

## Skill name

## 3D Digital Game Art

Criteria	Mark
A Work organisation and management	5.00
B Interpretation of the design brief	5.00
C Concept Art	10.00
D 3D Modelling	25.00
E UV Unwrapping	20.00
F Texturing	20.00
G Rigging and Animation	10.00
H Export to games engine	5.00
I	

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
A1	PSD tidiness - named layers and sensible folder	M	Layers and folders have been given appropriate rather than default	
A2	Max/Maya scene organisation - only relevant assets	M	Geometry used for testing or unassigned to the model should be	
A3	Correct texture sheet sizes and formats	M	Aspect Ratio of texture sheets are correct 4096x4096 & 1024x1024	
A4	All tasks completed on time	M	PSD saved as TGA format and applied to model	
		M	Each module every day must be finished to achieve this mark	

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
B1	Asset list	M	Asset list is written	
B2	Organic objects sculpted then retopologised	M	Asset list includes poly budgets and texture sizes	
B3	Hard surface objects use of PBR	M	Organic objects should use sculpting software and then retopolog	
B4	Art style consistent through all assets	M	Hard surface objects should use Physics Based Rendering mate	
		M	The art style set out in the brief and accompanying scene should	
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
C1	Concept Art done according to the technical and	M	Digital sketch explores more than 2 ideas	
		M	Digital painting demonstrates perspective	
		M	Digital painting indicates proportion	
		M	The final concept art features blending/smoothing to represent fo	
		J	Digital painting demonstrates shading and describes the form of f	0 1 2 3
		J	At least 1 custom brush created in Photoshop to produce an app	0 1 2 3
		J	1 selected design turned into a piece of art that informs the look o	0 1

				2 3
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
D1	Minor asset Modelling	M M M M M J	Minor asset meets the triangle budget No N-Gons present on the minor asset No flipped normals present on the minor asset Chamfered edges on any 90 degree edge (minor) Model utilises 90+% triangle budget (minor) Minor asset's distribution of triangles is even across fixed areas,	0 1 2 3
		J	Minor asset conforms to edgeflow that accentuates the represent	0 1 2 3
		J	Minor asset can be understood in silhouette only.	0 1 2 3
		J	Minor asset fits within the set style in the brief and the vignette so	0 1 2 3
D2	Major asset modelling	M M M	No N-Gons present on the major asset No flipped normals present on the major asset Chamfered edges on any 90 degree edge (major)	

		M	Model utilises 90+% triangle budget (major)	0
		J	Major asset's distribution of triangles is even across fixed areas,	1
				2
				3
		J	Major asset conforms to edgeflow that accentuates the represent	0
				1
				2
				3
		J	Major asset can be understood in silhouette only.	0
				1
				2
				3
		J	Major asset fits within the set style in the brief and the vignette sc	0
				1
				2
				3
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
E1	Major asset UV unwrapping	M	Demonstration of UV unwrap tools: major asset has been unwrap	0
		M	UV coordinates exported to PS or Substance. Major asset has a	1
		J	Smooth and even UV shells: major asset has separate UV shells	2
				3
		J	Use of UV Spacing to maximise texture sheet use without bleedin	0
				1

E2	Minor asset UV unwrapping	J	Major asset repeats UVs or mirrors them where possible	2
				3
				0
				1
				2
				3
		J	Major asset has good used of texel density. Proportions equitable	0
				1
				2
				3
				0
				1
				2
				3
		J	Major asset groups similar diffuse coloured shells near each other	0
				1
				2
				3
		J	Use of space and mirroring of minor asset sheet. Minor asset repeats	0
				1
				2
				3
		J	Minor asset has good used of texel density. Proportions equitable	0
				1
				2
				3
E3	Correct usage of UVs	M	No overlapping UVs (except for mirror and repeat)	0
				1
				2
				3
				0
		M	UVs utilise rotation to maximise the use of space on the texture sheet	1
				2
				3
				0
		M	No obvious pixelation on the surface	1
				2
				3
				0
		M	No obvious stretching of textures on the surface	1
				2
				3
				0

