

Topic:	The particle model 1 (3 states) (C.1)
In which state do the particles have strong bonds between them?	Solid
In which state do the particles have no bonds between them?	Gas
How do the particles move in a solid?	Vibrate
How do the particles move in a liquid?	Slide over each other
How do the particles move in a gas?	Quick and random
In which state gas diffusion NOT happen?	Solid
In which state can particles NOT be compressed?	Solid and Liquid
In which state do particles stay in a fixed position?	Solid
What is the boiling point of water?	100°C
What is the melting point of water?	0°C

Topic:	The particle model 2 (changes of state) (C.2)
What is the name for a solid turning into a liquid?	Melting
What is the name for a liquid turning into a gas?	Boiling
What is the name for a gas turning into a liquid?	Condensation
What is the name for a liquid turning into a solid?	Freezing
What is the name for a gas turning into a solid?	Sublimation
What is the name given to the process of a liquid turning into a gas at the surface of the liquid?	Evaporation
Define "boiling point"	The temperature at which a liquid turns into a gas
Define "diffusion"	The movement of particles from a high concentration to a low concentration
Define "osmosis"	The movement of water particles from a dilute to a concentrated solution through a partially permeable membrane
Define "active transport"	The movement of particles from a low concentration to a high concentration using energy

Topic:	The particle model 3 (extension only) (C.3)
Define "Brownian motion"	The random movement of particles in a fluid
	Liquids and gases
State an advantages of using the particle model	Allows you to predict the behaviour of a substance
State two disadvantages of using the particle model	Assumes all particles are spheres, doesn't show the bonds between atoms
What happens to particles during expansion?	Particles vibrate more so move further apart
What happens to particles during contraction?	Particles vibrate less so move closer together
Why are solids more dense than gases?	More particles in a given volume
What happens to the pressure of a gas when it is heated?	Pressure increases
Which state is the least dense?	Gas
Which state is the most dense?	Solid

Topic:	Elements, compounds and mixtures (C.4)
Define "atom"	Tiny particles
Define molecule	A group of atoms bonded together
What are substances made of only one TYPE of atom called?	Elements
What are substances made of two or more types of atoms NOT chemically bonded together called?	Mixtures
What are substances made of two or more types of atoms chemically BONDED together called?	Compounds
What is the formula for water?	H <sub>2</sub> O
What is the formula for Methane?	CH <sub>4</sub>
What is the formula for carbon dioxide?	CO <sub>2</sub>
What is the word for an element that always exists as two atoms bonded together? (extension only)	Diatomic
Which elements exist diatomically? (extension only)	Oxygen, hydrogen, nitrogen and all of group 7

Topic:	Units 1 (S.9)
Recall the standard units for "mass"	Kilograms (kg)
Recall the standard units for "time"	Seconds (s)
Recall the standard units for "distance"	Meters (m)
Recall the standard units for "surface area"	Meters squared (m <sup>2</sup> )
Recall the standard units for "volume"	Meters cubed (m <sup>3</sup> )
Recall the standard units for "speed"	Meters per second (m/s)
Recall the standard units for "energy"	Joules (J)
Recall the standard units for "force"	Newtons (N)
Recall the standard units for "pressure"	Newtons per meter (N/m)
Recall the standard units for "potential difference"	Volts (V)

Topic:	Units 2 (S.10)
Recall the standard units for "current"	Amperes (A)
	Ohms (Ω)
Recall the standard units for "gravitational field strength"	Newtons per kilogram (N/kg)
Recall the standard units for "frequency"	Hertz (Hz)
Recall the standard units for "amplitude"	Meters (m)
Recall the standard units for "wavelength"	Meters (m)
Recall the standard units for "height"	Meters (m)
Recall the standard units for "acceleration"	Meters per second squared (m/s <sup>2</sup> )
Recall the standard units for "weight"	Newtons (N)
Recall the standard units for "moment" (extension only)	Newtonmeters (Nm)