

**Vasquez High School -- Earth Science -- Test #4 -- Chapter 5 -- 85 points**

Write TRUE if the statement is true OR write the word(s) that substitute for the underlined word(s) that would make it true. Writing false only earns partial credit . Three points each.

- \_\_\_\_\_ 1) When minerals break in directions other than along cleavage surfaces, they are said to exhibit breakage.
- \_\_\_\_\_ 2) The crystalline structure of diamond and quartz are both tetrahedral.
- \_\_\_\_\_ 3) Bubbles of carbon dioxide form on the surface of a carbonate mineral when acid is applied.
- \_\_\_\_\_ 4) Orthoclase and plagioclase are two forms of the mineral granite.
- \_\_\_\_\_ 5) The second most abundant element in the Earth's crust is oxygen.
- \_\_\_\_\_ 6) The luster of a mineral is how it shines in the light.
- \_\_\_\_\_ 7) Compound minerals made up of oxygen and silicon are called hematites.
- \_\_\_\_\_ 8) Atoms of the same element having different sums of protons and neutrons are called atomic masses.
- \_\_\_\_\_ 9) Sulfides, such as the pyrites, contain the element sulfur in their chemical make-up.
- \_\_\_\_\_ 10) An element is a substance that cannot be broken down into simpler substances by ordinary means.

Fill-in/Short Answer -- Be neat and complete -- read what you wrote before moving on. Three points each.

- 11) Name three non-metals by name: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
- 12) Name three of the definitions that make a substance a mineral: \_\_\_\_\_  
\_\_\_\_\_.
- 13) The three subatomic particles in most atoms are \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
- 14) What makes an atom become an ion? \_\_\_\_\_.
- 15) What is the same about graphite and diamond and what makes them different? \_\_\_\_\_  
\_\_\_\_\_.

Name the minerals you are shown by the teacher:

- 16) \_\_\_\_\_ 17) \_\_\_\_\_ 18) \_\_\_\_\_
- 19) Look at this symbol:  ${}_{92}^{235}\text{U}$  How many electrons does it have? \_\_\_\_\_

- 20) The two most common elements in the known universe (in order) are \_\_\_\_\_ and \_\_\_\_\_.
- 21) The most most common metals in the Earth's crust (in order) are \_\_\_\_\_ and \_\_\_\_\_.
- 22) Name three of the special properties that would help identify a mineral: \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.
- 23) For six points, give the three types of chemical bonding, how each handles electrons, and in what form or example you would find them.
- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- 24) For six points, name any three properties, except color, that one could use to identify a mineral. You must also define what that property means.
- a) \_\_\_\_\_
- b) \_\_\_\_\_
- c) \_\_\_\_\_
- 25) Of all the minerals I have seen, my favorite was \_\_\_\_\_.

EXTRA CREDIT -- Two points each. Guessing is okay.

- 26) Name a commonly blue mineral: \_\_\_\_\_
- 27) Name one of the two elements that makes up the mineral galena: \_\_\_\_\_
- 28) Augite is the most common member of the \_\_\_\_\_ family of minerals.
- 29) The newest type of carbon, often shaped like a soccer ball, is called a \_\_\_\_\_.
- 30) Name any crystal system besides the cubic system: \_\_\_\_\_.