



Construction Craft Labourer On-the-Job Training Guide

2024

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Recognition:

To promote transparency and consistency, portions of this document has been adapted from the 2015 Construction Craft Labourer National Occupational Analysis (Employment and Social Development Canada).

A complete version of the Occupational Standard can be found at www.red-seal.ca

STRUCTURE OF THE ON-THE-JOB TRAINING GUIDE

To facilitate understanding of the occupation, this on-the-job training guide contains the following sections:

Task Matrix: a chart which outlines graphically the major work activities, tasks and sub-tasks of this standard detailing the essential skills and the level of training where the content is covered.

Block (NOA): the largest division within the standard that is comprised of a distinct set of trade activities.

Task: distinct actions that describe the activities within a major work activity.

Sub-task: distinct actions that describe the activities within a task.

On-the-Job and In-school Training Content for the Construction Craft Labourer Trade: a chart which outlines on-the-job examples for apprentices to achieve relevant work experience to prepare for topics of technical training.

TRAINING REQUIREMENTS FOR THE CONSTRUCTION CRAFT LABOURER TRADE

To graduate from each level of the apprenticeship program, an apprentice must successfully complete the required technical training and compile enough on-the-job experience to total at least 1200 hours each year. Total trade time required is 2400 hours and at least 2 years in the trade.

Journeyman to apprentice ratio for this trade is: 1:2

The information contained in this document serves as a guide for employers and apprentices. Apprenticeship training is mutually beneficial to both employer and apprentice. The employer's investment in training apprentice's results in skilled and certified workers. The document summarizes the tasks to be covered by the apprentice during their on-the-job portion of apprenticeship training. An apprentice spends approximately 85% of their apprenticeship term training on-the-job.

It is the employer's or journeyman's responsibility to supervise an apprentice's practical skills development until a satisfactory level of proficiency has been reached.

EMPLOYER TRAINING RESPONSIBILITY

- promote a safety-conscious workplace
- provide mentored, hands-on practice in the use of tools and equipment
- demonstrate procedures relevant to the installation of drainage, waste and vent systems; potable water distribution; fixtures and appliances; hydronic heating and cooling systems; specialty piping; pumps and private sewage disposal systems
- provide the opportunity for apprentices to service the above systems and products
- further the apprentice's ability to interpret technical drawings
- ensure that the apprentice can evaluate the end product.

Employers should make every effort to expose their apprentices to work experience in as many areas of the trade as possible.

In the On-the-Job Training Guide, in-school instruction is listed first; on-the-job suggestions to help employers assist the apprentice to prepare for in-school training are listed next.

The content of the training components is subject to change without notice.

Entrance Requirements for Apprenticeship Training

Your grade twelve transcript (with no modified classes) or GED 12 is your guarantee that you meet the educational entrance requirements for apprenticeship in Saskatchewan. In fact, employers prefer and recommend apprentices who have completed high school. This ensures the individual has all of the necessary skills required to successfully complete the apprenticeship program, and receive journeyman certification.

Individuals with "modified" or "general" classes in math or science do not meet our entry requirements. These individuals are required to take an entrance assessment prescribed by the SATCC.

English is the language of instruction in all apprenticeship programs and is the common language for business in Saskatchewan. Before admission, all apprentices and/or “upgraders” must be able to understand and communicate in the English language. Applicants whose first language is not English must have a minimum Canadian Language Benchmark Assessment of six (CLB6).

Note: A CLB assessment is valid for a one-year period from date of issue.

Designated Trade Name	Math Credit at the Indicated Grade Level❶	Science Credit at Grade Level
Construction Craft Labourer	Grade 10	Grade 10
<p>❶ - (One of the following) WA – Workplace and Apprenticeship; or F – Foundations; or P – Pre-calculus, or a Math at the indicated grade level (Modified and General Math credits are not acceptable.).</p> <p>*Applicants who have graduated in advance of 2015-2016, or who do not have access to the revised Science curricula will require a Science at the minimum grade level indicated by trade.</p> <p>For information about high school curriculum, including Math and Science course names, please see: http://www.curriculum.gov.sk.ca/#</p> <p style="text-align: center;">Individuals not meeting the entrance requirements will be subject to an assessment and any required training</p>		

CONSTRUCTION CRAFT LABOURER

TASK MATRIX

This chart outlines the major work activities, tasks and sub-tasks from the 2015 Construction Craft Labourer National Occupational Standard. Each sub-task details the corresponding essential skill and level of training where the content is covered. *

* Sub Tasks with numbers in the boxes is where the content will be delivered in training.

A – Common occupational skills

23%

Task A-1 Performs safety-related functions	1.01 Maintains safe work environment 1, 2	1.02 Uses personal protective equipment (PPE) and safety equipment 1, 2			
Task A-2 Uses and maintains tools and equipment	2.01 Maintains hand, power and powder-actuated tools 1	2.02 Uses rigging and hoisting equipment 1	2.03 Uses stationary equipment 1	2.04 Uses sandblaster 1	2.05 Uses mobile equipment 1
Task A-3 Organizes work	3.01 Uses documentation 1, 2	3.02 Communicates with others 1, 2			
Task A-4 Performs routine trade activities	4.01 Handles construction materials 1	4.02 Performs site housekeeping and maintenance 1	4.03 Erects hoarding and enclosures 1	4.04 Installs membranes 1	4.05 Installs insulating materials 1
	4.06 Establishes grades and elevations 1, 2	4.07 Performs traffic control 1	4.08 Installs permanent and temporary fencing 1		

B – Site work

19%

Task B-5 Prepares site	5.01 Clears site 1, 2	5.02 Sets up site facilities 1, 2	5.03 Assists in installation of pilings 1	5.04 Builds access and egress roads 1	
Task B-6 Performs ground work	6.01 Locates underground utilities 1, 2	6.02 Performs excavation 1, 2	6.03 Installs excavation shoring 1, 2	6.04 Performs backfill and compaction 1, 2	
Task B-7 Services site	7.01 Addresses suspected hazardous materials 1	7.02 Controls water runoff 1	7.03 Sets up temporary lighting 1	7.04 Sets up generators and compressors 1	7.05 Performs site restoration 1
	7.06 Manages tool crib 1	7.07 Recycles materials 1			
Task B-8 Performs basic demolition	8.01 Cuts material 1, 2	8.02 Dismantles existing structures and components 1, 2			
Task B-9 Performs safety watches	9.01 Monitors hazardous gases 1	9.02 Performs watch 1	9.03 Performs bottle watch 1	9.04 Performs confined space watch 1	9.05 Monitors heaters 1

C – Scaffolding and access equipment

9%

Task C-10 Uses scaffolding	10.01 Erects scaffolding 1, 2	10.02 Inspects scaffolding 1, 2	10.03 Maintains scaffolding 1, 2	10.04 Tends to scaffold erectors 1,2	10.05 Dismantles scaffolding 1, 2
Task C-11 Uses access equipment	11.01 Uses access ladders 1	11.02 Uses power elevated work platforms 1	11.03 Inspects access equipment 1	11.04 Maintains access equipment 1	

D – Concrete work

18%

Task D-12 Forms concrete	12.01 Installs formwork and shoring 1, 2	12.02 Inspects assembled formwork 1, 2	12.03 Dismantles formwork 1, 2	12.04 Maintains formwork 1, 2	
Task D-13 Places and finishes concrete	13.01 Mixes concrete 1, 2	13.02 Transports concrete on site 1, 2	13.03 Places concrete 1, 2	13.04 Installs components in concrete 1, 2	13.05 Assist with finishing concrete 1, 2
	13.06 Controls concrete curing process 1, 2				
Task D-14 Modifies concrete	14.01 Drills/cores concrete 2	14.02 Prepares concrete for resurfacing 2	14.03 Performs concrete repair and refinishing 2	14.04 Creates expansion, control and isolation joints 2	

D-15 Places/applies grout, epoxies and caulking	15.01 Places/applies grout	15.02 places/applies epoxies	15.03 Applies caulking
	2	2	2

