Skills Compétences Canada











CONTEST DESCRIPTION

Plumbing

POST-SECONDARY

Skills Compétences Canada
Calgary2027

Table of Contents

1 THE SKILLS FOR SUCCESS FOR CAREERS IN THE SKILLED TRADES AND TECHNOLOGY 2
2 CONTEST INTRODUCTION 2
3 CONTEST DESCRIPTION 3
4 EQUIPMENT, MATERIAL, CLOTHING 3
5 HEALTH AND SAFETY 5
6 ASSESSMENT 6
7 CONTEST SPECIFIC RULES 7
8 ADDITIONAL INFORMATION 7
9 NATIONAL TECHNICAL COMMITTEE MEMBERS 7

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 2.4 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)

(LINK)

2.2 Purpose of the Challenge

The purpose of this challenge is to evaluate the competitor's skills and knowledge in the installation of a complete plumbing system that includes potable hot and cold water, hydronic heating, and plumbing fixtures.
Competitors will be assessed on quality of work, accuracy, efficiency, pipe joining techniques, and time management.

2.3 Duration of contest

12 hours

2.4 Skills and Knowledge to be tested.

Competitors will demonstrate proficiency in:

Mathematical problem-solving related to layout and measurement
Safe work practices that adherence to industry standards
Proper selection and use of tools and equipment
Accurate pipe assembly and installation techniques
Blueprint and specification interpretation
Effective planning and organization

3 CONTEST DESCRIPTION

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
Project	December 2026

3.2 Tasks that may be performed during the contest.

- Competitors may be required to complete tasks such as:
- Applying mathematical concepts including parallel, 60°, 45°, and 22½° offsets
- Interpreting and applying blueprints, product specifications, and shop drawings
- Assembling and installing various piping systems, including:
- Copper piping – soft soldering (lead-free with water-based flux), press fit, and brazing
- Plastic DWV drainage systems
- Hydronic heating systems
- Domestic hot and cold-water systems
- Water service and distribution systems
- Cast iron drainage systems
- Black iron piping – threading and press fit connections
- PEX piping systems – expansion and compression fittings
- Bending tubing
- Applying safe work practices throughout all stages of the competition

EQUIPMENT, MATERIAL, CLOTHING

4.1 Equipment and material provided by Skills/Compétences Canada (as required)

- Soldering torches
- 2 ft levels
- Solvent cement
- Teflon tape
- Soldering paste
- Flux brushes
- 1⁄2'' and 3⁄4'' cleaning brushes
- Sand cloth
- Cordless Drill 1⁄2"
- #2 and #3 Robertson 6" Bit Tip
- 2 ft carpenter's square
- Ridgid Pipe Threader
- Ridgid Press Tool (Copper and/or Black Iron)
- Ridgid Soil Pipe Cutter
- Unistrut shear
- Tri-stands
- Ladder

COMPETITORS WILL BE REQUIRED TO USE THE MATERIAL AND EQUIPMENT PROVIDED BY SCC. ALL OTHER MATERIAL AND EQUIPMENT WILL BE REMOVED FROM THE SKILL AREA.

4.2 Equipment and material provided by the competitor.

Only the tools listed below will be permitted.
No modified tools allowed.

- Metal rules metric
- IPT Red Handbook (NTC will check for private notes in it)
- Measuring tape with millimeters (25 mm wide recommended)
- 9" torpedo levels
- Water Pump Pliers
- Plastic pipe cutters for up to 3" (manual)
- Plastic pipe reamer 3", 2", 1 1⁄2"
- 10-inch or 12-inch metal saw with spare blades, or equivalent
- Adjustable wrenches (6" 8" and 12" recommended) or equivalent
- Pipe Wrenches (8", 10" and 12" recommended) or equivament
- Tube cutters 5/8'' to 2 1/8'', Ridgid #20 or equivalent
- Tube cutters (Ridgid #15 or equivalent) for 3/16" to 1 1/8" diameter copper tube
- Mini pipe cutter or equivalent

- Combination Square
- 16-ounce hammer or equivalent
- 1⁄2 round steel file and or flat smooth file with a handle
- Plumb bob
- Pencils / soapstone / markers / erasers
- Paper
- Utility knife
- Striker
- Copper de-burring tool
- Assorted screw drivers

3.2.1 Toolboxes Guidelines

One of the objectives of SCC is the sustainability of the Competition. As a result, the toolboxes brought by Competitors will be restricted to the following maximum specifications.
The Competitor toolbox must not exceed ___1__ meters^3 in volume. It can be multiple toolboxes, but the total of all toolboxes must not exceed the maximum volume indicated. There is no exception to this rule. If the Competitor toolbox is larger than what is indicated, the Competitor with the guidance of the NTC, will need to remove items from the toolbox and those items will not be used during the competition. All tools must fit inside one or more toolboxes. Tools outside of a toolbox will not be permitted.

3.3 Required clothing provided by the competitor.

- Long sleeve clothing
- No jewellery
- Long hair must be tied back and concealed

4 HEALTH AND SAFETY

4.1 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.

4.1.1 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.

4.1.2 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.

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

- Safety Glasses
- Ear plugs
- Nitrile- coated glove

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

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

- CSA approved Safety shoes (required)
- Gloves (recommended)
- Knee pads or equivalent (recommended)
- Safety Glasses (prescription or if you prefer your own)

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

5 ASSESSMENT

5.1 Point breakdown

TASKS	/100
Accuracy of Installation	50
Quality of Installation	35
Pressure Test	5
Safety	10
Full points for dimension within 2mm. Half points deduction for dimension more than 2 to 4mm. No points awarded for dimensions more than 4mm.	

6 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
Safety	Competitors must wear long sleeves and gloves while soldering
Tools / Infrastructure	No project specific aids, tools or jigs allowed The National Technical Committee (NTC) will be conducting a toolbox inspection during competitor orientation

7 ADDITIONAL INFORMATION

7.1 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.

7.2 Ties

- Tiebreaker #1: In the event of a tie, the competitor who completed the project in the shortest amount of time will be declared the winner.
- Tiebreaker #2: If a tie remains, the competitor with the most complete project will be declared the winner.
- Tiebreaker #3: If a third tie occurs, the competitor with the highest score in the “Assessment of cold-water installation” will be declared the winner.

7.3 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.

7.4 Competition rules

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

NATIONAL TECHNICAL COMMITTEE MEMBERS

MEMBER ORGANIZATION	NAME
Newfoundland and Labrador	Geraoid McCarthy
Nova Scotia	TBD
New Brunswick	TBD
Ontario	Dan Shelly
Manitoba	Patrick Savard
Quebec	Yannik Duchesne-Caron
Saskatchewan	Will Rayner
British Columbia	John Michalec
Alberta	Jonathan Harding
Saskachewan	Curtis Morgan

Contact the Skills/Compétences Canada national secretariat for any questions or concerns: Olga Malvine Rwemera (olgamr@skillscanada.com).