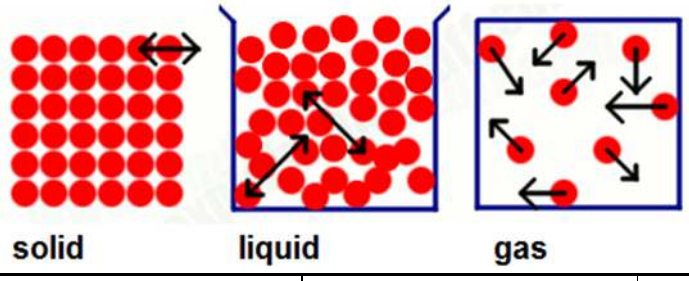
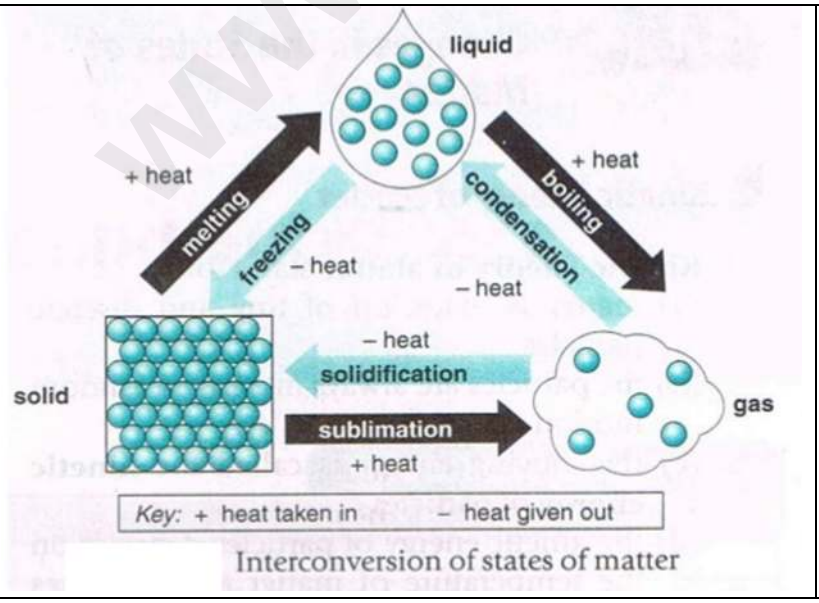
ICSE CLASS 6 CHEMISTRY
STATES OF MATTER



MATTER: has mass and occupies space.
Three states of matter: solid, liquid, gas

Characteristic	Solid	Liquid	Gas
Shape and volume	Fixed shape, fixed volume	Fixed volume, take the shape of container	Neither fixed volume nor shape
Compressibility	Rigid, incompressible	Negligible compressibility	Highly compressible
Force of attraction between particles	Maximum attraction	Intermediate forces of attraction	Minimum force of attraction
Movement	Vibrate only about their fixed position	Particles slip and slide over each other	Particles move at random
Density	High density due to tight packing of particles	Lesser density than solids	Very light, so low density
Fluidity	Cannot flow, can be heaped	Flow from higher to lower level	Very fluid, move in all directions
Diffusion	Do not normally diffuse into one another	Solids, liquids and gases can diffuse into liquids. Ease of diffusion depends on viscosity of liquid	Gases diffuse very easily into one another
Container	Solids do not require container to hold them	Liquids need container	Can expand or compress to fit into any sealed container

INTERCONVERSIONS OF STATES OF MATTER



Interconversion of states of matter

Remember!
A substance which under normal conditions is solid or liquid but changes to gaseous state under specific conditions is a vapour
A substance which normally exists in gaseous state under normal conditions of pressure and temperature is a gas
Boiling occurs when a liquid reaches a specific temperature and gets converted to vapour
Evaporation is when a liquid changes into vapour state below its boiling point. E.g. a glass of water when allowed to stand and its volume is found to decrease due to escape of surface molecules as vapour particles