E – Masonry work

10%

Task E-16 Prepares for masonry work	16.01 Sets up masonry materials	16.02 Mixes mortars and grouts			
	2	2			
Task E-17 Tends to bricklayers	17.01 Cuts masonry units	17.02 Installs lintels and rough bucks	17.03 Washes masonry units	17.04 Installs refractory materials	17.05 Uses fireproof materials
	2	2	2	2	2

F – Utilities and pipeline

11%

Task F-18 Installs utility piping for water and sewer installations	18.01 Installs pipe for water systems	18.02 Installs pipe for sewer systems	18.03 Installs catch basins and manholes	18.04 Modifies existing pipe	18.05 Assists with testing water and sewer lines
	1, 2	1, 2	1, 2	1, 2	1, 2
Task F-19 Performs pipeline activities	19.01 Constructs right of ways	19.02 Performs pipeline installations	19.03 Performs pipeline maintenance		
	2	2	2		

G – Roadwork

10%

Task G-20 Install road surface materials

20.01 Place road surface materials

1

20.02 Repairs road surfaces

1

Task G-21 Installs roadwork components

21.01 Installs barriers

1

21.02 Installs road markings and signs

1

21.03 Installs culverts

1



TRAINING PROFILE CHART

This Training Profile Chart represents Saskatchewan Apprenticeship and Trade Certification Commission (SATCC) technical training at the topic level.

Level One	Transcript Code	Hours
Safe Work Practices	CCL-100	12
Occupational Skills	CCL-110	10
Tools and Equipment	CCL-120	12
Routine Trade Activities	CCL-130	12
Site Work	CCL-140	22
Scaffolding and Access Equipment	CCL-150	12
Concrete Work	CCL-160	22
Utilities and Pipeline Tasks	CCL-170	12
Roadwork	CCL-180	6
		120

Level Two	Transcript Code	Hours
Safe Work Practices	CCL-200	6
Occupational Skills	CCL-210	14
Grades and Elevations	CCL-220	12
Site Work	CCL-230	22
Scaffolding	CCL-240	16
Concrete Work	CCL-250	24
Masonry Work	CCL-260	12
Utilities and Pipeline Tasks	CCL-270	14
		120

ON-THE-JOB AND IN-SCHOOL TRAINING

CONTENT FOR THE CONSTRUCTION CRAFT

LABOURER TRADE

This chart outlines on-the-job examples for apprentices to achieve relevant work experience to prepare for the topics of technical training. Topics of technical training are provided with the associated learning outcomes.

Level One	4 weeks	120 hours
<p>Safe Work Practices</p> <ul style="list-style-type: none"> Describe workplace hazards Identify OHS regulations Describe fall protection systems and equipment Describe personal protective equipment Describe fire safety procedures Describes procedures for performing a safety watch <p>Mentors can assist the apprentice to prepare for this section of technical training by:</p> <ul style="list-style-type: none"> Exposing apprentices to OH&S, WHMIS (GHS), and SDS documents Providing hands-on experience with safety manuals, policies, and procedures Providing opportunities for training and certification requirements such as fall protection, working at heights, and confined space Exposing apprentices to emergency procedures and muster area procedures Providing opportunities to dispose and recycle materials Explaining the types and characteristics of gases, their detection, and permissible exposure levels Describing the types of compressed gases that need to be monitored and their gauge readings. Providing opportunities for training and certification required to perform confined space watch and bottle watch Explaining and demonstrating to apprentices what defines a confined space, emergency rescue and evacuation plans, equipment, and procedures Allowing apprentices to communicate with hand signals, rope signals, and radios. Explaining the types of heaters and fire watch procedures 		12 hours
<p>Occupational Skills</p> <ul style="list-style-type: none"> Identify construction documents and specifications Describe various methods of communication Use basic trade math <p>Mentors can assist the apprentice to prepare for this section of technical training by:</p> <ul style="list-style-type: none"> Exposing apprentices to types of documentation such as work records, job hazard analysis (JHA), codes, and regulations Encouraging apprentices to work with safety documentation such as monitoring sheets for safety 		10 hours

