

Now and Tomorrow Excellence in Everything We Do

ading • Document Use • Numeracy • Writing • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numera ting • Oral Communication • Working with Others • Thinking • Computer Use • Oral Communication • Continuous Learning • Reading • Docume • • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing • rking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing • Reading • Document Use • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document

Essential Skills and Apprenticeship

Essential Skills for Success as a Plumber

Plumbers use Essential Skills to complete trade-related tasks. Use this fact sheet to:

- · learn how Essential Skills are used on the job;
- find out the skills you need to succeed in your trade; and
- help prepare yourself for your career.



Reading



- Read brochures from suppliers to find information on materials.
- Read health and safety notices.
- Read and follow product installation procedures.
- Read Material Safety Data Sheets (MSDS) to obtain information about hazardous products.
- Read manuals to install, repair and maintain plumbing systems.
- Read trade text books to understand the science related to plumbing, such as the properties of water, metals and alloys.
- Read the Canadian Plumbing Code to follow the regulations on plumbing systems.

Document Use

• Read notes in daily log books to track work in progress.



- Read assembly drawings to install fixtures and appliances.
- Interpret diagrams in the Canadian Plumbing Code to ensure that the capacity of a building's venting systems complies with regulatory requirements.
- Interpret schematics to trace the circuit for gas flow when planning for the installation of piping.
- Interpret drawings to find municipal connections or water sources and to plan the routing of pipe when installing water services.
- Interpret blueprints to find the locations of piping and catch basins for drainage systems.



teading • Document Use • Numeracy • Writing • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy Vriting • Oral Communication • Working with Others • Thinking • Computer Use • Oral Communication • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing

Numeracy



- Measure to locate and mark positions for pipe connections.
- Compare pressure gauge readings and manufacturers' standards when installing gas pipes underground.
- Schedule daily activities to complete assigned tasks.
- Estimate the time and quantity of materials needed to complete a project.
- Adjust schedules to coordinate work with other tradespersons.
- Make calculations using formulae, such as determining the total fall on a drain line.
- Prepare invoices based on hourly labour rates, cost of materials and taxes.
- Make calculations using trigonometric constants based on the angle of elbows.

Writing



- Write short notes about repairs in progress and tasks to be completed.
- Write a list of materials required for a job.
- Maintain a daily log book to record hours worked, tasks completed and problems encountered.
- Complete incident reports to record an accident in the workplace.

Oral Communication



- Talk to suppliers about the availability of parts.
- Communicate with other tradespersons on a job site to coordinate work and discuss potential problems.
- Communicate with a foreperson to receive job assignments.
- Talk to suppliers to troubleshoot system problems.
- Talk to customers who may be agitated or concerned.

Working with Others



- Coordinate with other plumbers and tradespersons on a job site to determine the order in which various work tasks should be completed.
- Participate in discussions about work processes or product improvement.
- Demonstrate how to perform tasks to other workers.
- Orient or train new employees.
- Communicate with customers, suppliers and management.

Reading • Document Use • Numeracy • Writing • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy Writing • Oral Communication • Working with Others • Thinking • Computer Use • Oral Communication • Continuous Learning • Reading • Documen Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writin Working with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writin Working with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Working with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Working with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document

Thinking	 Decide on priorities for service calls, repairs and scheduled work.
	 Contact mechanical engineers, suppliers and manufacturers to clarify installation instructions.
	 Identify and solve problems, such as correcting repairs done by inexperienced homeowners.
	 Determine the most cost-effective way to use materials and supplies.
	 Find and interpret specific clauses in construction contracts or service agreements.
	 Decide how to install large and heavy plumbing systems with the available personnel and equipment.
	 Resolve a backflow problem with a sewer.

• Work with other tradespersons on a job site to plan work schedules.

Computer Use

- Use word processing software, for example, to write letters to customers.
- Use computer-assisted design, manufacturing and machining equipment.

Continuous Learning



• Take technical courses to learn about new products, procedures and equipment.

• Keep up-to-date with changes to the Canadian Plumbing Code.

- Increase skills and knowledge on the job.
- Attend health and safety training.
- Read trade magazines to stay current.

teading • Document Use • Numeracy • Writing • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy Vriting • Oral Communication • Working with Others • Thinking • Computer Use • Oral Communication • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing Vorking with Others • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Numeracy • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document Use • Writing • Oral Communication • Working with Others • Thinking • Computer Use • Continuous Learning • Reading • Document

For more information on Essential Skills and related resources, visit

For more information on the Interprovincial Standards Red Seal Program, visit

You can order this publication by contacting:

Publications Services Human Resources and Skills Development Canada 140 Promenade du Portage Phase IV, 12th Floor Gatineau, Quebec K1A 0J9

Fax: 819-953-7260 Online: http://www.hrsdc.gc.ca/publications

hrsdc.gc.ca/essentialskills

www.red-seal.ca

This document is available on demand in alternative formats (Large Print, Braille, Audio Cassette, Audio CD, e-Text Diskette, e-Text CD, or DAISY), by contacting 1 800 O Canada (1 800 622 6232). If you have a hearing or speech impairment and use a teletypewriter (TTY), call 1 800 926 9105.

© Her Majesty the Queen in Right of Canada, 2009

Paper Cat. No.: HS18-10/1-2009E ISBN: 978-1-100-13815-2

PDF Cat. No.: HS18-10/1-2009E-PDF ISBN: 978-1-100-13834-3