

Unit 8 REVIEW

1 Which of the following is a chemical change?

Tick (✓) **one** box.

Ice melting.

☐

Iron filings heated with sulfur to produce iron

☐

sulfate. Steam rising from a cooking pan.

☐

Sugar dissolving in a hot drink.

☐

2 Here are some properties of Substance X.

- It is a soft grey solid with a dull surface.
- When cut with a knife, the cut surface is shiny. The surface does not stay shiny for long because substance X reacts with the oxygen in the air to form an oxide.
- It reacts violently with water and gives off the gas hydrogen.
- It has a melting point of 63.5°C .
- It burns with a violet-coloured flame.

a Write down three properties of Substance X, and state whether each property is a physical property or a chemical property.

b Is Substance X a metal or a non-metal? Give a reason for your answer.

Metal or non-metal: _____

Reason: _____

3 Make a list of the equipment and chemicals you would use to find the pH of a soil sample.

4 A gas was tested with a lighted splint and it made a popping sound. Which gas was it?

Tick (✓) **one** box.

oxygen ☐

hydrogen ☐

air ☐

carbon dioxide ☐

5 Complete the following equations:

a zinc + hydrochloric acid → _____ + hydrogen

b potassium hydroxide + _____ → potassium sulfate + water