Week	Lesson Outcomes	Lesson activities	Pro Study	Resources
1	Induction ??			
2	Induction ??			
3 (Timetable Starts)	1-introduction to fusion/ PureRef 2-Lego Project Modelling 3- Lego Project Modelling 4- Lego Project Modelling	1-Basic introduction to Fusion, UI buttons etc, set the challenge to model what ever they want out of Lego. Intro PureRef for making reference sheets. Remind students that their final reference sheet will need to be included in their portfolio. When students have decided n their Lego Project, they are then free to start. 2- start of Lesson talk through with students how to set up their Portfolio: Power Point document set to A3 Front cover needs to have: **Full Name** **Candidate Number** **The College Of Richard Collyer** **65131** Students then need to include screen shots of their final Fusion model, along with setting up everything in Blender and explaining how and WHY they have made the design decisions they have. 3- Students continue to model their Lego item	Card Modelling Challenge: Headphones	PC's Fusion, Blender, PureRef powerpoint Blender addons: Blender Kit, One Click Age Marking Criteria for the CAD modelling Projects: **A* (Exceptional Performance)** • **Concept Development**: Innovative and original ideas, thoroughly researched and exceptionally well-developed concepts. • **Technical Proficiency**: Mastery of digital 3D modelling software with complex and sophisticated use of tools and techniques. • **Detail and Accuracy**: Exceptional attention to detail with precise and accurate models; textures and lighting are realistic and meticulously applied. • **Presentation**: Professional-level presentation of work, including high-quality renders, thorough documentation, and clear, engaging explanations. **A (Excellent Performance)** • **Concept Development**: Strong, well-researched ideas with clear evidence of development and refinement. • **Technical Proficiency**: High level of skill in digital 3D modelling, using a wide range of tools and techniques effectively. • **Detail and Accuracy**: High attention to detail with accurate models; textures and lighting are realistically applied. • **Presentation**: Well-presented work with high-quality renders, comprehensive documentation, and clear explanations. **B (Good Performance)**

		4- Students continue to model their Lego item Note! Students need to have finished this in their last lesson of the week ready to take over to blender to set up texturing and rendering.		• **Concept Development**: Good ideas with clear evidence of research and development. • **Technical Proficiency**: Competent use of digital 3D modelling software with effective application of various tools and techniques. • **Detail and Accuracy**: Good attention to detail with generally accurate models; textures and lighting are appropriately applied. • **Presentation**: Good quality presentation with clear renders, adequate documentation, and explanations. **C (Satisfactory Performance)** • **Concept Development**: Satisfactory ideas with some evidence of research and development. • **Technical Proficiency**: Basic competence in digital 3D modelling, using essential tools and techniques effectively. • **Detail and Accuracy**: Adequate attention to detail with reasonably accurate models; textures and lighting are applied correctly but may lack sophistication. • **Presentation**: Satisfactory presentation with clear renders, basic documentation, and explanations. **D (Limited Performance)** • **Concept Development**: Limited ideas with minimal research and development. • **Technical Proficiency**: Limited skill in digital 3D modelling, with basic use of tools and techniques. • **Detail and Accuracy**: Some attention to detail, but models may be inaccurate; textures and lighting are applied but lack precision. • **Presentation**: Basic presentation with low-quality renders, minimal documentation, and explanations. **E (Poor Performance)** • **Concept Development**: Poor ideas with little to no research or development. • **Technical Proficiency**: Poor use of digital 3D modelling software, with minimal effective use of tools and techniques. • **Detail and Accuracy**: Poor attention to detail with inaccurate models; textures and lighting are poorly applied. • **Presentation**: Poor presentation with low-quality renders, little to no documentation, and unclear explanations. **U (Unclassified)** • **Concept Development**: No evidence of coherent ideas, research, or development.

				• **Technical Proficiency**: No effective use of digital 3D modelling software or techniques. • **Detail and Accuracy**: Lacks attention to detail; models are inaccurate and textures and lighting are not effectively applied. • **Presentation**: Inadequate presentation with very low-quality renders, no documentation, and unclear explanations.
4	1-Intro to Blender/ importing Fusion model into blender to apply materials/ how to set up rendering 2- Lego Project continued 3- Lego Project Continued 4- Lego Project Continued	1-Talk about how to export your Fusion model as an FBX file and then import it into blender. Basics of applying materials using the addon Blender Kit, and then unwrapping the models 2- talk about adding a backdrop and lights to a scene in blender 3- Students continue to texture and render their model **4-Last Lesson of project. Submission of work on Teams this Sunday**	Card Modelling Challenge: Headphones	Marking Criteria for A-Level 3D Design (Cardboard Modelling) A* • Exceptional precision in cutting, folding, and assembling; flawless execution with a professional level of craftsmanship. • Complex techniques are executed with perfection, and all details are refined. • Exceptional attention to detail with all elements meticulously crafted; accuracy is flawless. • Model exhibits a high degree of precision and refinement in every aspect. A • High precision and skill in cutting, folding, and assembling; very few minor flaws. • Techniques are well-executed with careful attention to detail. • High attention to detail with very minor inaccuracies; overall model is highly accurate. • Precision is evident, with a strong level of refinement. B • Good precision and craftsmanship; minor flaws that do not detract from the overall quality. • Techniques are competently executed, though some refinement is needed. • Good attention to detail with few inaccuracies; model is generally accurate. • Precision is good, but some areas could be more refined. C • Acceptable precision with some noticeable flaws in craftsmanship. • Basic techniques are executed adequately, but the overall finish could be improved. • Adequate attention to detail with noticeable inaccuracies; model is somewhat accurate. • Precision is acceptable, but several areas need improvement. D • Inconsistent precision with several noticeable flaws in cutting, folding, and assembling. • Techniques are basic and may be poorly executed, affecting the overall quality. • Limited attention to detail with several inaccuracies; model lacks accuracy. • Precision is inconsistent, leading to a less refined finish. E • Significant flaws in craftsmanship; lack of precision and attention to detail.

				• Techniques are rudimentary and poorly executed. • Model is unstable or has major structural issues; functionality is poor or compromised. • Minimal understanding of structural principles. U • Very poor craftsmanship with major flaws; lacks precision entirely. • Techniques are incorrectly applied or absent, resulting in a poor-quality model. • No attention to detail; model is inaccurate and lacks precision entirely. • No refinement; model is poorly executed.
5	1-Fusion Headphones Project Modelling 2- Fusion Headphones Project Modelling 3- Fusion Headphones Project Modelling 4- Fusion Headphones Project Modelling	1-Start of Headphone modelling project. Demo how to bring in reference images to fusion to be able to trace around, and using sketch dimensions to get exact sizes needed. Students start to model a pair of headphones in fusion. 2- Students continue to model headphones in fusion 3- Students continue to model headphones in fusion 4- Students continue to model headphones in fusion. **Note! Students must have model finished ready to export for first lesson next week**	Card Modelling Challenge: Camera	PC's Fusion, Blender, PureRef powerpoint Blender addons: Blender Kit, One Click Age Marking Criteria for the CAD modelling Projects: **A* (Exceptional Performance)** • **Concept Development**: Innovative and original ideas, thoroughly researched and exceptionally well-developed concepts. • **Technical Proficiency**: Mastery of digital 3D modelling software with complex and sophisticated use of tools and techniques. • **Detail and Accuracy**: Exceptional attention to detail with precise and accurate models; textures and lighting are realistic and meticulously applied. • **Presentation**: Professional-level presentation of work, including high-quality renders, thorough documentation, and clear, engaging explanations. **A (Excellent Performance)** • **Concept Development**: Strong, well-researched ideas with clear evidence of development and refinement. • **Technical Proficiency**: High level of skill in digital 3D modelling, using a wide range of tools and techniques effectively. • **Detail and Accuracy**: High attention to detail with accurate models; textures and lighting are realistically applied. • **Presentation**: Well-presented work with high-quality renders, comprehensive documentation, and clear explanations.

B (Good Performance)
- **Concept Development**: Good ideas with clear evidence of research and development.
- **Technical Proficiency**: Competent use of digital 3D modelling software with effective application of various tools and techniques.
- **Detail and Accuracy**: Good attention to detail with generally accurate models; textures and lighting are appropriately applied.
- **Presentation**: Good quality presentation with clear renders, adequate documentation, and explanations.

C (Satisfactory Performance)
- **Concept Development**: Satisfactory ideas with some evidence of research and development.
- **Technical Proficiency**: Basic competence in digital 3D modelling, using essential tools and techniques effectively.
- **Detail and Accuracy**: Adequate attention to detail with reasonably accurate models; textures and lighting are applied correctly but may lack sophistication.
- **Presentation**: Satisfactory presentation with clear renders, basic documentation, and explanations.

D (Limited Performance)
- **Concept Development**: Limited ideas with minimal research and development.
- **Technical Proficiency**: Limited skill in digital 3D modelling, with basic use of tools and techniques.
- **Detail and Accuracy**: Some attention to detail, but models may be inaccurate; textures and lighting are applied but lack precision.
- **Presentation**: Basic presentation with low-quality renders, minimal documentation, and explanations.

E (Poor Performance)
- **Concept Development**: Poor ideas with little to no research or development.
- **Technical Proficiency**: Poor use of digital 3D modelling software, with minimal effective use of tools and techniques.
- **Detail and Accuracy**: Poor attention to detail with inaccurate models; textures and lighting are poorly applied.
- **Presentation**: Poor presentation with low-quality renders, little to no documentation, and unclear explanations.

