

# Educator Resource Guide



Construction Sector: Architectural Glass and Metal Technician Brick and Stone Mason Carpenter (general) Cement Mason Cement or Precast(Concrete) Finisher Concrete Pump Operator Construction Boilermaker Construction Craft Worker Construction Millwright Drywall Acoustic & Lathing Applicator Drywall Finisher and Plasterer Electrician (Construction & Maintenance) Electrcian (Domestic & Rural) Exterior Insulated Finishing Systems Mechanic Floor Covering Installer Hazardous Materials Worker Heat and Frost Insulator Heavy Equipment Operator Hoisting Engineer Ironworker Native Residential Construction Worker Painter/Decorator Plumber Powerline Technician Precast Concrete Erector Refractory Mason Refrigeration and AC Mechanic Reinforcing Rodworker Residential (Low Rise) Sheet Metal Installer Residential Air Conditioning System Mechanic (Branch 2) Restoration Mason Roofer Sheet Metal Worker Sprinkler and Fire Protection Installer Steamfitter Terrazzo Tile and Marble Setter Bearings Mechanic Blacksmith Cabinetmaker CNC Programmer Composite Structures Technician Die Designer Draftsperson – Mechanical



Draftsperson - Plastic Mould Designer Draftsperson - Tooling and Die Design Electric Motor Systems Technician Electrical Control MachingBuilder Elevating Devices Mechanic Entertainment Industry Power ilities Technician Fitte -Assembler (Motor Assembly) Gas Technician Facilities dust Recruitment, Resou (Filter) Mould Designer Syster and Prism Mould Maker sources, Machine Mechanic Pattern Maker Precision Metal Fabricator P Manufacturing Process Operator: Power Process Operator: Refinery Chemical & Liquid Process Operator: Wood Products Pump Systems Installer Railway Car Technician Relay & Instrumentation Technician Roll Grinder/Turner Saw Filer/Filter Ski Lift Mechanic Surface Blaster Tool & Culter Grinder Tool & Die Maker Tool and Gauge Inspector Tool/Tooling Maker Tractor-Trailer Commercial Driver Water Well Driller Welder Aboriginal Child Development Practitioner Agriculture - Fruit Grower Agriculture-Dairy Herdsperson Agriculture-Swine Herdsperson Appliance Service Technician Arborist Baker Baker-Patissier Bicycle Mechanic Chef Child & Youth Worker Child Development Practitioner Cook Cook Assistant Developmental Services Worker Educational Assistant Electronics Service Technician Gemsetter-Goldsmith Hairstylist Hardware Lumber Retailer Horse Groomer Horse Harness Maker Horticultural Technician Information Technology - Contact Centre Customer Care Agent Information Technology-Contact Centre Inside Sales Agent Information Technology-Contact Centre Technical Support Agent Information Technology Hardware Technician Information Technology Network Technician Institutional Cook Microelectronics Manufacturer Native Clothing & Craft Artisan Network Cabling Specialist Parts Technician Pool & Hot Tub/Spa Installer Pool & Hot Tub/Spa Service Technician Retail Meat Cutter Saddlery Special Events Coordinator Wooden Boat Rebuilder/Repairer Agricultural Equipment Technician Alignment and Brakes Technician Auto Body Repairer Automotive Electronic Accessory Technician Automotive Glass Technician Automotive Painter Automotive Service Technician Heavy-Duty Equipment Technician Marine Engine Technician Motive Power Machinist Motorcycle Technician Powered Lift Truck Te Recreational Vehicle Technician Small Engine Technician Tire Wheel & Rim Mechanic Trav Technician Truck and Coach Technician TruckTrailer Service Technician Turf Equipment Te

### Introduction

Many studies indicate Ontario will face a shortage of skilled tradespeople in the near-future. Students are often unaware of the exciting opportunities that skilled trade careers offer and overlook apprenticeship as a viable post-secondary pathway. The Ontario Ministry of Education's **Creating Pathways to Success** policy document stresses the importance of the apprenticeship pathway and emphasizes that this pathway, like college, university and direct entry into the work-place, is a valued and respected post-secondary destination.

The materials in this package have been developed by www.apprenticesearch.com (see below), a not-for-profit website committed to both increasing public awareness about apprenticeship and to connecting employers and jobseekers across the province. These activities provide a teacher-friendly and easy-to-use introduction to the world of skilled trades and apprenticeship.

Although targeted at grade 10 Career Studies teachers, these activities can be used by teachers of grades 7-12 classes. Technology teachers, co-op teachers, guidance counsellors and senior elementary teachers are encouraged to make use of this package. Many students will find the information helpful as they complete their **Individual Pathway Plans** and formulate personal career-related goals.

Since a large number of students learn best through visual or hands-on activities, teachers are encouraged to make use of the variety of audio-visual and internet-based resources listed in this package. This list will be updated on a regular basis on a special web page available on www.apprenticesearch.com. The website also offers a great deal of useful information, including a semi-annual report of trades "in demand" as posted on the site's interactive job board.

**apprenticesearch.com** is a province-wide online skilled trades resource, offering information about careers in the skilled trades including educational requirements, available training, and financial incentives. The website also maintains a FREE job matching database for both employers and apprentices. Funded by Employment Ontario, the site is overseen by the Halton Industry Education Council: 5230 South Service Road

Burlington, Ontario L7L 5K2 1-877-905-2748 admin@apprenticesearch.com



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#### **Additional Resources:**

Apprenticeship in Ontario Chart	page 11
Skilled Trades and Apprenticeship Fact Sheet	page 12
Electronic and Web-based Activities and Resources	pages 13 & 14

#### Activity #1: Skilled Trade or Not?

**Teacher note:** Skilled trades should be introduced with visuals showing a variety of tradespeople – see resources and links on pages 13 and 14. The apprenticesearch.com student prezi (http://prezi.com/xbl8rzokjrr-/apprenticesearch-student-prezi-2012/) can be used. If an "ice breaker" is needed, see link to Skilled Trades Bingo game. Some teachers may also wish to use the Activity 4 Trivia Quiz as a before and after gauge of student knowledge.

**Instruction for students:** Work with a partner to sort the list of occupations below into two columns, based on your collective "general knowledge:"

Alternatively, create and provide students with a laminated deck of occupation cards that they can work in pairs to sort.

#### **Skilled Trades Occupations**

#### Occupations that are not Skilled Trades


#### **Occupations:**

firefighterpsychiatristoscientistsecurity guardoanimal trainerdressmakerofashion designerwaiterahairstylistpool and hot tub installeramassage therapistsecretaryaflight attendantcashieraroofercarpenteratruck and coach technicianframeraarchitectauto service technicianasheet metal workernurseahorticultural techniciansalespersonaphotographerteachera	cook clerk electrician actor arborist police officer plumber drywall finisher engineer film editor refrigeration and ac mechanic bartender dental assistant	brick and stone mason steamfitter child development practitioner telemarketer restaurant hostess cabinetmaker baker painter-decorator general machinist tool and die maker industrial mechanic millwright motorcycle mechanic welder
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#### **Discussion:**

1. What do skilled trades occupations have in common? (Most of them are hands-on, they require a definite skill set, often require problem-solving skills, and can best be learned through apprenticeship).

2. Give each student a piece of paper with a different skilled trade on it that they show to others, but do not see themselves. Students can ask classmates three yes/no questions in an attempt to identify their skilled trade.

3. Looking at the list of skilled trades, what broad categories do you see? Introduce the four sectors: construction, motive power, industrial, and service.

4. Distribute individual copies of the "Apprenticeship in Ontario" chart (page 11). Review the four sectors. Assign students to highlight five trades they are unfamiliar with and provide a brief description of each. Students could also be asked to select and/or rank 3 trades they could themselves potentially pursue.

#### Activity #2: The Importance of Skilled Trades

**Teacher note:** Initial discussion could be accompanied by photos of wide variety of tradespeople - see apprenticesearch prezi and oyap.com "slide show," both listed in the resource section.

