits. Clay is easy to paint once dry

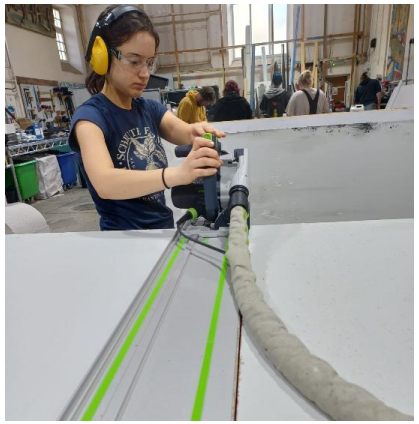
**Using Hot Glue –** Can be piped into droplets or lines to mimic icing or drips. Can also be built up into shapes like sweets and can be painted once cooled

# Monday 9th

- After the weekend, Annie completed the refined scenic art model as I completed the background video edit. The plan was to start building in the workshop, but it was quite busy with 1st years, so we waited until their lesson had finished in the morning to begin in the workshop in the afternoon.
- Our top priority was getting the sourced flats prepared for painting which we wanted to allow plenty of time for so it could have multiple coats and details like the picture frames, window frames and chalk board added over the top.
- First, Annie and I marked the height we wanted to cut flats down to: 1850mm. We then rail sawed these, finishing the cuts with a hand saw as the rail saw couldn't cut through the thickness of plywood making up the flat's stiles.
- We found a happy coincidence that the previous year group had constructed their flats with the toggles placed roughly where we needed them. This meant we wouldn't need to move them to the top of the flats which saved us time. If we wanted to make our flat a better quality and more durable, we could have adjusted the toggles to sit flush to the edge of the flat, but this wasn't a necessity as they will only be used for a couple of hours at the most. As well as this, in cutting the flats down, the toggle at the edge should now really sit on the outside as a rail.

Marking our flats and rail sawing them to make them shorter



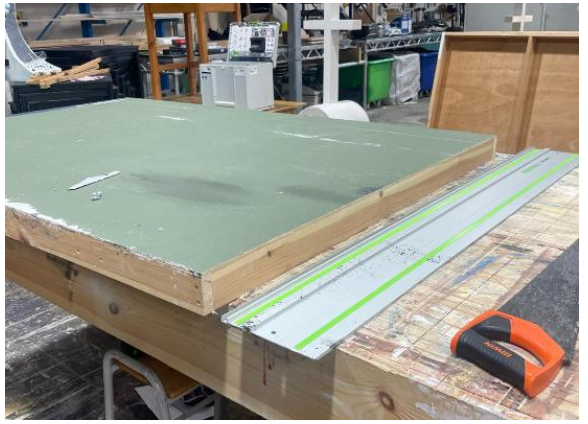








Finishing the cut through the stiles with a hand saw



Here you can see the toggle is positioned almost exactly at the top of our cut where we would need to place a rail.

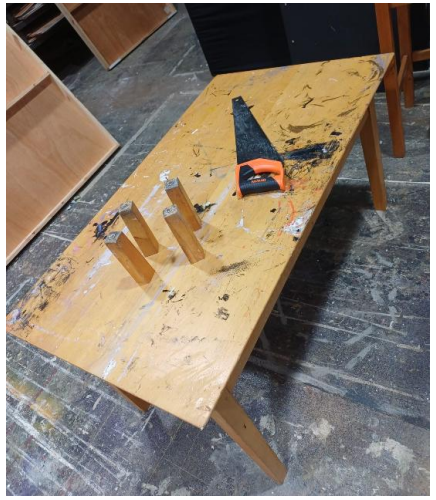
# Monday 9th

- Next, we marked out where the left and right walls would join the back wall, then marked out where the window and smaller door for the window would go using my technical drawing.
- Using the flat on the table as a guide, I set my jigsaw so it would cut through the stiles and toggles as much as possible without touching the table.
- As I used the jigsaw to cut our display and door windows, Annie shortened the legs on the Parry table to make it 600mm in height rather than 760mm, so it would sit at the bottom of the display window.
- Once the window shapes were cut out, I used a hand saw to take away the excess on the toggles.
- Then, we sanded the surface down a little, not to rid it entirely of its texture as this could work in our favour, but to try and stop the paint from peeling more than it was. Sanding the top layer of paint helps get rid of any parts of it flaking off and seal the new edges we had made when cutting out the windows.
- The texture was more severe in parts, so we tried to even it a little across all of our flats.



Marking out the placement of our rostra, walls, windows and door

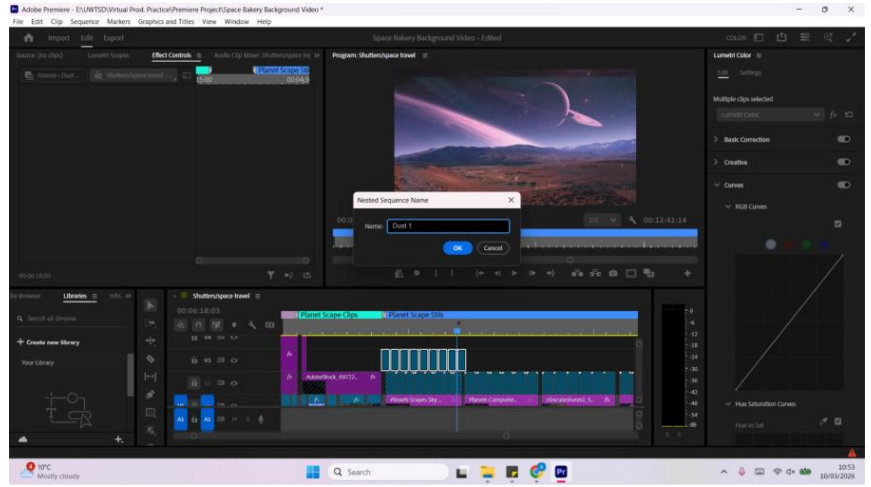

Cutting out the large window out with the Jigsaw

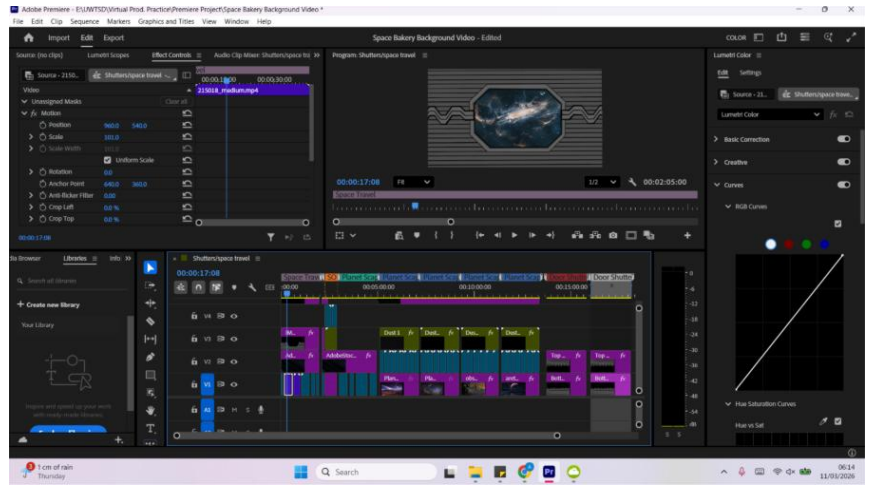

The Parry table cut down to 600mm in height

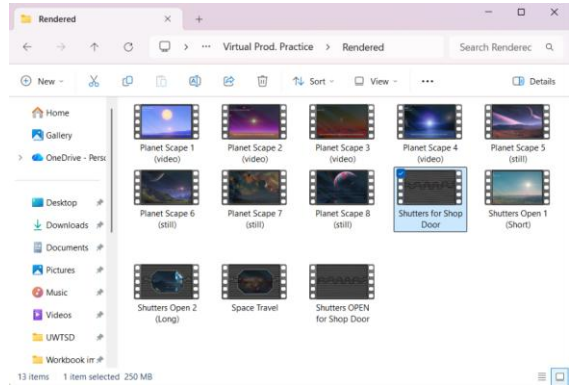

Sanding the paint to seal the edges

# Tuesday 10th

- In our final session with Lloyd, I showed him my edit and spoke to him about how I had extended the dust overlays. He suggested nesting the overlays that go with one still (this makes the different shots of atmosphere including the background image and any overlays into one clip). This means you can cut it as one item instead of having to repeat the action on each layer. After nesting them, (by selecting the clips on your timeline, right-clicking, and choosing ‘Nest’) he suggested layering them not directly on top of each other to hide the cuts. I asked Lloyd about the possibility of adding transitions to the space travel clips to make it cohesive to which he said we don't have to do that as its a separate scene, so the space travel scenes and planet-scapes don't need to look cohesive
- Next, using my iPad, I created another drawing of the shutters, when I made the premiere project, I forgot to consider the window in the door. This window won't be able to see any space travel as I thought it would be nice to line up the window in the shutters with our shop window, but it will be able to see the planet-scapes once the shutters open. To achieve this, I am making another drawing that is just shutters like the original, with a separation in them but no window, to go behind the door window in the immersive room, in case it is seen in shot during the opening.
- To export the bakery back-drop videos, I rendered each ‘scene’ as shown to the right marked with Chapter Markers so they could be played individually. I kept the original sequence settings I applied at the beginning of the edit process to keep all clips uniform and to not compress any. To the right is also a screenshot of my timeline then the exported scenes.








(Top to bottom) Creating nests, Chapter marked scenes and the exported scenes that I sent to the IR teams chat ready for uploading onto the Immersive Room screens.

