Properties of Matter

Name: _____ Date: _____ Grade: Grade 5

Part A: Multiple Choice

Circle the best answer for each question.

1. A student has two blocks that are exactly the same size. Block A has a mass of 30 g and Block B has a mass of 60 g. Which statement is correct?

- A) Block A is denser because it weighs less and takes up less space.
- B) Block B is denser because it has more mass packed into the same volume.
- C) Both blocks have the same density because they are the same size.
- D) Density cannot be compared unless both blocks are placed in water.

2. A layer of oil sits on top of water in a glass, and a marble rests at the bottom. What does this layering tell you about the densities?

- A) Oil is densest, then water, then the marble is least dense.
- B) The marble is densest, then water, then oil is least dense.
- C) Water is densest because it is in the middle of the glass.
- D) All three have the same density but different volumes.

3. A sealed balloon is placed in a freezer. After one hour the balloon is smaller. What best explains this change?

- A) The gas particles escaped through tiny holes in the balloon material.
- B) The gas particles lost energy and moved closer together, reducing the volume.
- C) The gas changed into a liquid inside the balloon from the cold temperature.
- D) The balloon material shrank because rubber gets smaller in cold air.

4. Ice floats on liquid water instead of sinking. Which explanation is scientifically accurate?

- A) Ice is colder than water so cold things always rise to the top.
- B) Ice has a lower density than liquid water because its molecules are arranged in a spread-out structure.
- C) Ice floats because it is a solid and all solids float on their own liquids.
- D) Ice floats because the air trapped inside the ice makes it lighter.

Part B: Fill in the Blank

Write the correct answer on each line.

1. When a substance is heated, its particles gain energy and move _____ apart, which can lower its density.

Answer Key · Properties of Matter · Grade: Grade 5

Part A: Multiple Choice

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1. A student has two blocks that are exactly the same size. Block A has a mass of 30 g and Block B has a mass of 60 g. Which statement is correct?

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Part B: Fill in the Blank

Write the correct answer on each line.

1. When a substance is heated, its particles gain energy and move **farther** apart, which can lower its density.

2. A solid keeps its own **shape** because its particles are locked in fixed positions.