Name:_____ Block:_____ Date:_____

Chemistry 11 **Matter Review Key** Assignment

Complete the following sentences by filling in the appropriate word from the list below.

gas	plasma	physical
liquid	matter	chemical
solid	energy	evaporation

1) Matter is anything that has mass and volume.

2) The two states of matter that occupy a definite volume are solid and liquid.

3) The other two states of matter are gas and plasma.

4) Chemical changes alter the identity of a substance, whereas Physical changes do not.

Identify whether each of the following changes is a physical change or a chemical change. Write a "P" on the line for a physical change and a "C" for a chemical change.

C 5) soap removing grease

C 6) firecracker exploding

P 7) butter melting

C 8) wood rotting

C 9) leaves changing colour

P 10) glass breaking

P 11) mowing the lawn

C 12) baking a cake

Answer each of the following questions in the space provided.

15) Helium is an inert gas that does not react with other substances to form compounds. Would it be correct to say that helium has no chemical properties? Explain your answer.

No, chemical properties describe how a chemical reacts. Being inert is a chemical property of Helium

16) When cement is hardening it is changing state. This process also produces heat. Using what you know about cement and concrete, explain if this process is a physical or chemical change.

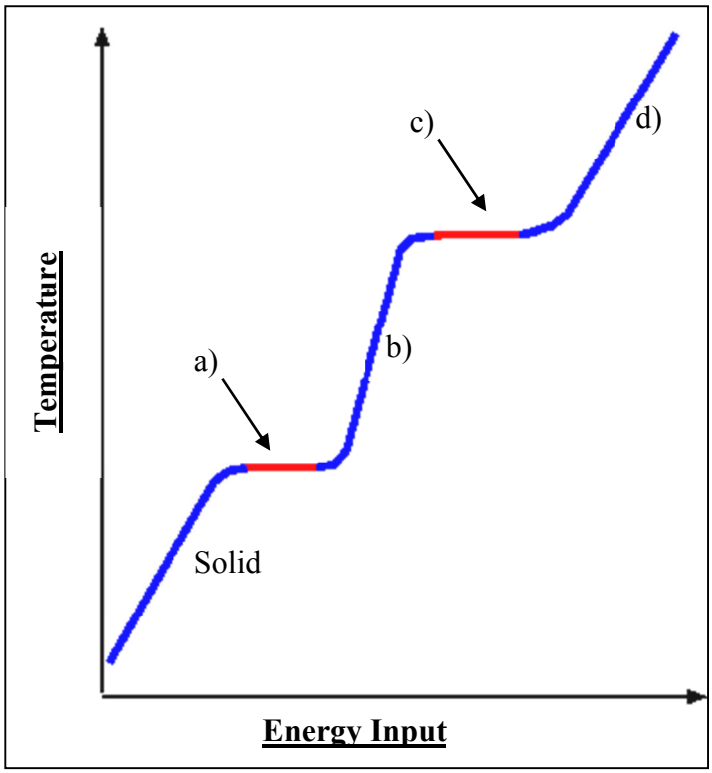
Chemical change: - heat is produced

- new chemical if formed (concrete at the end, no cement)

- difficult to reverse the process (not always true for chemical changes)

- state change from liquid to solid (physical change accompanying the chemical change)

7) In the space provided, name the phases and the phase changes that solid nitrogen would go through if it were heated as in the graph.



a) Melting

b) Liquid

c) Evaporating

d) Gas

18) What variable other than temperature can cause a substance to change state?

Pressuse changes

19) Explain the difference between qualitative and quantitative observations.

Qualitative: describes qualities of materials. ex. Colour, shape, general appearance, etc.

Quantitative: uses numbers to describe materials. ex. Height, length, mass, volume, etc.