# Tuesday 10th

- After Lloyd's session in the morning, Annie I went to the workshop to apply white base coats on the flats using a standard white interior emulsion. We applied this to the flats and rostra using laying in brushes. Some of the flats required multiple layers of white to help cancel out some of the dirtying down that was leftover from the flat's previous use but also where the walls had been painted green for the same project.
- With the heating on in the workshop, these dried quickly, so we were able to achieve multiple coats in one afternoon, and mark out the rostra with tape for the first layer of checkered painting to be applied

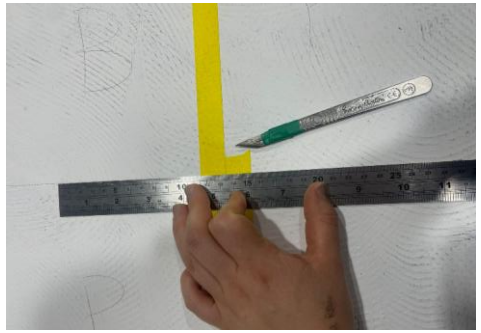


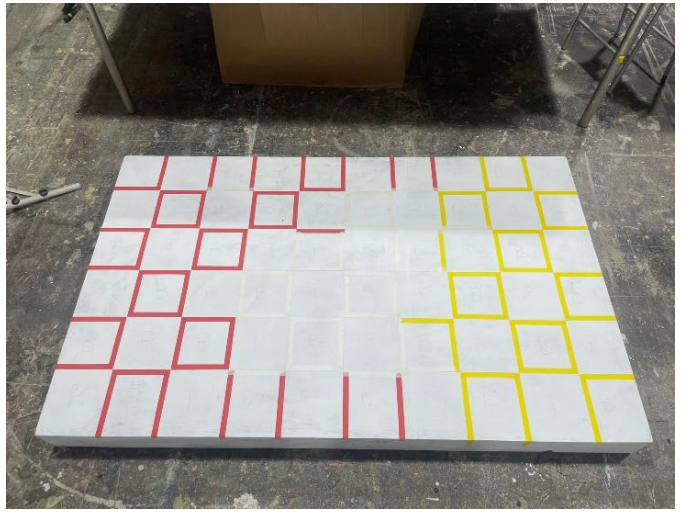


Applying white emulsion base coats to the flats



Annie marking out the grid on the rostra for the chequered floor

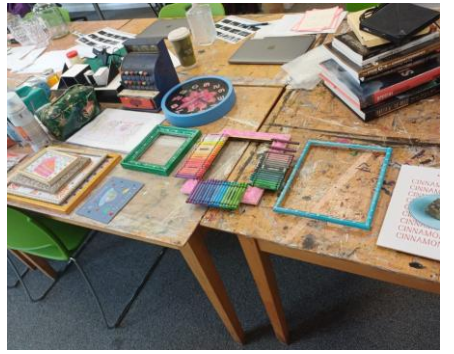




Annie and I used tape to mark the outline for the purple squares, which we will relay for the blue squares once the purple layer has dried.

# Wednesday 11th

- Annie and I began the day in NI with a check-in with Dave. Annie touched up the window frames she had painted that we bought from charity shops in town and I filled out an equipment form to request dolly tracks and LED panels.
- I wasn't sure what Lloyd had, but I assumed he'd bring a camera and tripod. I thought light panels could be useful in case we need to use the smaller screen for the dolly shot and would need additional lighting, as we plan to shoot our scene on one of the longer LED walls to use the opposite one to light it. If we use the smaller screen, we have more floor space for longer dolly tracks but will need the free-standing LED panels to light it.
- Next, I washed Plwton and the cake stands ready to be used in our prop making process. Then, I took the cake stands and crates we were going to use for the prop baked goods and headed to the workshop to begin making the faux cakes and brownies.
- In the workshop, using our pre-vis set dress layout as a guide, I checked which display plate needed which faux cake prop, marked 'F' on the image to the right.
- I started with the brownie crates (white). I measured their interior width of 176mm and marked on the polystyrene a straight edge using a set square and the factory cut edge of the polystyrene, then measured 165mm from this straight line to make a rectangle to cut out. I made the length of the rectangle as long as I could fit on the scrap piece of polystyrene rather than the exact shape of the crate so we can stack the brownies – the more brownies the better of course.



The sourced picture frames, now painted with added texture such as sequins




Annie's refined 1.10 scale model




Set dress layout of the bakery display table

Measuring and sawing the polystyrene





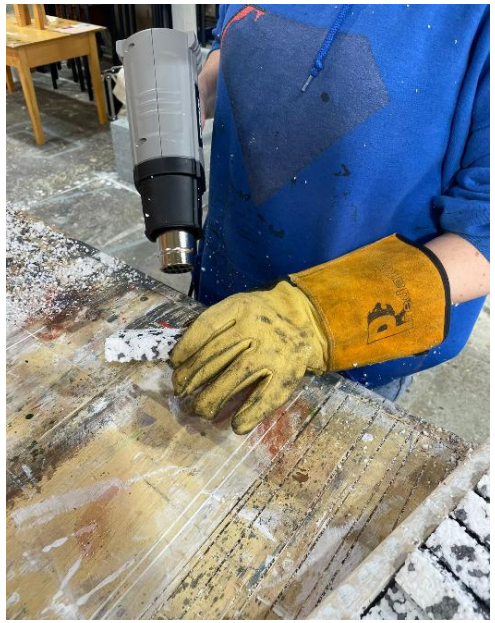
My Blondie (left) and Brownie (right) shapes



# Wednesday 11th

- This rectangle came to 165m x 300mm (just a few cm longer than the crate)
- Then I flipped the thick rectangle on its side to cut it in half down the middle, the thickness of the polystyrene was 100mm so I halved this to 50mm to make more realistically sized brownies.
- For cutting the polystyrene I was using a 500mm wood saw, this was better then a shorter one I had started with which meant I couldn't get through the whole length of the polystyrene. I then cut these W165wxL300xH50 poly rectangles into W55xL60mm smaller rectangles to be the brownie sizes. For the 2nd white crate, I cut these brownie shapes into W825mm x L50mm for variation between the baked goods. When I had moved onto these smaller rectangles, I used a 300mm tenon saw as these cuts needed to be neater and more precise.
- Annie then sealed the polystyrene chunks with a heat gun to help stop them crumbling apart. Then, I used a PVA and water mix to prime them for painting.  In this time, Annie also carved some polystyrene into large circles for the larger display plates, and we sealed these too with the heat gun and PVA/water mix.
- Whilst I waited for the PVA primer to dry, I painted the cake stand we bought in town with a mx of mustard yellow and white emulsion that we found in the paint store that were leftovers from previous projects.
- As I did this, Annie began painting the white bunting we had also bought in town, with Leyland's ultra deep blue emulsion. Once this layer was dry, she added a speckled effect by flicking Bristol Lemon Gold metallic paint at it, to mimic a starry night effect.
- Now the PVA primer on the polystyrene chunks had dried, I painted the rectangular polystyrene cuts a dark brown to look like brownies. For this colour, I mixed black emulsion, Bristol Raw Sienna (this is a dark brown shade but gave it a purple undertone) and Bristol Yellow Ochre to help neutralise the purple undertone but also keep it within the natural pigments. I found it was still drying with a purple tint, so I added Bristol Chrome Yellow and this cancelled the purple tint out. With a little more black, I had achieved a rich dark chocolatey shade and applied this to the wider polystyrene chunks to be the faux brownies.
- I allowed these to dry over night before moving onto the other square polystyrene chunks which I was going to make into blondies.

# Wednesday 11th





Sealing the polystyrene shapes with a heat gun to stop them crumbling

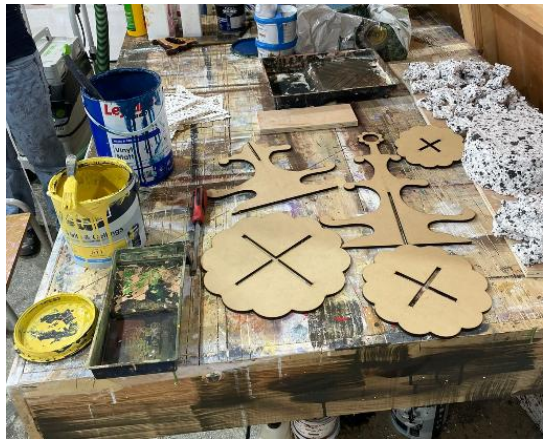





Once we had heat gunned and primed them with a PVA/water mix, we put these to one side to dry

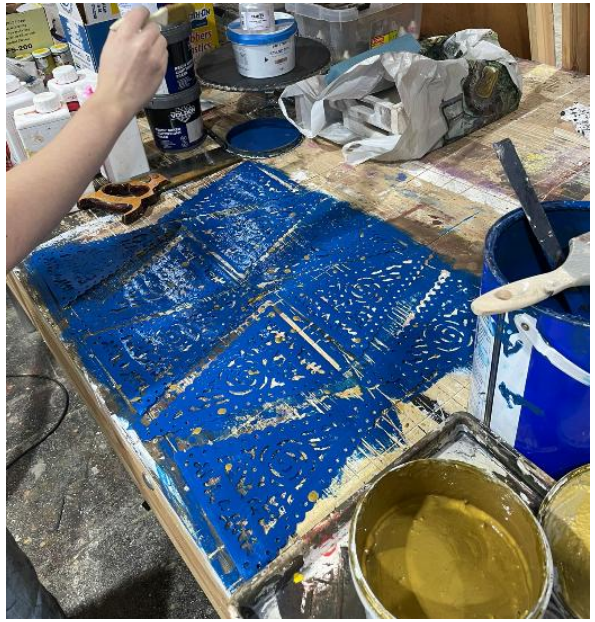
In the meantime, I painted one of the sourced paint stands with mustard yellow and white emulsion and...







...Annie painted the bunting



Once the primer layer had dried on the polystyrene, I began painting them



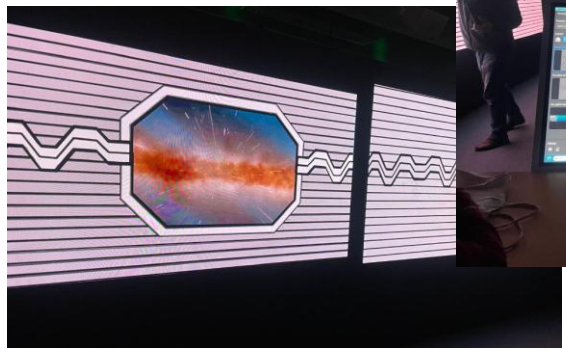
# Thursday 12th

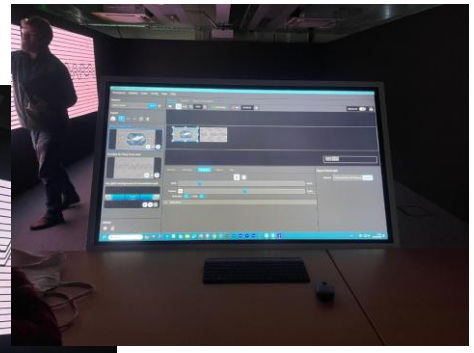
- On the Thursday, Annie and I had a workshop day, I began by touching up the yellow cake stand with a second coat of the Mustard Yellow and White emulsion mix, then we went to the Immersive Room for a final chance to pre-vis in the space. On our way to the T&L block, we saw our Flints order arrive which had our SuperScenic white we had been waiting on to paint our flats and rostra.
- We used our slot in the Immersive Room to check my rendered clips worked well on the screen. Once we saw that they did, we shot back to the workshop so we could crack on with the painting of our set. In hindsight, we should have done more thorough lighting checks, but we were feeling conscious for time ahead of our filming date.
- Back in the Workshop, Annie and I mixed up the bakery's interior wall colour using our collection of left-over emulsions we found in the paint store, this shade was a combination of:

- Dulux Berry Smoothie Emulsion
- Wilko Marshmallow Emulsion
- Bristol Standtex Magenta
- Bristol SuperScenic White 1000 (to make it a baby pink shade)
- B&Q White Emuslion (didn't alter the shade at all, but was a great way to add volume to our paint mix)

- We applied this to our walls using paint rollers. Once again, they dried quickly so we were able to do multiple coats throughout the day.

Testing my edits on the LED walls in the Immersive Room





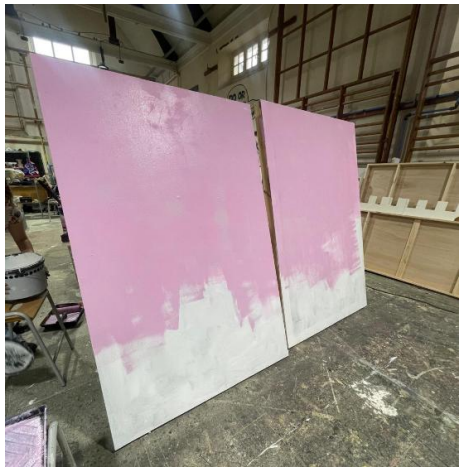
Mixing the bakery interior shade



Going over the cake stand with another coat



Applying the baby pink shade to our flats



Annie painting the rostra purple

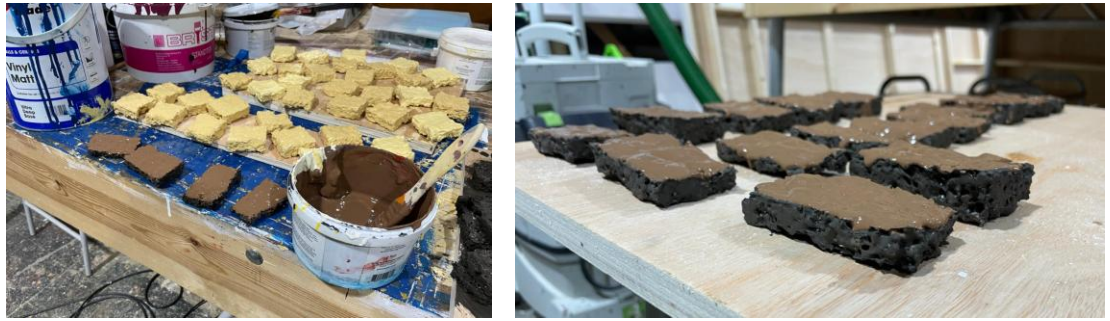


# Thursday 12th

- In between paint coats, I made up the base coat for the blondies. Now that the brownies' base coat had fully dried, I saw that their texture wasn't quite looking right – when they are still wet, they look very believable but once dried you can see too much of the porous texture of the polystyrene. To combat this, for the blondies, I mixed the base shade with filler to give the polystyrene a thicker coating which achieved a much more believable texture. The blondie base coat was made using:

- Volden multi-purpose filler powder (1 part water to 2 parts powder)
- Daler-Rowney Yellow Ochre acrylic
- Bristol Chrome Yellow
- Kingfisher Interior White Emulsion

- I applied this with a 1.5-inch filling knife

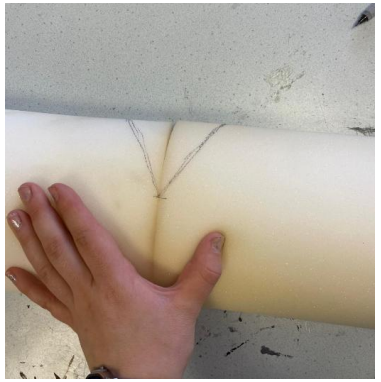


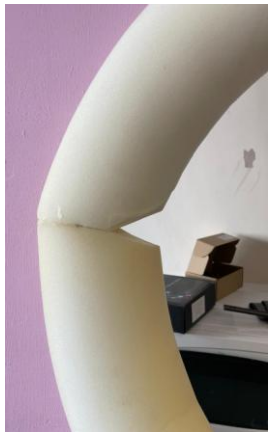
Making coloured Polyfilla coatings for the polystyrene

- Also using a filler/paint make up, Annie applied a base coat of filler and Bristol Standtex Chrome yellow and violet acrylic paint (to create a yellowish white colour) to the large round cakes to look like palette-spatula applied buttercream.
- Using a similar make-up to my blondie mix, to hide the bad job I'd done on the Brownie base layer, I put a chocolate ganache topping on my brownies made using filler with the left-over base shade with added Bristol Chrome Yellow and white emulsion to help make the shade a lighter Nutella-y shade.
- As I was doing this, Annie painted the rostra purple. Later, once this had dried, we lifted the tape to find it was taking away parts of the purple squares we wanted to keep. This could have been down to the paint or tape quality, or its quick drying time. Because of this, instead of relaying tape for the blue squares, Annie painted the rest of the squares blue by hand. The Purple on the rostra was made mixing Macpherson Aubergine emulsion and SuperScenic White, the blue shade was made mixing Bristol SuperScenic White and Bristol Standtex turquoise.
- As I waited for the blondies and brownie ganache to dry, I carried on adding touch ups to the bakery walls

# Friday 13th

- On the morning of Friday 13th, I came in at 9 to get a headstart on finishing the cake props but realised we needed to clear the space for the first-year scenic art lesson. We were able to stay and work in there, but I appreciated Beth's concerns over getting paint onto our set pieces. With the help of Sarah and Ant, we moved our back wall flat, the parry and school table set furniture along with the prop cakes into our Design Room. We left the rostra and two smaller wall flats in the workshop as these were well out of the way.
- In the design room, I worked on adding foam to the outside of the windows to add some texture. This wasn't part of the original plan, but as I agreed with Dave, it needed some depth. This would also help us hide the toggles which would be seen using any side angles in the filming process.
- I was using leftover water woggle shaped foam left over from the lollipop making for Charlie and the Chocolate Factory. The length of the foam wasn't long enough to make a complete ring window frame, so I cut it into 3 equal lengths and fixed this to the outside of the window using contact adhesive.
- In this process, I found when using a porous material, it's best to use the quick method of applying the adhesive to both surfaces then putting the two surfaces together immediately and holding these in place for a while instead of letting the glue become tacky first. This latter method was too unpracticable in our temperature changing deign room, the adhesive became tacky much quicker than it should have, which meant the glue on the flats could no longer be used to adhere the foam window frame to the ply flat.
- After I picked up the filming equipment from Liam, I applied a priming layer of HexFlex and water to the foam window frames so they could be painted.



Since the seams in the thick foam couldn't be concealed, Dave suggested making the joins a design feature by adding an indent. I felt this looked better than the original continuous thick border. I cut the foam using a utility knife blade.

# Friday 13th

- As this dried, I tested the kit in the design room to check it was all there, worked and if any of the LED batteries needed charging
- Once the HexFlex primer had dried, I painted them with Bristol Standtex magenta.
- To finish off the brownies and blondies, I used paint – for the blondies I used the mustard emulsion and super scenic white to make a white choc pigment and drizzle technique (as I would use in ordinary baking)
- For the brownies, I made faux sprinkles using matchsticks. I cut these into small lengths then painted them with blue and purple acrylic and the Bristol Lemon Gold to keep them in theme with our bakery's colour scheme. Other ways to do this include chopping up coloured dried clay or plasticine. Another way I could have decorated them is to use a hot glue gun to make the chocolate drizzle effect or a glace icing drip effect

As I carried out these tasks, Annie worked on touching up the peeled purple paint on the rostra; decorating the large round cakes with acrylic pigmented filler and a pipe bag and nozzle; painting on the specials chalk board and menu; finishing off the closed/open sign and began painting on the shop sign above the window.




The painted window frame borders using Bristol Magenta which I applied after the HexFlex prime layer had dried

Finishing the brownies and blondies with fake white chocolate (acrylic paint) and sprinkles (painted matchsticks)









# Saturday 14th

Over the weekend, so our real baked goods were freshly prepared for Monday's shoot, Annie and I did some edible prop making. On the Saturday we:

- Baked fairy cakes and 1x large round cake, using one large batter recipe and then portioning it into two large baking tins (to be the two layers of the large sandwich cake) and small cake cases for the fair cakes.
- Made UV jelly – I made too much mixture so as well as adding this to the 6 clear jars we had, I also made a large jelly in a pot which we can cut into slices or display on a plate as a whole large jelly. Unfortunately, this was a bit of a fail, as we didn't have a Jelly form, so we used a saucepan that was near impossible to remove the jelly from. We brought it to the Immersive room for the shoot but ended up not using it, not to my surprise.
- Made chocolate cornflower cakes from melted chocolate combined with melted butter and cornflakes. We decorated these with edible eyes, space themed sprinkles and edible glitter
- Whilst the cakes cooled, Annie and I went to the Design Room to touch up the paint on the window borders and to add the picture frames to the stage right wall.
- We did a fit up on this day so that on Monday it is ready to go with screw holes in the right places and added screws in place for the picture frames, bunting, fairy lights and open/ closed sign – this gives us less to do on Monday morning and means we know it goes together in a structurally secure way and we are rehearsed for the process in the Immersive Room

