OCR GCSE GATEWAY CHEMISTRY A · J248

CHEMISTRY



EXAM QUESTION PACK

C1.1 THE PARTICLE MODEL

SCORE	PERCENTAGE
/12	%

STEMUP

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Gateway Chemistry A (9-1)

The particle models

Please note that you may see slight differences between this paper and the original.

Candidates answer on the Question paper.

OCR supplied materials:
Additional resources may be supplied with this paper.

Other materials required:
- Pencil
- Ruler (cm/mm)

Duration: Not set

Candidate forename		Candidate surname	

Centre number						Candidate number				

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. HB pencil may be used for graphs and diagrams only.
- Answer **all** the questions, unless your teacher tells you otherwise.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Where space is provided below the question, please write your answer there.
- You may use additional paper, or a specific Answer sheet if one is provided, but you must clearly show your candidate number, centre number and question number(s).

INFORMATION FOR CANDIDATES

- The quality of written communication is assessed in questions marked with either a pencil or an asterisk. In History and Geography a *Quality of extended response* question is marked with an asterisk, while a pencil is used for questions in which *Spelling, punctuation and grammar and the use of specialist terminology* is assessed.
- The number of marks is given in brackets **[ ]** at the end of each question or part question.
- The total number of marks for this paper is **12**.
- The total number of marks may take into account some 'either/or' question choices.

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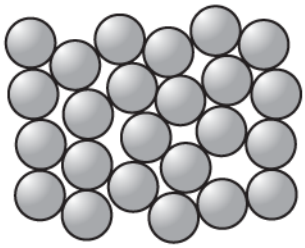
1 What is the best description of the particles in a liquid?

	Distance between particles	Movement of particles
A	close together	in continuous random motion
B	close together	vibrating about a fixed point
C	far apart	in continuous random motion
D	far apart	vibrating about a fixed point

Your answer ☐

[1]

2 This particle model shows the particles in iron.



What state does this particle model represent?

A Gas

B Liquid

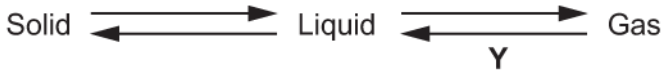
C Plasma

D Solid

Your answer ☐ **[1]**

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3 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]

4 Which of these is a **physical** change?

A Burning wood

B Melting wax

C Neutralising an acid

D Rusting iron

Your answer [1]

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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 _____

2 _____

[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.

_____

_____

_____ **[2]**

(ii) Describe how the particles **move** in a solid.

_____

_____ **[1]**

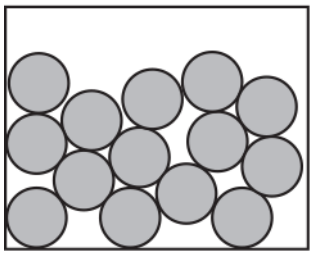
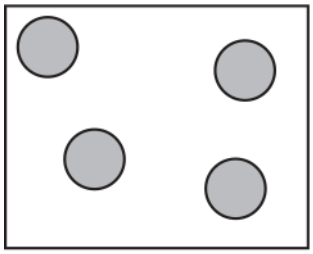
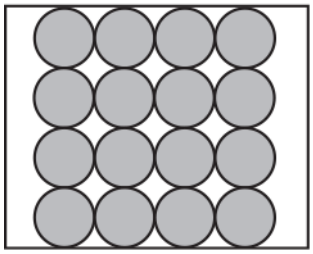
6 The particle model shows how particles are arranged and how they move in the three states of matter.

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

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Diagram	State of matter
	Solid
	Liquid
	Gas

[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]

END OF QUESTION PAPER

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