OCR GCSE GATEWAY CHEMISTRY A · J248

CHEMISTRY



MARK SCHEME

C1.1 THE PARTICLE MODEL

SCORE	PERCENTAGE
/12	%

STEMUP

These questions belong to OCR, not to us.

The examination questions, mark schemes and examiner comments in this pack were written and published by OCR. They are past assessment materials, reproduced here so that students can revise from them.

What we do not own

STEMUP is not affiliated with OCR and does not own, and makes no claim to own, any of the question, mark scheme or examiner report material in this pack. OCR has not endorsed, approved or been involved in the production of it. OCR and the qualification titles used here belong to their respective owners and appear for identification only.

Where to find the originals

OCR publishes its past papers, mark schemes and examiner reports. Always check the current specification at ocr.org.uk before you revise, because content and wording can change between series.

If you hold the rights to any material in this pack and would like it amended or removed, contact admin@stemup.co.uk and we will act on it.

Question			Answer/Indicative content	Marks	Guidance
1			A	1	
			Total	**1**	
2			B	1 (AO 1.1)	Examiner's Comments D was a popular incorrect response.
			Total	**1**	
3			A	1 (AO 1.1)	
			Total	**1**	
4			B	1 (AO 2.1)	Examiner's Comments Candidates found this difficult; A and D were the more common incorrect responses.
			Total	**1**	
5	a		A new substance is made ✓ The change is irreversible (by physical means) / impossible to reverse (by physical means) / difficult to reverse✓	2 (AO1.1)	**ALLOW** products look different to reactants/products are different to reactants/only one substance made/colour change **ALLOW** product has a fixed composition/formula OR mixture doesn't **ALLOW** there is an energy/temperature change/exothermic/endothermic **ALLOW** properties of product are different from Examiner's Comments Many candidates appreciated that a chemical change is irreversible or is accompanied by a change in appearance with few candidates citing two correct responses. Describing physical changes, including a change in state, were the most common incorrect responses.

© OCR 2022. You may photocopy this page.

Created in ExamBuilder

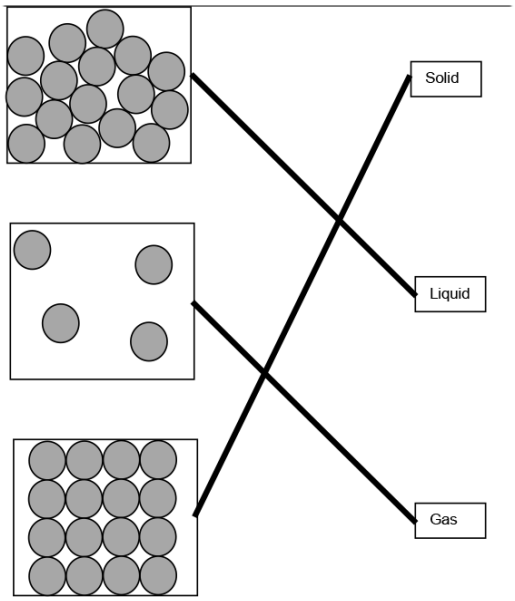
STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
	b	i	(particles) regular/in rows ✓ (particles) close together ✓	2 (AO1.1)	**ignore** fixed **allow** touching/all touching/little space between or no space between/tightly packed **ALLOW** compact both marks can be gained from a diagram Examiner's Comments The proximity of particles was well known, the regularity was less well known.
		ii	Vibrating (about a fixed position) ✓	1 (AO1.1)	Examiner's Comments Common incorrect responses included particles not moving or moving slightly or slowly.
			Total	5	

© OCR 2022. You may photocopy this page.

Created in ExamBuilder

STEMUP.CO.UK

Question			Answer/Indicative content	Marks	Guidance
6		i		2 (AO2 × 1.1)	All correct = 2 marks 1 or 2 correct = 1 mark If more than one line drawn to state of matter **DO NOT** award the mark.
		ii	**Any one from:** The particles remain the same / No new substance is made ✓ The (changed) arrangement of the particles can be reversed / The change is reversible ✓	1 (AO1.1)	**ALLOW** the particles **only** gain or lose energy
			Total	3	

© OCR 2022. You may photocopy this page.

Created in ExamBuilder

STEMUP.CO.UK