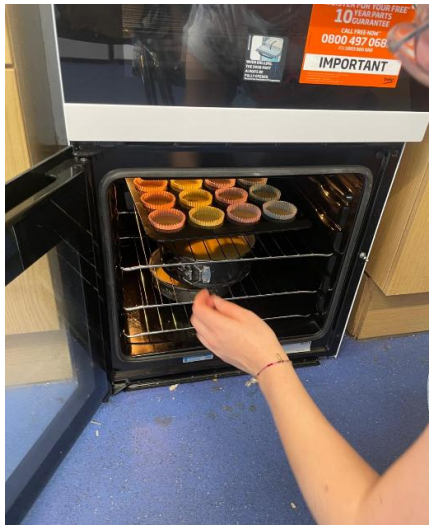


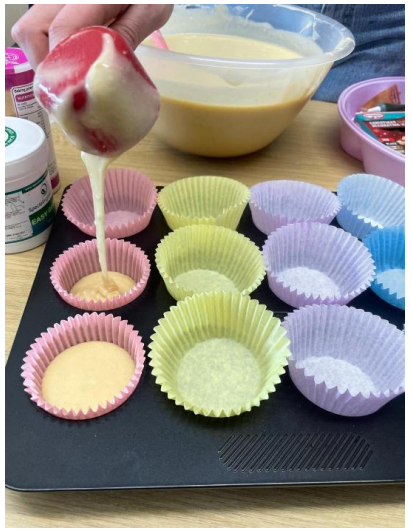




Chocolate cornflake cake making and decorating

Making the cake batter

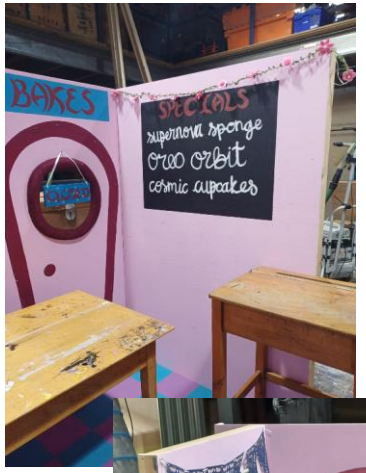


# Saturday 14th

Next, Annie and I iced the fairy cakes with crushed Oreo buttercream. Due to the temperature in the room (it was a warm day, and we were in a kitchen where you can't control the temperature), the piped buttercream wouldn't hold its shape. We were hoping to produce a swirled effect that finishes at a peak in the centre of the buttercream, but since it wasn't holding its shape, we used leftover Oreos to decorate them. This also could be down to the fact we were using baking block rather than butter which is less expensive but also has less of a fat content which is what helps icing hold its shape.






Touching up the paint and doing a fit up in the workshop







Decorating our Oreo fairy cakes



Annie decorated the larger cake in the evening once the temperature had cooled and made the cinnamon swirls on Monday morning, so they looked their best for the shoot





My failed slab of jelly that was impossible to get into the centre of a plate



# Sunday 15th

Also over the weekend, I revised the Storyboard, shot list and created our schedule. I updated the shot list and schedule so that we were over-doing it with our number of shots. I was concerned about getting enough coverage and thought if I scheduled the best-case scenario of time keeping on the shoot day, we would always have something to be doing in the Immersive room to use up our time well.

I was also conscious that I was being ambitious, so I put our shots in shooting order from most to least important. That way, if we ran out of time toward the end of the session, we would have all of our necessary shots to complete the edit.

Our shooting schedule which includes a timeline as well as details on what prop/set and filming equipment is required for each shot

**Space Bakery Shooting Schedule**

**Date: 16/03/26**

| **Call Times** | **Location** |
|---|---|
| Pre - Set: 8.30 | Yr 2 Design Room |
| Unit: 9.00 | IR (T&L Block) |

| Time | Action | Details |
|---|---|---|
| *8:15 AM* | *Leave home* | *Move Cake, Fairy Cakes, small Jelly's and Cinnamon Rolls from Annie's flat;*<br>*Jelly and toolkit from Alice's flat to Yr 2 Design Room* |
| 8:30 AM | Unit Move | Move set and set dress from Design Room/ Workshop to IR |
| 8:45 AM | | Move set dress from NI to IR<br>*Collect Schedule, Shotlist and storyboard* |
| **9:00 AM** | **Space Bakery Load In** | **Fit up (back wall)** |
| | Dress Set | PARRY TABLE - Table cloth (table empty or just cake stands, no cakes)<br>SCHOOL TABLE - Till<br>SCHOOL TABLE - Books<br>SCHOOL TABLE - Shoot for stars print<br>SCHOOL TABLE - Vase of flowers<br>SCHOOL TABLE - Moon Ornament<br>WALL - Picture frames<br>WALL - Bunting<br>WALL - Fairy Lights<br>DOOR - Open sign |
| | Camera Set up | Lights low (to look off)<br>Dolly<br>Camera + Stockings<br>*Collect LED Panel batteries from Liam.*<br>*Upload final space travel clip and space travel (with no shutters) clip from teams.*<br>*For following videos, see if it is possible to mirror long screens or do this manually to match the lighting on the interior of the Bakery* |
| **9:30 AM** | **Shooting** | |
| 9:30 AM | Alice + Lloyd shoot intro (1.1) | Lights low (to look off)<br>Dolly<br>Camera + Stockings<br>Collect LED Panel batteries from Liam.<br>'Space Travel' |
| | Annie changes into costume | |
| 9:40 AM | Shot 2.1 | Dolly - CU to wide<br>'Shutters Open 2 (Final)' |
| **10:00 AM** | **Redress** | **Fit up for left wall**<br>**LED panels turn on *for 'lights up'*** |
| 10:30 AM | Shot 3.1 | Tripod<br>LED Panels<br>'Planet Scape 1 (video)' |
| | Shot 4.1 | Tripod<br>LED Panels<br>'Planet Scape 2 (video)' |
| | Shot 5.1 | Tripod<br>LED Panels<br>'Planet Scape 3 (video)' |

p1

| Key |
|---|
| Set Dress |
| Camera Equipment |
| LED Backdrop |

| | | |
|---|---|---|
| | Shot 6.1 | Tripod<br>LED Panels<br>'Planet Scape 4 (video)' |
| | Shot 7.1 | Tripod<br>LED Panels<br>'Planet Scape 5 (still)' |
| | Shot 8.1 | Tripod<br>LED Panels<br>'Planet Scape 6 (still)' |
| | Shot 9.1 | Tripod<br>LED Panels<br>'Planet Scape 7 (still)' |
| | Shot 10.1 | Tripod<br>LED Panels<br>'Planet Scape 8 (still)' |
| 11:00 AM | Shot 2.2 | LED Panels<br>'Shutters Open 2 (Final)' |
| | Shot 3.2 | LED Panels<br>'Planet Scape 1 (video)' |
| | Shot 4.2 | LED Panels<br>'Planet Scape 2 (video)' |
| | Shot 5.2 | LED Panels<br>'Planet Scape 3 (video)' |
| | Shot 6.2 | LED Panels<br>'Planet Scape 4 (video)' |
| | Shot 7.2 | LED Panels<br>'Planet Scape 5 (still)' |
| | Shot 8.2 | LED Panels<br>'Planet Scape 6 (still)' |
| | Shot 9.2 | LED Panels<br>'Planet Scape 7 (still)' |
| | Shot 10.2 | LED Panels<br>'Planet Scape 8 (still)' |
| | Shot 11.1 | *Any* |
| | Shot 11.2 | *Any* |
| | Shot 11.3 | *Any* |
| **11:30 AM** | **Space Bakery Load Out** | Pack up dolly and tripod<br>Other groups may want to use LED lights - could leave in IR<br>Strike Set (move to T&L Lobby) |
| 11:45 AM | Assist Time Travellers Load In | |
| 12:00 PM | Unit Move | Move set and set dress from IR to Design Room/ Workshop<br>Could return LEDs, Batteries and Dolly/Tripod (*unless another group want to use them)* |

p2

# Space Bakery Shotlist

| SCENE | SHOT | SHOT SIZE | CAMERA MOVEMENT | ACTION | DESCRIPTION/NOTES | EQUIPMENT | DIGITAL BACKDROP |
|---|---|---|---|---|---|---|---|
| 1 (intro) | 1 | SCU | static | Space travel footage on LED screen, shot through shop shutter window | Theme tune starts up, **shoot stationary for entirety of Space travel video** (120 SECONDS) for dolly shot this may need to be on smaller LED wall | Tripod (On dolly for cont.?) | 'Space Travel' |
| 2 | 1 | Mid shot | Pull backward to static for when Lleu enters | Approx 5 second pull back from shutter window to reveal bakery interior<br>Lleu enters shot with UV Jelly's and places them down | **USE MOST RECENT TEAMS LINK CLIP (Shutters Open 2 (Final))** Dolly shot, as the camera pulls away, the shutters begin to open revealling the planet scenery where the bakery has landed | Tripod (On dolly)<br>UV Light | 'Shutters Open 2 (Final)' |
| 2 | 2 | MCU of hands holding jelly | Tracking | Lleu enters shot with UV Jelly's and places them down | CONT. 2.1<br>Lleu - no apron | UV Light | 'Shutters Open 2 (Final)' |
| 3 | 1 | Mid shot | Static | Lleu brings in fairy cakes stand | Lleu - no apron | Tripod **MATCH CUTS FOR SCENES 3-10 SHOT 1s**<br>LED Pannels | 'Planet Scape 1 (video)' |
| 3 | 2 | CU | Handheld | Plwton dusts the display table | Lleu - no apron | LED Pannels | 'Planet Scape 1 (video)' |
| 4 | 1 | Mid shot | Static | Lleu sips a coffee looking out shop window | Lleu - no apron | Tripod<br>LED Pannels | 'Planet Scape 2 (video)' |
| 4 | 2 | cowboy shot, mediun CU | Handheld | Lleu puts on apron and ties it around waist | APRON IN HAND then needs to be on | LED Pannels | 'Planet Scape 2 (video)' |
| 5 | 1 | Mid shot | Static | Lleu adds water to a vase of flowers | (fake, no water in IR space) | Tripod<br>LED Pannels | 'Planet Scape 3 (video)' |
| 5 | 2 | OS high angle, CU | Handheld | Plwton is looking over table, he's dropped a fairy cake | Can move plwton like shake him with hand out of frame | LED Pannels | 'Planet Scape 3 (video)' |
| 6 | 1 | Tracking shot | Static | A closer look at the table of cakes AS Lleu places down brownie tray | Lleu enters from another angle, has to look as if shop continues beyind frame toward | Tripod<br>LED Pannels | 'Planet Scape 4 (video)' |
| 6 | 2 | OS high angle, CU | Handheld | Lleu places down brownie tray | CONT. 6.1 | LED Pannels | 'Planet Scape 4 (video)' |
| 7 | 1 | Mid shot | Static | Lleu writes the specals on the a chalk board | Chalk markers | Tripod<br>LED Pannels | 'Planet Scape 5 (still)' |
| 7 | 2 | CU | Tracking | Plwton uses brush to clean up his mess | Plwton doesn't move, camera can just over him | LED Pannels | 'Planet Scape 5 (still)' |
| 8 | 1 | Mid shot | Static | Lleu places down fairy cakes | | Tripod<br>LED Pannels | 'Planet Scape 6 (still)' |
| 8 | 2 | Overhead of table | Handheld | Lleu rotates cake stand and moves it slighlty closer to the shop window | | LED Pannels | 'Planet Scape 6 (still)' |
| 9 | 1 | Mid shot | Static | Lleu picks up Plwton and places him by the till | Make sure to have Plwton facing direction of camera | Tripod<br>LED Pannels | 'Planet Scape 7 (still)' |
| 9 | 2 | CU, over the till | Handheld | Plwton and Lleu are at the till, entering a value | | LED Pannels | 'Planet Scape 7 (still)' |
| 10 | 1 | Mid shot | Static | Lleu flips sign from closed to open | (will be reveresed sign pointing inward to say closed) | Tripod<br>LED Pannels | 'Planet Scape 8 (still)' |
| 10 | 2 | SCU | Handheld | Lleu flips sign from closed to open | CONT 10.1 | LED Pannels | 'Planet Scape 8 (still)' |

