



CONTEST DESCRIPTION

3D Character Computer Animation

SECONDARY

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1 THE SKILLS FOR SUCCESS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY

The Government of Canada has updated the previous Essential Skills framework to the new Skills for Success model in response to the evolving labour market and changing skill requirements. This model outlines nine fundamental skills Canadians need to thrive in work, education, training, and daily life.

Skills/Compétences Canada aims to highlight the importance of these skills, vital for success in trade and technology careers. Competitors can see how Skills for Success are integrated into contest descriptions, projects, and project documents. Recognizing these skills during the competition helps competitors match tasks with specific skills necessary for success and understand how these skills apply within their trade or technology programs and future careers.

The nine key Skills for Success, validated for workplace success, are:

1. Numeracy
2. Communication
3. Collaboration
4. Adaptability
5. Reading
6. Writing
7. Problem Solving
8. Creativity and Innovation
9. Digital

These Skills for Success are detailed in sections 2.3 and/or 3.2 (to be completed by SCC) of your Contest Description and, if relevant, in your Project and supporting documents.

2 CONTEST INTRODUCTION

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

The animation industry is growing and vibrant, providing an opportunity for creative employment. It requires a combination of technical and artistic skills, the ability to manage time, communicate ideas and work together in a team environment. The purpose of this competition is to provide contestants with an opportunity to compete with others from across Canada to demonstrate key skills and their understanding of the animation process.

The fundamental concepts of animation will be emphasized and implemented throughout the two-day event. The competition will focus on the participants' ability to demonstrate animation techniques and principles of animation. Competitors will

demonstrate these skills and principles through a series of exercises outlined below. The final animations will be presented at the end of the competition.

https://www.skillscompetencescanada.com/en/skill_area/3d-2d-character-computer-animation/

2.2 Purpose of the Challenge

To provide competitors with the opportunity to demonstrate their knowledge of animation techniques through a series of practical challenges.

2.3 Duration of contest

12 hours

2.4 Skills and Knowledge to be tested.

Employability Skills:

- Time management¹
- Reading⁵
- Planning⁶
- Attention to detail
- Composition
- Asset Design
- Production:⁹
- Cinematography⁸
- Asset Construction
- Rendering
- Animation
- Exporting
- File Management⁹
- Appeal of Final Product⁸

Skills for Success - ¹Numeracy, ⁵Reading, ⁶Writing, ⁸Creativity & Innovation, ⁹Digital

3 CONTEST DESCRIPTION Teams of 2 Secondary Students

3.1 List of documents produced and timeline for when competitors have access to the documents on the Skills/Compétences Canada website.

DOCUMENT	DATE OF DISTRIBUTION
Competitors' Handbook - Principles of Animation	January 2025
3D Ball with Tail Rig (.fbx)	April 2025
3D Flour Sack Rig (.fbx)	April 2025
Sound Library	January 2025
Judging Criteria	February 2025

3.2 Tasks that may be performed during the contest.

Project Overview. Competitors will be given 12 hours to complete a total of three animated sequences.

1. Ball Bounce with a Tail
2. Flour Sack Jump
3. Character Animation Take (Reaction)

Ball Bounce with a Tail (20 marks) [2.5 hours]

Animation Description: Competitors need to animate a ball with a tail entering from off camera screen left, bouncing off three elements, and exiting off screen right. Competitors are required to demonstrate the principles of animation.

Background/Stage: Competitors will need to develop a basic stage that has three elements the ball will “jump off-of”.

Aesthetic/Style (3D): No (Real World) textures simple colours only and the use of default lighting systems within your respective 3D application of choice

Camera Movement: There is to be no camera movement, just a stationary camera (locked).

Animation Length: Maximum 5 seconds.

Sound Incorporation: Competitors will be provided with a base library of audio clips (.mp3 and .wav). Audio clips can be *edited* using sound editing software. No additional sounds may be used or incorporated.

Rig (3D): Competitors will be provided with a ball with tail rig that will be available on the Skills Canada website in advance (January 2025) as an fbx. Competitors should ensure that they test the rig in advance. No alterations can be made to the rig. If the rig is not working competitors need to ensure they are using the recommended software versions.

Submission Requirements (3D): 1920 x 1080 (pixels), 24 fps, and .mp4. The submission needs to be named 3DPROVINCE_BallBounce. Example 3DSK_BallBounce.

Flour Sack Jump (30 marks) [4.5 hours]

Animation Description: Competitors will need to animate a flour sack (with four corner tassels) jumping off a diving board onto a mystery surface. The mystery surface will be announced during the orientation. Competitors will need to develop a basic stage, and props as needed. Competitors are required to demonstrate the principles of animation.

Background/Stage: The competitor must develop a stage that includes the diving board and mysterious surface.

Aesthetic/Style (3D):

No (Real World) textures, simple colours only, including the use of default lighting systems within your respective 3D application of choice.

Camera Movement: There is to be no camera movement, just a stationary camera.

