



Oxford Cambridge and RSA

GCSE Chemistry B (Twenty First Century Science)

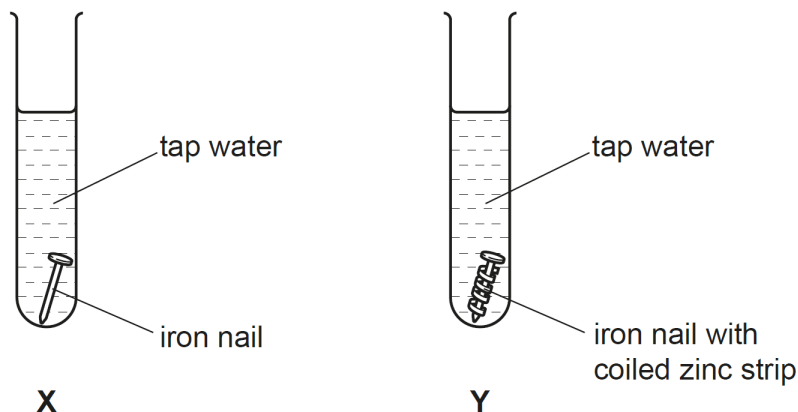
J258/03 Breadth in chemistry (Higher Tier)

Question Set 30

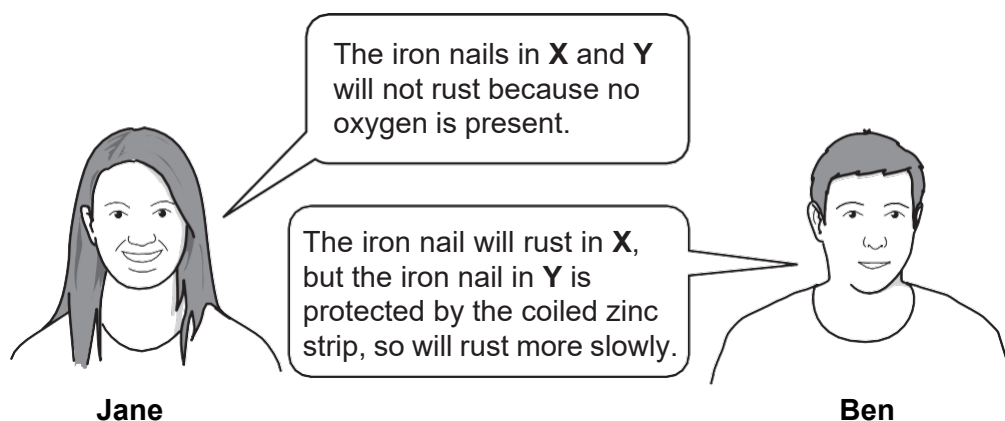
1

Iron is an important metal in the construction industry. The main disadvantage of iron is that it rusts.

Jane and Ben investigate the rusting of iron nails using two test tubes, X and Y.



(a) Jane and Ben discuss the investigation:



Do you agree with each person's comments?

Give **one** reason for each of your answers.

[2]

(b) When iron rusts, an iron(III) cation is made.



(i) What is being oxidised in this reaction?

Put a **ring** around the correct formula.



[1]

(ii) Give **one** reason for your answer to (b)(i).

[1]

(c) Jane collects the rust. She dissolves the rust in hydrochloric acid and adds some sodium hydroxide solution.

She sees a brown precipitate.

What is the name of this brown precipitate?

Tick (✓) **one** box.

- | | |
|---------------------|--------------------------|
| Iron(III) chloride | <input type="checkbox"/> |
| Iron(II) hydroxide | <input type="checkbox"/> |
| Iron(III) hydroxide | <input type="checkbox"/> |
| Sodium chloride | <input type="checkbox"/> |

[1]

Total Marks for Question Set 30: 5

OCR

Oxford Cambridge and RSA

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge