



2026 Territorial Skills Competition Contest Description

Electronics

Secondary

Date: April 16, 2026, 8:00 A.M.

Location: Yukon University, Gym

Duration of contest: 6 Hours

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1. SKILLS FOR SUCCESS FOR CAREERS IN 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

2. CONTEST INTRODUCTION

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

https://www.skillscompetencescanada.com/en/skill_area/electronics/

2.2. Purpose of the Challenge

To evaluate each competitor's skills and recognize outstanding students for excellence and professionalism in the field of Electronics Technology.

Competitors will demonstrate their skills in Electronics Technology as it pertains to Measurement, Printed Circuit Board Assembly, Fault Finding, Printer Circuit Board Rework, Circuit Analysis and Bread Board Techniques.

2.3. Duration of Contest

Competition duration will not exceed 6 hours. Competitors will begin at 9:00AM and have until 4:00PM to complete all of their tasks, including tidying their work station. Competitors will be given an hour break for lunch provided by Skills Canada Yukon.

2.4. Skills and Knowledge to be Tested

- Breadboarding Technique
 - This project challenges competitors to design, assemble, and demonstrate a functional electronic circuit using industry-standard breadboarding techniques. Participants must interpret a schematic, select and place components correctly, apply proper wiring and colour-coding practices, and ensure the circuit operates as intended.
 - The task emphasizes real-world skills including circuit logic, attention to detail, troubleshooting, and professional workmanship. Performance is assessed not only on whether the circuit functions, but on layout quality, neatness, and technical understanding demonstrated through applied questions.
 - This competition offers a practical, hands-on showcase of foundational electronics skills and provides a clear window into careers in electrical, electronics, and automation fields.
- Soldering & Assembly Techniques
 - This project evaluates a competitor's ability to accurately assemble and solder an electronic circuit using professional workshop practices. Participants receive a complete project kit and must follow technical instructions to assemble components onto a printed circuit board, demonstrating precision, safety awareness, and attention to detail.
 - Competitors are assessed on soldering quality, component orientation, workmanship, and successful circuit operation, including verification using an oscilloscope. The task reflects real-world electronics assembly environments and highlights the importance of accuracy, consistency, and functional testing in modern electronics and manufacturing careers.
- Circuit Analysis
 - This project tests a competitor's ability to interpret and analyze electronic logic circuits. Participants are required to study a printed circuit board, identify the logic components used, and accurately translate the physical layout into a formal logic diagram using standard symbols.
 - The task assesses analytical thinking, attention to detail, and understanding of digital logic by requiring competitors to complete truth tables, evaluate circuit behaviour under different input conditions, and demonstrate comprehension of logic gate utilization. This project highlights the critical thinking and problem-solving skills essential to careers in electronics, automation, and digital systems.

3. EQUIPMENT, MATERIAL, CLOTHING

3.1. Equipment and material provided by Skills Canada Yukon:

- Soldering station, stand, tip cleaner
- Hand desoldering tool, solder wick
- Hand tools - long nose pliers, side cutters, wire strippers
- Third hand, inc. magnifying glass
- Multimeter
- Power supply
- Oscilloscope
- Frequency generator

3.2. Required Equipment Provided by the Competitor

Any of the tools and equipment listed above and provided by the technical committee may be replaced by the competitor, however they will be inspected for suitability. Any items deemed to offer an unfair advantage will not be allowed, and the provided equipment must be used.

- Pens, pencils, eraser, ruler
- Desk Lamp (optional)
- Non-programmable calculator
- Headphones (optional)

3.3. Required Clothing Provided by the Competitor

- Clothing must not be loose-fitting and must not have drawstrings or dangling pieces.

4. HEALTH & SAFETY

4.1. Safety Orientation

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.

List of required personal protective equipment (PPE) provided by Skills Canada Yukon:

- Safety glasses
- Face masks
- Hearing Protection

NOTE: Competitors who do not have the required protective equipment/clothing will not be allowed to participate in the competition

4.2. Field Level Risk Assessment

SCY will complete a Field Level Risk Assessment for every competition area in addition to a full walkthrough with a representative from Yukon Workers Safety

and Compensation Board to identify potential hazards and create solutions. The primary goal of an FLRA is to identify and mitigate potential risks to ensure the safety of competitors.

5. **ASSESSMENT**

5.1. **Point Breakdown**

TASK	/100
Breadboarding Technique (150 minutes)	/40
Soldering & Assembly Techniques (120 minutes)	/35
Circuit Analysis (90 minutes)	/25

5.2. **Qualifying for the Skills Canada National Competition**

Competitors can secure a win in their specific competitions by demonstrating exceptional skills and abilities, and meeting or exceeding established evaluation criteria. However, qualification for the Skills Canada National Competition is not solely determined by winning at the territorial level.

The decision to advance further depends on additional factors, such as the National Technical Committee's (NTC) assessment and/or the judges' discretion, which may take into account specific criteria beyond just event performance. These additional criteria could encompass a competitor's adherence to safety protocols, ethical conduct, teamwork, or overall professionalism, ensuring that those who represent the Territory at the national level not only excel in their technical skills but also embody the values and standards upheld by Skills Canada.

***Please note:** Not all territorial contest areas are eligible for the Skills Canada National Competition. Please refer to the SCNC website to determine if your skill area/level is eligible to compete.

6. **ADDITIONAL INFORMATION**

6.1. **Competition Rules**

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

6.2. **Ties**

Tiebreaker #1: In the event of a tie, the candidate with the highest safety score will be declared the winner.

Tiebreaker #2: If a tie still remains, the competitor with the highest score in the Breadboarding Technique will be declared the winner.

6.3. Accessibility & Accommodations

Skills Canada Yukon is committed to providing a barrier-free environment which allows everyone to participate in our programs and competitions. We strive to be fully inclusive to all manner of disabilities and identities. SCY provides the opportunity for any competitor to disclose a disability on our competition registration form. Requests for accommodations must be made at least 3 weeks prior to the competition date.

7. NATIONAL & TERRITORIAL TECHNICAL COMMITTEES

- 7.1. The Yukon National Technical Committee member for Electronics is Mike Mooney. Email: roy.micheal.mooney@gmail.com
- 7.2. Please contact yukon@skillscanada.com with questions or concerns related to the competition.