U (Unclassified)
- **Concept Development**: No evidence of coherent ideas, research, or development.

				• **Technical Proficiency**: No effective use of digital 3D modelling software or techniques. • **Detail and Accuracy**: Lacks attention to detail; models are inaccurate and textures and lighting are not effectively applied. • **Presentation**: Inadequate presentation with very low-quality renders, no documentation, and unclear explanations.
6	1-Headphones Project into Blender, introduction to sculpting in details/ editing materials 2-Texturing and rendering headphones 3- Texturing and rendering headphones 4- Texturing and rendering headphones	1-Students bring Fusion model into blender. Introduction to the sculpting tools inside of blender. Students will need to subdivide their model so they have enough geometry to sculpt clean details in, student then start to use the sculpting brushes to add in details on their headphone speakers 2-Students continue to texture and render their headphones 3- Students continue to texture and render their headphones 4- **Last Lesson of project. Submission of work on Teams this Sunday**	Card Modelling Challenge: Camera	Marking Criteria for A-Level 3D Design (Cardboard Modelling) A* • Exceptional precision in cutting, folding, and assembling; flawless execution with a professional level of craftsmanship. • Complex techniques are executed with perfection, and all details are refined. • Exceptional attention to detail with all elements meticulously crafted; accuracy is flawless. • Model exhibits a high degree of precision and refinement in every aspect. A • High precision and skill in cutting, folding, and assembling; very few minor flaws. • Techniques are well-executed with careful attention to detail. • High attention to detail with very minor inaccuracies; overall model is highly accurate. • Precision is evident, with a strong level of refinement. B • Good precision and craftsmanship; minor flaws that do not detract from the overall quality. • Techniques are competently executed, though some refinement is needed. • Good attention to detail with few inaccuracies; model is generally accurate. • Precision is good, but some areas could be more refined. C • Acceptable precision with some noticeable flaws in craftsmanship. • Basic techniques are executed adequately, but the overall finish could be improved. • Adequate attention to detail with noticeable inaccuracies; model is somewhat accurate. • Precision is acceptable, but several areas need improvement. D • Inconsistent precision with several noticeable flaws in cutting, folding, and assembling. • Techniques are basic and may be poorly executed, affecting the overall quality. • Limited attention to detail with several inaccuracies; model lacks accuracy. • Precision is inconsistent, leading to a less refined finish. E • Significant flaws in craftsmanship; lack of precision and attention to detail.

- Techniques are rudimentary and poorly executed.
- Model is unstable or has major structural issues; functionality is poor or compromised.
- Minimal understanding of structural principles.

U

- Very poor craftsmanship with major flaws; lacks precision entirely.
- Techniques are incorrectly applied or absent, resulting in a poor-quality model.
- No attention to detail; model is inaccurate and lacks precision entirely.
- No refinement; model is poorly executed.

| 7 | 1-Fusion Furniture project modelling
2- Fusion Furniture project modelling
3- Fusion Furniture project modelling
4- Fusion Furniture project modelling | 1-Start of Furniture modelling project. Continuing to develop good basic modelling skills and using reference images

2-Students continue to model furniture ready for it to be textured

3- Students continue to model furniture ready for it to be textured

4- Students continue to model furniture ready for it to be textured
Note! Student need to have their model ready to be exported to blender for next lesson | Card Modelling Challenge:

Furniture | PC's

Fusion, Blender, PureRef powerpoint

Blender addons:

Blender Kit, One Click Age

Marking Criteria for the CAD modelling Projects:

A* (Exceptional Performance)
• **Concept Development**: Innovative and original ideas, thoroughly researched and exceptionally well-developed concepts.
• **Technical Proficiency**: Mastery of digital 3D modelling software with complex and sophisticated use of tools and techniques.
• **Detail and Accuracy**: Exceptional attention to detail with precise and accurate models; textures and lighting are realistic and meticulously applied.
• **Presentation**: Professional-level presentation of work, including high-quality renders, thorough documentation, and clear, engaging explanations.
A (Excellent Performance)
• **Concept Development**: Strong, well-researched ideas with clear evidence of development and refinement.
• **Technical Proficiency**: High level of skill in digital 3D modelling, using a wide range of tools and techniques effectively.
• **Detail and Accuracy**: High attention to detail with accurate models; textures and lighting are realistically applied. |

- **Presentation**: Well-presented work with high-quality renders, comprehensive documentation, and clear explanations.

