

QUESTIONS AND ANSWERS

1. What are the different types of chemical reactions? Give an example of each.

Chemical reactions are classified into five main types: combination, decomposition, displacement, double displacement, and redox reactions. Each type has characteristic features and examples.

2. Write the balanced chemical equation for the reaction between sodium metal and water.

3. Explain the difference between a physical change and a chemical change.

4. Calculate the molar mass of calcium hydroxide, Ca(OH)_2 .

Atomic mass of Ca	40 g/mol
Atomic mass of O	16 g/mol
Atomic mass of H	1 g/mol
Molar mass of Ca(OH)_2	74 g/mol
Mass of 2 moles of Ca(OH)_2	148 g
Mass of 1 mole of Ca(OH)_2	74 g
Mass of 0.5 moles of Ca(OH)_2	37 g
Mass of 10 moles of Ca(OH)_2	740 g
Mass of 100 moles of Ca(OH)_2	7400 g

5. Write the balanced chemical equation for the reaction between hydrogen gas and oxygen gas to form water.



6. Write the balanced chemical equation for the reaction between iron and sulfur.

7. Write the balanced chemical equation for the reaction between iron and oxygen.

8. Write the balanced chemical equation for the reaction between iron and hydrochloric acid.