Revised shot list with added optional b-roll (scene 11) at the bottom for if we had time on the shooting day to capture

| SCENE | SHOT | SHOT SIZE | CAMERA MOVEMENT | ACTION | DESCRIPTION/NOTES | EQUIPMENT | DIGITAL BACKDROP |
|---|---|---|---|---|---|---|---|
| 11 | 1 | Medium CU | Handheld, tracking | Close ups of the cakes on the table | All handheld, some tracking, some still SCU | LED Pannels | *Any* |
| | 2 | Mid shot | handheld, static | Lleu uses Plwton to dust shop sign over the window | Side angle | LED Pannels | *Any* |
| | 3 | mid shot of Lleu at the counter | Static | Lleu whipps up some icing to touch up a cake, flour in the air | SHOT N/A- not allowed flour in space | Tripod<br>LED Pannels | *Any* |

# Filming Day, Monday 16th

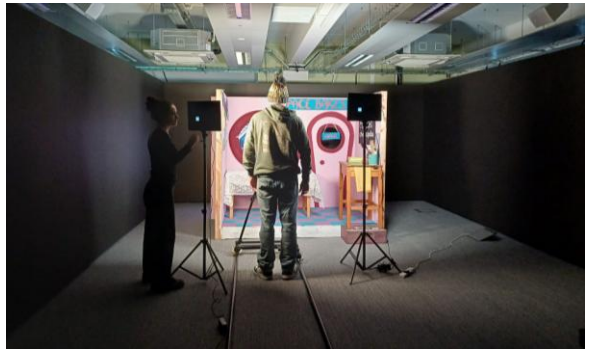
- Annie and I met in the design room at 8.30 to begin our load in. We had a lot of set, set dress and props to move so Annie and I decided to start nice and early so we wouldn't need to rush and could make sure we were carrying heavy items correctly and taking breaks where necessary. We also wanted to be able to take our time in the Immersive Room, it is a very delicate space, so we wanted to remain calm and slow within the 'studio' as to not damage anything.
- First, we brought in all our smaller items – set dress and props, baked goods etc and stored these outside the IR, leaving a clear and accessible walk-way. At this time, we didn't have access to the room itself, but we could still make sure everything was in the T&L Building ready for the Immersive Room fit up.
- Once we had access to the IR and with help from Alaya, Sarah and Ant, we moved our set into the space. The walls were very light-weight so we carried these over in pairs, then the rostra we moved from the workshop to the T&L block using a trolley.
- For the fit up we had 1-2 people holding each wall for the full duration of the fit up, so no walls were leaning against anything or left unsupervised.
- With each wall manually supported, we screwed the walls to the rostra and each other, using our screw holes we made when we practiced our fit up in the workshop.
- With the set in place and supported, we began dressing the set for the first shot. For this, we needed a relatively bare table with only its tablecloths, then on the walls - picture frames, bunting and fairy lights, as Annie would dress the rest of the display table on film.



Our props table in the back of the Immersive Room



Loading our virtual backdrops onto the screen



Setting up the first shot, a static one through the window of the bakery, later to be matched to a dolly shot where the camera pulls outward

# Filming Day, Monday 16th

**Notes from the filming process:**

- We ran a little behind because the fit up took an hour rather than 30 mins which I didn't find very surprising, it is a lot of work to fit up and dress a set and also prepare camera equipment, lighting and the LED screen in 30 mins. Because we had started later than planned on the shooting schedule, I knew we may need to cut some of the shots I had planned as filler but that was fine as I had structured our shooting schedule to get the most important shots first, with the first shots having the most time-consuming set up (dolly, tripod, LED panel lighting). So I knew these later shots wouldn't take nearly as long to prepare, and if need be we could cut some as I had over planned shots to make sure we had plenty of coverage.
- I really enjoyed this process, Lloyd and I were in constant communication about framing, camera movements/angles and pacing. We would cross check and share ideas with each other and I appreciated everyone's input. We would practice the tricky shots to allow Lloyd time to rehearse his focus pulling and movements as well as Annie be able to practice their actions.
- I found using the igloo software and LED screens a lot easier to operate after our last IR practice session. I had also made sure to make the digital backdrop side of things tangible and simple to operate so it could be adjusted quickly for each shot, with each virtual backdrop downloaded and loaded into a sequence for quick preparation between shots.



Lloyd filming an OS shot of Plwton, where you can see the stocking stretched over the lens




A view of the lighting set up from the front with two LED panels set to 3200 Kelvin (Tungsten)



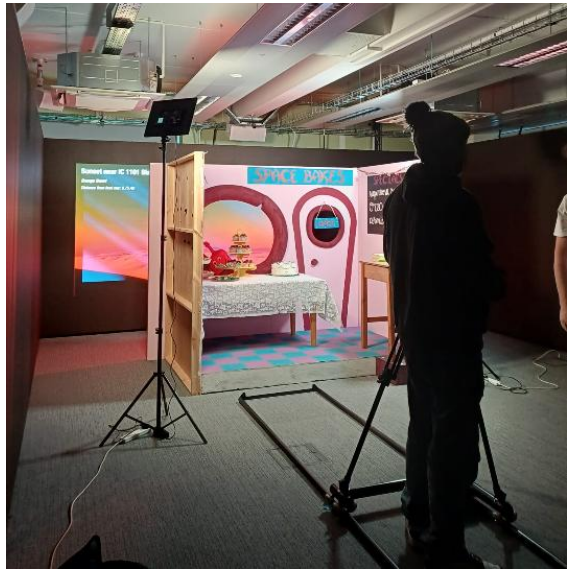
Lloyd's colour changing Neewer LED Light Stick



Here you can see how I was able to move the backdrop around to fit the filming angle

# Filming Day, Monday 16th

- Throughout the filming process, we regularly referred to our shot list and schedule. By the time filming day arrived, I had a clear idea of what we needed to capture and the order in which it was planned. However, having the document on hand was very useful for identifying what could be cut if needed. I found the shot list particularly useful as I had paired each shot with a corresponding digital backdrop, allowing me to quickly reference which planet-scape or clip needed to be loaded onto the Immersive screen for each shot. This saved time and allowed me to focus more on the filming itself with Lloyd.
- Once we had finished using the dolly, we set it aside. Roughly half of our footage was captured using the dolly or a tripod, while the other half was shot handheld. This approach not only added variety to the TV intro but also addressed the practical limitations of our small set, where the tripod couldn't always achieve the desired camera angles or heights. Shooting handheld also gave Lloyd greater flexibility, making it easier to focus on smaller details and move freely. Much of this handheld footage consisted of B-roll of the set, close-ups of Annie's actions, and cutaway shots of Plwton creating havoc.
- I ended up cutting some of the extra shots I had added for coverage, but Annie and I were satisfied with what we had captured and were finished by 11.30, ready for the striking of our set.
- After a break and some much-needed alien themed sweet treats, Annie and I took the rest of the morning to move our set back into the design room where it will be stored until the presentation on Thursday. We stuck around to help the other groups' get ins and outs while also attending skills week workshops. In the meantime, I based myself next door to the Immersive room and began the edit.



To keep things moving along ,we did all of our static tripod shots from the dolly, so we didn't have to change tripod





A closer look at our set dress in the bakery

# Editing, Tuesday 17th & Wednesday 18th

Between preparations for our Dosbarth Miss Prydderch a Lleidr y Lleisiau Theatre Cymru Interviews on Tuesday 17th and updating our Process Workbooks, Annie and I worked on the edit. We worked alongside each other, with Annie's main focus being collating previous research and paperwork we had completed throughout the module to show in our presentation whilst I focussed on the edit. As we were editing such a short clip, it was challenging to share this job. I also enjoy editing and had taken the lead in the digital side of things in this module, as this area greatly interests me. Annie had had a lot of influence on the storyboard and general structure and story behind our film, so I felt happy to lead the edit, with a clear idea in mind about what we were hoping to achieve. I also made sure to get plenty of feedback from Annie, as after staring at a screen and rewatching clips repeatedly, it's easy to become too familiar with the content to notice where changes are needed. For example, Annie suggested lengthening the time a piece of text remained on screen, which I hadn't realised was too brief to read properly.

