MINERALS THROUGH GEOGRAPHY

Objective:

The object is to enable the student to collect 5 minerals from states they are found in. Through mapping their trip across the United States, they will learn that mineral locations are not necessarily where they are most convenient, and will reinforce their knowledge of U. S. Geography.

Materials Required:

- Maps (laminated if possible)
- Dice for each group
- Small game pieces or markers
- Worksheet for each student
- Trip cards for each trip (I use card stock, business card size)

Activity:

1. Set Up
   a. Divide the students into groups of 6 or less. Each member will operate independently in the group, but overall winner is by group.

   b. Have each student roll the dice twice to locate a home city. Using the Home City chart, match the number from the first roll to the corresponding horizontal axis, and the second number with the vertical line. Where these numbers bisect will be that student's Home City. Students must remember to start and end the game at their Home City.

   c. After the students all have their Home City, they will draw a trip card. Give them several minutes to determine the best route for their trip and enter their first and alternate routes on their worksheet.

2. Students will travel by dice movement, using their marker, across the United States to a state the produces a mineral on their trip card. They must reach the state capital in order to capture that state's mineral. Once a state has been taken, no one else can use it. Students need to plan their trip carefully, with a back-up route available. Minerals do not need to be retrieved in the same order as the card.

3. Students will role the die with the lowest number starting first.

4. The student in each group who retrieves the five state cards from their trip and returns to their Home City first, wins. Game can continue to see which group can finish first.

5.   A worksheet is provided to help students plan and keep track of their trip.

Evaluation:

1.   What conclusions can be drawn about the occurrence of minerals? Do the students understand that each state may have other mineral resources?

2.   Have the students research the states on their trip card and find out what other mineral resources are mined there.

3.   What parallel can be drawn between a state's other industries and its mineral resources? Do mineral resources in surrounding states play a roll in a particular industry in a particular state?

4.   Have students pick various careers and determine which state would more likely have an industry that would use that particular career. Would the availability of specific career choices be determined by which state a student would most likely have to live in to pursue that career?

HOME CITIES

	1	2	3	4	5	6
1	Casper, WY	Baltimore, MD	San Diego, CA	Wichita, KS	Jamestown, ND	Cedar Rapids, IA
2	Lubbok, TX	Socorro, NM	Macon, GA	Omaha, NE	Missoula, MT	Ft. Wayne, IN
3	Spring Field MO	Tonopah, NV	Milwaukee, WI	Anchorage, AK	Ontario, OR	Pueblo, CO
4	Mobile, AL	Portland, ME	Peoria, IL	Akron, OH	Hawi, HI	Jacksonville, FL
5	Pittsburgh, PA	Louisville, KY	Pocatello, ID	Tulsa, OK	Roanoke, VA	Bridgeport, CT
6	Rochester, NY	Knoxville, TN	Seattle, WA	New Orleans, LA	Greensboro, NC	Manchester, NH

TRIPS

Trip 1 - Barite, Copper, Lead, Petroleum, Soapstone

Trip 2 - Beryl, Diamonds, Limestone, Phosphate, Sulfur

Trip 3 - Beryllium, Fluorspar, Lithium, Platinum, Taconite

Trip 4 - Boron, Gold, Magnesium, Potash, Talc

Trip 5 - Clay, Granite, Marble, Pyrite, Trona

Trip 6 - Clay, Graphite, Mica, Salt, Tungsten

Trip 7 - Clay, Gypsum, Molybdenum, Sandstone, Uranium

Trip 8 - Coal, Helium, Natural Gas, Sand/Gravel, Vanadium

Trip 9 - Coal, Iron Ore, Nickel, Silver, Zinc

Trip 10 - Coal, Lead, Olivine, Slate, Zinc

STATES AND MINERALS

State	Mineral		State	Mineral
Alabama	Iron ore		Montana	Tungsten
Alaska	Zinc		Nebraska	Petroleum
Arizona	Copper		Nevada	Gold
Arkansas	Diamonds		New Hampshire	Beryl
California	Boron		New Jersey	Zinc
Colorado	Molybdenum		New Mexico	Potash
Connecticut	Mica		New York	Talc
Delaware	Magnesium		North Carolina	Lithium
Florida	Phosphate		North Dakota	Uranium
Georgia	Barite		Ohio	Sandstone
Hawaii	Clay		Oklahoma	Helium
Idaho	Silver		Oregon	Nickel
Illinois	Fluorspar		Pennsylvania	Slate
Indiana	Limestone		Rhode Island	Sand/Gravel
Iowa	Gypsum		South. Carolina	Clay
Kansas	Salt		South Dakota	Vanadium
Kentucky	Coal		Tennessee	Pyrite
Louisiana	Sulfur		Texas	Graphite
Maine	Clay		Utah	Beryllium
Maryland	Coal		Vermont	Marble
Massachusetts	Granite		Michigan	Platinum
Virginia	Soapstone		Washington	Olivine
Minnesota	Taconite		West Virginia	Coal
Mississippi	Natural Gas		Wisconsin	Lead
Missouri	Lead		Wyoming	Trona

Minerals Through Geography

Worksheet

Trip No. _____	
Home City _____	**Marker Color** _____

(POSSIBLE state to go to)	# - or - order of states to go to	Mineral Mined in the State	State Captured (check mark)
1)			
1)			
1)			
1)			
1)			
alternate:			
alternate:			

HOME CITIES

	1	2	3	4	5	6
1	Casper, WY	Baltimore, MD	San Diego, CA	Wichita, KS	Jamestown, ND	Cedar Rapids, IA
2	Lubbok, TX	Socorro, NM	Macon, GA	Omaha, NE	Missoula, MT	Ft. Wayne, IN
3	Spring Field MO	Tonopah, NV	Milwaukee, WI	Anchorage, AK	Ontario, OR	Pueblo, CO
4	Mobile, AL	Portland, ME	Peoria, IL	Akron, OH	Hawi, HI	Jacksonville, FL
5	Pittsburgh, PA	Louisville, KY	Pocatello, ID	Tulsa, OK	Roanoke, VA	Bridgeport, CT
6	Rochester, NY	Knoxville, TN	Seattle, WA	New Orleans, LA	Greensboro, NC	Manchester, NH

To Whom It May Concern:

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Arloa Woolford
President
Women In Mining Education Foundation