2023
25th ANNUAL SKILLS MANITOBA COMPETITION
CONTEST DESCRIPTION

CONTEST NAME: 3D Game Art

CONTEST NO: 50

CONTEST LOCATION:
Sisler High School
1360 Redwood Avenue
Winnipeg, Manitoba
Room 58

CONTEST START TIME AND DURATION:

Time	Task
8:00 am - 12:00 pm	Competition 4 hours
12:00 pm - 12:30 pm	Lunch (provided)
12:30 pm - 2:30 pm	Competition 2 hours
2:30 pm -3:30 pm	Judging

PURPOSE OF CHALLENGE:
To provide competitors with the opportunity to experience the 3D Game Art production process and demonstrate their knowledge and skill. The 3D Digital Game Artist takes a designer's brief and, through a combination of conceptualization, creativity, selectivity, technical, and specialist skills, completes the brief to the satisfaction of the client.

Competitors will be given 6 hours to develop and present assets including models, UV maps, and surfaces. Concept will be prepared prior to the contest start. All models will be presented in Sketchfab for final presentation.

Your models should follow the design aesthetic detailed in this document. The individual models should use no more than 6,000 polygons (tris) each. Individual texture maps should be no more than 2K (2048 x2048) pixels each.

Task: You will model and texture the assets described in this document. The intention of this competition is to create original artwork. All assets must be created on site during the

competition except for the model sheets (concept art) which should be done before the competition but must be submitted as digital PNG files at the beginning of the competition. All concept models must be clearly labeled and have 3 views.
Your concept art, surface materials, and models can be created in any 3D and 2D software combination you are familiar with but must be exported into Sketchfab for judging. Note: You should be familiar with uploading FBX files Sketchfab and ensuring your model, textures, and lighting are optimized.

DESIGN BRIEF:

This year you will model, UV, texture a royal crown and a wooden carrying case for the crown. The look for this challenge is based on the realistic medieval style of games like Elden Ring. The crown should sit atop or beside the carrying case in your final presentation. You may choose to present the models on a wooden or stone surface for context.

Assets to create:

> **Model 1**: a sturdy and ornate wooden carrying case for the crown. The case should feature one or more metal handles, a sturdy lock mechanism, a hinged lid and metal fortifications on the corners. On the sides of the wooden box, there should be some decorative elements to signify the importance of the contents. The carrying case model should exhibit a dark wood grain finish with some slight wear and scratches on the wood and metal parts.
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> **Model 2**: an ornate golden crown, decorated with faceted jewels of various sizes and colours. One large jewel adorns the crown in a prominent position. Although it is very old, it has been well cared for. The crown should feature between 6 and 8 peaks with 1 more prominent than the rest. The crown has no textile elements.

Concept Art: Digital images displaying your finalized designs of the crown and carrying case. Each model should have 3 views. Details, relative sizes, textures, and colours should be represented. PNG format preferred.

Exported Models: Competitors are required to export their finished models and textures to Sketchfab for their final presentation. Finished models should not exceed the limit of 6000 (tris) polygons each. Efficient distribution of edges, polygons and vertices will be examined during judging.

Textures: You may use Substance Painter, Photoshop, or similar software for surfacing. No individual texture map should exceed a pixel resolution of 2K (2048 x 2048). Texture files and names should follow a logical naming convention. Competitors should make maximum use of texture maps. Multiple texture maps may be incorporated into the model's materials. The finished artwork should be UV unwrapped to distribute pixels evenly and efficiently over the surface of the models.

Presentation: Competitors are required to export their models as a composition to Sketchfab. Consideration should be given to illumination, camera position, and post-processing effects to enhance the presentation. Models and surfaces should conform to the design specification and art style defined in this brief.

All work is to be created onsite. No files, rigs, materials can be brought in or accessed onsite. Internet Use: You can use the internet for research but not for downloading files or rigs or to communicate with any coaches. You are not permitted to communicate with your coaches or tutors during the competition hours.

SKILLS AND KNOWLEDGE TO BE TESTED:

Employability Skills:	Preproduction:	Production:
Reading, problem solving, Critical thinking	Interpretation of a Design Brief	Preproduction, Planning
Time management	Creation of Concept Art	Asset Construction
Planning		Texture mapping & UV Unwrapping
Attention to detail		Exporting
		File Management
		Appeal of Final Product

POINT BREAKDOWN / 100 TOTAL:

POINT BREAKDOWN	/100
Design Brief Follow design brief specifications. Creative interpretation of the Design Brief.	10

Concept Art Create one detailed and labelled model sheet with 3 views for each of the 2 models (One model sheet for each of the assets). These model sheets should be created prior to contest and submitted at beginning of contest as PNGs. Model sheets should be Letter sized at 300 DPI (2550x3300). Portrait or landscape is acceptable.	15
Modeling: You are asked to model separate 2 items. Model 1: an ornate wooden pedestal base for the crown to sit on. Model 2: an ornate royal crown. The crown should display a sculpted crest, have gems and jewels and be made from metal, glass and fabric.	30
Surfacing UV map and texture your models using your chosen workflow. 15 for UV maps 15 for textures	30
File Management Organisation of your folder, files, and textures	5
Presentation Upload your files to Sketchfab 15 minutes prior to the end of competition. Modify materials and lighting to enhance the presentation. Provide link to judges	10
Total	**100**

NATIONAL COMPETITION ELIGIBILITY:

A mark of **70% or higher** must be scored by the gold medalist in order to attend the National Skills Competition

EQUIPMENT, TOOLS, MATERIALS TO BE PROVIDED BY COMMITTEE:

The 3D Game Art competition will be BYOD, (Bring Your Own Device for each competitor.) No equipment will be supplied.

EQUIPMENT, TOOLS, MATERIALS TO BE SUPPLIED BY COMPETITOR:

Minimum suggested Hardware Requirements:
Desktop or laptop
• Intel Graphics Workstation i7 Quad Core Processors
• 1 TB HD • 16Gb RAM
• Dedicated video card (suggested 2GB) as approved by Autodesk

• Flat Panel Display 1920 X 1080
• Sound card
• Operating System –Windows 10 or Mac OSX
• WiFi enabled computer system.

Suggested software:
• 3D Software: 3D Studio Max, Maya, Blender.
• 2D Software: Adobe Photoshop or Illustrator. Autodesk Sketchbook. Krita, Clip Studio or GIMP, Zbrush, Substance painter.
• **Additional Equipment and material suggested.**
    • Tablet and driver (Driver compatible with your system)
    • Headphones
    • Pencils and erasers
• Required clothing (Provided by competitor)
    • No special requirements

WORKSITE SAFETY RULES / REQUIREMENTS:

No personal protective equipment required.

SPECIAL CONDITIONS / ADDITIONAL INFORMATION:

Consecutive translation If consecutive translation is required on site, the Skills/Compétences Canada Provincial/Territorial offices must advise Skills/Compétences Canada National Secretariat a minimum of 1 month prior to the competition or this service might not be guaranteed.

FAQ:

What do I design?
3D models and surfaces. Competitors will be given written descriptions of game assets.

How much time do I have?
During the 6-hour competition, all tasks must be completed by the end of the competition.

Can I use my own files?
Competitors are not permitted to bring their own files, rigs, materials, or maps for use during the competition.

Can I use the Internet as a resource?
Competitors can use the internet for general help or reference during the competition but may not receive online coaching.

Can I use my own tools?
Digital Drawing tools such as tablets are permitted. Contestants will be responsible for installation and troubleshooting their devices.

Can I use my cell phone during the competition:
During the competition you may use your cell only for listening to music or as an emergency resource.

What software should I use?
Remember you are providing your own computer and software. It is suggested that you use 3D software that you are licenced to use such as Maya, Blender, 3DS Max. Competitors need 2D software such as Adobe Photoshop or Krita. Competitors are responsible for their own IT support so ensure that everything works in advance.

Do I need to stay in the competition area the whole time?
Yes, during the competition all competitors must remain within the proximity of the competition area, as specified by the Technical Committee.

