

## *Proceeding on...Visions of Idaho*

# MINING

# 10

## *Teacher's Guide Outline*

**CONCEPT** Idaho is a mineral-rich state. **Mining** looks at the history of mining in Idaho, starting with the discovery of gold in the 1860s. Mining in Idaho includes silver, lead, copper, phosphates, uranium and many other minerals. Mining was Idaho's first major industry and it faces many new challenges today.

**STUDENT OUTCOMES** After viewing **Mining**, students will be able to:

1. Recognize Idaho as a mineral-rich state.
2. Understand the history of mining in Idaho.
3. Explain the economic and environmental impact of mining in Idaho.
4. Identify and describe the problems facing the mining industry today.

**SUMMARY** **Mining** reviews the history of the state's first major industry. The program starts with the host, Phyllis Edmundson, at Silver City—once one of the state's largest towns and an early center for mining, agriculture and timber.

The tape reviews the gold rush in Idaho and the cycle of boom and ghost towns. It looks at the different types of placer mining, i.e., panning, hydraulic and dredging.

As placer mining declined, Idahoans turned to hard rock mining. The tape examines the development of hard rock mining financed by out-of-state owners. It reviews the lifestyle of those early miners and some of the hazards. It explains the rise and fall of labor unions, especially the unrest which led to the death of Governor Frank Steunenberg.

The tape addresses some of the environmental problems caused by mining and the steps being taken to protect the environment. Phyllis closes by reminding students how important mining has been to Idaho's past, and suggests what role mining will play in the state's future.

**PREPARATION  
EXERCISES**

1. Review a mineral map of Idaho with the students. List where minerals are found and discuss their possible uses.
2. Read a story to the class about the early gold rush, describing what life was like for miners.
3. Bring in old mining tools. Have students look at them and guess how they were used.
4. Lead students in a concept diagnosis discussion by asking the question, "What do you know about mining in Idaho?" List 20 or so items, group the answers and ask students to label each "group."

**QUESTIONS  
FROM TAPE**

1. Is there a ghost town near where you live?
2. Can you guess what they are? (Four things it takes to hard rock mine.)

**VOCABULARY**

**Boom Town**-A town that builds up quickly, usually near a mine or gold strike

**Cradle**-A mining tool. Sand or gravel is placed in the top of the box-like cradle and while water is run through, the cradle is rocked causing the gold to separate from the dirt.

**Dredge**-A barge that digs up large amounts of dirt from a pond or stream bed and sifts through the gravel to separate out the gold

**Ghost Town**-A town where most or all of the people have moved away leaving the empty buildings behind

**Hard Rock Mining**-A form of mining where workers dig into the earth to find precious metals

**Hydraulic Mining**-A type of mining where a high pressure stream of water is shot at a hillside eroding away the dirt and gravel to find gold