- *watches, safe work permits, and job procedure manuals*
- *Working with apprentices to understand the sequence of construction tasks.*
- *Explaining the various jobsite roles and responsibilities*
- *Providing the opportunity to work with different formats of documents such as paper and digital*
- *Allowing apprentices to communicate orally, in writing, digitally, electronically, and with international hand signals*
- *Providing opportunities to use trade math such as calculating area and volume*

Tools and Equipment

12 hours

- Use hand tools
- Use power tools
- Use powder-actuated tools
- Describe the use of rigging and hoisting equipment
- Describe the use of portable equipment
- Describe the use of mobile equipment
- Describe the use of sand blasters
- Describe the use of packers

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Supervising the use and care for tools and equipment*
- *Explaining and demonstrating the use and care of common hand tools such as pry bars, chisels, rakes, and pliers*
- *Describing and demonstrating the use and care of common power tools such as drills and saws*
- *Reviewing and demonstrating the safe use and care of powder-actuated tools*
- *Explaining and demonstrating the safe use and care of rigging and hoisting equipment*
- *Describing and demonstrating the safe use and care of portable equipment such as heaters*
- *Reviewing and demonstrating the safe use and care of mobile equipment such as sandblasters and packers*
- *Exposing the apprentice to the storage and inventory of tools, equipment, supplies, and consumables*
- *Describing to the apprentice the security requirements for a tool crib*

Routine Trade Activities

12 hours

- Describe procedures for installing fencing
- Describe procedures to erect and dismantle hoarding
- Describe procedures to control traffic
- Describe procedures to establish grades and elevations
- Describe methods to safely handle various materials
- Describe procedures for installing membranes
- Describe procedures for installing insulating materials

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Ensuring that apprentices understand cleaning procedures and the hazards associated with cleaning products*
- *Explaining company, site, and jurisdictional policies regarding hazardous materials such as oil, asbestos, lead, silica, and bio-hazards*
- *Demonstrating to apprentices the procedures for disposing and recycling materials*
- *Describing the uses of settling ponds*
- *Supervising the installation and maintenance of temporary lighting*
- *Supervising apprentices during the safe use of GFCI's*

- *Explaining the types of fuel used in generators and compressors, and the sizes and uses of generators and compressors*
- *Explaining and demonstrating ventilation requirements and start-up and shut-down procedures for generators and compressors*
- *Ensuring that apprentices can identify site conditions and areas to be protected prior to work being performed*
- *Allowing apprentices to protect areas using fencing*
- *Describing the activities that require additional protection such as controlled zones and shielding*
- *Allowing apprentices to protect additional areas with fencing and shielding*
- *Exposing apprentices to types of restoration activities such as replacing landscaping and removed material*
- *Allowing apprentices to assist in establishing grades and elevations*
- *Demonstrating the movement, storage, handling, maintenance, and cleaning of materials*
- *Describing the various types of membranes*
- *Providing the opportunity to install various types of membranes*
- *Describing the various types of insulating materials*
- *Providing the opportunity to install various types of insulating materials*
- *Providing opportunities for training and certification requirements for traffic control*

Site Work

22 hours

- Describe procedures for preparing a jobsite
- Describe procedures for performing ground work
- Describe demolition procedures
- Describe excavation and shoring practices
- Describe procedures for servicing a jobsite

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Reviewing with apprentices the safe work permits and environmental requirements for a jobsite*
- *Determining work site and set-up requirements such as locations of temporary buildings and fencing*
- *Identifying with apprentice's areas to protect prior to work being performed*
- *Locating and identifying with apprentices pre-existing site conditions and existing utilities*
- *Explaining the colour codes of flags or stakes for various hazards and utilities*
- *Reviewing the types of material to be cut and cutting tools and techniques*
- *Exposing apprentices to dismantling techniques, hazards, tools, and equipment*
- *Explaining and demonstrating the operating methods of oxy-acetylene and propane torches such as selecting tip types, setting regulators and igniting material*
- *Supervising good housekeeping practices*
- *Describing the safety requirements for trenches, including depth and angle of repose*
- *Demonstrating the proper use of tools and equipment for excavation, backfilling, and compaction*
- *Reviewing the safety requirements for shoring and shielding requirements*
- *Explaining how to locate and install pilings*
- *Identifying with apprentice various soil types and their characteristics*
- *Demonstrating types of machinery such as pile drivers, pile drillers and cranes*
- *Describing the types of pilings such as concrete, H-beam, sheet, and steel*
- *Explaining the rigging and hoisting procedures for lifting shoring*

