

Module 3 Careers

Learning Objective

To explore careers and interest in the mining industry

Student Outcomes

By the end of Module 3, the student will

- explore careers and required training related to mining.
- assess his/her interests related to mining careers or occupations.

Supportive Resources and Curriculum Materials

Reference the previous materials used i.e., videos, posters

“Careers in Mining” transparency master

“Careers in Mining” job descriptions

Activities

1. Recalling information from posters, videos and print, brainstorm a list of careers.
2. Administer Common Ground’s “Whistle While You Work” career assessment (Worksheet 3-A).
3. Discuss what training or education would be necessary for the careers.
4. Assign the students the “Careers in Mining” career grid (Worksheet 3-B) to identify related subjects and training for careers or jobs. Enter into groups to share information.

Assessment Lesson 3

“If I Worked in the Mines”

Written Language: Have the students write a paragraph about a career or job that is of interest. Explain their reason. The students should include information about the subjects they should study in high school as well as their plans for schooling after graduation.

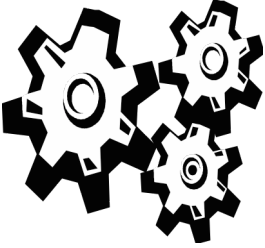
Extension activities:

1. Expert Interview (Grad Rule Standard)
2. Contact resource speaker, i.e., parent, relative, friend or a person listed on the resource sheet.

Name _____

Worksheet 3-A

Careers in Mining: Whistle While You Work



You might not know what career you want, but you know what you like to do. In mining there are many different careers, just as there are in other industries. You have many choices for your future career, so try to find something to

do that you enjoy. Then you'll really feel like whistling while you work!

Rank the following activities from 1 to 10, with 1 being what you enjoy most.



Collecting and identifying rocks _____

Making maps and drawings _____

Solving puzzles and problems _____

Organizing group activities _____

Woods, plants and animals _____

Writing, talking on the phone _____

Computer games _____

Big trucks and machinery _____

Working with tools _____

Selling things _____



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Careers in Mining

If you ranked *collecting and identifying* rocks highly, you might like being a **geologist**.

If you like *making maps and drawings*, you could become an **industrial designer**.

Solving puzzles and problems is an ability needed by a **mining engineer**.

If you're good at *organizing group activities*, you could become a good **plant manager**.

Woods, plants and animals are managed by **environmental engineers and wildlife managers**.

Writing and talking on the phone are among the daily activities of **public relations and marketing** professionals.

Students that are good at *computer games* might enjoy careers in **data processing**.

Big trucks and machinery are operated by **miners**.

Plants need people who are *good at working with tools* to be **plant workers**.

If you have a *knack for selling things*, you might enjoy being a **sales representative**.

Careers in Mining

Accountant Analyze, compile, compute and prepare a wide variety of statistical reports; analyze, prepare, maintain and audit general accounting ledgers, records and reports; set up and maintain controls for employee payrolls; initiate orders for equipment, parts, supplies and repairs and expedite to delivery, completion and payment; assemble and review data for conformance with established controls relating to time, completeness and accuracy, arrangement of data and system requirements.

Agglomerator Operator Control panel, data loggers and alarm systems, 3 agglomerating lines; control the taconite pelletizing process following specified procedure to meet product specifications.

Automotive Mechanic Make repairs to gasoline, diesel or diesel-electric powered automotive equipment.

Blaster Load blast holes with explosives and detonate charge.

Carpenter Perform any type of rough and finish carpentry work.

Communications Coordinator Coordinate communications on mine radio, maintaining computer reports and written records and notify mine foremen or maintenance personnel of movement of personnel or equipment to maintain mining and repair activity.

Concentrator Operator Control panel board, data loggers, alarm systems, 18 taconite concentrating lines.

Crane Operator (Truck) Move and operate truck crane.

Crusher Operator Control the taconite crushing process.

Data Processor Process information using computers.

Electrical Repairman Perform bench work required in repairing, testing, and assembling parts for electrical and electronic equipment.

Electrician (Field Expanded) Inspect, repair, and install and wire all electrical apparatus, devices and circuits of any voltage in the plant or assigned area.

Electrician (Shop) Make mechanical and electrical repairs to all types of electrical equipment.

Engineering Technician II Assist Mining Engineering staff.

Environmental Technician Collect and prepare data and information in connection with environmental engineering studies; make required investigations and conduct tests relative to the environmental impacts of mining upon the air, water and land resources.

Expediter Expedite ordering and procure parts and repairs; schedule employees, maintain time records and code shop cards.

Laborer Do general manual labor in and about the plant.

Ironworker Lay out, fabricate, assemble, erect, or make repairs for all types of structural and plate work; perform all kinds of welding.

Locomotive Mechanic Make repairs to diesel, diesel electric, electric and steam locomotives.

Machinist Set up and operate machine tools, perform any dismantling, fitting or assembly required for plant maintenance or construction.

Mason Lay brick and perform other masonry work.

Millwright Inspect, repair, replace, install, adjust, and maintain all mechanical equipment in a major producing unit or assigned area.

Mine Draftperson Draw new stadia charts and trace maps of pits, dumps, and other properties.

Mine Engineering Analyst Collect, compile and analyze data related to crude ore and waste production with respect to quantity and quality control.

Mine Equipment Operator Perform a variety of tasks associated with the mine equipment operation: operate a crawler, tractors with front-end loaders or forks to load, semi-tractor, various types of powered mobile equipment, service trucks, crawler crane, powered graders, mobile (rubber-tired) and boom truck type cranes, rubber-tired backhoe; operates and attends pumps, services equipment.

Painter Perform interior and exterior hand and spray painting.

Physical Tester Collect and prepare samples for analysis and perform physical tests.

Rotary Drill Operator Move, set up, and operate mobile, crawler mounted, rotary blast hole drill.

Scheduler Prepare a variety of weekly work schedules for production and maintenance employees.

Supercraft More than one trade.

Surveyor Direct crew and operate geological and surveying equipment; analyze field and office data.

Systems Repairman Install, repair, construct, adjust, modify and service all types of electronic equipment.

Technical Draftsman Prepare design layouts and design drawings of equipment and structures, or equipment alteration; photograph, develop and print pictures for use of Engineering and other departments.

Train Operator Operate train for haulage, switching and servicing work in and about mine, plant and shops by remote portable radio control.

Truck Driver (Production) Operate production trucks of all types for hauling ore or stripped materials.

Utilities Operator Operate boilers, water and waste water treatment plants, pump stations and air compressors to provide utilities for the entire plant.

Warehouseman (Salvage) Receive, check, store and issue warehouse supplies and equipment.