**Instructions for Students:** Skilled tradespeople help build, fix or maintain so many of the things we often take for granted. What tradesperson(s) would be involved with each of the following tasks or activities? Use the "Apprenticeship in Ontario" chart (page 11) for a list of skilled trades.

1. Changing hairstyle in a salon or barber shop:	
2. Installing new brake pads for a car:	
3. Rewiring electric circuits in a house:	
4. Building a custom dresser:	
5. Fixing the air conditioning in an apartment building:	
6. Renovating a basement:	
7. Fixing a refrigerator:	
8. Getting a bike tuned up:	
9. Preparing a gourmet meal in a restaurant:	
10. Replacing a leaky roof on a house:	
11. Baking a special birthday cake:	
12. Installing a new lock on an apartment door:	
13. Fixing the motor on a speedboat:	
14. Safely cutting down and removing old or diseased trees:	
15. Repairing an elevator in an office building:	
16. Installing an iron railing around your front steps:	
17. Repairing dents in a car after an accident:	
18. Laying a patio behind a house:	

Answers: 1. hairstylist, 2. auto service technician, 3. electrician, 4. cabinetmaker, 5. refrigeration and air conditioning mechanic, 6. drywall finisher and plasterer, 7. appliance service technician, 8. bicycle mechanic, 9. chet, 10. roofer, 11. baker, 12. locksmith, 13. small engine technician, 14. arborist, 15. elevating devices mechanic, 16. welder, 17. auto body repairer, 18. brick and stone mason

#### Activity #3: Skilled Trades and Apprenticeship Work Sheet

**Teacher note:** Provide each student with copies of the "Apprenticeship in Ontario" chart (see page 11) and the "Skilled Trades and Apprenticeship Fact Sheet" (see page 12) and let them use these resources to complete this work sheet.

1. List 5 trades that fall under each sector:

Construction	Industrial	Motive Power	Service

2. Make a list of **TEN compulsory trades**, using the "Apprenticeship in Ontario" chart:

3. What does it mean if a trade is designated a "Red Seal" trade?

4. Use the internet or print resources to answer each question: (*Teacher note:* students need to complete in a computer lab or as a homework assignment):

a. What are the prerequisites for a student interested in taking advantage of the OYAP program?

b. List **THREE** Ontario government-sponsored **pre-apprenticeship programs** offered presently or within the past year (see: http://www.apprenticesearch.com/Resources/NewsDetails?newsid=757)

Program	Location

c. List THREE Co-op Diploma Apprenticeship programs offered presently or within the past year at an Ontario community college (see: http://www.ontariocolleges.ca/FindProgram#)

Trade	College

#### Activity #4: Skilled Trades Myths and Reality – a Trivia Quiz

**Teacher note:** This quiz addresses some common myths. It can be played in a "game" format, with students divided into teams of 2-4 and scoring kept to determine the winners. It can also be used as a "before and after" gauge of student knowledge. Answers are provided on a separate page and can be used to initiate further discussion.

- 1. Most skilled trades require:
  - a. Minimum grade 10 education
  - b. High school diploma
  - c. Minimum grade 8 education
- 2. Before becoming qualified in a skilled trade, a person in training is called:
  - a. A journeyperson
  - b. A labourer
  - c. An apprentice
- 3. An apprenticeship will appeal to a person who:
  - a. Likes to earn while they learn
  - b. Likes sitting in lectures and writing essays
  - c. Likes spending money on tuition and books
- 4. Qualified skilled tradespeople earn:
  - a. The same as the average Canadian worker
  - b. About 4% more than the average Canadian worker
  - c. About 4% less than the average Canadian worker
- 5. Skilled trades are good occupations for:
  - a. Men who are strong enough to do a lot of physical work
  - b. People who like to get their hands dirty
  - c. Women and men who like to learn, apply skills, and see the results of their efforts
- 6. Career paths for skilled tradespeople can include:
  - a. Lots of options if they go to university
  - b. Owning their own business, teaching, management
  - c. Nothing beyond being qualified in their trade
- 7. Over the next 20 years, the demand for skilled trades is likely to:
  - a. Stay the same
  - b. Increase slightly
  - c. Increase more than most occupations
- 8. After completing training in a trade, an apprentice receives a:
  - a. Diploma
  - b. Degree
  - c. Certificate of Qualification