B (Good Performance)
- **Concept Development**: Good ideas with clear evidence of research and development.
- **Technical Proficiency**: Competent use of digital 3D modelling software with effective application of various tools and techniques.
- **Detail and Accuracy**: Good attention to detail with generally accurate models; textures and lighting are appropriately applied.
- **Presentation**: Good quality presentation with clear renders, adequate documentation, and explanations.

C (Satisfactory Performance)
- **Concept Development**: Satisfactory ideas with some evidence of research and development.
- **Technical Proficiency**: Basic competence in digital 3D modelling, using essential tools and techniques effectively.
- **Detail and Accuracy**: Adequate attention to detail with reasonably accurate models; textures and lighting are applied correctly but may lack sophistication.
- **Presentation**: Satisfactory presentation with clear renders, basic documentation, and explanations.

D (Limited Performance)
- **Concept Development**: Limited ideas with minimal research and development.
- **Technical Proficiency**: Limited skill in digital 3D modelling, with basic use of tools and techniques.
- **Detail and Accuracy**: Some attention to detail, but models may be inaccurate; textures and lighting are applied but lack precision.
- **Presentation**: Basic presentation with low-quality renders, minimal documentation, and explanations.

E (Poor Performance)
- **Concept Development**: Poor ideas with little to no research or development.
- **Technical Proficiency**: Poor use of digital 3D modelling software, with minimal effective use of tools and techniques.
- **Detail and Accuracy**: Poor attention to detail with inaccurate models; textures and lighting are poorly applied.
- **Presentation**: Poor presentation with low-quality renders, little to no documentation, and unclear explanations.

U (Unclassified)

				• **Concept Development**: No evidence of coherent ideas, research, or development. • **Technical Proficiency**: No effective use of digital 3D modelling software or techniques. • **Detail and Accuracy**: Lacks attention to detail; models are inaccurate and textures and lighting are not effectively applied. • **Presentation**: Inadequate presentation with very low-quality renders, no documentation, and unclear explanations.
8	1-Furniture Blender, intro to simulations to make a pillow and cloth 2-Furniture project texturing and rendering 3- Furniture project texturing and rendering 4- Furniture project texturing and rendering	1-student bring their model into blender. Into the basics of cloth simulation to get realistic pillows and blankets. **Note! Unsure how quickly the simulation will be on the new PCs, it should work fine but students may need to be a bit patient with it to run.** 2- into to some more advanced lighting techniques, IE: GOBOs and HDRIs, for this project final render students can just use built in wave texture to make a window/ blind shadow for their light, anyone that is working quickly can start to make their own GOBOs 3- Students continue with their furniture project 4- **Last Lesson of project. Submission of work on Teams this Sunday**	Card Modelling Challenge: Furniture	Marking Criteria for A-Level 3D Design (Cardboard Modelling) A* • Exceptional precision in cutting, folding, and assembling; flawless execution with a professional level of craftsmanship. • Complex techniques are executed with perfection, and all details are refined. • Exceptional attention to detail with all elements meticulously crafted; accuracy is flawless. • Model exhibits a high degree of precision and refinement in every aspect. A • High precision and skill in cutting, folding, and assembling; very few minor flaws. • Techniques are well-executed with careful attention to detail. • High attention to detail with very minor inaccuracies; overall model is highly accurate. • Precision is evident, with a strong level of refinement. B • Good precision and craftsmanship; minor flaws that do not detract from the overall quality. • Techniques are competently executed, though some refinement is needed. • Good attention to detail with few inaccuracies; model is generally accurate. • Precision is good, but some areas could be more refined. C • Acceptable precision with some noticeable flaws in craftsmanship. • Basic techniques are executed adequately, but the overall finish could be improved. • Adequate attention to detail with noticeable inaccuracies; model is somewhat accurate. • Precision is acceptable, but several areas need improvement. D • Inconsistent precision with several noticeable flaws in cutting, folding, and assembling. • Techniques are basic and may be poorly executed, affecting the overall quality. • Limited attention to detail with several inaccuracies; model lacks accuracy.

				E - Precision is inconsistent, leading to a less refined finish. - Significant flaws in craftsmanship; lack of precision and attention to detail. - Techniques are rudimentary and poorly executed. - Model is unstable or has major structural issues; functionality is poor or compromised. - Minimal understanding of structural principles. U - Very poor craftsmanship with major flaws; lacks precision entirely. - Techniques are incorrectly applied or absent, resulting in a poor-quality model. - No attention to detail; model is inaccurate and lacks precision entirely. - No refinement; model is poorly executed.
9	1-Photoshop intro, making your own GOBOs 2- Photoshop intro, making your own GOBOs 3- Photoshop intro, making your own GOBOs 4- Photoshop intro, making your own GOBOs	1-basic intro to photoshop, creating a 1000 by 1000 pixel document. Then looking on sites like pintrest or google to find silhouettes that they would want to cast shadows on their scene. Go through basic tools of selected colour range and using shape tools. 2- students continue to make their own GOBOs 3- students continue to make their own GOBOs 4- **Final evidence for this work is to have their furniture project render with different GOBO variations**	Card Modelling Challenge: Architecture modelling	Photoshop
Half term				
1	1-Super Nintendo Project Modelling in Fusion	1-Start of super Nintendo project, discuss the idea of building up a basic scene. So far we have modelled single items like their Lego or headphones. The furniture project slowly started to introduce the idea of a bit of a	Card Modelling Challenge: Architecture modelling	PC's Fusion, Blender, PureRef powerpoint Blender addons:

	2- Super Nintendo Project Modelling in Fusion 3- Super Nintendo Project Modelling in Fusion 4- Super Nintendo Project Modelling in Fusion	scene for context. For this project now students need to start to add other things to their scene. In my video example I do a controller and a game to go with the console. Students are welcome to do the same or may chose to do their own ideas. 2-Students continue to work on the super Nintendo project 3- Students continue to work on the super Nintendo project 4- Students continue to work on the super Nintendo project **Note! Students need to have all modelling for the project done ready for next week**		Blender Kit, One Click Age Marking Criteria for the CAD modelling Projects: **A* (Exceptional Performance)** • **Concept Development**: Innovative and original ideas, thoroughly researched and exceptionally well-developed concepts. • **Technical Proficiency**: Mastery of digital 3D modelling software with complex and sophisticated use of tools and techniques. • **Detail and Accuracy**: Exceptional attention to detail with precise and accurate models; textures and lighting are realistic and meticulously applied. • **Presentation**: Professional-level presentation of work, including high-quality renders, thorough documentation, and clear, engaging explanations. **A (Excellent Performance)** • **Concept Development**: Strong, well-researched ideas with clear evidence of development and refinement. • **Technical Proficiency**: High level of skill in digital 3D modelling, using a wide range of tools and techniques effectively. • **Detail and Accuracy**: High attention to detail with accurate models; textures and lighting are realistically applied. • **Presentation**: Well-presented work with high-quality renders, comprehensive documentation, and clear explanations. **B (Good Performance)** • **Concept Development**: Good ideas with clear evidence of research and development. • **Technical Proficiency**: Competent use of digital 3D modelling software with effective application of various tools and techniques. • **Detail and Accuracy**: Good attention to detail with generally accurate models; textures and lighting are appropriately applied. • **Presentation**: Good quality presentation with clear renders, adequate documentation, and explanations. **C (Satisfactory Performance)** • **Concept Development**: Satisfactory ideas with some evidence of research and development. • **Technical Proficiency**: Basic competence in digital 3D modelling, using essential tools and techniques effectively.

				• **Detail and Accuracy**: Adequate attention to detail with reasonably accurate models; textures and lighting are applied correctly but may lack sophistication. • **Presentation**: Satisfactory presentation with clear renders, basic documentation, and explanations. **D (Limited Performance)** • **Concept Development**: Limited ideas with minimal research and development. • **Technical Proficiency**: Limited skill in digital 3D modelling, with basic use of tools and techniques. • **Detail and Accuracy**: Some attention to detail, but models may be inaccurate; textures and lighting are applied but lack precision. • **Presentation**: Basic presentation with low-quality renders, minimal documentation, and explanations. **E (Poor Performance)** • **Concept Development**: Poor ideas with little to no research or development. • **Technical Proficiency**: Poor use of digital 3D modelling software, with minimal effective use of tools and techniques. • **Detail and Accuracy**: Poor attention to detail with inaccurate models; textures and lighting are poorly applied. • **Presentation**: Poor presentation with low-quality renders, little to no documentation, and unclear explanations. **U (Unclassified)** • **Concept Development**: No evidence of coherent ideas, research, or development. • **Technical Proficiency**: No effective use of digital 3D modelling software or techniques. • **Detail and Accuracy**: Lacks attention to detail; models are inaccurate and textures and lighting are not effectively applied. • **Presentation**: Inadequate presentation with very low-quality renders, no documentation, and unclear explanations.
2	1-Super Nintendo Project texturing and rendering in blender	1-Students bring model into blender, recap adding materials and lighting to project. Demo how to use Photoshop to make your own decals to be used within a scene. Remind students that all of this is evidence to go in your folder so any decals you make even if	3D printing Challenge Furniture	Marking Criteria for A-Level 3D Design (Cardboard Modelling) A* • Exceptional precision in cutting, folding, and assembling; flawless execution with a professional level of craftsmanship. • Complex techniques are executed with perfection, and all details are refined. • Exceptional attention to detail with all elements meticulously crafted; accuracy is flawless.

