


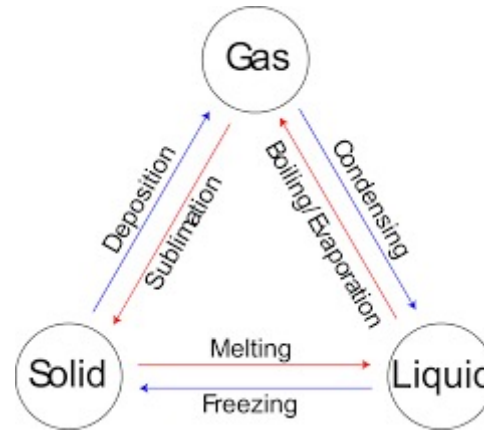
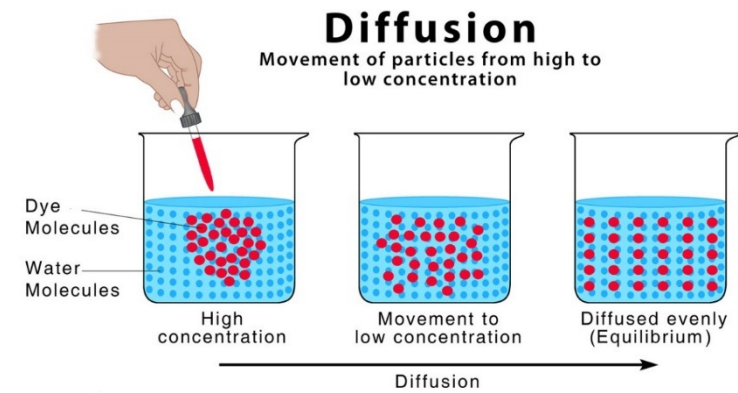


	Solid	Liquid	Gas
particle model diagram			
particle arrangement	regular structure no space between particles	irregular structure very little space between particles	irregular structure large space between particles
volume and shape	fixed volume fixed shape	fixed volume shape changes to fill bottom of container	volume increases to fill capacity shape changes to fill capacity
able to flow	no (forces between particles are very strong and hold them in fixed positions)	yes (forces between particles are weak and particles slide over one another)	yes (forces between particles are very weak and particles move randomly and rapidly)
density	high cannot be compressed (particles are already tightly packed)	high cannot be compressed (particles are already tightly packed)	low can be compressed (particles are forced closer together)
particle energy levels	low (particles vibrate around a fixed point only)	moderate (particles can move and flow but slowly)	high (particles moving rapidly and freely)
examples	wood, metal, stone, plastic	water, milk, bleach, acid	air, oxygen, carbon dioxide

How does a shark use particles to detect prey? Knowledge Organiser



A. Key Terms:	
Boiling.	The change of state from liquid to gas at boiling point
Boiling point.	The temperature at which a substance boils.
Condensation.	The change of state from gas to liquid.
Density	How much matter there is in a particular volume, or how close the particles are.
Diffusion	The process by which particles in liquids or gases spread out through random movement from a region where there are many particles to one where there are fewer.
Evaporation.	The change of state from liquid to gas at any temperature
Freezing.	The change of state from liquid to solid.
Gas.	In a gas state, a substance can flow and can also be compressed.
Liquid.	In the liquid state, a substance can flow but cannot be compressed.
Melting.	The change of state from solid to liquid.
Melting point.	The temperature at which a substance melts.
Particle.	A small part of matter.
Particle model	A way to think about how substances behave in terms of small, moving particles.
Property.	A quality of a substance or material that describes its appearance or how it behaves.
Solid.	In the solid state, a substance cannot be compressed and it cannot flow.
Sublimation.	The change of state from solid to gas.

