MANITOBA DEMONSTRATION CONTEST DESCRIPTION

# 3D GAME ART

SECONDARY

APRIL 9th 2020
ORIENTATION; 8:15 am

COMPETITION: 8:30-2:30 pm with ½ hr. lunch

LOCATION:

ROOM TBA

TECH VOC HIGH SCHOOL

1355 WALL ST. WINNIPEG

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## 1 THE ESSENTIAL SKILLS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY

SCC is currently working with Employment and Social Development Canada (ESDC) in order to bring awareness to the importance of Essential Skills that are absolutely crucial for success in the workforce. Part of this ongoing initiative requires the integration and identification of Essential Skills in contest descriptions, projects, and project documents. The next phase and very important aspect of our Essential Skills (ES) initiative is to provide an ES report card to each competitor at the Skills Canada National Competition. The purpose of the ES report card is to inform the competitor about their current level of essential skills based on their competition scores. With this knowledge, the competitor will be made aware which essential skill may require improvement. Full implementation is expected in the 2017 Skills Canada National Competition.

The following 9 skills have been identified and validated as key essential skills for the workplace in the legend below:

*[1]Numeracy, [2]Oral Communication, [3]Working with Others, [4]Continuous Learning, [5]Reading Text, [6]Writing, [7]Thinking, [8]Document Use, [9]Digital*

These essential skills have been identified with in section 2.3 and/or 3.2 of your Contest Description. The top three Essential Skills for your area of competition have been identified on your Project and all other supporting project documents.

## 2 CONTEST INTRODUCTION

The games development sector comprises three occupations or work roles: the designer, the artist, and the programmer. 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.

In 2015, 472 active studios were in operation across Canada, a significant increase since 2013 when 329 studios were identified. Canada's video game industry generated a total of 36,500 Full-time Equivalents of employment in the Canadian economy in 2015, an increase of 26% over the employment generated by the industry in 2013. Of those jobs, the industry directly employed approximately 20,400 Full-time Equivalents, which represents a 24% increase over the 16,500 of direct

employment reported in 2013. Large firms account for the vast majority (89%) of industry employment and it remains concentrated in technical and creative positions.

**2.1** Description of the associated work role(s) or occupation(s).

The games development sector comprises three occupations or work roles: the designer, the artist, and the programmer. 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.

**2.2** Purpose of the Challenge

To provide competitors with the opportunity to experience the 3D Game Art production process and demonstrate their knowledge and skill.

**2.3** Duration of contest

5 hours (not including judging and viewing)

**2.4** Skills and Knowledge to be tested

Employability Skills:

- Team work3
- Time management7
- Planning7
- Attention to detail7

Preproduction9:

- Interpretation of a Design Brief
- Creation of Concept Art

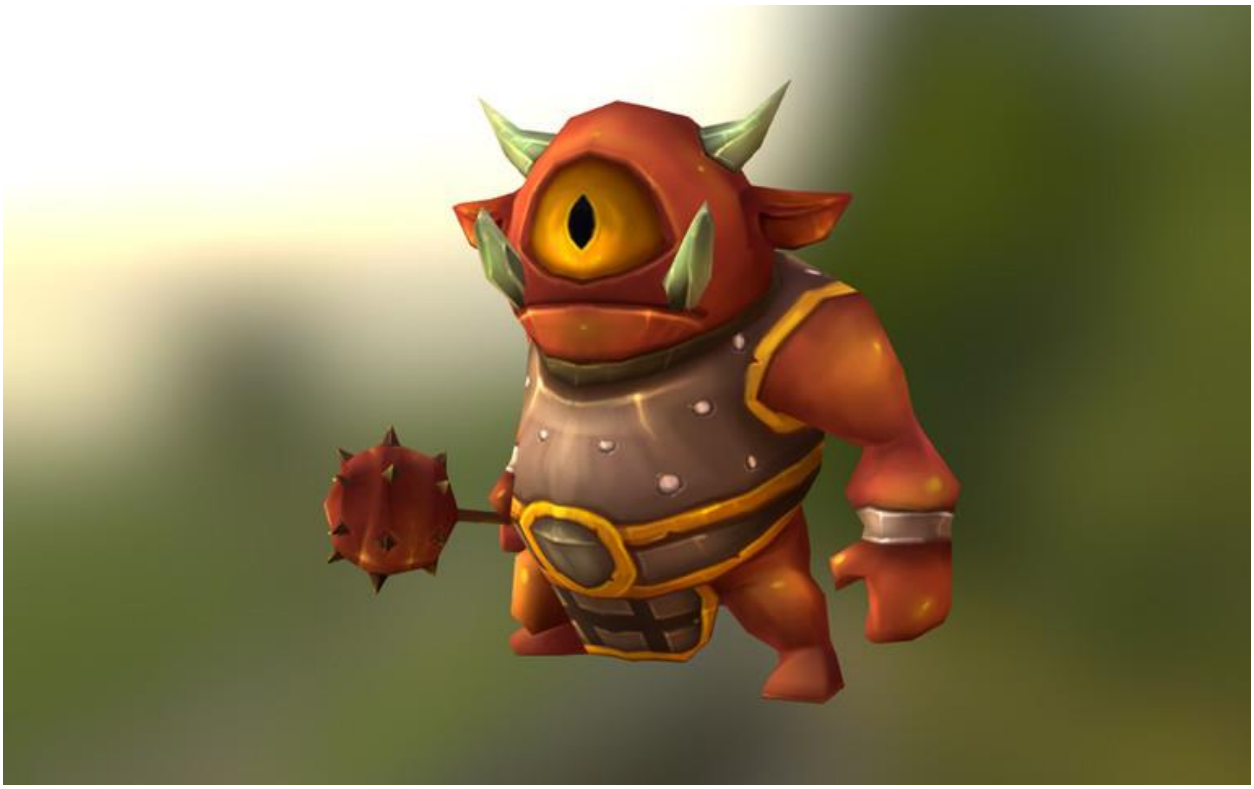
Production:

- 3D Modelling
- Asset Construction
- UV Unwrapping
- Exporting
- File Management
- Appeal of Final Product

## 3 CONTEST DESCRIPTION

- **The 2020 contest will be focused on props for a Western Themed game. The specifics on the contest are supplied in the Theme and Contest Project. THE CONTEST DOCUMENT WILL ALSO POSTED ONLINE NO LATER THEN FRIDAY MARCH 27TH.** Competitors will be given 5.5 hours to develop assets including designs, concept art, model, rig and test animation.
- The model should use no more than 5,000 polygons.
- Individual texture maps should be no more than 1024x1024 pixel resolution.

3D Game Asset Idea



A 3D model of the design should be created using modelling software such as Blender or Maya. Efficient distribution of edges, polygons and vertices will be examined during judging.

Texture maps for the model should be created in Photoshop, Substance Painter or similar software. No texture map should exceed a pixel resolution of 2048 x 2048. Competitors should make maximum use of the texture maps so its pixels are not wasted.

Texture maps should be incorporated into a material or shader which is applied to the competitor's model. The model should be UV unwrapped to distribute pixels evenly and efficiently over the surface of the vehicle.

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FAQ:

What do I design?

- Competitors will be given a written description of a game asset and a description of the game world to which it belongs. POSTED MAR. 27TH OR EARLIER.

What do I create?

- By the end of the 5.5 hour event, you will submit 2D concept art, and 3D model or models, mapped with texture maps created during the competition. The final product to be judged will be a textured 3D scene view in Windows 3D Viewer

What happens if my work does not adhere to competition specifications?

- Work that does not conform to or exceeds the specifications described in the design brief will not be judged and will be disqualified.

How much time do I have?

- During the 5.5 hour competition, all tasks must be competed 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?

- Competitiors can use the internet for image reference during the creation of concept art. Use of premade or downloaded models, textures or other data for the model, textures and uv mapping is prohibited.

Can I use my own tools?

- Digital Drawing tools such as tablets are permitted. If competitors bring their own tablet, please bring your tablet drivers to the competition. Contestants will responsible for installation and troubleshooting their devices.

What software should I use?

Remember competitors are providing their own computer and sofware. Competitors are advised to use 3D sotware that you own such as Maya, Blender, 3DS Max Cinema 4D, some of which are free.  Competitors need software for creating textures and materials. Competitors will also need a game engine, such as Unity3D, Unreal or the Blender Game Engine. Competitors are responsible for their own IT support so ensure that everthing 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 Provincial 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)

**3.1** List of documents produced and timeline for when competitors have access to the documents.

| DOCUMENT | DATE OF DISTRIBUTION VIA WEBSITE |
|---|---|
| Judging Criteria | January 2020 |
| Concept Art Template Sheet | January 2020 |
| Contest Theme and Project | March 2020 |

## 4 EQUIPMENT, MATERIAL, CLOTHING

**4.1** The 3D Game Art competition will be optional BYOD, (Bring Your Own Device for each competitor.) There will be workstations available. Please contact the committee with questions by March 1st.

- Suggested Hardware Requirements:
  - 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.

**Note:** Suggested Software.

Competitors can bring whatever 3D software on their own equipment they are comfortable with but no files, rigs, materials or texture libraries. Suggested software:
3D Software: 3D Studio Max, Maya, Blender, Cinema 4D.
2D Software: Adobe Photoshop or Illustrator. Autodesk Sketchbook. Krita, Clip Studio or GIMP.
**Viewing Software: Windows 3D Viewer, FBX Viewer**

**4.2** Additional Equipment and material suggested.

- Tablet and driver (Driver compatible with your system)
- Headphones
- Pencils and erasers

**4.3** Required clothing (Provided by competitor)

- No special requirements

## 5 SAFETY REQUIREMENTS

**5.1** List of required personal protective equipment (PPE) provided by competitors

- No (PPE) required

## 6 ASSESSMENT

**6.1** Point breakdown

| POINT BREAKDOWN | /100 |
|---|---|
| Work Organization and Management | 5 |
| Interpretation of the Design Brief | 5 |
| Concept Art | 10 |
| 3D Modelling | 35 |
| Texture Mapping | 20 |
| UV Unwrapping | 20 |
| Export as FBX open in 3D Viewer | 5 |
| **TOTAL** | **100** |

## 7 ADDITIONAL INFORMATION

**7.1** 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.

**7.2** French Software

If you require French software you must bring it to the competition.

**7.3** Test Project change at the Competition

Variations in the design brief will be incorporated at the competition so that competitors' creativity can be tested.

**7.5** Tie (No ties are allowed)

In the event of a tie, the team with the highest score in the Modeling Criteria will be declared the winner. If there is also tie in the Modeling Criteria, then the highest score in the Concept Art Criteria will be declared the winner.

**7.6** Competition rules

Please refer to the competition rules for the Skills Canada National Competition

## 8 PROVINCIAL TECHNICAL COMMITTEE MEMBERS

Jim Thomson – Kildonan-East Committee

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**More committee members are required to make this competition sustainable.**