	2- Super Nintendo Project texturing and rendering in blender 3- Super Nintendo Project texturing and rendering in blender 4- Super Nintendo Project texturing and rendering in blender	you don't end up using them still count as evidence of work. 2- Students continue texturing and rendering project 3- Students continue texturing and rendering project 4- **Last Lesson of project. Submission of work on Teams this Sunday**		A • Model exhibits a high degree of precision and refinement in every aspect. • High precision and skill in cutting, folding, and assembling; very few minor flaws. • Techniques are well-executed with careful attention to detail. • High attention to detail with very minor inaccuracies; overall model is highly accurate. • Precision is evident, with a strong level of refinement. B • Good precision and craftsmanship; minor flaws that do not detract from the overall quality. • Techniques are competently executed, though some refinement is needed. • Good attention to detail with few inaccuracies; model is generally accurate. • Precision is good, but some areas could be more refined. C • Acceptable precision with some noticeable flaws in craftsmanship. • Basic techniques are executed adequately, but the overall finish could be improved. • Adequate attention to detail with noticeable inaccuracies; model is somewhat accurate. • Precision is acceptable, but several areas need improvement. D • Inconsistent precision with several noticeable flaws in cutting, folding, and assembling. • Techniques are basic and may be poorly executed, affecting the overall quality. • Limited attention to detail with several inaccuracies; model lacks accuracy. • Precision is inconsistent, leading to a less refined finish. E • Significant flaws in craftsmanship; lack of precision and attention to detail. • Techniques are rudimentary and poorly executed. • Model is unstable or has major structural issues; functionality is poor or compromised. • Minimal understanding of structural principles. U • Very poor craftsmanship with major flaws; lacks precision entirely. • Techniques are incorrectly applied or absent, resulting in a poor-quality model. • No attention to detail; model is inaccurate and lacks precision entirely. • No refinement; model is poorly executed.
3	1-Blender Prime Bottle Project 2- Blender Prime Bottle Project	1-This project focuses on modelling just within blender. Go through how to bring in reference images, adding in shapes and basic topology of vertices edges and faces.	3D printing Challenge Furniture	PC's Blender, PowerPoint

| | 3- Blender Prime Bottle Project
4- Blender Prime Bottle Project | 2- Students to continue modelling bottle and lid. Possible extensions could be adding thread to bottle or water simulations to come out of the bottle.

3- go through UV unwrapping with marking seams. So far with fusion models we have covered automatic unwrapping however with this project to be able to apply the label to the bottle correctly we need to be able to unwrap very accurately.

4-Students continue to model their prime bottle/ scene | | Blender addons:

Blender Kit, One Click Age

Marking Criteria for the CAD modelling Projects:

A* (Exceptional Performance)
• **Concept Development**: Innovative and original ideas, thoroughly researched and exceptionally well-developed concepts.
• **Technical Proficiency**: Mastery of digital 3D modelling software with complex and sophisticated use of tools and techniques.
• **Detail and Accuracy**: Exceptional attention to detail with precise and accurate models; textures and lighting are realistic and meticulously applied.
• **Presentation**: Professional-level presentation of work, including high-quality renders, thorough documentation, and clear, engaging explanations.
A (Excellent Performance)
• **Concept Development**: Strong, well-researched ideas with clear evidence of development and refinement.
• **Technical Proficiency**: High level of skill in digital 3D modelling, using a wide range of tools and techniques effectively.
• **Detail and Accuracy**: High attention to detail with accurate models; textures and lighting are realistically applied.
• **Presentation**: Well-presented work with high-quality renders, comprehensive documentation, and clear explanations.
B (Good Performance)
• **Concept Development**: Good ideas with clear evidence of research and development.
• **Technical Proficiency**: Competent use of digital 3D modelling software with effective application of various tools and techniques.
• **Detail and Accuracy**: Good attention to detail with generally accurate models; textures and lighting are appropriately applied.
• **Presentation**: Good quality presentation with clear renders, adequate documentation, and explanations.
C (Satisfactory Performance)
• **Concept Development**: Satisfactory ideas with some evidence of research and development. |

<table>
<tr><td colspan="5">

- **Technical Proficiency**: Basic competence in digital 3D modelling, using essential tools and techniques effectively.
- **Detail and Accuracy**: Adequate attention to detail with reasonably accurate models; textures and lighting are applied correctly but may lack sophistication.
- **Presentation**: Satisfactory presentation with clear renders, basic documentation, and explanations.

D (Limited Performance)
- **Concept Development**: Limited ideas with minimal research and development.
- **Technical Proficiency**: Limited skill in digital 3D modelling, with basic use of tools and techniques.
- **Detail and Accuracy**: Some attention to detail, but models may be inaccurate; textures and lighting are applied but lack precision.
- **Presentation**: Basic presentation with low-quality renders, minimal documentation, and explanations.

