Skills Compétences Canada











CONTEST DESCRIPTION

Web Technologies

SECONDARY / POST-SECONDARY

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 4
5 HEALTH AND SAFETY 5
6 ASSESSMENT 6
7 CONTEST SPECIFIC RULES 6
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)

The field of Web Technologies is always changing and evolving. It can range from the maintenance of simple web sites using HTML and CSS and JavaScript to the development of Application Programming Interfaces to allow different systems to communicate and everything in between using a variety of languages and frameworks.

A web technologist’s skill sets can include graphic design, software development, cyber security, database administration, data transport, user interface principles, responsive design and accessibility considerations.

Security and accessibility are key aspects of web technology. All web applications are vulnerable to cyber-attacks and must be protected from these attacks wherever possible. Accessibility of information is also important as people accessing your web application will be using a variety of devices including mobile devices, screen readers, and other equipment intended to help people with disabilities.

Web Technologies also requires you to keep learning. The web has become a key place for business, education, and social connectivity which has resulted in an explosion of technology to provide these services. New frameworks and approaches are being released all the time and anyone working in this field needs to keep up with these developments to assess them and integrate them where required.

2.2 Purpose of the Challenge

To provide competitors with the opportunity to demonstrate, through practical application, their skills in client and server-side web technologies.

2.3 Duration of contest

The competition will be two days long with six hours of competition per day (12 hours total). The competition will be broken into four modules to be completed and submitted every three hours. Once the three-hour period for a module is over, a competitor cannot make any further changes.

2.4 Skills and Knowledge to be tested.

- Graphics for the web[9]
- Web design principles[9]
- HTML[9]
- CSS[9]
- Programming using JavaScript, jQuery[9]
- Server-side programming (e.g. PHP) in a Web Server environment[7,9]
- Use of JSON and RESTful APIs[9]
- Managing web sites and web applications on a remote server[7,9]

Skills for Success – [7]Problem Solving, [9]Digital

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
Pre-release Project	January 2027
Competition Server Details	January 2027
Test Project	First day of competition

3.2 Tasks that may be performed during the contest.

- Use standard HTML and CSS to create accessible and usable Web pages.[7,9]
- Create responsive Web page designs that are viewable in modern Web browsers (Mozilla Firefox, Google Chrome, Microsoft Edge, Apple Safari) and on numerous devices (desktop computer, tablet computer, smartphone).[7,9]
- Create, manipulate, and optimize raster and vector graphics.[7,8,9]
- Write JavaScript code and utilize libraries to enhance the overall user experience of Web solutions. [6,7]
- Write server-side code using languages such as PHP given a set of functional requirements within a web server environment.[6,7]
- Use MariaDB (a relational databases) when writing programs that operate on persistent data.[7,9]
- Transfer files to a remote webserver using sFTP [9]
- Test working solutions on remote webserver [7,9]
- Manage remote web server using an administrative control panel such as cPanel [7,9]
- Refactor and debug client- and server-side code for efficiency and functionality.[7]

Skills for Success – [6]Writing, [7]Problem Solving, [8]Creativity & Innovation, [9]Digital

4 EQUIPMENT, MATERIAL, CLOTHING

4.1 Equipment and material provided by Skills/Compétences Canada

- Worktable and ergonomic chair
- External monitor with HDMI connection
- Access to web server environment for testing and submitting project files and databases.
- From three months before the competition up to the event date, email Jeff Boulton at [contact@reactivedesigns.net] to request a server account for testing. This will allow you to verify the server environment ahead of the competition.

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.

- Headphones, MP3 player or Phone (phone must be in airplane mode with wifi turned off)
- Laptop with power adapter – competitor needs to have administrative privileges on laptop.
- HDMI adapter if you want to use a provided external display.
- RJ45 Ethernet Adapter if not built into laptop.

4.3 Required clothing provided by the competitor.

- Competitors must be dressed in a business casual attire.

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

- No PPE required

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

- No PPE Required

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

- No PPE Required

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

6 ASSESSMENT

6.1 Point breakdown

Note: This list is subject to change.

TASKS	/100
Design	40
Development / Programming	60

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
Module Completion	Modules will be distributed at the beginning of the competition day. Certain modules as per the competition must be submitted at the end of each 3-hour block.
Server access and use	During orientation, you must complete a web server access checklist. This must be completed prior to the start of the competition. The provided server is used for all judgement so your work must be uploaded to the server before the end of each module.
Use of Artificial Intelligence (AI)	You cannot use AI to develop/generate any of the work you submit for any aspects of this competition unless specifically noted in the test project.
Use of Chat or online forums	You cannot use any instant messaging/communication or online forums where you post questions for any aspects of this competition. You can use existing answers to related

	questions online, but you cannot post your own questions during the competition.

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 Measurement criteria will be declared the winner.
- Tiebreaker #2: The competitor with the highest score in the most complex task of test project will be declared the winner.
- Tiebreaker #3: The competitor with the highest score in the second most complex task of test project 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.

NATIONAL TECHNICAL COMMITTEE MEMBERS

MEMBER ORGANIZATION	NAME
Newfoundland and Labrador	David Cantwell (Chair)
New Brunswick	
Ontario	Dalibor Dvorski
Manitoba	Sean Taylor
Saskatchewan	Jeff Boulron (Co-chair)
Alberta	Matt Waggoner
British Columbia	Steve Lang

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