Animation Length: Maximum 5 seconds.

Sound Incorporation: Competitors will be provided with a base library of audio clips (.mp3 and .wav) and will also be able to record their own sound on site, using their own equipment. Audio clips and recorded sound can be *edited* using sound editing software. No additional sounds may be used or incorporated.

Rig (3D): Competitors will be provided with a flour sack rig that will be available on the Skills Canada website in advance (January 2025) as an fbx. Competitors should ensure that they test the rig in advance. No alterations can be made to the rig. If the rig is not working competitors need to ensure they are using the recommended software versions.

Submission Requirements (3D): 1920 x 1080 (pixels), 24 fps, and .mp4. The submission needs to be named 3DPROVINCE_ FlourSack. Example 3DSK_ FlourSack.

Character Animation Take (Reaction) (45 marks) [4.5 hours]

Animation Description: Competitors will be required to animate a character having one surprised reaction to a mysterious object entering the screen. Competitors are required to demonstrate the principles of animation. The character must be bipedal (Human or Robot Character with 2 arms, 2 legs, with a head, and a torso). The mystery object will be given at orientation.

Background/Stage: The competitor must develop background elements/assets to adequately stage the action and support the animation.

Aesthetic/Style (3D): Background, character, and mystery object should be coloured. No (Real World) textures, simple colours only, including the use of default lighting systems within your respective 3D application of choice.

Camera Movement: Competitors are allowed and encouraged to include camera movements and cuts to enhance the action/intent of the scene.

Animation Length: Maximum 7 seconds.

Sound Incorporation: Competitors will be provided with a base library of audio clips (.mp3 and .wav) Audio clips can be *edited* using sound editing software. No additional sounds may be used or incorporated.

Rig (3D): Competitors are required to bring one-character rig to the competition. The character rig cannot include pre-made animations. The character rig can be downloaded but must be creative commons or free. Please review the terms and conditions of the rig. Acknowledgement of the rig creator must be added to the final submissions (outlined further below). Character rig will be reviewed by the National Technical Committee during orientation.

Submission Requirements (3D): 1920 x 1080 (pixels), 24 fps, and .mp4. The submission needs to be named 3DPROVINCE_ Reaction. Example 3DSK_ Reaction.

Final Sequence (5 marks)

The competitor is required to submit the three sequences with the title slates. Title slates will be provided to the competitors during orientation. The order of the final submission is as follows:

1. Provincial Title Slate
2. Ball with Tail Bounce Slate
3. Ball with Tail Bounce Animation
4. Flour Sack Jump Slate
5. Flour Sack Jump Animation
6. Character Reaction Slate
7. Character Animation Take (Reaction)
8. Reference (hold for five sections)

Submission Requirements (3D): 1920 x 1080 (pixels), 24 fps, and .mp4. The submission needs to be named 3DPROVINCE_ FinalSequence. Example 3DSK_ FinalSequence.

Other Important Information:

Technical Computer Skills⁹. Although marks aren't given for technical computer skills, you must be able to use your chosen software to complete the project tasks outlined below. NTC will not provide you with any diagnosing, technical, and/or troubleshooting assistance. Projects that are not submitted on time or in the required formats will not be graded.

USB. Competitors will be provided with a USB to submit their work at the required deadline.

Work in Progress Submission. Every hour competitors will be required to provide a work in progress submission. This is a working file of their current task. This will be submitted using the provided USB.

Textures⁸. The competition is focused on animation. No real-world textures will be accepted within your scene. Teams are not permitted to bring any external library of textures of any kind to the competition.

Incorporating a harmonious colour palette is advised.

Props and Environment. Assets must be created during competition. No reference can be used from the internet. No AI driven programs, assets and/or characters can be incorporated. No real-world textures will be accepted within your scene. Teams are not permitted to bring any external library of textures of any kind to the competition.

Filming Reference (Animation). Competitors will be allowed to record animation references within the contest area. ~~in a provided space.~~

Skills for Success - ⁶Writing, ⁸Creativity & Innovation, ⁹Digital

4 EQUIPMENT, MATERIAL, CLOTHING

4.1 Equipment and material provided by the competitor.

- Competitors are required to use their own device (no cell phone) and software (no AI driven artwork acceptable) for the 2025 competition. Each competitor may choose their own device and software to ensure their workflow and process is to what they are familiar with. The software must be version compatible with the rigs that will be provided. Competitors are only able to have a maximum of two computers running at a time. Multiple monitor setup is acceptable. Backup computers are acceptable.
- Audio recording equipment is permitted.
- If competitors are using a computer or laptop from their school (instead of their personal computer), please ensure that the computer is unlocked to be able to access documents and software which can be saved/installed to the hard drive.
- Equipment (including iPad, tablets, laptops, desktops, monitors) is required to be set up during the orientation and it is required to remain at their site until the end of competition and only accessible during competition hours.
- All competitors must bring their own adapters/ dongles to transfer files, such as USB hubs or a USB-C to allow for file transfer with thumb drives or external hard drive connections.
- Optimum Hardware Requirements:
 - Mac or Windows based computers.
 - Intel Graphics Workstation i7 Quad Core Processors
 - 1 TB HD
 - 16Gb RAM

