Unit 5B: Rocks and Minerals Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Define the Vocabulary:

Igneous

Extrusive Igneous

Intrusive Igneous

Mafic

Felsic

Coarse grained

Fine grained

Metamorphic

Foliated

Unfoliated

Contact metamorphism

Regional metamorphism

Sedimentary

Clastic sedimentary

Chemical sedimentary

Luster

Moh’s Scale

Density

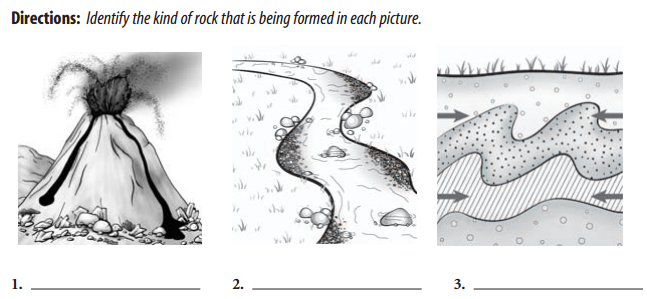
Rock Streak

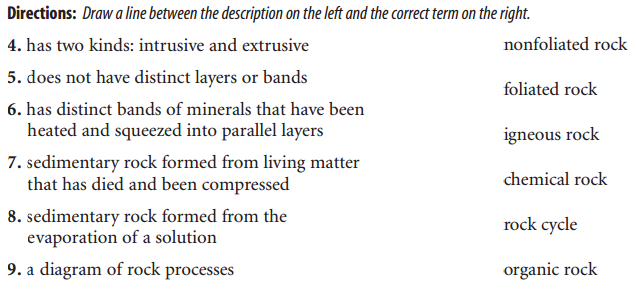
Rock cleavage

Rock Fracture

Crystal

Mineral





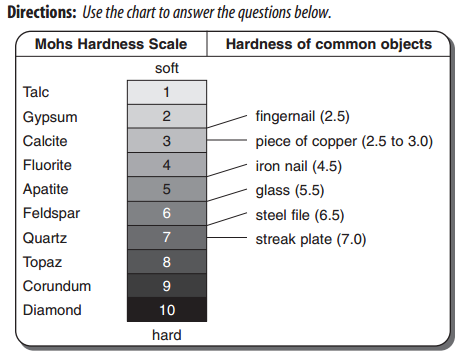
**Rocks and Minerals**

The ground we walk on, build on, and grow gardens on is made of rock. All the rocks in the world are made up of chemicals called **minerals**. Minerals are solid, inorganic (not living) substances found in and on the earth. Most are chemical compounds, which means that they are made of two or more elements. For example, the mineral sapphire is made up of aluminum and oxygen. A few minerals such as gold, silver and copper are made of a single element. Minerals are considered to be the building blocks of rocks. Rocks can be a combination of as many as six types of minerals. Through a microscope, a rock shows that it is made of crystals of different minerals, all growing together like a puzzle.

1. **What is the difference between a rock and a mineral?**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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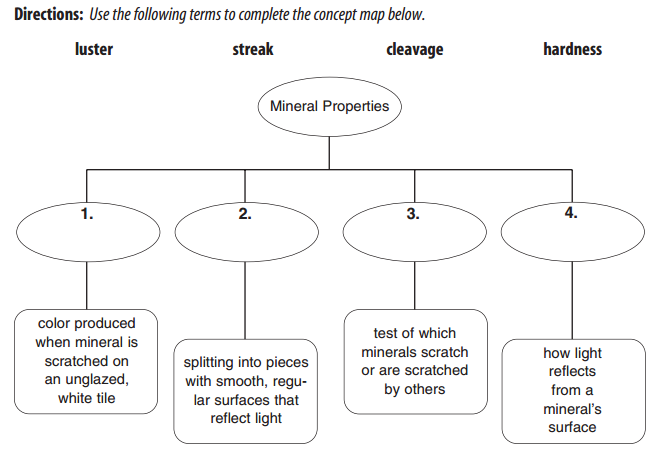
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11. Name one mineral that you can scratch with your fingernail.

12. Which mineral can scratch anything?

13. Which object can scratch feldspar but not quartz?

14. Which object can scratch apatite but not feldspar?



**Directions: Correctly complete each sentence by underlining the better of the two choices in parentheses.**

15. A mineral is an (organic/inorganic) solid material found in nature.

16. A crystal is a solid material with a (random/repeating) pattern of atoms.

17. If a mineral has (streak/cleavage) it will break in pieces with smooth, regular

surfaces.

18. A (gem/crystal) is a rare mineral, such as a diamond, that can be cut and polished.

19. A mineral is a(n) (ore/gem) if it contains something useful and can be sold for a

profit.

20. (Hardness/Specific gravity) compares the weight of a mineral with the weight of

an equal amount of water.

21. (Streak/Luster) describes how light reflects from a mineral.

**Directions: Use the following terms to complete the sentences below.**

**magma crystal cleavage hardness**

**specific gravity silicates fracture luster**

**streak minerals gem ore**

22. Halite, diamond, and graphite are examples of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

23. A(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a solid in which the atoms are arranged in

repeating patterns.

24. Minerals that contain silicon (Si) and oxygen (O) are

called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

25. One of the properties of minerals is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, which measures

how easily a mineral can be scratched.

26. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ refers to the color left behind when a mineral is

rubbed across an unglazed porcelain plate.

27. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ describes how light reflects from a mineral’s surface.

28. Amethyst is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ form of quartz.

29. Minerals that break along smooth, flat surfaces have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

30. Some crystals are formed from hot melted rock called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

31. Minerals that break with an uneven, rough, or jagged surface

have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

32. Gold’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is 17, meaning that it is 17 times heavier than

an equal volume of water.

33. Iron is obtained from its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, hematite.

**Directions: Complete the concept map by writing the correct terms and phrases from the chapter next to the number**

