

# Chemistry

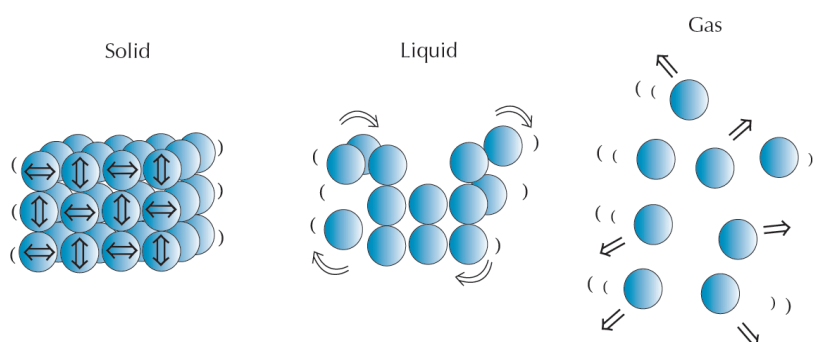
## Chapter 21 – States of Matter

**Matter is anything that takes up space and has mass.**

**Matter can exist in three states – solid, liquid and gas**

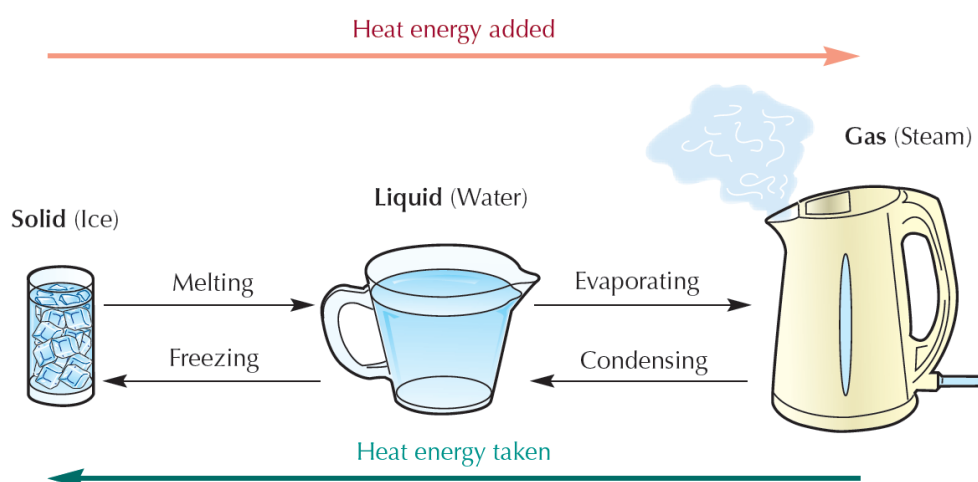
### Characteristics of solids liquids and gasses

Solids	Liquids	Gases
Definite shape	No definite shape	No definite shape
Definite volume	Definite volume	No definite volume
Hard to compress	Hard to compress	Easy to compress
Do not flow	Flow easily	Diffuse to fill all available space



Molecules of a solid have the least energy, molecules of a liquid have more energy and molecules of a gas have the most energy.

### Change of state



Heating a **solid** gives its **molecules** enough **energy** to behave like a liquid (it melts).

Heating a **liquid** gives its **molecules** enough **energy** to behave like a gas (it evaporates).

The **melting point** of a solid is the temperature at which both the solid and liquid states of a substance exist together.

**Evaporation** is the changing of a liquid to a gas or vapour.

The **boiling point** of a liquid is the temperature at which evaporation begins to occur throughout the liquid.

**Condensation** is the changing of a gas to a liquid.

When a substance changes directly from a solid to a gas it is called **sublimation**.