TEST NAME: **Properties of Matter**
TEST ID: **194735**
GRADE: **06**
SUBJECT: **Life and Physical Sciences**
TEST CATEGORY: **School Assessment**

Student: _____

Class: _____

Date: _____

1. **Aluminum is an element. Which of the following best describes the smallest particle of aluminum that retains all the properties of aluminum?**

   A. a molecule
   B. an atom
   C. a proton
   D. an electron

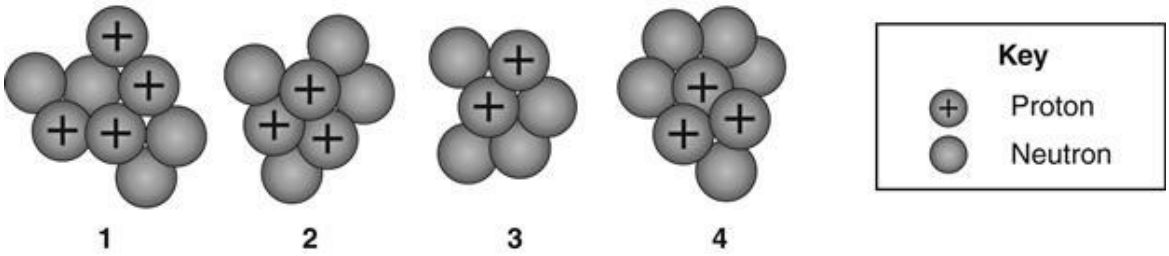
2. **In order to determine if two atoms are copper (Cu) atoms, what must be the same for each?**

   A. the number of valence electrons
   B. the number of protons
   C. the charge of the atom
   D. the size of the atom

3. **Which statement is true about atoms?**

   A. Atoms are made of molecules.
   B. Atoms have an electric charge.
   C. Atoms have the same weight.
   D. Atoms are seen by using special tools.

4. **The diagram shows the nuclei of some elements.**



Which are nuclei of the same element?

   A. 1 and 2
   B. 1 and 3
   C. 2 and 4
   D. 3 and 4

5. **An atom can best be described as**

   A. the smallest particle that has all the characteristics of a compound.
   B. the smallest particle that has all the characteristics of an element.
   C. a charged particle that is similar to a molecule.
   D. a charged particle that is larger than a molecule.

6. **The diagram shows a pitcher with tea, ice, lemon, water, and mint.**

All the matter in the pitcher is made of which of these?

A. atoms in molecules
B. human-made materials
C. molecules in atoms
D. single elements

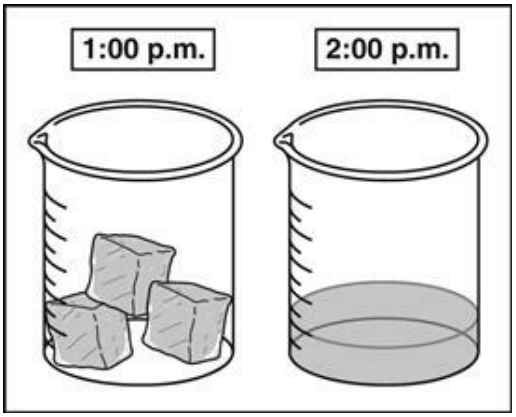
7. **What is the smallest part of a gold ring that is still gold?**

A. an atom
B. an electron
C. a molecule
D. a compound

8. **Anita heats a beaker containing water. As the temperature of the water increases, which change to the water molecules occurs?**

A. The molecules move at a faster rate.
B. The molecules become more massive.
C. The molecules expand and become wider.
D. The molecules separate into atoms of hydrogen and oxygen.

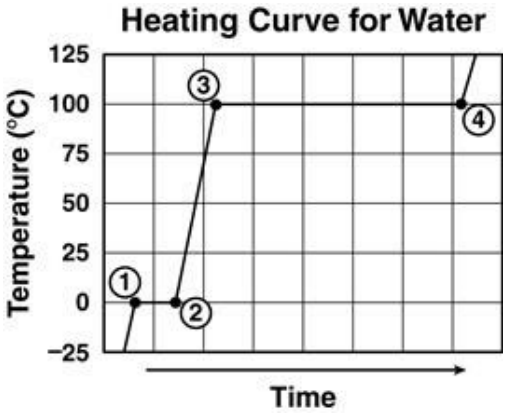
9. **Students took some ice cubes out of the freezer at 1:00 p.m. An hour later, they observed how the ice cubes had changed.**



The change is best described as

A. chemical because a liquid formed.
B. physical because it happened over time.
C. physical because no new substance was formed.
D. chemical because heat caused the change.

