

Investigating Careers in the Minerals Industry

Introduction

This activity explores careers in the *minerals industry* via **Explore for More**, an online resource developed by the Canadian **Mining Industry Human Resources (MIHR)** sector council at www.acareerinmining.ca. The web information was developed to help address a predicted shortfall of many tens of thousands of people in the industry workforce over the next 10-12 years¹. For this very broad-based resource sector, that skilled workforce refers to everyone from accountants to equipment operators, engineers, heavy-duty mechanics, lawyers, and welders.



The worksheet is specifically developed for students to help complete the **Grade 12 Portfolio**, in particular the choice **Career Aspect 3.2 Research education, career and life information**. It is a relevant and appropriate extension activity for students in ESCI 11 or Geology 12 courses.

This activity may be also used in **Education and Careers: Planning 10** to fulfill the following PLOs:

Personal Interests and Attributes

- relate personal attributes and interests to education and career planning

Post-Secondary Education and Training

- compare a variety of post-secondary education and training institutions and programs

Labour Market Information

- relate labour market information (e.g. types of employment, required skills and education, salary range) to careers of interest

Eric Rustand, Teacher-Writer, Norkam Secondary, Kamloops

¹ *Prospecting the Future: Meeting Human Resources Challenges in the Canadian Minerals and Metals Industry*, 2005, Mining Industry Training and Adjustment Council

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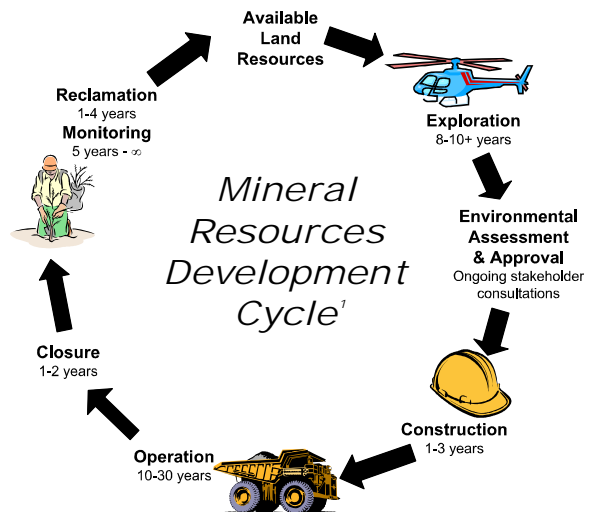
Many of the trades and professional careers in Canada are facing severe shortages as



many workers are nearing retirement. Like all sectors, demand for skilled workers in the minerals industry is increasing greatly. *Mineral resources development*, a cycle which includes **exploration**,

assessment and approval, **construction**, **operation and reclamation**, employs many skilled workers from accountants to equipment operators, heavy duty mechanics, engineers, lawyers and welders. The jobs are challenging and they pay well. Skills can be applied to jobs anywhere in the world. Many “miners” – people who work in a range of different jobs at actual mining operations - commonly work in remote locations but live in the big city.

If you need a little more background information on the mineral development process, who does the work, and how it factors into the economy take a look at:



- *Mineral Resources Education Program of BC Geoscience and Mining Careers*
<http://www.bcminerals.ca/s/WorkExperience.asp>
- *Mining New Opportunities* video (Ontario Mining Association)
<http://www.oma.on.ca/education/miningvideo.asp>
- Rio Tinto Ltd.'s mining video library
<http://www.riotinto.com/library/multimedia.aspx>
- Natural Resources Canada Mining and Minerals Sector web site
http://www.nrcan.gc.ca/ms/stude-etudi/sat_e.htm

Is there a career in the minerals industry for you?

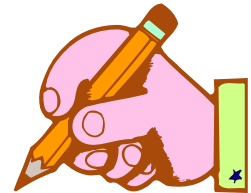


Complete the following worksheet using information from the **Explore for More** web site developed by the national *Mining Industry Human Resources* sector council - <http://www.acareerinmining.ca>. See if there is a career in the mining sector for you.

INVESTIGATING CAREERS IN THE MINERALS INDUSTRY

**STUDENT
ACTIVITY**

Chart Your Path to a Career in the Minerals Industry



Step 1: What personality are you?

John Holland, a psychology professor at Johns Hopkins University, devoted his professional life to researching issues related to career choice and satisfaction. He found that most people fit into one of six personality types: **artistic, conventional, emotional, enterprising, realistic and social**. Holland's research and hundreds of other studies have found that by choosing careers that match your personality type improves the likelihood that you will enjoy your work. Although we all have traits that appear in more than one list, pick the column in the table below that matches your personality **best**.

Which personality type best matches you? _____


Artistic	Conventional
<ul style="list-style-type: none"> • I am able to rely on feelings & imagination • I am expressive • I am intuitive • I value esthetics 	<ul style="list-style-type: none"> • I am structured • I am accurate • I am detail-oriented • I am loyal
Enterprising	Investigative
<ul style="list-style-type: none"> • I am adventurous, a risk taker • I take on leadership roles • I am persuasive • I value political & economic matters 	<ul style="list-style-type: none"> • I am analytical • I am creative, I think outside the box • I am mathematical • I am problem solver • I am scientific, curious
Realistic	Social
<ul style="list-style-type: none"> • I am athletic • I am mechanical • I am a hands-on worker • I am present-oriented • I am persistent • I have good mental organization 	<ul style="list-style-type: none"> • I am sensitive to needs of others • I am helpful, caring, empathetic • I enjoy interpersonal gatherings • I value educational & social issues

INVESTIGATING CAREERS IN THE MINERALS INDUSTRY


Step 2: What job suits my personality?

