

Solutions

Each answer shows the steps, then the **result**.

2.1

- iron rusts only with **oxygen** and **water**

2.2

- coating iron with zinc is **galvanising**

3.1 B

- rust is **hydrated iron(III) oxide**
- A, C and D are different compounds

3.2

(a)

- only tube **(i)** rusts
- it is the only one with **both water and oxygen**

(b)

- boiling **removes dissolved oxygen** from the water

3.3

- zinc is **more reactive** than iron, so it corrodes instead
- zinc **loses electrons** / gives them to the iron
- the iron is protected even where the surface is **scratched**