- Dedicated video card (suggested 4 GB) ~~as approved~~
- Flat Panel Display 1920 X 1080
- Sound card
- Operating System –Windows 7 or 10 64 Bit
- Wi-Fi enabled computer system
- Suggested software:
 - 3D Software: Blender, Autodesk Maya, 3D Studio Max, and Cinema4D.
 - 2D Software: Adobe CC Animate, ToonBoom Harmony, Krita, Pencil 2D, ToonBoom Storyboard Pro.
 - Video Software: Adobe Premiere Pro, Adobe After Effects, and or Pro, Final Cut Pro (Mac)
 - Viewing Software: VLC
 - Audio software: Audacity
- Additional Equipment and material suggested.
 - Tablet and driver (Driver compatible with your system)
 - Headphones
 - Drawing materials
 - Empty USBs (Recommended USB 3)

Please bring all necessary dongles to connect all your equipment, NTC does not provide such items.

5 HEALTH AND SAFETY

5.1 Safety program

SCC has implemented a comprehensive safety program as health and safety is an integral part of our competitions. Our safety program includes guidelines and procedures to make the work environment in each skill area safer.

5.1.1 Safety manual

As part of our program a safety manual has been created to monitor and document health and safety within each skill area. It includes a definite plan of action designed to prevent accidents. The safety manual will be provided for every skill and these instructions must be followed and respected by all participants and officials at the SCNC.

5.1.2 Safety workshop

During orientation, Competitors will participate in a Safety workshop, and they will be expected to work and maintain a safe working area during the competition. Any Competitor breaking any health, safety, and environmental rules, may be required to

undertake a second safety workshop, this will not affect the Competitor's competition time.

5.2 List of required personal protective equipment (PPE) provided by Skills/Compétences Canada

- N/A

5.3 List of required personal protective equipment (PPE) provided by the competitor

- N/A

5.4 Healthy Snacks, please bring snacks and fluids to consume throughout the day.

6 ASSESSMENT

6.1 Point scoring breakdown

Note: This list is subject to change.

TASKS	/100
Ball with Tail Bounce	20
Flour Sack Jump	30
Character Animation Take (Reaction)	45
Final Sequence	5

7 CONTEST SPECIFIC RULES

Contest specific rules cannot contradict or take priority over the Competition Rules. They do provide specific details and clarity in areas that may vary from contest to contest. Any additional contest rules will be reviewed during the competitor orientation.

TOPIC/TASK	CONTEST SPECIFIC RULE
Use of technology - personal laptops, tablets and mobile phones	<ul style="list-style-type: none"> • Listening to music is permitted during competition hours on any personal device. • See 4.1 for bring your own device specifications.
Drawings, recording information	<ul style="list-style-type: none"> • All submitted artwork must be completed during the competition hours.
Tools / Infrastructure	<ul style="list-style-type: none"> • Sound library will be available alongside this competition document
Additional Competition Details	<ul style="list-style-type: none"> • All submissions must be completed by the times listed above. Late submissions will not be marked. • If any technical issues arise during the competition, competitors should notify NTC immediately. The NTC committee will decide if any additional time will be allotted.

	<ul style="list-style-type: none"> • No files are allowed to be brought into the competition other than the texture library and one character rig. No additional plugins and scripts can be used (other than those found in the final shipped version of the software) • Internet usage. You can only use the internet to verify licenses. • Contestants will be responsible to install and troubleshoot their own personal devices.
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8 ADDITIONAL INFORMATION

8.1 Interpreter

If a competitor requires the help of an interpreter once onsite during the competition, 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 may not be guaranteed.

8.2 Ties

- Tiebreaker #1: The competitor with the highest score in the Character Animation Take (Reaction) criteria will be declared the winner
- Tiebreaker #2: The competitor with the highest score in the Flour Sack Jump criteria will be declared the winner.
- Tiebreaker #3: The competitor with the highest score in the Ball with Tail Bounce sub criteria will be declared the winner.

8.3 Test Project change at the Competition

Where the Test Project has been circulated to Competitors in advance, NTC shall change a maximum of 30% of the work content. Please refer to the Competition Rules.

8.4 Competition rules

Refer to the competition rules of the Skills Canada National Competition which can be found on our website.

9 NATIONAL TECHNICAL COMMITTEE MEMBERS

MEMBER ORGANIZATION	NAME
Prince Edward Island	Tiffany Baxter – Co-Chair
Nova Scotia	Abigail Evans
Ontario	Alexi Balian - Chair
Manitoba	Francesca Musni
British Columbia	Timothy Tang
Saskatchewan	Jeremy Lague

Contact the Skills/Compétences Canada national secretariat for any questions or concerns: Nathalie Maisonneuve (nathaliem@skillscanada.com).