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
F1	Quality of the texturing	J	Colour and Tone represents base colour of material, the colours	0 1 2 3
		J	Surface Textures describe materials correctly. The appropriate m	0 1 2 3
		J	Texture looks seamless on model, no obvious joins or break in te	0 1 2 3
		J	Texture is consistent with art style, textures conform to the overa	0 1 2 3
		J	A variety of physical materials have been represented, e.g. wood	0 1 2 3
F2	Comprehensive usage of texture maps	M	Specular or Metal map created, shininess and gloss are describe	
		M	A normal map is used to describe extra detail in the engine	
		M	A roughness or Smoothness map has been created to describe e	
		M	An ambient occlusion map has been created to describe interpoly	
		M	2 or more base colours have been used on the texture sheet	
		M	Height or Displacement map created. Details have been added u	
		M	Smart masks used in Substance Painter to control the areas of t	

		M J	Settings adjusted for variation in PBR textures in Substance Painter An opacity map is used to describe appropriate transparency on	0 1 2 3
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
G1	Rigging	M M J	Appropriate bone/s are built to allow for movement of the sugges The bones have been adjusted to be hidden inside the geometry Forward kinematics or inverse kinematics are set up as a chain of	0 1 2 3
		J	The mesh to be animated has been skinned to allow for deforma	0 1 2 3
G2	Animation	M M J	Animation with the animation keys exported with .FBX. The animation loops without popping Key frames are created in Max/Maya to show the suggested anim	0 1 2 3

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score
H1	Model set up correctly in the game engine	M J	Models textured and visible in engine viewport The model is set up in engine to show it off with appropriate lighting	0 1 2 3
H2	No errors occur in the engine	M M	No UV errors occur on the model in engine perspective view No deformation errors on the animated asset	
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type M = Meas J = Judg	Aspect - Description	Judg Score



Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
Both minor and major models use the suggested texture size 4096x4096 1024x1024 Other file formats will work, but the point is for Targa format .TGA		1	1.00
		1	1.00
		1	1.00
		1	1.00
		1	1.00

Criterion A      Total Mark      5.00

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
An asset list should be digitally created. The asset list should contain poly budgets and texture size		2	1.00
		2	1.00
		2	1.00
		2	1.00
		2	1.00
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
3 drawings/sketches (using digital software) should be cre Some form of perspective needs to be shown rather than f Proportion needs to be demonstrated, using the concept in		3	1.00
		3	1.00
		3	1.00
		3	1.00
		3	2.00
No use of shading or hatching Slight use of shading or hatching Some use of shading or hatching Shading that accentuates the 3D shape		3	2.00
No brushes created or adapted by the artist A brush has been adapted by the artist A brush has been created by the artist A complex brush has been created with 3 or more modifie		3	2.00
The artwork is a sketch no more detailed than the other sk The artwork is more detailed than the sketches produced			

Criterion B      Total Mark      5.00

Criterion C      Total Mark      10.00

The artwork uses colour, light and shadow  
The artwork closely represents the final model

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
	Refer to the brief	4	1.00
		4	0.50
		4	0.50
		4	0.50
	Refer to the brief	4	0.50
		4	2.00
Inequitable use of triangles that fail to reduce tris on areas The triangle sizes are even across the whole model The triangle sizes are even and areas needing more detail Equitable use of triangles that reduce tris on areas that ne		4	2.00
Edgeflow is not sympathetic with the shape of the object Edgeflow is sympathetic with the object's shape Edgeflow accentuates object's shape Edgeflow has no misturned edges		4	2.00
The object cannot be understood in silhouette in the persp The object is understood in perspective view The object is understood from perspective, front and side The silhouette hold up to 360 degree scrutiny		4	2.00
The asset does not resemble the art style The asset closely resembles the art style The asset conforms to the art style The asset accentuates the art style		4	1.50
		4	1.50
		4	1.50