E (Poor Performance)
- **Concept Development**: Poor ideas with little to no research or development.
- **Technical Proficiency**: Poor use of digital 3D modelling software, with minimal effective use of tools and techniques.
- **Detail and Accuracy**: Poor attention to detail with inaccurate models; textures and lighting are poorly applied.
- **Presentation**: Poor presentation with low-quality renders, little to no documentation, and unclear explanations.

U (Unclassified)
- **Concept Development**: No evidence of coherent ideas, research, or development.
- **Technical Proficiency**: No effective use of digital 3D modelling software or techniques.
- **Detail and Accuracy**: Lacks attention to detail; models are inaccurate and textures and lighting are not effectively applied.
- **Presentation**: Inadequate presentation with very low-quality renders, no documentation, and unclear explanations.

</td></tr>
<tr>
<td>4</td>
<td>1- Blender Prime Bottle Project
2- Blender Prime Bottle Project</td>
<td>1-Texturing and rendering. Students can add things to their scene if wanted, encourage to explore other processes and skills within</td>
<td>Foam Modelling Challenge

Architecture</td>
<td>Marking Criteria for A-Level 3D Design (Cardboard Modelling)

A*
Exceptional precision in cutting, folding, and assembling; flawless execution with a professional level of craftsmanship.
Complex techniques are executed with perfection, and all details are refined.</td>
</tr>
</table>

	3- Blender Prime Bottle Project 4- Blender Prime Bottle Project	blender. Go through some other key lighting techniques. 2- Continue with texturing and rendering 3- Continue with texturing and rendering 4- **Last Lesson of project. Submission of work on Teams this Sunday**		A	• Exceptional attention to detail with all elements meticulously crafted; accuracy is flawless. • Model exhibits a high degree of precision and refinement in every aspect.
					• High precision and skill in cutting, folding, and assembling; very few minor flaws. • Techniques are well-executed with careful attention to detail. • High attention to detail with very minor inaccuracies; overall model is highly accurate. • Precision is evident, with a strong level of refinement.
				B	• Good precision and craftsmanship; minor flaws that do not detract from the overall quality. • Techniques are competently executed, though some refinement is needed. • Good attention to detail with few inaccuracies; model is generally accurate. • Precision is good, but some areas could be more refined.
				C	• Acceptable precision with some noticeable flaws in craftsmanship. • Basic techniques are executed adequately, but the overall finish could be improved. • Adequate attention to detail with noticeable inaccuracies; model is somewhat accurate. • Precision is acceptable, but several areas need improvement.
				D	• Inconsistent precision with several noticeable flaws in cutting, folding, and assembling. • Techniques are basic and may be poorly executed, affecting the overall quality. • Limited attention to detail with several inaccuracies; model lacks accuracy. • Precision is inconsistent, leading to a less refined finish.
				E	• Significant flaws in craftsmanship; lack of precision and attention to detail. • Techniques are rudimentary and poorly executed. • Model is unstable or has major structural issues; functionality is poor or compromised. • Minimal understanding of structural principles.
				U	• Very poor craftsmanship with major flaws; lacks precision entirely. • Techniques are incorrectly applied or absent, resulting in a poor-quality model. • No attention to detail; model is inaccurate and lacks precision entirely. • No refinement; model is poorly executed.

| 5 | 1-Lighting and Texturing Challenge
2- Lighting and Texturing Challenge
3- Lighting and Texturing Challenge
4- Lighting and Texturing Challenge | 1-intro new project, students are to be given the model of a retro coffee maker. From this students have two weeks to texture light and render a scene of their choosing. They may wish to add additional models to the scene that they have made in either blender or fusion, they can go for any type of style etc that they want. Remind students of skills covered so far, looking at making own GOBOs, making own decals in photoshop etc so students are really encourage to push and do something completely different with their scene,

2- students continue with texturing and lighting challenge

3- students continue with texturing and lighting challenge

4- students continue with texturing and lighting challenge | Foam Modelling Challenge

Architecture | PC's
Fusion, Blender, PureRef powerpoint

Blender addons:

Blender Kit, One Click Age

Marking Criteria for the CAD modelling Projects:

