

Name: _____
Blk: _____ Date: _____

Science
Notes: STATES OF MATTER

_____ is anything that has a mass and a volume

→ _____ is the amount of matter in an object
It is measured in _____

→ _____ is the amount of space an object takes up
It is measured in two different ways:

- Fluids _____
- Solids _____

THE STATES OF MATTER:

There are _____ Categories for Matter

1. _____

have a _____ mass
have a _____ volume
have a _____ shape
Ex:

2. _____

have a _____ mass
have a _____ volume
Take the shape of its _____
Ex:

3. _____

have a _____ mass
Take the volume of its _____
Take the shape of its _____
Ex:

4. _____

What is _____? Read pg 258 and answer this question.

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Science
Notes: Changes of State

Particles with more energy move faster than particles with less energy.

Therefore:

If you _____ to a substance, the particles move _____
and _____ and start to spread further and further apart =
_____.

The three possible changes of state that can occur with the addition of energy or heat are:

1. _____ solid → liquid
2. _____ liquid → gas
3. _____ solid → gas

If you _____ from a substance, the particles move _____
And _____ and start to get closer and closer together =
_____.

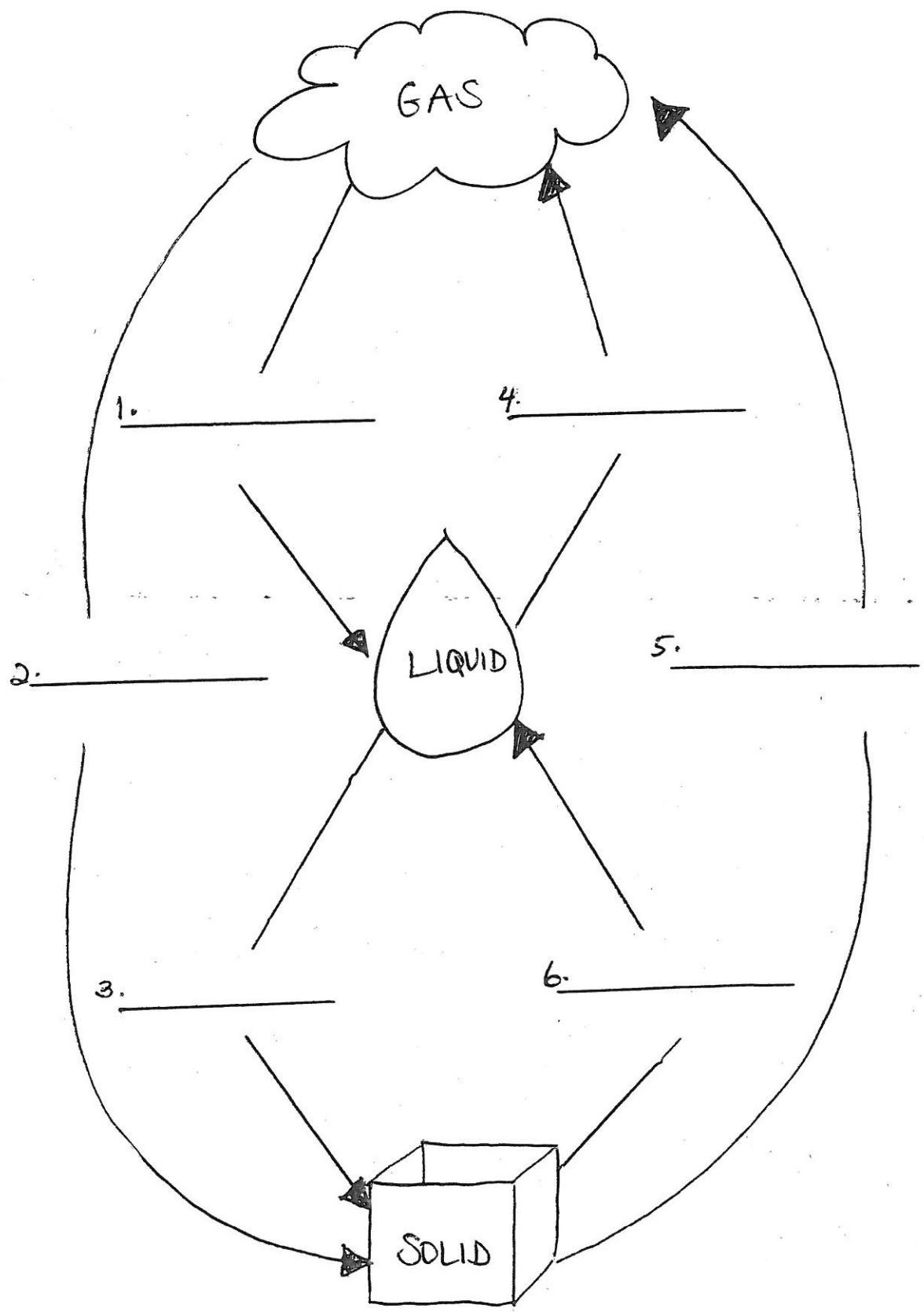
The three possible changes of state that can occur with the removal of energy or heat are:

1. _____ liquid → solid
2. _____ gas → liquid
3. _____ gas → solid

Complete the diagram on the next page using the above terms in the proper spaces

Removing Heat

Adding Heat



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Science 9
Notes on: The PMM and KMT

The Particle Model of Matter:

Describes the _____ of matter

All matter is made of small _____.

There are varying _____ between the particles.
Gases have _____ space than liquids. Liquids have
_____ space than solids.

Particles are always _____.

Particles are _____ to each other. The strength of attraction
depends on the _____ of particle.

The Kinetic Molecular Theory:

(Recall from science 8 that Kinetic energy is the energy of objects in
_____)

Describes what happens to matter when the kinetic energy of particles
_____.

Matter is made of small _____.

There are empty _____ between the particles.

Particles are constantly _____.
Solid particles are packed together and
cannot move freely. They can only _____.

Liquid particles are farther apart and can _____
_____ each other.

Gas particles are far apart and move around
_____.

Adding _____ makes particles move.