

Mineral Properties Worksheet Name _____

If any of the following statements is a characteristic of a mineral, place a check mark beside it. If it is not, leave it blank.

- 1 _____ Made of one or more elements on the periodic table
- 2 _____ Is formed by years of compression under the earth's crust
- 3 _____ Is formed by cooling after a volcanic eruption
- 4 _____ Is a solid
- 5 _____ Has a unique crystalline shape
- 6 _____ Can be melted easily with a simple campfire
- 7 _____ Has luster, a hardness number and specific density
- 8 _____ Is usually found on the coastal areas of the United States

We use different tests to identify a mineral. Match each test with its name.

- | | |
|--------------------------------|--|
| 9 _____ Moh's Scale | A. Relative heaviness of a mineral |
| 10 _____ Crystalline Structure | B. Color it leaves when scratched on porcelain |
| 11 _____ Specific Gravity | C. How easily it scratches other materials or its hardness |
| 12 _____ Streak | D. Shape as it grows |
| 13 _____ Luster | E. Breaks along a plane/line |
| 14. _____ Fracture | F. Appearance |
| 15. _____ Cleavage | G. Breaks unevenly or shatters |

Take the following list of items and give their hardness on the Moh's scale. You may have to use a text book or the internet to find your answers.

- | | | | |
|---------|--------|----------|-------|
| Diamond | A nail | A penny | Talc |
| Glass | Steel | Amethyst | Topaz |

MAP SKILLS-ECONOMICS

Here's a list of countries that mine and trade in minerals and gems along with a key to what minerals and gems they trade and mine.

~ Amber	! Garnet	# Opal	\$ Amethyst
^ Jade	* Topaz	+Aquamarine	△ Zircon
□ Lapis Lazuli	\ Emerald		

Mexico # * ! ~

Haiti ~

South Africa ! ^

India ! △ ^

Germany * ~

Madagascar △ \$ +

United States ^ # \$ + ! △

Australia # ~ \$ * △

Zambia \$

China ^

Brazil ! * \$ △ \

Namibia ! * +

Sri Lanka ! * + \$ △

Myanmar ^ ! □

Romania ~

Cambodia △

Uruguay \$

Columbia \

Afghanistan □

Take the following list of countries and write beside each, what minerals and gems they mine. Use the symbols from the previous page.

Mexico _____

Brazil _____

Haiti _____

Namibia _____

South Africa _____

Sri Lanka _____

India _____

Myanmar _____

Germany _____

Romania _____

Madagascar _____

Cambodia _____

United States _____

Uruguay _____

Australia _____

Columbia _____

Zambia _____

Afghanistan _____

China _____

Using a blank world map, place these symbols on the map to show what countries mine and trade in what gems, then use your map to answer the questions.

Using the country list and symbol key, answer the following questions:

1. What country has the most gems and minerals to mine and trade?
 - a. Is that country a wealthy country or a poor country?

2. Australia would like to trade Opals for Lapis Lazuli, what country would make a good trading partner?

3. You can purchase emeralds in the United States, yet we do not mine them here. How is that possible?

4. Predict a possible trade arrangement between two countries:

5. There are 8 countries on the list that only mine or trade in one stone. Are they poor countries or wealthy countries?

6. What conclusion can you draw about the number of stones and gems a country can mine and it's wealth as a country?