Go to the table for the personality type that fits you best. Read through the short description of the **Work Environment** and the examples of careers both in the minerals industry and other sectors. Pick one career that you find interesting from the minerals industry and write it in the blank on page 7.

Artistic: expressive, intuitive

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
<ul style="list-style-type: none"> • Unstructured • Allows non-conformity • Allows originality • Rewards creativity 	<ul style="list-style-type: none"> • Speech writer • Sign painter • Graphics artist / designer • Photographer 	<ul style="list-style-type: none"> • Artist / commercial artist • Designer • Musical director • Musician • Photographer • Writer / editor • Architect


Conventional

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
<ul style="list-style-type: none"> • Business-detail • Data generated • Traditional • Rewards conformity & dependability 	<ul style="list-style-type: none"> • Accountant • Purchasing agent • Economist • Payroll clerk • Mail clerk • Secretary • Receptionist • Tax specialist • Data processing analyst 	<ul style="list-style-type: none"> • Accountant • Mail clerk • Bank teller • Cashier • Office clerk • Medical record technician • Secretary • Bookkeeper • Financial auditor


INVESTIGATING CAREERS IN THE MINERALS INDUSTRY

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Enterprising

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
<ul style="list-style-type: none"> • Managerial roles in organizations • Business driven • Entrepreneurial • Rewards monetary gains & achievements 	<ul style="list-style-type: none"> • Public relations professional • Financial investor • Marketing representative • Lawyer • Advertising and promotion personnel • Investment analyst • Stock broker • Investment banker 	<ul style="list-style-type: none"> • Lawyer • Sales representative • Public relations specialist • Financial analyst • Travel agent • Hairdresser • Reporter • Banker • Stock broker • Realtor 


Investigative

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
<ul style="list-style-type: none"> • Academic atmosphere • Uses technical abilities to complete tasks • Creative scrutiny of physical biological or cultural theories • Laboratory work 	<ul style="list-style-type: none"> • Geologist • Industrial designer • Mining and mineral processing engineer • Computer programmer • Chemists and chemical engineer • Environmental scientist • Geophysicist • Geochemist • Mechanical and electrical engineer 	<ul style="list-style-type: none"> • Chemist/biological scientist • Computer analyst • Drafter • Medial lab technician • Veterinarian / veterinarian technician • Emergency medical technician • Technical writer • Physician assistant • Forensics specialist • Police detective

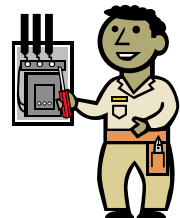
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**STUDENT
ACTIVITY**

Social

Work Environments	Minerals Industry Careers	Similar Careers in Other Sectors
<ul style="list-style-type: none"> • Cooperative • Interactive • Provides services to others • Rewards personal growth in others 	<ul style="list-style-type: none"> • Employee relations officer • In-house trainer • Health and safety worker • Nurse • Security guard • Translator • Human resources manager • Personnel officer • Public relations professional • Communications officer 	<ul style="list-style-type: none"> • Teacher • Clergy • Nurses/nurses aide • Counselor • Home health aide • Physical therapist / assistant • Police officer • Librarian • Social worker 

Realistic

Work Environment	Minerals Industry Careers	Similar Careers in Other Sectors
<ul style="list-style-type: none"> • Hands-on tasks • Industrial • Outdoors • Production-oriented • Technical / mechanical jobs • Works with machines 	<ul style="list-style-type: none"> • Draftsperson • Electrician • Heavy duty mechanic • Mining technologist • Cook • Maintenance worker • Mill worker/operator • Machinist • Bulldozer operator • Welder • Diamond driller • Technicians: chemical, computer, electrical, environmental, geo-physical, geological, mining 	<ul style="list-style-type: none"> • Animal caretaker • Drywall installer • Heating/Air refrigerator mechanic • Auto mechanic • Cook • Electrician • Printing machine operator • Surveyor • Carpenter 

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If I worked in the minerals industry I could be a

Career of interest

So you chose a career. That's great, but right now it's just a name. Let's dig a little deeper and find out more about this job and what it's all about.



Step 3: Learn the details. What is this job all about?

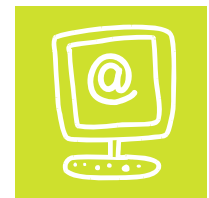
On the **Explore for More** web site www.acareerinmining.ca click on **Careers** in the sidebar menu, then open the **Occupation List**.

*If the career you have selected is on that list, click on it to open up the **National Occupation Classification (NOC) Matrix***

<http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/pdf/Matrix.pdf>

If the career you have chosen is not on the list, then go directly to the NOC web site <http://www5.hrsdc.gc.ca/NOC/English/NOC/2006/Welcome.aspx> home page, open

Index of Titles in the sidebar menu, then type in the name of the job you are researching in the **Occupational Descriptions Search** box.



Read the information on the NOC site about the work that a person in this career does and write a short summary in the space below on the roles and responsibilities.

Occupation Roles and Responsibilities

Step 4: Training and Education



If you have selected a mining-specific career from the www.acareerinmining.ca web site, then click on **Training and Education** in the sidebar menu. Find out if and where you would need to go for further education for that career and fill in the details for **two** options in the spaces on **Page 9**.

If you have chosen a career that is not unique to the mining sector, search for information on where further education is provided in BC by visiting

www.educationplanner.ca.

