

Class 10 Science – Chemical Reactions and Equations – Topic: Types of Chemical Reactions (Worksheet)

ALPHA CLASSES DEOBAND | Session 2026–27 | CBSE Board Pattern

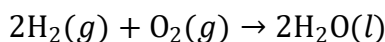
Name: _____ Roll No.: _____ Date: _____

Level 1 – Basic (Build Confidence)

Q1. Define combination reaction. Write one example with a balanced equation.

Q2. What is a decomposition reaction? Write its general form.

Q3. Identify the type of chemical reaction:



Q4. Write the balanced equation for the electrolysis of water. Name the type of decomposition reaction.

Q5. What is a displacement reaction? Give one example with a balanced equation.

Q6. Is the burning of magnesium ribbon an exothermic or an endothermic reaction? Give a reason.

Q7. Define neutralisation reaction. Write the general equation for neutralisation.

Q8. What happens when silver chloride is exposed to sunlight? Write the equation and name the type of reaction.

Level 2 – Standard / Exam-Oriented

Q9. A white powder, when dissolved in water, produces a large amount of heat. The resulting solution turns red litmus paper blue. Identify the compound, write the balanced equation, and classify the reaction (type + exothermic/endothermic).

Q10. Explain why decomposition reactions are considered the opposite of combination reactions. Support your answer with one balanced equation for each.

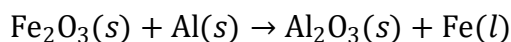
Q11. When a strip of zinc metal is dipped in copper sulphate solution, the blue colour gradually disappears. Write the balanced equation, state two observations, and identify the type of reaction.

Q12. Write one balanced equation for each of the following: (a) thermal decomposition (b) electrolytic decomposition (c) photolytic decomposition. In each case, name the energy source used.

Q13. A student adds dilute hydrochloric acid to sodium carbonate powder. Brisk effervescence is observed. Write the balanced equation, name the gas evolved, and state how you would test for this gas.

Q14. Distinguish between displacement and double displacement reactions. Give one balanced equation for each type.

Q15. Balance the following equation and identify the type of reaction. Is it exothermic or endothermic?



Q16. Why are packets of potato chips flushed with nitrogen gas before sealing? Name the type of chemical reaction that this process aims to prevent.

Do not write solutions on this sheet. Use a separate notebook for working.