Scaffolding and Access Equipment

12 hours

- Use scaffolding
- Describe the use of access equipment

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Introducing apprentices to types of scaffolding such as systems, baker's, frame and brace, mast climber system, tube and clamp, mobile, and stationary*
- *Exposing apprentices brace and platform sizes and types, and scaffolding components such as clamps (swivel and right-angle), hardware, outriggers, and fasteners*
- *Describing overhang limitations when working with planking*
- *Ensuring that apprentices understand tagging requirements for scaffolding and access equipment*
- *Explaining the safety inspection requirements for scaffolding and access equipment*
- *Supervising knot tying techniques and allowing them opportunities to practise*
- *Exposing the apprentice to maintenance of scaffolding and access equipment*
- *Providing opportunities to work with types of ladders such as extension, platform and stepladder*
- *Demonstrating safe ladder techniques such as placement, 3-point contact, overhang, tie-off, and kick plates*
- *Describing the limitations and hazards of using ladders*
- *Explaining the types of power-elevated work platforms such as mast climber systems, scissor lifts, boom lifts and swing stages*
- *Providing opportunities regarding training and certification requirements for scaffolding and access equipment*

Concrete Work

22 hours

- Install concrete formwork
- Perform the placement and finishing of concrete

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Exposing apprentices to types of shoring, such as fixed, telescoping and scaffold*
- *Demonstrating the use of shoring hardware such as anchor pins, spring clips, and base plates*
- *Describing the shoring spacing, ratings, and regulations*
- *Allowing the apprentice to work with types of forms such as steel, handset (loose), fly table, fly form and void (for openings)*
- *Exposing apprentices to types of formwork components such as bracing, shoring, falsework, strongbacks, turnbuckles, walers, clamps, wedges, ties, and clips*
- *Explaining the ratings and applications of types of formwork*
- *Ensuring that apprentices know the locations requiring inspection such as steps, bulkheads, and corner*
- *Identifying the dismantling procedures and sequences of formwork*
- *Describing the types of concrete and their uses*
- *Explaining the strengths of concrete, slump, and pour rates*
- *Explaining concrete aggregates*
- *Describing to apprentices concrete additives such as plasticizers, accelerators, and retarders*
- *Allowing apprentices to work with components such as dowels, safety lines, keyways, anchor bolts, and steel plates*
- *Demonstrating component installation methods for freshly placed concrete such as wet dowelling and installing anchor bolts*
- *Providing the opportunity for installing components in cured concrete, using methods such as drilling, chipping, and sawing*
- *Supervising transporting and placing concrete*
- *Providing the opportunity to work with equipment such as line pumps and boom pumps.*
- *Describing surface preparation requirements*
- *Explaining the types of finishes such as hard float, broomed, polished, exposed aggregate, and burn finish*
- *Demonstrating finishing processes such as floating, trowelling and edging*
- *Explaining the timing for finishing processes*
- *Describing how weather and environmental conditions such as heat, cold, exhaust fumes, and dust may affect the curing process*

- *Explaining the rate of curing and which factors can affect the rate.*

Utilities and Pipeline

12 hours

- Describe procedures for installing utility piping

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Providing opportunities to apprentices to transport, rig, hoist, and store various types of pipe and associated components.*
- *Exposing apprentices to safe work practices and excavation permit requirements.*
- *Explaining soil conditions, types of soils, and types of sub-grades*
- *Describing the various types of pipe and their uses.*
- *Describing the various associated components such as manholes, thrust blocks, catch basins, valves, and tees, their characteristics and their uses*
- *Explaining the process of grading and connecting the various types of pipe.*
- *Working with apprentices to install various types of pipe and associated components.*
- *Identifying the types of material used for backfill such as gravel, sand and fill-crete.*
- *Reviewing the effect of moisture content on compaction and compaction rates.*
- *Supervising the use water during compaction.*
- *Explaining the types and thicknesses of finished road surfaces.*
- *Describing the process for reclaiming contaminated soils.*