A* (Exceptional Performance)
• **Concept Development**: Innovative and original ideas, thoroughly researched and exceptionally well-developed concepts.
• **Technical Proficiency**: Mastery of digital 3D modelling software with complex and sophisticated use of tools and techniques.
• **Detail and Accuracy**: Exceptional attention to detail with precise and accurate models; textures and lighting are realistic and meticulously applied.
• **Presentation**: Professional-level presentation of work, including high-quality renders, thorough documentation, and clear, engaging explanations.
A (Excellent Performance)
• **Concept Development**: Strong, well-researched ideas with clear evidence of development and refinement.
• **Technical Proficiency**: High level of skill in digital 3D modelling, using a wide range of tools and techniques effectively.
• **Detail and Accuracy**: High attention to detail with accurate models; textures and lighting are realistically applied.
• **Presentation**: Well-presented work with high-quality renders, comprehensive documentation, and clear explanations.
B (Good Performance)
• **Concept Development**: Good ideas with clear evidence of research and development.
• **Technical Proficiency**: Competent use of digital 3D modelling software with effective application of various tools and techniques.
• **Detail and Accuracy**: Good attention to detail with generally accurate models; textures and lighting are appropriately applied.
• **Presentation**: Good quality presentation with clear renders, adequate documentation, and explanations. |

C (Satisfactory Performance)
- **Concept Development**: Satisfactory ideas with some evidence of research and development.
- **Technical Proficiency**: Basic competence in digital 3D modelling, using essential tools and techniques effectively.
- **Detail and Accuracy**: Adequate attention to detail with reasonably accurate models; textures and lighting are applied correctly but may lack sophistication.
- **Presentation**: Satisfactory presentation with clear renders, basic documentation, and explanations.

D (Limited Performance)
- **Concept Development**: Limited ideas with minimal research and development.
- **Technical Proficiency**: Limited skill in digital 3D modelling, with basic use of tools and techniques.
- **Detail and Accuracy**: Some attention to detail, but models may be inaccurate; textures and lighting are applied but lack precision.
- **Presentation**: Basic presentation with low-quality renders, minimal documentation, and explanations.

E (Poor Performance)
- **Concept Development**: Poor ideas with little to no research or development.
- **Technical Proficiency**: Poor use of digital 3D modelling software, with minimal effective use of tools and techniques.
- **Detail and Accuracy**: Poor attention to detail with inaccurate models; textures and lighting are poorly applied.
- **Presentation**: Poor presentation with low-quality renders, little to no documentation, and unclear explanations.

U (Unclassified)
- **Concept Development**: No evidence of coherent ideas, research, or development.
- **Technical Proficiency**: No effective use of digital 3D modelling software or techniques.
- **Detail and Accuracy**: Lacks attention to detail; models are inaccurate and textures and lighting are not effectively applied.
- **Presentation**: Inadequate presentation with very low-quality renders, no documentation, and unclear explanations.

6	1- Lighting and Texturing Challenge 2- Lighting and Texturing Challenge 3- Lighting and Texturing Challenge 4- Lighting and Texturing Challenge	1- students continue with texturing and lighting challenge 2- students continue with texturing and lighting challenge 3- students continue with texturing and lighting challenge 4- students continue with texturing and lighting challenge	Foam Modelling Challenge Architecture	
7	1- Lighting and Texturing Challenge 2- Lighting and Texturing Challenge 3- 4-	1- students continue with texturing and lighting challenge 2- **Last Lesson of project. Submission of work on Teams this Friday** 3- launch student NEA. Discussion of projects. Look at different contexts, what makes a good project that has enough work that can be covered. 4- Students start to research 3 possible contexts.	Foam Modelling Challenge Architecture	
Xmas Break	Xmas work- students to complete 3 different possible			

	contexts for their projects.			
1	1- 2- 3- 4-	1- 2- 3- 4-		
2	1- 2- 3- 4-	1- 2- 3- 4-		
3	1- 2- 3- 4-	1- 2- 3- 4-		
4	1- 2- 3- 4-	1- 2- 3- 4-		
5	1- 2- 3- 4-	1- 2- 3- 4-		
6	1- 2- 3- 4-	1- 2- 3- 4-		
Half term				
1	1- 2- 3-	1- 2- 3-		

	4-	4-		
2	1- 2- 3- 4-	1- 2- 3- 4-		
3	1- 2- 3- 4-	1- 2- 3- 4-		
4	1- 2- 3- 4-	1- 2- 3- 4-		
5	1- 2- 3- 4-	1- 2- 3- 4-		
6	1- 2- 3- 4-	1- 2- 3- 4-		
Easter Break				
1	1- 2- 3-	1- 2- 3-		

	4- 4-	4- 4-		
2	1- 2- 3- 4-	1- 2- 3- 4-		
3	1- 2- 3- 4-	1- 2- 3- 4-		
4	Study Leave	Study Leave	Study Leave	Study Leave
5	Study Leave	Study Leave	Study Leave	Study Leave
Half term				
1	Study Leave			
2	Study Leave			
3	Study Leave			
4	Study Leave			
5	Study Leave			
6	Study Leave			
7	Study Leave			
When students return start to manufacture				

final piece	