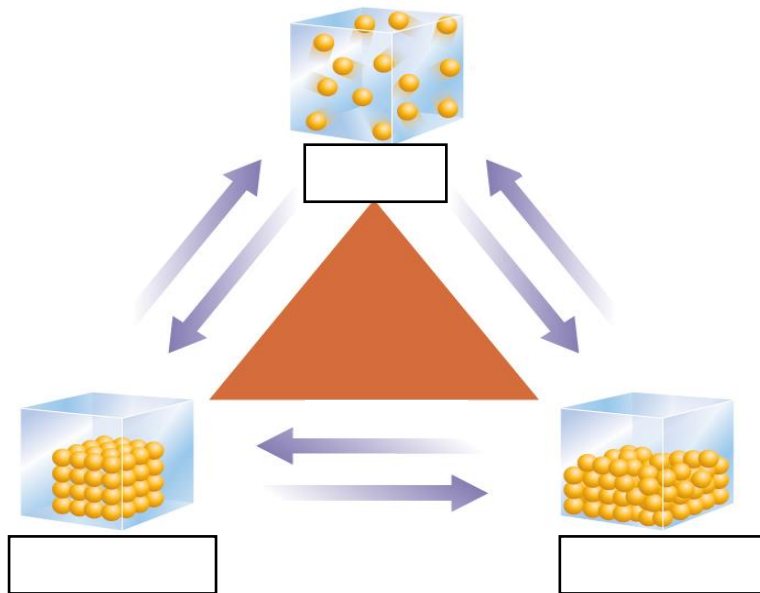


SCIENCE 8 NOTES PACKAGE (2.3.3 CHANGES OF STATE)

A **change of state** is when matter transforms from one state to another. Examples:

- Liquid water becoming solid water (ice)
- Solid gold becoming liquid gold

Complete the diagram below using the word bank. Use colour to show increases and decreases in energy.



Word Bank:

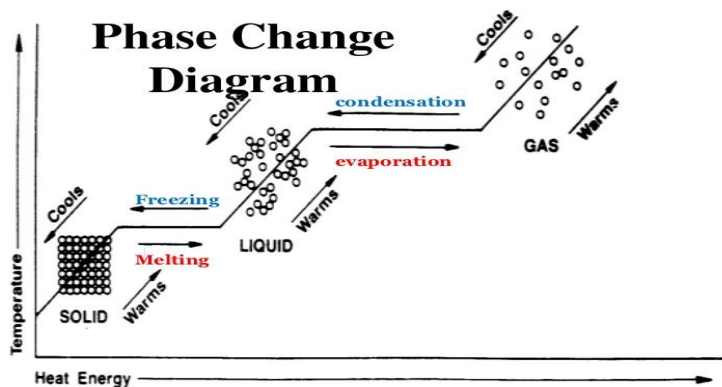
Sublimation; Deposition; Vaporization;
 Condensation; Freezing; Melting; Gas;
 Solid; Liquid

Temperature is a measure of the average _____ of particles in a substance.

- Kinetic energy: _____
- If you add kinetic energy to matter, its temperature will _____.
- If you remove kinetic energy from matter, its temperature will _____.

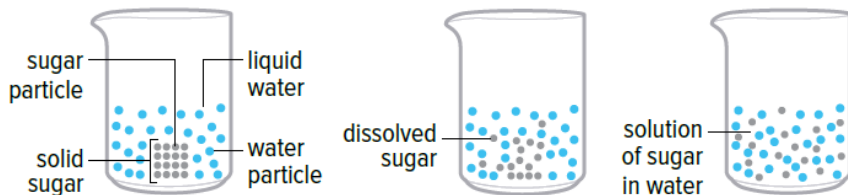
Change of state:

- *Warming*: heat energy converted to kinetic energy and makes particles move faster.
- *Phase change*: heat energy used to overcome attraction forces between particles



SCIENCE 8 NOTES PACKAGE (2.3.4 THE KINETIC MOLECULAR THEORY EXPLAINS PHYSICAL CHANGES AND PROPERTIES)

What is **dissolving** (e.g. when sugar dissolves in water and ‘disappears’)?



What is **diffusion**?

Solids, liquids, and gases _____ when heated, and _____ when cooled.

Thermal expansion: the _____.

Practice Questions:

Use the KMT to explain why a balloon in a hot car will expand and may eventually pop.

Use the KMT to explain what happens when salt dissolves in water.