Road Work

6 hours

- Describe procedures for installing paving materials
- Describe procedures for installing roadwork components

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Describing the related hazards such as traffic and material temperatures*
- *Exposing apprentices to the various types of chemical additives used in roadwork*
- *Explaining how the locations of manholes and catch basins are determined*
- *Describing how to determine the amount of paving materials to remove when repairing*
- *Allowing apprentices to work with the various types of road surface materials such as concrete, asphalt, interlocking brick, and chip seal*
- *Explaining the various types of sub-bases*
- *Allowing apprentices to participate in sidewalk and pedestrian walkway construction*

Level Two

4 weeks

120 hours

Safe Work Practices

6 hours

- Describe workplace hazards
- Describe the purpose of safety committees

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Explaining the transportation of dangerous goods (TDG) procedures*
 - *Providing opportunities for training and certification requirements such as TDG*
 - *Exposing apprentices to OH&S, WHMIS (GHS), and SDS documents*
 - *Supervising the use of safety manuals, policies, and procedures*
 - *Providing opportunities to the apprentice for training and certification requirements such as fall protection, working at heights, and confined space*
 - *Exposing apprentices to emergency procedures and muster area procedures*
 - *Explaining the types and characteristics of gases, their detection, and permissible exposure levels*
 - *Supervising the communication with hand signals, rope signals, and radios*
-

Occupational Skills

14 hours

- Interpret construction documents and specifications
- Use basic trade math

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Exposing apprentices to types of documentation such as blueprints and specifications*
 - *Working with apprentices to predict and prepare for the sequence of construction tasks*
 - *Providing the opportunity to work with different formats of documents such as paper and digital*
 - *Supervising oral, written, digital, electronic, and international hand signal communication*
 - *Providing opportunities to use trade math such as ratios, percent, and estimating materials*
-

Grades and Elevations

12 hours

- Establish grades and elevations

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Allowing apprentices to assist in establishing grades and elevations*
 - *Supervising the use and care of instruments, tools, and equipment needed for establishing grades and elevations*
-

Site Work

22 hours

- Describe procedures for preparing a jobsite
- Describe procedures for performing groundwork
- Describe demolition procedures

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Reviewing the safe work permits and environmental requirements for a jobsite*
 - *Determining work site and set-up requirements such as locations of temporary buildings and fencing*
 - *Identifying with apprentice's areas to protect prior to work being performed*
 - *Locating and identifying pre-existing site conditions and existing utilities*
 - *Explaining the colour codes of flags or stakes for various hazards and utilities*
 - *Reviewing the types of material to be cut and cutting tools and techniques*
 - *Exposing apprentices to dismantling techniques, hazards, tools, and equipment*
-

- Supervising the operation of oxy-acetylene and propane torches such as selecting tip types, setting regulators and igniting material.
- Identifying the various soil types and their characteristics.

Scaffolding

16 hours

- Use Scaffolding

Mentors can assist the apprentice to prepare for this section of technical training by:

- Introducing the types of scaffolding such as baker's, frame and brace, mast climber system, tube and clamp, mobile, and stationary
- Exposing apprentices to brace and platform sizes and types, and scaffolding components such as clamps (swivel and right-angle), hardware, outriggers, and fasteners
- Describing overhang limitations when working with planking
- Ensuring that apprentices understand tagging requirements for scaffolding and access equipment
- Supervising the safety inspection requirements for scaffolding and access equipment
- Demonstrating knot tying techniques and allowing them opportunities to practise
- Exposing apprentices to maintenance of scaffolding and access equipment
- Providing opportunities to train and certify

Concrete Work

24 hours

- Install concrete formwork
- Perform the placement and finishing of concrete
- Describe concrete maintenance and repair
- Install grout, epoxies and caulking

Mentors can assist the apprentice to prepare for this section of technical training by:

