Properties and Changes of Materials Test

Name

A. Match

____ 1. plasma

. a) is something about matter that can be observed by how it looks such as shape, size, colour, or smell.

____ 2. matter

b) this is one of the states of matter: it takes the shape and volume of the container holding it. Molecules move freely.

____ 3. mass

c) solids, liquids, and gases (and plasma).

____ 4. volume
d) this state of matter doesn't exist on earth, it has no definite shape or size, but its negative charged particles are molten.

____ 5. properties of matter

e) is anything that takes up space and has mass.

____ 6. states of matter

f) this state of matter that has definite shape and volume. Usually this can be easily touched.

g) this state of matter flows has the shape of its container and has a definite volume.

____ 7. liquid

h) the amount of space that an object takes up.

____ 8. water vapour

i) is the measure of how much material makes up an object.

____ 9. gas

j) water in its gas form is called this.

____ 10. solid

B. Short answer

1. Label each state solid, liquid or gas the following examples are usually found at room temperature:

   a) oxygen ____________________ f) desk ____________________
   b) milk ______________________ g) jar ______________________
   c) helium ____________________ h) water ____________________
   d) tea _______________________ i) book ____________________
   e) carbon dioxide ____________ j) glue _________________

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2. Describe 3 properties of an apple:

1. 
2. 
3. 

3. Define in your own words what each part of the lab or scientific process means:
   purpose: ____________________________________________________________
   hypothesis: _________________________________________________________
   materials: ___________________________________________________________
   procedure: __________________________________________________________
   observations: ________________________________________________________
   conclusion: _________________________________________________________

4. What is the difference between a physical and chemical change in matter? Then give an example of each type of change.
5. Discuss one of the labs done in class. What were we testing and what was the end result? /3

6. Define each state of state of matter (solid, liquid, gas):

C. Multiple Choice

1. Water will freeze at this temperature:
   a) 0° Celsius   b) 100° Celsius   c) 10° Celsius   d) 20° Celsius

2. Water will change to a gas at this temperature:
   a) 0° Celsius   b) 100° Celsius   c) 10° Celsius   d) 20° Celsius

3. When you crumple a piece of paper, changing its shape, this is an example of this kind of change:
   a) properties   b) state of matter change   c) physical change   d) chemical change
4. When you burn a piece of paper, changing it to ashes, this is an example of this kind of change:
   a) properties  b) state of matter change  c) physical change  d) chemical change

5. When heat is removed (cooled) from matter the molecules move closer together as it gets colder. The liquid matter becomes solid or more confined is the process of:
   a) freezing  b) melting  c) sublimation  d) condensation  e) evaporation

6. When warm air is cooled when coming into contact with a cool surface the molecules move more slowly causing the water vapour to change into a liquid. This is the process of:
   a) freezing  b) melting  c) sublimation  d) condensation  e) evaporation

7. This is when the molecules of a liquid heat up causing a change from liquid state to water vapour or gaseous state. This is the process of:
   a) freezing  b) melting  c) sublimation  d) condensation  e) evaporation

8. This is when a substance changes from a solid directly into a gas, without becoming a liquid in between. This is the process of:
   a) freezing  b) melting  c) sublimation  d) condensation  e) evaporation

9. This is when the molecules of a solid are heated up, they move faster causing a solid to change into a liquid. This is the process of:
   a) freezing  b) melting  c) sublimation  d) condensation  e) evaporation

10. The particles of a gas move ________freely than particles in a solid:
    a) more  b) less  c) the same  d) sometimes or casually

11. The particles of a solid move ________freely than particles in a liquid:
    a) more  b) less  c) the same  d) none of the above

12. ________can change the state of matter (solid, liquid, gas):
    a) Mass  b) Volume  c) Temperature  d) Nothing
13. This picture is an example of this process:
   a) sublimation
   b) condensation
   c) evaporation
   d) freezing or melting

14. This picture is an example of this process:
   a) sublimation
   b) condensation
   c) evaporation
   d) freezing or melting

15. This picture is an example of this process:
   a) sublimation
   b) condensation
   c) evaporation
   d) freezing or melting