



Section 1: Key Vocabulary	
Key Word	Definition
Atom	A tiny particle that all substances are made up of
Element	A substance that is made up of just one type of atom
Mixture	A substance made up of two or more different atoms that are not joined together
Compound	A substance made up of two or more different atoms that are chemically bonded together
Solid	Particles in solids are tightly packed, usually in a regular arrangement
Liquid	Particles in liquids are close together with no regular arrangement
Gas	Particles in gasses are far apart with no regular arrangement
Melting	When a solid turns into a liquid
Freezing	When a liquid turns into a solid
Boiling	When a liquid turns into a gas
Condensation	When a gas turns into a liquid
Evaporation	When a liquid turns to a gas below the temperature at which it boils

Section 2: Quick Questions	
What happens when particles are heated?	The particles gain thermal energy and vibrate or move around faster
What is happening in a solid melts?	The bonds between the particles become weaker until the particles can move around one another
What is happening when a liquid freezes?	The bonds between particles become strong, stopping the particles from moving about
What is the Periodic Table?	The Periodic Table contains all the elements organised by atomic number
What are the symbols for the elements?	Every element has a symbol (like C for carbon), which is short way of writing that element
What are chemical formulae?	Chemical formulae use symbols to show which atoms are in molecules e.g. H_2O and $C_6H_{12}O_6$
Why can a gas be compressed (squashed)?	There is space between the particles in a gas, so they can be pushed closer together.
Why do liquids take the shape of their container?	Liquid particles flow around each other and have no fixed shape, so they take the shape of the container
What is a cooling or heating curve?	A graph showing the temperature of a substance as it is cooled down or heated up

Section 3: Helpful Diagrams

elements

compounds

mixtures

⁶
C
Carbon
12

¹
H
Hydrogen
1

solid

- rigid
- fixed shape
- fixed volume

liquid

- not rigid
- no fixed shape
- fixed volume

gas

- not rigid
- no fixed shape
- no fixed volume

Temperature (°C)

Heat added

Section 4: Video Links

<https://www.youtube.com/watch?v=CguFLlwZKoM>

<https://www.youtube.com/watch?v=p7mOLbpEcA4>

<https://www.youtube.com/watch?v=hFGJV-tHZWk>