

**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.
- \_\_\_\_\_ 7. liquid                          g) this state of matter flows has the shape of its container and has a definite volume.
- \_\_\_\_\_ 8. water vapour                      h) the amount of space that an object takes up.
- \_\_\_\_\_ 9. gas                              i) is the measure of how much material makes up an object.
- \_\_\_\_\_ 10. solid                          j) water in its gas form is called this.

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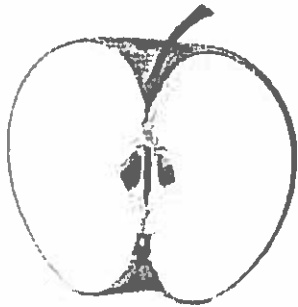
**B. Short answer**

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

- a) oxygen \_\_\_\_\_
- b) milk \_\_\_\_\_
- c) helium \_\_\_\_\_
- d) tea \_\_\_\_\_
- e) carbon dioxide \_\_\_\_\_
- f) desk \_\_\_\_\_
- g) jar \_\_\_\_\_
- h) water \_\_\_\_\_
- i) book \_\_\_\_\_
- j) glue \_\_\_\_\_

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2. Describe 3 properties of an apple:



- 1.
- 2.
- 3.

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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.

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5. Discuss one of the labs done in class. What were we testing and what was the end result? /3

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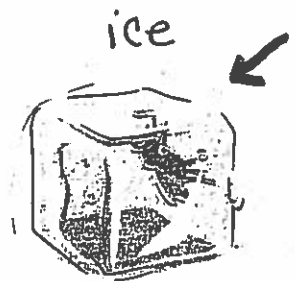
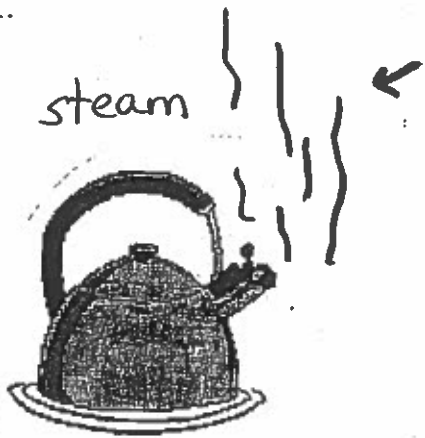
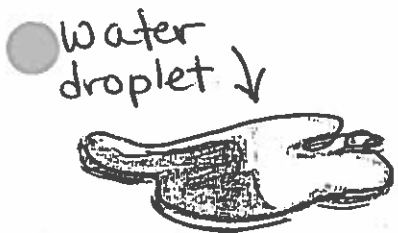
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6. Define each state of state of matter (solid, liquid, gas):



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**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

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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:

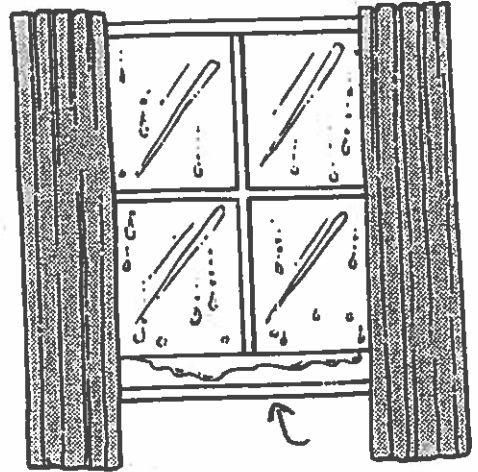
a) *more* b) *less* c) *the same* d) *none of the above*

12. \_\_\_\_\_ can change the state of matter (solid, liquid, gas):

a) *Mass* b) *Volume* c) *Temperature* d) *Nothing*

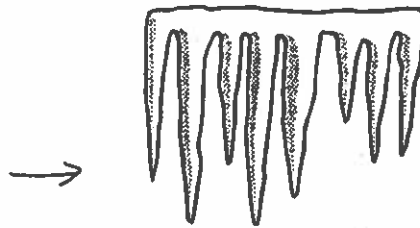
13. This picture is an example of this process:

- 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