**Here are some more detailed notes about my editing process:**

- Ahead of the shoot, to prepare for the final edit, I sourced some royalty free children's TV intro music. I looked at Adobe stock audio, Pixabay and Epidemic Sound. Through this process, I found that a lot of the music on these sites wasn't actually licensable or free of charge as they were behind a hidden paywall. So instead, I used trusty YouTube to find our background music: SoulProdMusic via YouTube (2020) *'Fun TV Show Intro Logo Music (Royalty Free Music) Happy Upbeat Background Music For Videos*' Available at: https://www.youtube.com/watch?v=lJ_wXOEqwvM

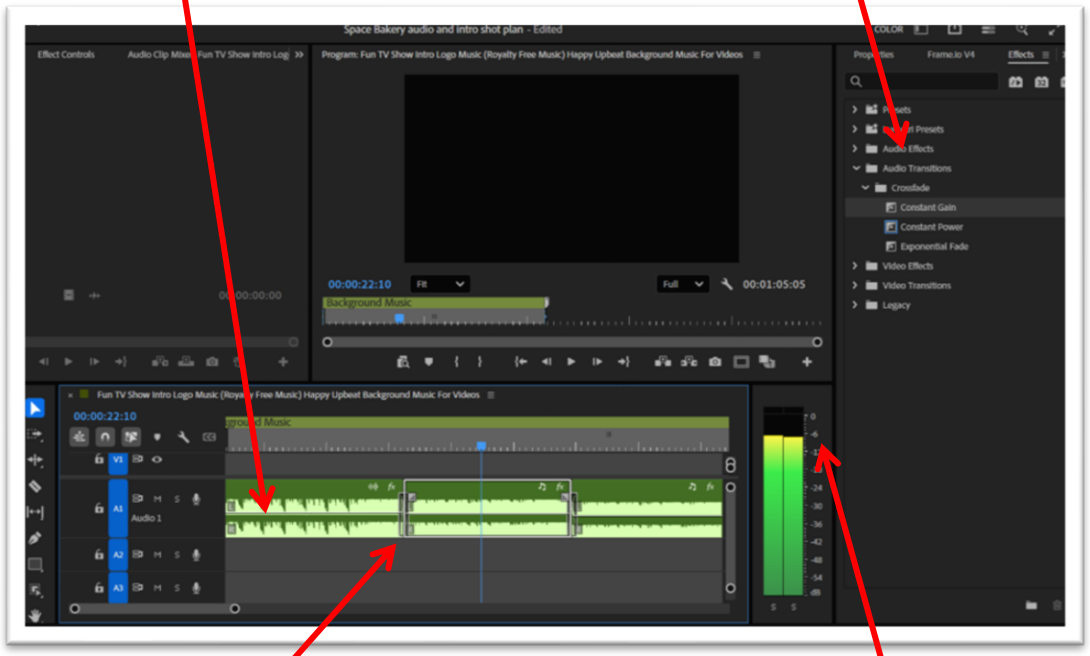


# Editing

- I felt this music was fitting; however it wasn't long enough for our required 60-90 second video length. So, I opened a project to edit this music on premiere. I looped the chorus twice to make up the correct video length, keeping the intro and outro as they were to make sure the structure made sense, adding the 'constant gain' audio crossfade transitions to make these loops as seamless as possible (though not perfect – a software like Adobe Audition would be better for finalising music composition). The extent of my music editing process within Premiere was adding the transitions and adjusting its levels.
- A note on audio levels within Premiere: When I imported the music, I found the audio was peaking (reading red on the decibel meter above -0), so I adjusted its level to peak between –12 and –6 decibels which is considered broadcasting standard for sound, with your final mix sitting at –3 (this would include spoken dialogue and sound effects mixed over background music/ room tone).

Audio levels can be adjusted in the 'Audio Source Clip' window, or on the timeline itself by dragging the white line up or down. You will see the waveforms adjust in real time as you set audio levels.

Audio transitions sit under the 'Effects', then 'Audio Transitions' tabs. I used the 'Crossfade' drop down

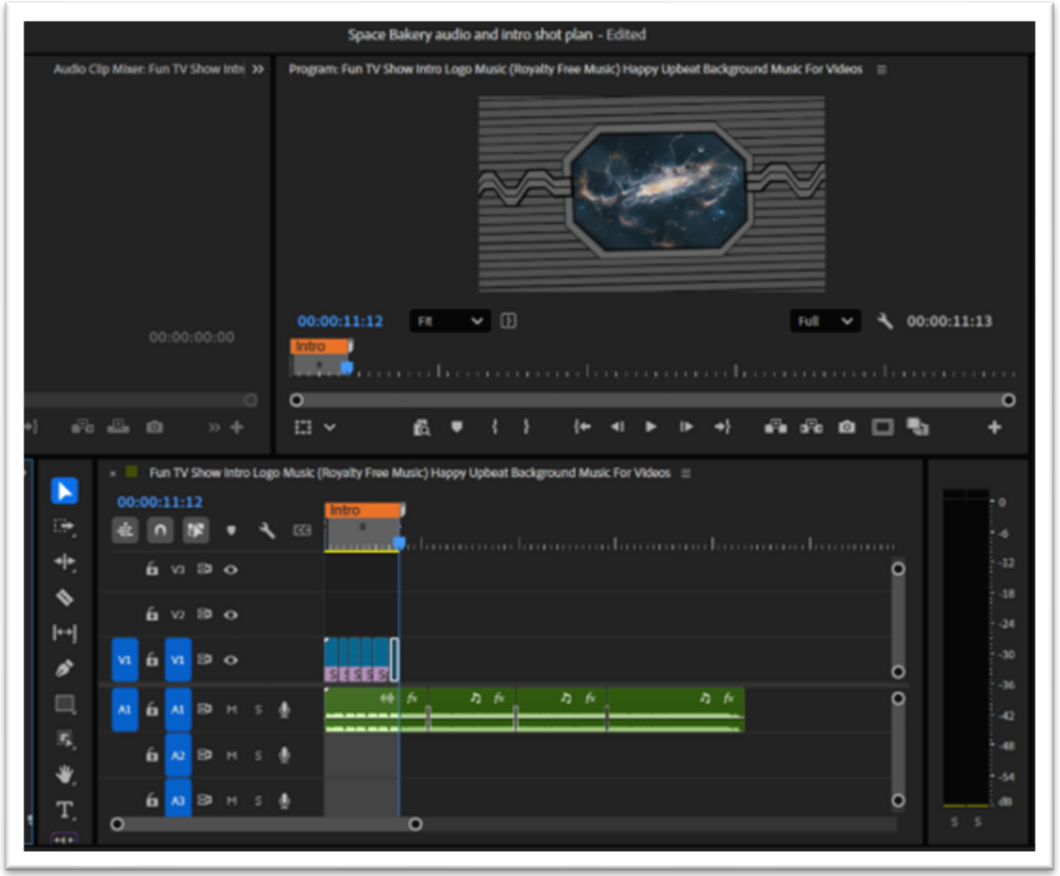



The 'Constant Gain' audio transitions that sit across cuts

The Decibel Meter - you want your audio levels to read between -12 and -6 for the best audio quality in rendering

# Editing

- Also ahead of the shoot, once I created our looped music, I added in the virtual background clips I thought would work in the intro, cut to the timing and order I want to place them at in the final edit. By starting the edit before the shoot day, which is possible when using LED screens (as the digital imagery is put together in pre-production rather than post), I was able to get a clear idea for what shots we needed in the intro and finalise our shot list and shooting schedule. I also used the looped music to help me think about how much footage (aka coverage) we'd need to fill this time and visualise the final edit with what scenes we could implement – considering things like using varying angles, back drops and pacing to keep our intro engaging
- Once we had finished shooting, Lloyd uploaded the raw footage to my hard drive. I created a new premiere project, adding the footage into the project under the same sequence settings that the footage was shot in (25 frames, 1920x1080 pixels etc). Matching the edit and rendering details to the settings the footage is captured in avoids problems later down the line like compressing of files when it comes to the exporting stage.



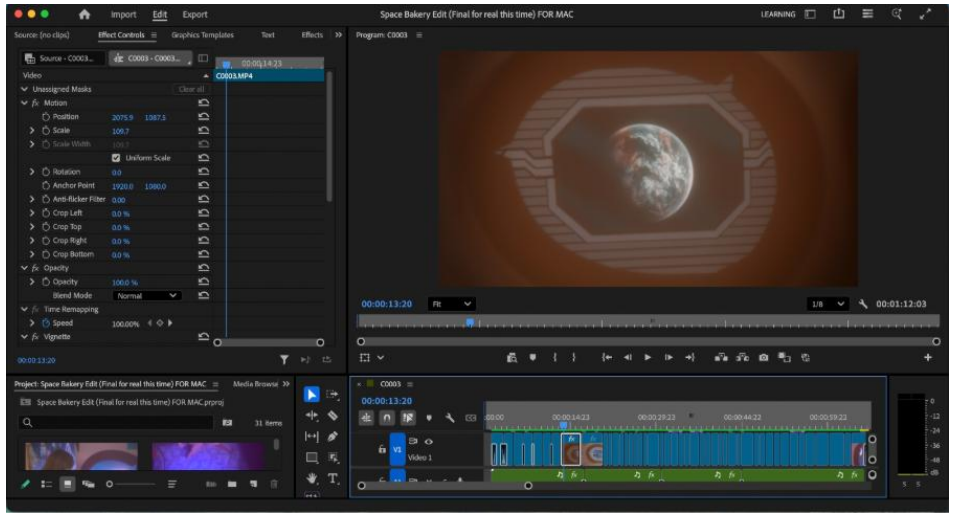

Here you can see the timeline in my pre-visualisation phase. I have the looped music in my first audio track and above this, the digital backdrop clips we'll be using in our introduction, cut to the music.