Criterion D      Total Mark      25.00

	Refer to the brief	4	1.50
		4	2.00
	Inequitable use of triangles that fail to reduce tris on areas The triangle sizes are even across the whole model The triangle sizes are even and areas needing more detail Equitable use of triangles that reduce tris on areas that ne	4	2.00
	Edgeflow is not sympathetic with the shape of the object Edgeflow is sympathetic with the object's shape Edgeflow accentuates object's shape Edgeflow has no misturned edges	4	2.00
	The object cannot be understood in silhouette in the persp The object is understood in perspective view The object is understood from perspective, front and side The silhouette hold up to 360 degree scrutiny	4	2.00
	The asset does not resemble the art style The asset closely resembles the art style The asset conforms to the art style The asset accentuates the art style		
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
	.TGA	5	1.00
		5	1.00
		5	2.00
Few shells created for the asset with most unassigned Some shells created for complex parts of the asset with sc Most shells created with few unassigned All shells recognisably created to represent elements of th		5	2.00
41+% of unused space 26-40% of unused space			

Criterion E      Total Mark      20.00

11-25% of unused space			
0-10% of unused space			
	5	2.00	
No use of mirroring or repeats			
The asset uses at least one mirror or repeated shell			
The asset uses 2 mirror or repeated shell opportunities			
The asset consistently uses mirrored or repeated shells			
	5	2.00	
Inequitable use of shell size for detailed areas of asset			
The shells have equal use of the texture sheet			
Most of the detailed areas dominate the texture sheet			
Equitable use of shell size for texture detail on the asset			
	5	2.00	
A lot of texture bleeding			
Minor texture bleeding			
No texture bleeding			
No texture bleeding and no contrasting colours next to each other			
	5	2.00	
41+% of unused space			
26-40% of unused space			
11-25% of unused space and the asset uses at least one mirror or repeated shell			
0-10% of unused space and the asset consistently uses mirrored or repeated shells			
	5	2.00	
Inequitable use of shell size for detailed areas of asset			
The shells have equal use of the texture sheet			
Most of the detailed areas dominate the texture sheet			
Equitable use of shell size for texture detail on the asset			
	5	1.00	
	5	1.00	
	5	1.00	
	5	1.00	

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
Base colour for assets have been left at default state		6	2.00
Base colour for the asset is appropriate for the overall mood			
Base colours chosen are appropriate for each material element			
Base colours and chromatic tone represents the model successfully		6	2.00
Majority of textures do not match the intended surface			
Majority of textures have been created with photo reference			
Majority of textures have been painted in Photoshop			
Majority of textures have been created with Substance designer		6	2.00
Texture seams are obvious on geometry			
Texture seams vaguely perceptible on geometry			
Most texture seams hidden with geometry			
Texture seams imperceptible		6	2.00
The texture does not resemble the art style			
The texture closely resembles the art style			
The texture conforms to the art style			
The texture accentuates the art style		6	2.00
1 or no materials have been used			
2 materials have been created			
3 materials have been created			
4 or more materials have been created			
		6	1.00
		6	1.00
		6	1.00
		6	1.00
		6	1.00
		6	1.00
		6	1.00

Criterion F      Total Mark      20.00

		6	1.00
		6	2.00
No use of opacity map Opacity map used for arbitrary element Opacity map used to accentuate damage of cloth Opacity map used to accentuate damage of cloth and orga			
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
		7	1.00
		7	1.00
		7	2.00
No bone links set up FK bone set up FK or IK set up with appropriate bone shapes and sizes IK chain set up with constraints and appropriate bone sha			
		7	2.00
No skinning set up Skin modifiers set up Skin modifiers painted for moderate use of deformation Skin modifiers painted for good use of deformation			
.FBX  No key frame animation At least 2 key frames to test animation Effective use of simple animation Impressive use of simple animation		7	1.00
		7	1.00
		7	2.00

Criterion G      Total Mark      10.00

Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark
The texture needs to be assigned to the model and visible  Model has no attempt to set up a pose Model set up but does not show off the model very well Model set up for best angle Model set up for best angle and lit appropriately to accentuate		8	1.00
		8	2.00
		8	1.00
		8	1.00
Extra Aspect Description (Meas or Judg) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Measurement Only)	WSSS Section	Max Mark

Criterion H      Total Mark      5.00

Criterion I      Total Mark      0.00

Competition      Total Mark      100.00