

Checkout Questions

Lab 3. Physical Properties of Matter

What Are the Identities of the Unknown Substances?

1. What is the difference between a physical and a chemical property of matter?

2. Why do substances have unique physical and chemical properties?

3. A scientist is given four different objects. She collects the following information about them.

Object	Mass	Volume	Conducts electricity?	Malleable?
A	24.5 g	2.5 cm ³	Yes	Yes
B	10.1 g	1.5 cm ³	Yes	No
C	4.6 g	2.2 cm ³	No	No
D	27.7 g	3.8 cm ³	Yes	Yes

a. Are any of the objects the same substance?

b. How do you know?

4. Scientists can use an experiment to answer any type of research question.
- I agree with this statement.
 - I disagree with this statement.

Explain your answer, using an example from your investigation about identification of an unknown based on physical properties.

5. "The freezing points of solutions A and B are both -1°C " is an example of evidence.
- I agree with this statement.
 - I disagree with this statement.

Explain your answer, using an example from your investigation about identification of an unknown based on physical properties.

6. Scientists often need to look for proportional relationships between different quantities during an investigation. Explain what a proportional relationship is and why these relationships are important, using an example from your investigation about identification of an unknown based on physical properties.

7. It is often important for scientists to identify patterns during an investigation. Explain why it is important to identify patterns when studying a system, using an example from your investigation about identification of an unknown based on physical properties.