Grade 6 Science Summative Test

Topic: Phase Changes, Physical Changes, Mixtures & Separation Techniques

Name: _____ Date: _____ Score: _____

Instructions: Read each question carefully. Write the letter of the correct answer on the underline provided before each number.

_____ 1. What process occurs when a liquid changes into a gas below its boiling point?

A. Condensation
B. Evaporation
C. Sublimation
D. Freezing

_____ 2. Which phase change occurs when solid dry ice turns directly into carbon dioxide gas?

A. Melting
B. Deposition
C. Sublimation
D. Condensation

_____ 3. What happens to water vapor when it touches a cold glass window and turns into water droplets?

A. Evaporation
B. Condensation
C. Melting
D. Sublimation

_____ 4. Which of the following best describes a physical change?

A. A completely new substance is formed.
B. Only the shape, size, or state of matter changes.
C. Chemical bonds are permanently changed.
D. The process cannot be undone by physical means.

_____ 5. Which action is an example of a physical change?

A. Baking a chocolate cake
B. Rusting of an iron nail
C. Shredding a sheet of paper
D. Burning a wooden matchstick

_____ 6. When ice cubes melt into liquid water, what type of change has taken place?

A. Chemical change
B. Physical change
C. Biological change
D. Permanent change

_____ 7. What type of mixture has a uniform composition throughout, where components cannot be visually distinguished?

A. Heterogeneous mixture
B. Homogeneous mixture
C. Suspension
D. Coarse mixture

_____ 11. How can you separate iron nails from a pile of wood sawdust?

A. Sieving
B. Evaporation
C. Magnetic separation
D. Filtration

_____ 12. What method would you use to retrieve solid salt from a saltwater solution?

A. Filtration
B. Evaporation
C. Decantation
D. Sieving

_____ 13. Which technique involves pouring off a clear top liquid layer without disturbing the settled sediment at the bottom?

A. Decantation
B. Filtration
C. Distillation
D. Sieving

_____ 14. What tool or equipment is primarily used during a filtration process?

A. Magnet
B. Filter paper and funnel
C. Evaporating dish and burner
D. Sieve mesh

_____ 15. Which method is used to separate solid particles of different sizes, such as rocks from fine sand?

A. Sieving
B. Evaporation
C. Decantation
D. Chromatography

_____ 16. What phase change occurs when frost forms directly on a cold windshield from air moisture?

A. Sublimation
B. Deposition
C. Freezing
D. Condensation

_____ 8. Which of the following is a heterogeneous mixture?

A. Sugar dissolved in warm water
B. Clean air in a closed bottle
C. Salad bowl with lettuce, tomatoes, and cucumbers
D. Brass metal alloy

_____ 9. A mixture of salt and water is classified as a:

A. Heterogeneous mixture
B. Solution (Homogeneous)
C. Suspension
D. Emulsion

_____ 10. Which technique is best for separating insoluble sand from liquid water?

A. Evaporation
B. Filtration
C. Magnetism
D. Chromatography

_____ 17. Crushing a sugar cube into fine sugar powder is an example of what type of change?

A. Physical change
B. Chemical change
C. Phase change
D. Thermal change

_____ 18. Oil and water do not mix and form two distinct layers. What kind of mixture is this?

A. Homogeneous mixture
B. Heterogeneous mixture
C. Solution
D. Alloy

_____ 19. What physical property allows iron to be separated easily from sulfur powder?

A. Boiling point
B. Solubility in water
C. Magnetism
D. Density

_____ 20. Why can dissolved sugar and water be separated by evaporation?

A. Sugar boils at a lower temperature than water.
B. Water evaporates into gas, leaving the solid sugar behind.
C. Sugar turns into a gas before water does.
D. Both substances evaporate at the exact same time.