

## Mineral and Rock Identification Homework

Objectives =

The goal of this homework is twofold: 1. Learn the physical properties used to identify minerals and rocks, then 2) Apply your knowledge by identifying your hand samples.

Part 1 –

Use the mineral identification tables to answer the following questions (Following pages). The answers to the questions are in the tables... (10 points)

Part 2 –

Use the Identification tables to identify your samples

A. First separate your samples into two groups, minerals (homogenous) and rocks (heterogeneous). Place your samples on a piece of paper labeled piece of paper, then take a picture to submit. (10 points)

B. Create separate pieces of paper – next to each sample write the properties you used to identify the sample, then write the sample name... I should be able to get four to six sample per page. Take a picture of each page to submit. Make sure you try to identify each of your samples. (20 points)

## MINERAL IDENTIFICATION TABLE QUESTIONS

### Part I. Identification.

Using the tables, identify the minerals which possess the following characteristics.

1. Nonmetallic, dark green mineral with 2 directions of cleavage at about 60° and 120°.

Name \_\_\_\_\_

2. Metallic or nonmetallic mineral with a distinctive reddish brown streak.

Name \_\_\_\_\_

3. Metallic mineral with a high density (7.6) and perfect cubic cleavage.

Name \_\_\_\_\_

4. Nonmetallic mineral which when powdered effervesces in HCl.

Name \_\_\_\_\_

5. Nonmetallic mineral with 2 good directions of cleavage at 90°, but does not have any striations on any cleavage faces.

Name \_\_\_\_\_

6. Metallic mineral which is strongly magnetic.

Name \_\_\_\_\_

7. Dark or light colored mineral which displays 24-sided crystals with a hardness of 7.5.

Name \_\_\_\_\_

8. Olive green mineral which commonly occurs in aggregates of small round glassy Grains.

Name \_\_\_\_\_

9. Brassy yellow mineral which displays cubic crystals with striated faces.

Name \_\_\_\_\_

10. Dark colored mineral which can be cleaved into thin elastic sheets.

Name \_\_\_\_\_

Using the tables, answer the questions about mineral properties.

1. What is the hardness of corundum?

\_\_\_\_\_

2. What type of breakage does halite possess?

\_\_\_\_\_

3. What is the streak of sphalerite?

\_\_\_\_\_

4. What is the color of sulfur?

\_\_\_\_\_

5. What is luster of hematite?

\_\_\_\_\_

6. What is the breakage of fluorite?

\_\_\_\_\_

7. What is the hardness of quartz?

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8. What is the color of chalcopryite?

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9. What is the breakage of pyroxene?

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10. What is the special characteristic of calcite?

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