# Editing

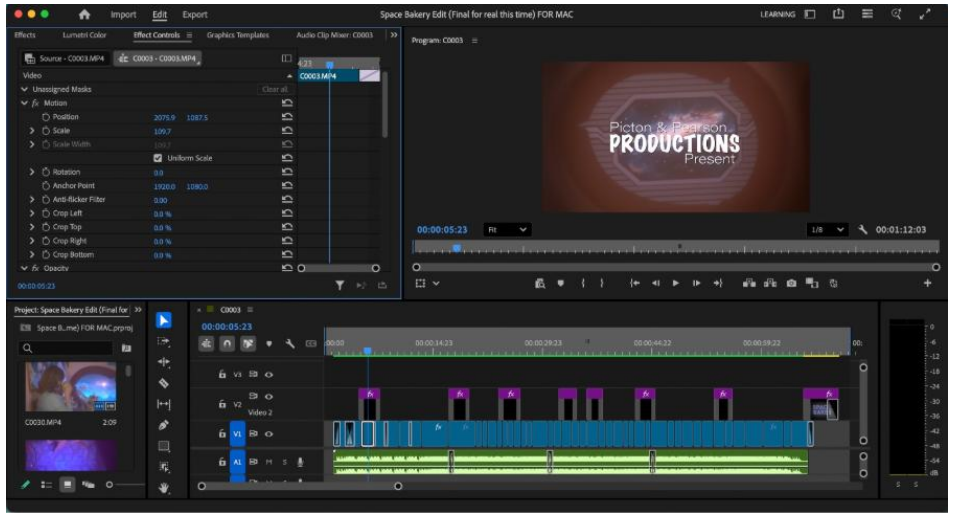
- With my footage imported into the project in one sequence, I copied over the looped audio edit from the previous project I was working on (I didn't export this, so I would still be able to adjust the loop I made within my timeline if it needed any fine tuning or extending/cutting down).
- Then, I previewed each clip from the shoot *(we had 28 clips captured)* within the 'source' window in Premiere. I'd select the in and out points for the part of the footage I wanted to use in our edit, then drag and drop these clips into the timeline.
- I worked chronologically, importing the intro clips first, which were clips of space travel shot through the bakery shop window, and cutting this to the music – you can use the wavelengths visible in the audio timeline when you extend its view, for a visual representation of the rhythm and when to make cuts for it to fit the music, or you can use your ears (I did a bit of both).
- Then, I added in the matched shots of Lleu (played by Annie) placing down the different baked goods onto the table (this was the main subject of the TV show's intro). I put these in an order that made sense in terms of switching up the colour in the back drops and directions in which Lleu enters the frame to make it dynamic and visually interesting to watch.
- To make sure we got enough coverage, I had directed Annie to move slowly in placing our baked goods onto the table. To make sure these actions fit the music, I would add little time jump cuts i.e. Annie enters frame, cut to, Annie placing down a cake. This helps the pacing of the TV intro. This is a stylised choice – you would rarely see these kind of cuts within traditional filmmaking, but it works great for a TV show intro.
- Next, I added in the ending of the edit which is Annie flipping the closed sign. This consisted of two shots – a wide of Annie approaching the door, cut to, an over the shoulder shot focussed on the closed sign as Annie flips it. I added this next so that I could visually see on my timeline our structure: intro, main body, then ending. This way, I could zoom out of my timeline to see it in full and see what gaps needed filling or what clips looked like they were longer than the rest which meant I could go in and cut down or add in a jump cut to speed it up.

# Editing

- With the main narrative of the television intro and our carefully planned shots in place: the space-travel opening, a dolly shot of Annie placing the first bake, followed by match cuts of her placing the remaining bakes, and finally Annie flipping the ‘closed’ sign - I then incorporated our B-roll footage to fill any gaps. This allowed the edit to alternate between the matched action shots and additional moments, such as Plwton reading or Annie adjusting a picture frame on the wall. This helps keep the viewer engaged – cutting satisfyingly to the music with an upbeat pace much like a lot of Children’s TV intros.
- After adding in some refinements such as cropping clips so you couldn’t see the edge of our set and applying a vignette filter to the intro clips to make them look cohesive, I added in some text graphics to appear as television credits. For this I used a free Adobe Stock template and adjusted its font to look more childlike to ‘marker pen’ and changed the sample text to our TV show credits. Annie and I credit ourselves and Dave as cast members, our mums as Producer and Director, and Annie’s cat Ember as the executive producer and funding body behind the film. Thank you, Ember.



Adding in the ‘Vignette’ effect to the opening scenes. This was to help tie the introductory clips together but also make the light from the window appear more vivid




A screenshot of the final timeline layout. Here you can see the graphic on my second video track, the footage on the first video track, and the audio below this

# Editing

- One challenge I did face in the editing process was to do with the length of our film – it's 65 seconds long which is just within the correct briefed length, yet TV intros are rarely that long. Their purpose is only to help build a television shows identity, introduce the main characters and credit the creators behind it, which can be done in 30 seconds. I feel that in places it drags a little but that's okay as the purpose of the module is to explore these potential conflicts within a research and development stage *or* camera test as they may be called in filmmaking-land. If I were to reshoot our intro, I could think of improvements we could make – first of all, I would probably tell our producer to cut down the length of the into. Otherwise, I would consider extending the set outward or upward a little, just so our wide shots could include the whole set without getting any of the studio in the shot. As well as this, we could explore costume further, maybe switching up what Annie wears between shots to make the intro clearer that she is setting up in different locations at different times, and also to make it more visually engaging with more colour variation.
- Otherwise, I found the editing process a straightforward and enjoyable process which was all thanks to our thorough preparation. From Annie and I's pre-production paperwork and constant collaboration, I knew the exact feel we wanted to create through this TV show introduction and what needed to go where within the edit.




Our final film: Space Bakes by Annie Picton and Alice Pearson
Space Bakes by Annie Picton and Alice Pearson.mp4

# Presentation, Thursday 19th

In preparation for our presentation which is scheduled for Thursday 19th, Annie and I met between our filming day and Thursday to prepare and rehearse our questions. These were as follows:

1. **What tests have you run to understand how your physical materials react to LED screen light and colour?**
2. **What technical choices (software, materials, fabrication methods, rendering style, etc.) have you made, and why are they appropriate for the scene?**

Annie and I decided to share the questions rather than answer one each, as throughout the module we had been heavily involved with every aspect of the production and had some insight to offer on the questions. Independently, we wrote our answers to the questions depending on what we focussed on throughout the project and colour coordinated them as blue for my speaking parts and purple for Annie's speaking parts. Once we had written up our first draft, we rehearsed our answers and timed them. We found they came in below 5 minutes and we were worried this wasn't long enough, as usually we need 10 minutes of talking each in presentations. We had forgotten that the format had changed this time, we added a lot more detail to our answers before finding out the answers only needed to be 5 minutes long anyway. As we rehearsed answering them a couple more times before the presentation we tried relying less on our script and shortening our answers to be more concise and relevant to the questions themselves.

During rehearsals, we also found that the questions were better asked in a swapped order, so we could use the first prompt to give a bit of context behind our idea for the Space Bakery. This was especially important as the presentations are going to be attended by first years who have no prior knowledge of what we have been up to.

# Presentation

This is the refined version of our presentation script:

1. **What technical choices (software, materials, fabrication methods, rendering style, etc.) have you made, and why are they appropriate for the scene?**

- Our storyline for this piece was that our main character, Lleu had taken over their aunt's travelling space bakery while she took time off to explore the universe. We then based a children's TV show around this concept and decided to film the intro as our project. This means that we wanted everything to be aimed towards children and therefore more gentle but engaging. Our hearts were set on the bakery because we both have a passion for baking and have always wanted to try creating fake cakes so this was the perfect opportunity. My main role within this project was building the brand of the bakery and helping shape the concept of our storyline by creating the aesthetic design as seen here **(Show design)** of our bakery as well as the white card model. As part of this, I researched into what shapes and colours were engaging for children and found that bold colours with strong contrasts were the best, so this is what we went for. We also decided not to put too much detail or pattern into our set so that it wasn't too overstimulating for younger children. We chose the main colour scheme of pink, blue and purple because these colours are different enough but also don't clash. As well as this, I chose the font for all our signs. I chose one that was made up of moon shapes as seen here **(Show font)** so that it fitted in with our space theme to recreate for all our typography. Included in my role was the graphic design of all our posters. Because our bakery is well established, nothing was going to be too new but we did want the space to be aimed at children, hence the large amounts of glitter and sequins. We knew that we wanted one of our posters to be a newspaper clipping of the original opening but other than that I could choose whatever we wanted so I went with cute, motivational quotes that were space and bakery themed.
- We knew we didn't have long for the build section of this project so we wanted this to go as smoothly and quickly as possible to have more time on the details since we knew we were sourcing and making a lot of props. The main part of our set is the walls which are made of four flats. It would've taken us much too long to build these ourselves so we sourced them from left over flats from a different project but cut them down to the size we needed. This then meant that we had all our walls ready in one afternoon so that we could start painting as soon as possible. We also sourced a lot of our props instead of making everything because this wasn't the main aim of the module. We then made everything our own by adding lots of texture, such as the chunky, foam window frames and the sparkly picture frames.
- As part of our props for this project, we decided to make fake and real cakes to showcase our different skills and because we wanted the

# Presentation

This is the refined version of our presentation script:

challenge of making two things made of different materials both look real. I was in charge of the big cakes while Alice was in charge of the brownies and blondies. These all started with a polystyrene base so that they were lightweight. However, because this was the same, dense polystyrene we used for the Sound of Music bridge, it wasn't possible to cut it with a hot wire since it would overheat too quickly, so we used serrated saws. This then meant that we had to reseal everything, so we used a heat gun to stop any loose polystyrene getting into our 'icing' and then coated it all in a mixture of PVA and water to prime the surface for filler. Once the base layer of filler was dry, I piped patterns onto the two cakes using filler coloured with acrylic paint in a piping bag. For one cake, I coloured the filler pale green and used a star shaped nozzle to pipe while for the other cake, I was aiming for black but ended up with grey filler and a round nozzle. The biggest thing I learned during the piping process was the difference between buttercream and filler for decorating with. With buttercream, you have to start with it as stiff as possible because it will melt as you work due to room and hand temperature but filler does the opposite, it hardens as you work so you need to start with it softer than you'd think so that you can prolong its working time.

- My plan for the faux brownies and blondies was to paint these a base shade close to how they appear in real life then decorate with paint as a fake chocolate drizzle or filler as a fake ganache finish.
- For the fake brownies, once we had sealed the polystyrene, I tried applying paint straight onto this surface using a make-up of black emulsion, Bristol raw sienna (this is a dark brown shade but gave it a purple undertone) and Bristol yellow ochre to help neutralise the purple undertone but also keep it within natural pigments. I found it was still drying with a purple tint, so I added Bristol Chrome Yellow and this cancelled it out. With a little more black, I had achieved a rich dark chocolatey shade and applied this to the wider polystyrene chunks to be the brownies.
- Once these had dried, I saw that their texture wasn't quite looking right – when they are still wet, they look very believable but once dried you can see too much of the porous texture of the polystyrene.
- To combat this, for the blondies, I mixed the base shade with filler to give the polystyrene a thicker coating which achieved a much more believable texture. For decorating the brownies, I used acrylic paints and filer to make a chocolate ganache effect, and applied this with a large lollipop stick. The sprinkles are made from cut up matchsticks which I painted gold, blue and purple to fit our bakery colour scheme, I stuck these down whilst the filler was still wet to secure them in place.