**Mineral**-A substance found in nature. Gold and silver are minerals.

**Phosphate**-A mineral often used in fertilizer

**Placer Mining**-A type of mining where the miner sifts through sand or gravel to find gold

**Prosperity**-Good fortune, success or wealth

**Sluice Box**-A series of long open boxes used to separate gold from sand or gravel

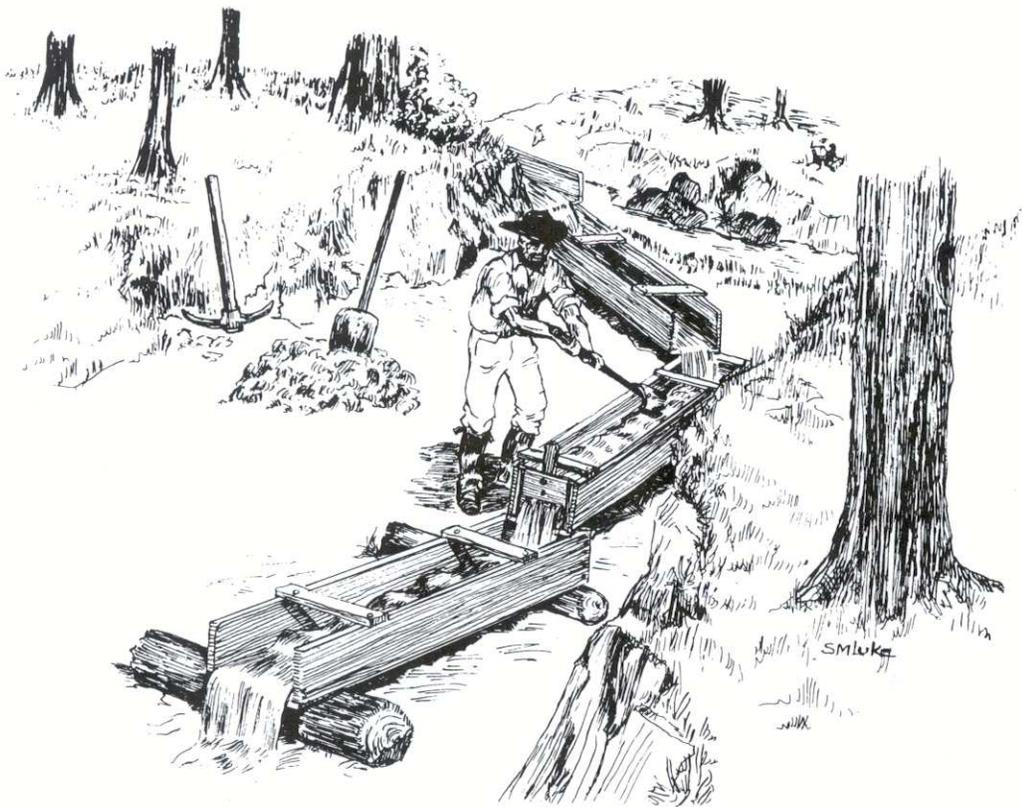
**Union**-A group of workers who join together to help and protect one another

**FOLLOW-UP  
DISCUSSION  
AND  
QUESTIONS**

1. Name the different kinds of mining and describe the differences.
2. What kind of an impact did different kinds of mining have on the environment?
3. Why did unions form? Why did unions decline in strength in the late 1800s?
4. What was life like for placer miners? For hard rock miners?

**EXTENSION  
ACTIVITIES**

1. Visit an old mine location (obtain necessary approval, assistance or supervision).
2. Have the students read a book about a famous miner or famous mine and report to the class what they have learned.
3. Invite a miner to talk to the class.
4. Contact the local Bureau of Land Management and find out how to file a mining claim.



**SPECIAL  
PROJECT**

***Panning for Gold***

1. Fill pan about half full of gold-bearing gravel or sand.
2. Submerge pan into water, holding the pan with one hand while washing the gravels with the other hand. This will remove the dirt that discolors the water.
3. Lower the front edge of pan (riffles in pan opposite your hand) and work pan back and forth in the water, washing the large and light-weight material over the edge of the pan.
4. Level the pan and rotate it in a circular motion, washing the water around with the gravels.
5. Repeat step 3, continue to wash off the light-weight materials. The gold will remain in the very bottom of the pan and the riffles in the pan will keep the gold from washing over the front edge with the waste material.
6. Repeat steps 3 and 4 and 5 until you only have black sands left in the pan. The gold is underneath and you normally can't see it.
7. Place a small amount of water in the pan, tip pan up slightly, and swirl the water over the sands lightly, washing the sands down into the lower part of the pan, leaving the gold that is underneath the black sands. Gold is heavier than rocks and sands, thus it will remain in the very bottom of the pan.
8. To pick up the gold, tip the pan so water is not covering the gold. With a dry finger, touch the gold (it will adhere) and place gold over the mouth of a small vial filled with water. Gold will quickly sink to the bottom of the vial.