Can I communicate with my coaches, friends, and family during the competition?
Communication with non-competitors is not permitted during the competition through any means. (i.e. Cell phones, text, email)

THE IMPORTANCE OF ESSENTIAL SKILLS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY;

Essential skills are used in nearly every job and at different levels of complexity. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change. Good Essential Skills means you will understand and remember concepts introduced in technical training. The level of Essential Skills required for most trades is as high as or higher than it is for many office jobs.
The following 9 skills have been identified and validated as key essential skills for the workplace:
Numeracy, Oral Communication, Working with Others, Continuous Learning, Reading Text, Writing, Thinking, Document Use, Digital.

FOR MORE INFORMATION CONTACT TECHNICAL COMMITTEE MEMBER:

Derek Ford fordd@assiniboine.ne
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SCORESHEET:

A) Design Brief Follow Design Brief specifications	10%
Models, surfaces, and concept art follow design brief specifications. Creative interpretation of the design brief.	1 2 3 4 5
B) Concept Art Model Sheets of crown and case (submitted at beginning)	15%

Model 1 sheet • Digital sketch is clearly labelled and illustrates the model in 3 views • Digital painting demonstrates perspective and proper proportion. • The final concept features blending/smoothing to represent form of the object • Shading techniques employed	1 2 3 4 5
Model 2 sheet • Digital sketch is clearly labelled and illustrates the model in 3 views • Digital painting demonstrates perspective and proper proportion. • The final concept features blending/smoothing to represent form of the object • Shading techniques employed	1 2 3 4 5
C-1) Modelling – Model 1 – Carrying Case	15%
Similar to model sheet Meets triangle budget No N-Gons present Chamfered edges on any 90-degree edge Model's distribution of triangles is even across fixed areas and concentrated for areas of deformation and detail. Edgeflow follows the topology of the object	1 2 3 4 5
C-2) Modelling - Model 2 - Crown	15%
Similar to model sheet Meets triangle budget No N-Gons present Chamfered edges on any 90-degree edge Model's distribution of triangles is even across fixed areas and concentrated for areas of deformation and detail. Edgeflow follows the topology of the object	1 2 3 4 5
D-1) UV Unwrapping	15%
Model 1 UV unwrapping Demonstration of UV unwrap tools: model has been unwrapped logically. Smooth and even UV shells: major asset has separate UV shells that represent understandable elements of the model Use of UV spacing to maximized texture sheet use without bleeding or overlapping.	1 2 3 4 5

Model 2 UV unwrapping Demonstration of UV unwrap tools: model has been unwrapped logically. Smooth and even UV shells: major asset has separate UV shells that represent understandable elements of the model Use of UV spacing to maximized texture sheet use without bleeding or overlapping.	1 2 3 4 5
D-2) Surfacing	15%
Model 1 Surfacing Materials represent the model effectively. Surfaces describe materials realistically. The appropriate materials have been created for the surfaces. Textures look seamless on models, no obvious joins or breaks in texture. Surfaces are consistent with model sheets, surfaces conform to the overall requested art style. An appropriate variety of physical materials have been represented. Multiple surface maps have been used (normal, roughness, colour, etc)	1 2 3 4 5
Model 2 Surfacing Materials represent the model effectively. Surfaces describe materials realistically. The appropriate materials have been created for the surfaces. Textures look seamless on models, no obvious joins or breaks in texture. Surfaces are consistent with model sheets, surfaces conform to the overall requested art style. An appropriate variety of physical materials have been represented. Multiple surface maps have been used (normal, roughness, colour, etc)	1 2 3 4 5
E) File Managment	5%
Ability to follow instructions and deliver assets & files as directed. Files, folders, layers, and assets are clearly names and organised.	1 2 3 4 5
F) Presentation Uploading to Sketchfab & file management	10%
Models open and view without errors. Final product is enhanced with Sketchfab's lighting to match design brief File is properly submitted on time to competition	1 2 3 4 5
TOTAL	100%

Updated: February 6, 2023