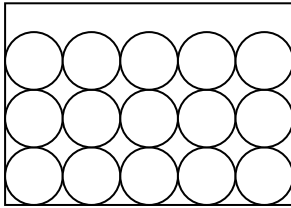
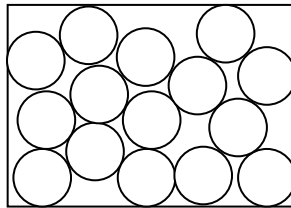
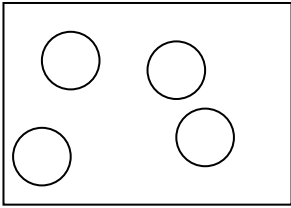


States of Matter Summary

State	Solid	Liquid	Gas
Arrangement	Very close together Regular arrangement	Close together Random arrangement	Far apart Random arrangement
Motion	Vibrate about a fixed position	Move around each other	Move quickly in all directions
Properties	Definite shape Definite volume Not compressible	Takes shape of container Definite volume Not compressible	Do not stay in an open container; spread out to fill available volume Volume depends on container Compressible
Model of particles			

When the particles of a substance gain or lose energy, the substance may change its state.

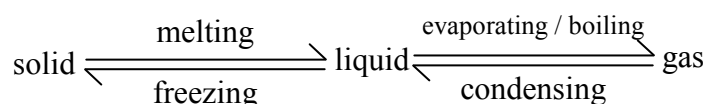
Melting

If energy is supplied to a solid, its particles vibrate more violently. They may separate from each other and become free to move. The temperature at which a solid melts is called its melting point.

Evaporating and boiling

Heating a liquid makes its particles move around more quickly. Particles which have enough energy may overcome attractive forces. They will escape from the liquid and become a gas. This is evaporation.

When the temperature is higher, more particles have enough energy to escape so evaporation is faster. If the temperature is high enough, a liquid will boil. The temperature at which a liquid boils is called its boiling point.



Diffusion

The particles of a gas move around very quickly in all directions. This is why gases spread out (diffuse) and mix completely with each other.

Dissolving

As liquid particles move about, they may separate the particles of an added solute from each other. This is dissolving.