

WHAT IS MINING

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Title: What Is Mining

Level: Middle School

Time: 90 minutes

KERA Goals: 2.1

Objective:

The student will develop a vocabulary of "mining words" and learn about exploring and mining for minerals.

Materials:

plastic swimming pool or equivalent
soil
rocks of various sizes
iron filings
small shovels
screens
magnets

Activity: Mining for Coal

1. Before class, mix the soil, rocks and iron filings together in the plastic swimming pool. This will represent our "mine."
2. Introduce the class to the words: coal, mine, mineral, rock, waste, prospecting, and exploration. Explain the definition of each word and what type of an activity it represents.
3. Have the class break into groups; assign each group an area at the "mine" to do their "exploration" for the valuable "coal." The coal is represented by the rocks and iron filings.
4. Have the groups use shovels to dig up the area that they think contains "coal" and have them save the material.
5. Then using the screens, have them separate the rocks from the soil.
6. Then using the magnets, have them separate the iron filings from the soil and the rocks.
7. The rocks and the iron filings represent valuable "coal" and the soil that is left is the "waste."

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Teacher Hint:

Use different colored rocks and have the students mine for one special color.

Not all groups may find "coal" when mining. This can be used to help explain why it is very difficult to find a coal deposit and why mines are located where they are.

Activity: Mining Word Find

Find these mining words by working up, down, across, and diagonally through the letter maze.

X	M	I	N	E	R	L	I	L	E	G
P	C	O	C	Z	P	H	A	S	E	E
V	O	R	Z	M	U	T	U	A	M	O
N	P	P	U	P	E	F	T	R	I	L
T	L	D	M	M	E	C	O	M	A	O
G	E	A	A	R	O	C	P	Y	L	G
A	R	A	O	L	K	I	E	D	C	Y
L	W	L	F	C	L	O	R	E	E	F
S	D	R	O	N	Y	O	V	A	R	G
C	R	U	S	H	E	R	Y	N	O	E

Check each one of these mining words off as you locate it in the puzzle.

RECLAIM
CRUSHER
MINER
COAL
COPPER
ROCK
REFUSE
GEOLOGY

Activity:

Have the students write a story using as many of the words as they can about mining in Kentucky.

Provided by The Society for Mining, Metallurgy, and Exploration, Inc.