#### Answers to Skilled Trades Myths and Reality – a Trivia Quiz:

- 1. **b.** Almost all of the skilled trades in Ontario require an apprentice to have a high school diploma or its equivalent. Some construction trades and auto body trades require grade 10. The reality is that almost all employers are looking for a person with a high school diploma. Literacy and numeracy skills are important in all trades and especially ones like machinist, tool and die maker, electrician and auto service technician.
- c. A person starting out in the skilled trades is called an apprentice. After 2 to 5 years of successful on-the-job training and in-class learning, he/she can write an exam and become a qualified journeyperson.
- 3. **a.** The skilled trades are definitely for smart, hard-working people who like to apply their learning in real life situations. Apprenticeship is the oldest form of post-secondary education. Unlike university and college where you pay to learn, an apprentice is paid to learn. Your pay increases as your knowledge, skill and experience increase.
- Skilled trades careers provide income levels which are above the national average. According to Statistics Canada, tradespeople generally earn a salary almost 4% above the national average of all Canadian careers combined.
- 5. **c.** Yes, many of the skilled trades require a person to be in good physical condition. It is important to remember that technology and new techniques have greatly changed the nature of many trades. Today, an increasing amount of mechanical equipment is operated with the aid of computer software. Today, more trades- people work inside, using sophisticated computer equipment and technology. Many of today's skilled trades require more brains than brawn.
- 6. b. Skilled trades are not just jobs, but careers! There are many chances for advancement within a trade, from supervisory positions, to management positions, to teaching, and to owning your own business. The level of advancement is up to the capability and desire of the person.
- 7. **c.** Job demand in the skilled trades is increasing more than most occupations. We have a shortage of skilled trades' workers and the shortage is increasing. Many of our current skilled trade workers are reaching retirement age. We have not done a good job of encouraging young people to consider careers in the skilled trades. Many of the growing jobs for the next twenty years require people with strong technical knowledge and expertise.
- 8. **c.** 80 to 90% of an apprentice's learning is done on the job. 10 to 20% is done in a classroom. After completing all the required on-the-job and in-class training, an apprentice can write a provincial trade exam. If successful he/she will receive a Certificate of Qualification.



#### Activity #5: Success in the Trades: What do employers look for?

**Teacher note:** Although this activity targets skills related to skilled trade occupations, it can be broadened to include the essential skills and work habits detailed in the Ontario Skills Passport (see: www.skills.edu.gov.on.ca/ and http://skillszone.ca/)

Sort these qualities into **FOUR** categories: physical skills, intellectual skills, technology skills, "soft" skills eg. work habits or "people" skills.

Good literacy		Good imagination	Good imagination	
Talent for building and repairing		Reliable and on time	Reliable and on time	
Physically active		Able to learn new techno	Able to learn new technologies	
Enjoy being outdoors		Able to visualize the end-	Able to visualize the end-product	
Attention to detail		Able to work with others	Able to work with others	
Mathematical and analytical skills		Able to communicate clea	Able to communicate clearly and politely	
Good hand-eye coordination		Good physical coordination	Good physical coordination	
Motivated to learn and achieve		Problem-solving skills	Problem-solving skills	
Computer proficiency		Physical stamina	Physical stamina	
Ability to work with tools				
Physical Skills	Intellectual Chille	Technology Ckille		
r nysical okiiis	Intellectual Skills	Technology Skills	Soft Skills	
			Soft Skills	

#### Time to Explore: Skills for Specific Trades

1. Discuss with students why these skills are important.

2. Make a connection to resume and cover letter writing. Discuss with students how they can demonstrate some of these skills in the resumes and cover letters they will need for employment.

