

## The Particle Model (F)

1. Substances can exist in three states of matter.



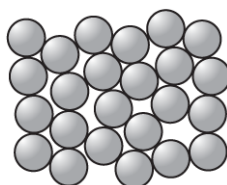
What is change of state Y called?

- A Condensing
- B Evaporating
- C Freezing
- D Melting

Your answer

[1]

2. This particle model shows the particles in iron.



What state does this particle model represent?

- A Gas
- B Liquid
- C Plasma
- D Solid

Your answer

[1]

3. Which of these is a **physical** change?

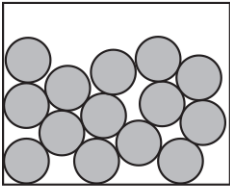
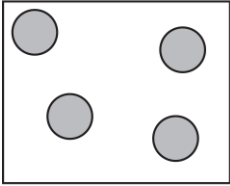
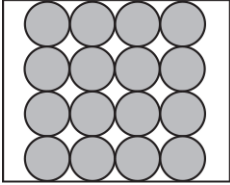
- A Burning wood
- B Melting wax
- C Neutralising an acid
- D Rusting iron

Your answer

[1]

4. The particle model shows how particles are arranged and how they move in the three states of matter.

i. Draw a line to match each **diagram** with the correct **state of matter**.

Diagram	State of matter
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Solid</div>
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Liquid</div>
	<div style="border: 1px solid black; padding: 2px; display: inline-block;">Gas</div>

[2]

ii. When a liquid is heated to its boiling point, it will turn into a gas.

Use the particle model to explain why this is a **physical change**.

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[1]

5 (a). The student heated the mixture to form solid iron sulfide. This is an example of a **chemical change**.

Write down **two** ways the student will know a chemical reaction has taken place.

1

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2

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[2]

(b).

- i. The particle model shows how particles are arranged and how they move in solids, liquids and gases.

Describe how the particles are **arranged** in a solid.

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----- [2]

- ii. Describe how the particles **move** in a solid.

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----- [1]

**END OF QUESTION PAPER**