Name Date Class

Note-taking Worksheet

Rocks and Minerals

Section 1 Minerals—Earth's Jewels

A. _____—inorganic solid material with a particular chemical makeup and orderly arrangement of atoms

1. **Rocks** are usually composed of two or more _____.
2. Minerals form from _____ or lava or through evaporation or precipitation.
3. Mineral formation clues include _____ and how mineral crystals fit together.

B. Properties—characteristics used to _____ minerals

1. Solid materials with a repeating pattern of atoms are called _____.
2. Some minerals have _____, splitting into thin sheets; other minerals have _____, breaking into rough edges.
3. Color or _____ (color of a powdered mineral) helps identify minerals.
4. _____ describes how light reflects from a mineral's surface.
5. Mohs scale uses _____ to classify minerals from 1 (softest) to 10 (hardest).
6. _____—compares weight of mineral with weight of an equal volume of water.
7. Other properties of minerals include _____, double refraction, taste, or reactions with acid.

C. Common minerals—most rock-forming minerals are _____ or _____.

1. Rare minerals which can be cut and polished are _____.
2. Diamonds are produced under _____ beneath Earth's surface and brought to the surface by special volcanic eruptions.
3. An _____ contains enough useful mineral to be sold at a profit.
4. Ores must be _____ to extract the mineral.

Meeting Individual Needs

Note-taking Worksheet (continued)

Section 2 Igneous and Sedimentary Rocks

A. _____—form from melted rock that cools

1. _____ igneous rocks form when melted rock cools on Earth's surface.
2. _____ igneous rock forms when melted rock cools beneath Earth's surface.
3. Light-colored often intrusive igneous rocks containing a high percentage of silica are called _____.
4. Dark-colored often extrusive igneous rocks containing iron, magnesium, or calcium are called _____.
5. _____ is melted rock that reaches Earth's surface and forms extrusive igneous rock when it cools.
   a. _____ can erupt, bringing a lava flow to Earth's surface.
   b. Large cracks or _____ can allow melted rock to ooze out in a lava flow.
6. _____ is melted rock that does not reach Earth's surface; intrusive igneous rocks form as magma slowly cools under the surface.
7. Crystal _____ is the main difference between intrusive and extrusive igneous rock.
   a. _____ igneous rocks have large crystals.
   b. _____ igneous rocks do not have large crystals.

B. _____ rocks form in layers from broken rock, shells, plants, and other materials.

1. _____ rocks—made of grains from minerals or other rocks that have been compressed
2. _____ rocks—form when mineral-rich water evaporates and from other chemical processes
3. _____ rocks—form from dead plants and animals that have been compressed
   a. If the rock is produced from layers of plants, it is called _____.
   b. If the rock is produced from organic sediment in the _____, it is usually classified as limestone.
   c. Chalk is a kind of limestone made from the _____ of tiny animals and algae.

Note-taking Worksheet (continued)

Section 3 Metamorphic Rocks and the Rock Cycle

A. Time, _____, and heat, and events such as erosion and moving land masses, make new rocks out of old rocks.

1. _____—form when existing rocks are heated or squeezed; they recrystallize and might change chemically.

2. Rocks having visible layers or elongated mineral grains are called _____ rocks; _____ rocks do not have layers or bands.

B. _____—rocks change from one type to another over millions of years.

1. The model, or _____, shows each rock on a continuing journey.

2. A rock in _____ part of the cycle could become any other kind of rock.