3. Have each student choose a skilled trade of interest and identify some of the specific skills needed for success in that trade. Students are encouraged to use <a href="http://www.apprenticesearch.com/AboutTrades">http://www.apprenticesearch.com/AboutTrades</a> and <a href="http://www.apprenticesearch.com/AboutTrades">www.apprenticesearch.com/AboutTrades</a> and <a href="http://www.apprenticesearch.com/AboutTrades">www.careercruising.com</a> as resources.



#### Activity #6: Skilled Trades Research Sheet

**Teacher note:** This would be an appropriate culminating activity for a short unit on skilled trades and apprenticeship. Teachers may wish to adapt this to a carousel activity in which students share pamphlets or displays illustrating their chosen trade with small groups of classmates.

Name of Trade:
Some useful links:
www.apprenticesearch.com www.careercruising.com Essential Skills - http://www10.hrsdc.gc.ca/es/English/all_profiles.aspx National Occupation Classification - http://www5.hrsdc.gc.ca/NOC/English/NOC/2011/QuickSearch.aspx?val65=* Employment trends from Ministry of Training Colleges and Universities - http://www.tcu.gov.on.ca/eng/labourmarket/ojf/findoccupation.asp
This trade is: <i>compulsory</i> (requires worker to be registered apprentice or licensed journeyperson) or <i>voluntary</i> (registration with MTCU not required)
What does a person do in this trade (duties, responsibilities, tasks)?
What are the skills that a person uses in this trade?
What training and education does a person need in this trade?
Where do people in this trade work?
What is the future employment outlook for this trade?
A person interested in this occupation might like these related occupations:
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# **APPRENTICESHIP IN ONTARIO**

**JANUARY 2013** 



# **Skilled Trades Chart**

roduced in partnership by the OYAP Coordir

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v.on.ca/eng/employmentontario/training

OWTABIO

http://www.skillsontario.com

www.apprenticesearch.com/Resources/PDF

nticesearch.com/AboutTrades

earch.com

#### **Skilled Trades and Apprenticeship Fact Sheet**

What are skilled trades? These are "hands-on" occupations requiring considerable skill and training. In Ontario, over 150 occupations have been designated as skilled trades.

What are some common examples of skilled trade occupations? Here are some of the best-known trades, divided by sector:

Contruction	Industrial	Motive Power	Service
Carpenter	Welder	Truck and Coach Technician	Network Cabling Specialist
Brick and Stone Mason	Industrial Mechanic Millwright	Automotive Service Technician	Cook
Plumber	Cabinetmaker	Small Engine Technician	Child Development Practitioner
Refrigeration and AC Mechanic	General Machinist	Truck-Trailer Service Technician	Chef
Roofer	Tool and Die Maker	Auto Body Repairer	Baker
Electrician	CNC Programmer	Motorcycle Technician	Hairstylist

What is apprenticeship? Apprenticeship is a formal training program in which an apprentice learns a skilled trade from a qualified tradesperson or journeyperson. In Ontario, the program is overseen by the Ministry of Training, Colleges and Universities (MTCU).

How long do apprenticeship programs take? Programs can range from two to five years, depending on the trade. Most of the training (80-90%) is on-the-job with a smaller component (10-20%) delivered in the classroom.

Must all tradespeople go through formal apprenticeships first? In Ontario, certain trades have been designated as; Compulsory trades - these trades, such as electrician, plumber, auto service technician and hairstylist, often have a safety component and need to be tightly regulated. To legally work in a compulsory trade, a person needs to be a fully qualified or a registered apprentice.

Voluntary (non-compulsory) trades - can also be learned through formal apprenticeship, but this is not a requirement.