- Allowing apprentices to work with types of forms and their components
- Explaining the ratings and applications of types of formwork
- Allowing apprentices to inspect steps, bulkheads, and corners
- Allowing apprentices to work with concrete additives
- Supervising the work with components such as dowels, safety lines, keyways, anchor bolts, and steel plates
- Providing opportunities to install components in wet and cured concrete
- Supervising the work with equipment such as line pumps and boom pumps
- Providing opportunities to apprentices to finish concrete
- Describing wet and dry drilling/coring procedures
- Explaining products and chemical agents used for repair and refinishing such as bonding agents, epoxies, grout, patching materials and acids
- Identifying deficiencies in concrete that can be repaired
- Explaining the reasons for installing concrete joints
- Describing types of joints such as expansion, control and isolation
- Demonstrating the depth and spacing of joints to be made
- Explaining the types of cuts such as green, wet, and dry
- Explaining finishing methods such as painting, epoxy coating, parging, acid staining, and acid etching
- Describing the types of grouts and their applications and hazards
- Explaining the types of epoxies and their applications and hazards
- Describing the types of caulking and their applications and hazards
- Explain concrete repair, saw cut detail for correct repair, and CSP profile for repair materials being used

Masonry Work

12 hours

- Describe procedures for masonry work preparations
- Describe procedures for assisting bricklayers

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Explaining the health and environmental concerns of using masonry units, grouts, epoxies, cleaning agents, and other associated products*
- *Introducing apprentices to various materials and products required for masonry tasks*
- *Supervising the storage, transport, and placement of masonry materials*
- *Introducing apprentices to the various types of mortars and grouts*
- *Explaining the types of masonry units such as bricks, refractory materials, tiles and blocks*
- *Introducing the types of brick such as keyed, insulating, and fire*
- *Introducing the types of block such as acoustical, veneer, bullnose, and rough-faced*
- *Explaining the cutting procedures for masonry units and related safety requirements*
- *Describing to apprentices the various types of lintels such as channel iron, wood, pre-cast, and poured concrete*
- *Supervising the install of rough bucks such as openings for windows and door frames*
- *Explaining to apprentices the various cleaning agents used such as muriatic acid and water*
- *Exposing apprentices to the various cleaning methods such as removing mortar, excess efflorescence, epoxy, and grouts*
- *Introducing the types of refractory material such as bricks, gunnite, and ram*
- *Explain the locations requiring refractory materials such as boilers, furnaces, and kilns*
- *Introducing apprentices to mortars used in refractory applications*
- *Describing the hazards and precautions related to refractory materials and associated materials*
- *Introducing the types of fireproofing materials such as mineral wool, caulking, and cement-like materials*
- *Explain the applications for fireproofing materials such as surface penetrations, and protecting beams, columns, and walls*

Utilities and Pipeline

14 hours

- Describe procedures for installing utility piping
- Describe pipeline right of ways and installation
- Describe pipeline maintenance

Mentors can assist the apprentice to prepare for this section of technical training by:

- *Providing opportunities to transport, rig, hoist, and store various types of pipe and associated components*
- *Exposing apprentices to safe work practices and excavation permit requirements*
- *Supervising the installation of various types of pipe and associated components*
- *Allowing the backfill and compaction of piping installations*
- *Explaining the calculations involved in determining finished grade and depth of excavations*
- *Allowing apprentices to participate in reclaiming contaminated soils*

Consider apprenticeship training as an investment in the future of your company and in the future of your workforce. Ultimately, skilled and certified workers increase your bottom line.

Get involved in the apprenticeship training system. Your commitment to training helps to maintain the integrity of the trade.

Do you have employees who have been working in the trade for a number of years but don't have trade certification? Contact your local apprenticeship office for details on how they might obtain the certification they need.

Saskatchewan Apprenticeship & Trade Certification Commission

2140 Hamilton St Regina SK S4P 2E3

Tel: (306) 787-2444

Fax: (306) 787-5105

Toll Free: 1-877-363-0536

web site: www.saskapprenticeship.ca

District Offices

Estevan (306) 637-4930

La Ronge (306) 425-4385

Moose Jaw (306) 694-3735

North Battleford (306) 446-7409

Prince Albert (306) 953-2632

Saskatoon (306) 933-8476

Swift Current (306) 778-8945

Yorkton (306) 786-1394