



GCSE Chemistry A (Gateway Science)
J248/04 Chemistry A C4-C6 and C7 (Higher Tier)

Question Set 26

1 A student investigates the corrosion of different metals.

- She places a small strip of each metal in different samples of air.
- She leaves the metals for one week before collecting her results.

Look at her table of results.

Metal	Original appearance of metal	Appearance of metal after one week in			
		moist acidic air	moist alkaline air	dry air	moist air
aluminium	shiny silver	dull silver	dull silver	shiny silver	shiny silver
copper	shiny red-orange	dull red-orange	green red-orange	shiny red-orange	dull red-orange
iron	shiny silver	brown coating	brown coating	shiny silver	brown coating
magnesium	shiny silver	whitish coating	dull silver	shiny silver	dull silver
zinc	shiny silver	dark coating	dark coating	shiny silver	dull silver

- (a) Suggest, with a reason, **one** change to the experimental procedure that would improve the quality of the results. [1]

Keep all experiments at the same temperature, as this will affect the range

- (b) Explain the conclusions that can be made from her results. [3]

- Water is needed for corrosion, as there was no change in dry air.
- Acidic and alkaline conditions speed up the corrosion.
- Corrosion is not affected by the reactivity of the metal

Total Marks for Question Set 26: 4