

**Purpose:** To determine the identity of 3 unknown mineral samples.

**Reflect:** Over the last several weeks, we have learned about the different properties of minerals. Each of these properties can be used to identify a mineral, much like visible characteristics are used to identify a person in the game "Guess Who?" In the space below, briefly describe each of the mineral characteristics.

**Procedure:** You will not create a procedure for this lab. Instead, the procedure will be provided to you in a packet. You will conduct each of the property tests for the minerals. Once you have collected your data, you will compare it to a list of possible minerals to identify your specimen.

**Data:** What data will you collect for this lab? Which tests will you be doing? How will you display this data? Is a graph needed? Use the following space to organize a mock data table.

**Analysis/Conclusion:** For this section you will be expected to state what each mineral is and defend your answer. You will also explain why you did not pick another mineral. For example, on the list of possible minerals, there will be at least 2 very close options for each unknown mineral. In your conclusion, you will have to explain why you picked A and also why you did not pick B.

**Grading:** You will be graded on the following areas of your lab report:

1. Reflection (4 pts)
2. Data (17 pts)
  - a. Density Table for 3 unknown minerals (6 pts)
  - b. Properties table for 3 unknown minerals (11 pts)
3. Conclusion (9 pts; 3pts for each conclusion paragraph, 3 paragraphs total)
4. Mechanics (5 pt; covers basic grammar, spelling, and writing conventions; lab report is typed and using bolded headings)

A copy of the rubric is found on the back of this sheet.

Name	Period	Date
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**Reflection (4 pts)**

Criteria	Points Earned
Student accurately defines each of the mineral properties. (3 pts; .5 pts for each definition)	
Student identifies which mineral properties are most consistent. (1 pts)	

**Density Table (6 pts)**

Criteria	Points Earned
Table is neat and organized (1 pt)	
Table shows unknown mineral sample's volume (twice), volume average, and the unknown mineral's mass (3 pts)	
Table shows calculated density (1 pt)	
Table shows correct units for data (1 pts)	

**Properties Data Table (11 pts)**

Criteria	Points Earned
Table is neat and organized (1 pt)	
Table shows following properties: color, luster, streak, density, hardness, and cleaving/fracturing (9 pt; .5 pt per data x 3 mineral samples)	
Table shows correct units for data (only density) (1 pt)	

**Conclusion (9 pts)**

Criteria	Points
Student states the identify of each mineral specimen (3 pts; 1 pt per specimen)	
Student explains which data they used to determine their answer (3 pts; 1 pt per specimen)	
Student explains which mineral it could not have been and why (3 pts; 1 pt per specimen)	

**Mechanics (5 pts)**

Criteria	Points
Spelling (-.5 pts for each incorrect word; 2 pts max)	
Grammar (-.5 pts for each incorrect grammar usage: capitalization, punctuation, etc.; 2 pts max)	
Lab report is typed (.5 pt)	
Bolded headings are used for each section (.5 pt)	