Year 11 Science: Five reaction types in everyday contexts

Name: _____ Date: _____

Try these without your notes first, then check the answer key.

Practice

1. Name the reaction type: limestone heated in a kiln gives off a gas; two clear solutions are mixed and go cloudy; an iron gate turns orange-brown; lime is spread on an acidic paddock.

2. Write balanced equations for methane (CH_4) burning completely, and burning incompletely to make carbon monoxide.

3. Barium nitrate and sodium sulfate solutions are mixed. Name the precipitate, write the balanced equation, and name the spectator ions.

4. 50 g of calcium carbonate is heated until it has all decomposed. What mass of calcium oxide is left, and what mass of carbon dioxide escapes?

5. A gas heater with no flue is used in a closed bedroom. Discuss why this is dangerous, using combustion equations and conservation of mass.

6. Explain why an open bottle of fizzy drink gets lighter over an hour, but an unopened one does not.

Fix the mistake

7. Correct this statement: "Incomplete combustion makes less carbon dioxide because some of the carbon is destroyed."

8. Correct this statement: "A rusty nail weighs less because the rust has eaten some of the iron away."

9. Correct this statement: "When silver nitrate and sodium chloride are mixed, every ion forms the precipitate."

10. Correct this statement: "Fizzing always means neutralisation."