Ontario Youth Apprenticeship Program (OYAP)	Permits a high school student to begin an apprenticeship through a co-op placement in a skilled trade
Pre-apprenticeship programs	Free, Ontario government-sponsored programs up to 52 weeks long which include an 8-12 week work placement
College diploma or certificate programs	Many Ontario community colleges offer programs related to skilled trades (costs vary)
Co-op diploma apprenticeship programs	Combines a college diploma program and apprenticeship training
Private career colleges	Many offer programs related to skilled trades (costs vary)
Union or industry-approved training	Some unions or trade associations offer training: intake can be selective and may take place only at certain points in the year
Find an interested employer (traditional route)	Jobseeker uses a variety of techniques to locate an employer who will hire him/her and register him/her as an apprentice with MTCU

How can someone become an apprentice and learn a skilled trade in Ontario? There are a number of paths that can lead to apprenticeship:



#### **Skilled Trades and Apprenticeship – Some Important Resources**



**apprenticesearch.com Student Prezi** – developed by www.apprenticesearch.com, this visual and entertaining presentation introduces students to basic facts concerning skilled trades and apprenticeship in Ontario. See: http://prezi.com/xbl8rzokjrr-/apprenticesearch-student-prezi-2012/



**Steps to an Apprenticeship** – a print resource offering a guide to the various routes to a skilled trade apprenticeship in Ontario. This booklet provides valuable information and practical tips: it encourages students to both undertake thorough research and set out a plan of action. See: http://www.apprenticesearch.com/userfiles/file/PDFs/Steps\_To\_an\_Apprenticeship\_2011.pdf



"6 Months in Review" Report – a useful, semi-annual summary of apprenticeships, posted on apprenticesearch.com: one source of labour market information among many that may be of interest to students considering a skilled trade career. See: http://www.apprenticesearch.com/Resources/NewsDetails?newsid=864



**Ontario Youth Apprenticeship Program** – This program is offered through high school co-op placements and allows students to get a head start on a registered apprenticeship and a career in the skilled trades. See: www.oyap.com. This website also offers excellent resources for teachers, students and parents. The "Slide Show" under resources on the website offers great visuals to introduce trades to students.

- The OYAP Game an online "Jeopardy-type" game with questions about trades and apprenticeship – this can be accessed at http://www.oyap.com/game/hcdsb/
- Skilled Trades Bingo a game that can be used to introduce the importance of skilled trades to students. See: www.oyap.com/UploadedFiles/55/File/BINGO.doc



Skills Canada – Ontario – This not-for-profit organization is well-known for its annual skills competitions for both elementary and secondary school students. SCO also offers excellent in-school presentations to encourage interest in skilled trades and apprenticeship. For more information, go to: http://www.skillsontario.com/index.php/en/resources/career-resources



The **Canadian Apprenticeship Forum** (CAF) partnered with Skills Canada to create a number of tools and resources explaining apprenticeship and the benefits of skilled trades careers to youth, educators, parents and employers. As part of their "Skilled Trades: A Career You Can Build On" national campaign, many print resources were developed. Visit the website careersintrades.ca for more information. Of special interest to teachers: Test Your Student's Skilled Trades IQ, an excellent discussion-starter or alternate means to presenting relevant information.

See: http://www.careersintrades.ca/index.php?page=for-educators&hl=en\_CA



www.youtube.com – Many video resources promoting apprenticeship and careers in skilled trades are available on this website. Examples: http://www.youtube.com/watch?v=9tpb5I\_7BeE http://www.youtube.com/watch?v=Js\_MARzCO\_w

Also, check out apprenticesearch.com's own youtube page with a variety of videos on specific skilled trades - http://www.youtube.com/user/apprenticesearch



Career Cruising – This website provides extensive information about a wide range of careers and postsecondary destinations, including apprenticeship. Public and separate schools have access through an Ontario-wide agreement with the provincial Ministry of Education. See: www.careercruising.com



My Blueprint – an online resource helping students select courses and plan for a variety of post-secondary destinations, including apprenticeship at www.myblueprint.ca



Ontario Skills Passport – contains excellent fact sheets, activities, games and other resources emphasizing essential skills and work habits. See www.skills.edu.gov.on.ca/

Games – Four fun and interactive games directly from the apprenticesearch.com website: http://bit.ly/14ajIAL

Additional materials such as wordsearch and crossword puzzles, matching exercises and worksheets, as well as links to new multimedia resources that are updated on a regular basis and can be found on www.apprenticesearch.com



## Notes






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#### EMPLOYMENT ONTARIO