# Presentation

This is the refined version of our presentation script:

- For the white chocolate drizzle, I used watered down acrylic paint to the consistency of melted chocolate and flicked this over the blondies from a paint brush.
- To help make them more believable I could have added a glossy glaze to the fake chocolate to give it that sheen you see on real fudgy brownies, or even used foam instead as the base material which I have seen done in my research – the texture of foam is closer to real sponge textures. It would also have been fun to add more decorative elements to the fake cakes that I have seen, like using a hot glue gun to make fake cherries or chocolate buttons and polymer clay to make sprinkles.
- In terms of the software's we used throughout this project, these were AutoCAD, Procreate, Adobe Premiere Pro, and Adobe Media Encoder.
- We used AutoCAD to create a technical drawing of our set, which helped us accurately measure and plan the size of our flats, as well as the placement of key elements like the left and right walls, the door, and the window. Procreate was used for our digital drawings of the shop window shutters while Premiere Pro was used to edit our footage. Media Encoder was especially important for formatting sourced videos, so they matched the settings of our backdrop sequence, ensuring everything played back correctly on the immersive room screens.
- In terms of the filmmaking process, much like our set design, we wanted to combine both traditional and contemporary techniques.
- (pointing to dolly) This is known as a dolly and is a very old filming technique for producing smooth tracking shots, they can be as long as needed, made up of rails, with the camera secured to a tripod on wheels.
- Another traditional in-camera technique we explored was placing a stocking over the camera lens. This creates a softer, more diffused image, giving the footage a dreamy quality.
- In 1971, cinematographer Ossie Morris shot the majority of Fiddler on the Roof with silk stockings stretched over his camera lens. And in Atonement (2007) the earlier scenes set in 1935 are shot with a stocking over the lens to create a nostalgic feel.
- While similar effects can be added digitally in post-production, using a physical material like this can produce more organic and unpredictable results, which some filmmakers feel are more authentic and visually interesting.
- We wanted to combine both digital and practical techniques as they both serve and important job – that is what this module is all about considering the relationship between digital and physical practices and how they work together

# Presentation

This is the refined version of our presentation script:

**2. What tests have you run to understand how your physical materials react to LED screen light and colour?**

- We knew from very early on that we wanted to make a bakery and bake real cakes to contrast with our fake cakes. As part of this, we looked into the different ways we could make our cakes 'alien'. One of the things we came across was glow-in-the-dark food colouring. We decided this would be the perfect addition to our shop window because we could experiment with UV light when filming. So, as soon as possible, we bought the pigment and tried it in as many different things as we could; such as cake batter, buttercream, fondant, jelly and white chocolate. Because we didn't have a UV light at the time, we tested out putting a YouTube video of mock UV light on the screens in the immersive room to see if we could simulate the same effects as real UV light. You can see this in this collage **(Show collage)** This worked quite well on the jelly and cake with the pigment mixed into the batter but didn't create much of an effect on any of the other things we made. This is likely because the pigment is supposed to be mixed with a liquid. We also tried creating a UV colour using an LED wash head but like the immersive screens, this cannot produce true ultraviolet light.
- This is because UV light sits outside of what we can actually see. It's just beyond the violet end of the visible spectrum, so even though it's there, our eyes can't detect it. Some materials react to UV light through something called fluorescence. This means they absorb UV light and then release it back out as visible light, which is what creates that glowing effect.
- RGB LED lights used for theatre and in filmmaking can be set to lots of different colours, but they still only produce light within the visible spectrum - basically the colours we can see. They work by mixing red, green, and blue light to create different shades, but UV isn't part of that range. So even if you set the light to a deep purple, it's only imitating the look of UV, not actually producing it.
- Because of this, they don't have the right wavelength or energy to trigger fluorescence in materials like UV food colouring. Only lights that are specifically designed to emit ultraviolet wavelengths, like a UV torch, can do that properly, which is why that's what you need to make the pigment glow.
- Because of this, we decided it would be better to source an actual UV lamp which we then tested on the same jelly and cake and it produced a much brighter colour. We then used this method instead when filming because this light source is much more portable anyway so we could hold it wherever we needed for the scene. In the end, we only put the

# Presentation

This is the refined version of our presentation script:

UV pigment in the jelly because this is where it would be the most visible since we were planning on putting buttercream on the cakes so the actual batter would no longer be

- seen. This ended up working very well in our final edit and definitely makes our baked goods look alien.

- Later, once we had edited our digital backdrop - made up of our window shutter drawing overlaid onto clips of space travel and different animated planet-scape backgrounds, we put it onto the screens to see how it would look on camera using our phones.
- To make sure the backdrop works properly, you have to consider elements like frame rate and use high-definition sourced videos so that when it's displayed on the large LED screens there's no conflict in resolution, which could otherwise lead to compression or a loss in quality. When filming the screens you also need to make sure you are shooting in the same frame rate as the backdrops rendering so there is no staggering.
- We also brought in our sample board that Annie made during her process of refining the model, which used the same colours as our final set - emulsions mixed with Super Scenic White to create pastel tones.
- Originally, we planned to use the left wall of the immersive room as our digital backdrop, and the opposite right wall to light our set by displaying block colours that matched those coming from the backdrop.
- We were then given the suggestion to instead project the same video from the digital background onto the opposite wall, so the interior of the bakery would be lit by the changing environments and feel more cohesive.
- However, this idea changed again during the shoot scheduling process. We realised we might not have time for a refit within our two-hour filming window, especially as we knew we wanted to use the dolly, which required the full length of the immersive room. This meant our setup needed to be positioned against the middle wall. If we'd had more time, we could have scheduled a refit - filming the intro first with the dolly, then moving the set to the left wall to use the right wall for lighting.
- Instead, we used LED panel lighting. Similar to a theatre LED wash head, these emit RGB lighting – I also borrowed the university's LED panels these produce a range from tungsten to white light, while Lloyd's panel can be set to any colour.
- On the shoot day, we set the university's LED panels to a warm white to create an even wash inside the bakery and used Lloyd's coloured LED panel to shine light through the window, matching the colours from the immersive screen backdrop to create a more vivid, directional source of light. Throughout the process, we also adjusted the screen

# Presentation

This is the refined version of our presentation script:

brightness (set to 50%, 75%, or 100%) alongside the camera's exposure settings, ensuring the camera could properly capture both the LED screen and the interior of the bakery.

- Looking back, I would have also liked to have done a lighting test against Annie's skin tone and costume, and also think about using hairspray or dulling spray on
- Plwton so he's not so reflective – he does pick up the LED panels in our shots and you can see its reflection in the plastic.
- To conclude, this project was a constant trial and error or Research and Development exercise and beginning the module with getting a grasp of how the immersive room screens work how they can be used with physical set along with trialling our ideas first, with plenty of rigid scheduling and planning, allowed us to be ambitious in our ideas yet confident in the final result.
- Thank you for listening, any questions?

Our set up in the Immersive Room, with our virtual backgrounds on an auto-loop




Annie demonstrating the fluorescent Jelly with a UV lamp

I set up the Dolly in the presentation room to show what they look like and used an LED panel to light our Bakery set in the Immersive Room

# Evaluation

To conclude the Virtual Production Practice module, this project provided valuable insight into both the technical and creative applications of virtual production, as well as my own working methods and collaboration skills.

A key success of the project was that our refined white card model accurately matched the physical set piece. This highlighted an interesting crossover between theatre and film practices. In film and television, last-minute changes are more common due to the fast-paced nature of production and the fact that elements only need to last for a single shot. In contrast, theatre requires durability and consistency for repeated performances. Our project combined these approaches, using theatre-based construction techniques alongside filmmaking methods to capture it. This marked a shift from previous work designed for an audience at a distance, to work viewed up close on camera.

Another positive aspect of the module was learning to adapt my working style to suit the environment. I particularly valued the experience of working in a delicate and high-spec space, where all equipment and surroundings needed to be treated with care and respect. Although this created an underlying sense of pressure, I found that it encouraged a calm and focused approach. Throughout both the fit-up and filming day, there was a clear need to move carefully and work methodically. Interestingly, reminding others to slow down and stay calm also helped reinforce this mindset in myself, allowing me to remain more controlled and attentive in my own approach.

I would also say the filming day went smoothly, largely due to thorough scheduling, prior practice with the equipment (including the LED panels, dolly, and tripod), and ensuring that our virtual backdrop was functioning correctly before the shoot. I structured the schedule so that the most complex and important shots were completed first, leaving simpler setups until later in the allotted time in the Immersive Room. This helped reduce pressure and ensured that key footage was captured efficiently.

# Evaluation

In terms of teamwork, Annie and I worked well together and complemented each other's strengths. She maintained strong communication and organisation, which supported a clear workflow. However, we both had a tendency to overwork due to our shared ambition. While this demonstrated commitment, a better balance between productivity and rest would have been beneficial. We divided tasks based on our strengths, with Annie focusing on prop-making while I concentrated on the virtual backdrop and editing. This approach supported efficiency, particularly as our schedules did not always align, but it limited opportunities for collaborative crossover. With more time or a less ambitious concept, a more integrated approach would have been possible.

There are several areas that could have been improved. While ambition was a strength, it was not always balanced with reality. Acting more critically and reassessing ideas earlier in the process would have helped us prioritise tasks more effectively and reduce unnecessary stress. In future, I would aim to identify and remove less achievable elements sooner, allowing more time to refine key aspects of the project. I also recognise the need to further develop my digital skills, particularly with Fusion. Rather than relying solely on taught sessions, I plan to practise independently by recreating our set in Fusion, which will help build confidence in using the software.

Looking forward, I will take away the potential of digital backdrops within my practice. The Immersive Room was particularly effective as it allowed the subject to be lit in real time, creating a more cohesive result than green screen alone. I would like to explore this further, particularly within editorial photography.

Finally, this module has encouraged me to expand my interest in digital design, including areas such as VJing, projection mapping, and vision mixing, which could inform my future creative work.

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