

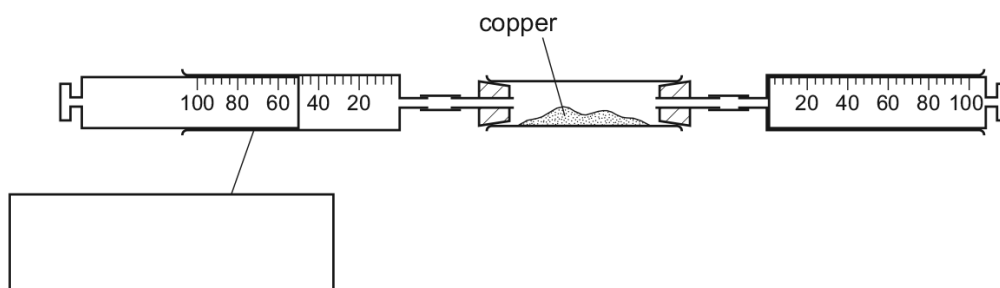


10.2. AIR

02. 0620\_s16\_qp\_63 Q: 1

Air is a mixture of gases. The diagram shows the apparatus used to find the percentage of oxygen in air.

50 cm<sup>3</sup> of air were passed backwards and forwards over excess heated copper until there was no further change. The apparatus was left to cool and the volume of gas remaining was 40 cm<sup>3</sup>.



(a) Complete the box to name the apparatus. [1]

(b) Use an arrow to indicate where heat is applied. [1]

(c) The colour of the copper changed from ..... to ..... [2]

(d) From the results, work out the percentage of oxygen in the air.

Ace | GCSE ..... % [2]  
[Total: 6]  
Paper Perfection, Crafted With Passion





01. 0620\_s12\_ms\_61 Q: 6

steel nail(s) in test-tube/suitable glass container (1)  
 x cm<sup>3</sup> (1)  
 water (1) no water = max 3  
 known volume of inhibitor added (1)  
 observe effect after suitable time (1) note: minimum time = 1 day  
 repeat using other inhibitors (1)  
 observe/comparison of results (1)

[7]

[Total: 7]

02. 0620\_s16\_ms\_63 Q: 1

(a)	(gas) syringe;	1
(b)	arrow under copper;	1
(c)	orange/red/brown/pink; to black;	1 1
(d)	volume of oxygen = 10 cm <sup>3</sup> ; % oxygen = 10/50 × 100 = 20%;	1 1

03. 0620\_s19\_ms\_61 Q: 4

	<b>any six from:</b> <input type="checkbox"/> weigh nails / use set number of nails <input type="checkbox"/> place nails in a suitable container <input type="checkbox"/> add water to nails <input type="checkbox"/> leave in water for a suitable time (≥ 1 week) <input type="checkbox"/> observe nails / compare / reweigh nails <input type="checkbox"/> repeat with nail with other coverings <input type="checkbox"/> nail with least rust / mass increase has best coating	<b>Max 6</b>
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04. 0620\_w17\_ms\_62 Q: 4

	<b>max [6]:</b> <b>M1</b> weigh specified number of nail(s) / specified number of nails <b>M2</b> immerse in same volume <b>M3</b> samples of tap water and distilled water (in two test-tubes) <b>M4</b> for suitable time <b>M5</b> dry (in oven) <b>M6</b> reweigh nails <b>M7</b> compare / conclusion	<b>6</b>
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