Topic: Particle Nature of Matter

A. Particle Theory		
Solid	Liquid	Gas
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Particles very close together Regular arrangement Vibrate around fixed point Strong forces between particles	Particles close together Random arrangement Move around Moderate forces between particles	Particles far apart Random arrangement Move quickly in all directions Very weak forces between particles

B. Changes of State GAS Sublimation Evaporation Boiling Condensing LIQUID Freezing

Melting point of water = 0°C Boiling point of water = 100°C

SCIENCE

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KEY STAGE

D. Key Vocabulary

Word	Definition	
1. Particles	everything is made up of these	
2. Theory	an idea used to explain an aspect of the natural world. Theories change over time as new evidence is discovered.	
3. Solid	Substance that cannot change shape or size easily. Cannot be easily squashed.	
4. Liquid	Substance that can change shape. Liquids can flow but cannot be easily squashed	
5. Gas	Substance that can change shape and size. They fill the container they are placed in and can be squashed.	
6. Freezing or solidifying	Change of state from liquid to solid	
7. Melting	change of state from solid to liquid.	
8. Evaporating or boiling	change of state from liquid to gas	
9. Condensation	change of state from gas to liquid.	
10. Sublimation	change of state from solid to gas OR gas to solid.	
11. Diffusion	The spreading out and mixing of gas or liquid particles	
12. Pressure in Gases	Caused by gas particles hitting the inside of the container.	
13. Melting point	The temperature at which a solid melts.	
14. Boiling Point	The temperature at which a substance boils and turns into gas.	

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