10. **The graph shows a heating curve for water.**



Which point on the graph indicates that all of the liquid water has been converted to water vapor?

A. 1
B. 2
C. 3
D. 4

11. **The ice cubes in a freezer are melting. Which change most likely is causing the ice cubes to melt?**

A. a decrease in the mass of the ice cubes
B. an increase in the mass of the ice cubes
C. a decrease in the temperature inside the freezer
D. an increase in the temperature inside the freezer

12. **At which temperature does water freeze?**

A. 0 degrees Celsius
B. 32 degrees Celsius
C. 100 degrees Celsius
D. 212 degrees Celsius

13. **When liquid water freezes, it forms ice. What is the physical state of an ice cube?**

A. gas
B. solid
C. liquid
D. plasma

14. **The teacher heats a pot of water. Once the water reaches 100°C, which point has the water reached?**

A. boiling
B. melting
C. freezing
D. evaporating

15. **During an investigation, heat transferred from a liquid to the environment. Which pair of explanations can best account for this result?**

A. The temperature of the liquid increased, or the liquid became a gas.
B. The temperature of the liquid increased, or the liquid became a solid.
C. The temperature of the liquid decreased, or the liquid became a gas.
D. The temperature of the liquid decreased, or the liquid became a solid.

16. **When ice melts, it becomes a**

A. gas.
B. solid.
C. liquid.
D. plasma.

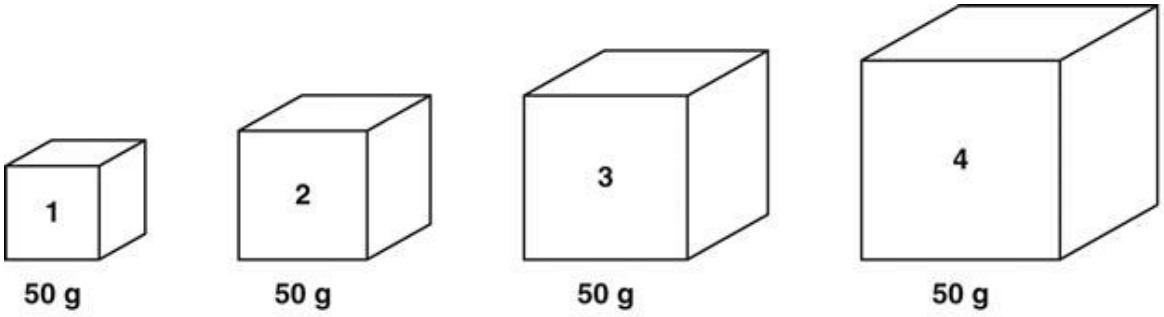
17. **What has occurred when bubbles form in a liquid that is being heated?**

A. Oxygen is absorbed from the air.
B. Heat is radiating in the liquid.
C. The boiling point has been reached.
D. Molecular stability in the liquid is increasing.

18. **The boiling of water results in a physical change in matter from**

A. solid to liquid.
B. gas to solid.
C. solid to gas.
D. liquid to gas.

19. **A student measured the masses of four different-sized blocks. The student determined that each block had a mass of 50 grams.**



Which block has the least density?

A. 1
B. 2
C. 3
D. 4

20. **During a demonstration, a teacher pours CO_2 gas over a candle, putting out the flame. Which physical property allows the teacher to pour the CO_2 gas?**

A. The gas is more dense than the air.
B. The gas is more visible than the air.
C. The gas smells different from the air.
D. The gas evaporates faster than the air.

21. **Which difference between water and ice results in ice floating on cold water?**

A. heat
B. shape
C. density
D. volume

22. **Two samples of gold must have the same**

A. mass.
B. volume.
C. length.
D. density.

23. **What happens to the physical state of water when it freezes?**

A. expands
B. contracts
C. changes color
D. becomes warm

24. **Diamonds are sometimes used as the tips of drill bits. Which physical property of a diamond MOST likely makes it a good cutting tool?**

A. its electrical properties
B. its thermal properties
C. its hardness
D. its density

25. **Kurt drinks frozen fruit juice from a small cup. He measures the amount of fruit juice in the cup. Which property is Kurt measuring?**

A. density
B. height
C. temperature
D. volume