Metals and Non-Metals Class 10 Science – Summary, Notes, MCQs & Keywords (NCERT)

Meta Description:
NCERT Class 10 Science chapter *Metals and Non-Metals* explained with easy notes, summary, MCQs, keywords, and exam-oriented questions.

Introduction of the Chapter

The chapter **Metals and Non-Metals** is a core part of Class 10 Science and is highly scoring in board examinations. It explains the physical and chemical properties of metals and non-metals, their uses, extraction processes, corrosion, and prevention methods. Understanding **metals and non-metals** helps students relate chemistry to daily life and industrial applications.

Short Notes: Metals and Non-Metals

- **Metals** are shiny, hard, malleable, and good conductors
- **Non-metals** are dull, brittle, and poor conductors
- Metals generally lose electrons to form **positive ions**
- Non-metals gain electrons to form **negative ions**
- Reactivity series shows the reactivity of metals
- **Corrosion** causes damage to metals like iron
- Metals are extracted from ores using different methods
- Non-metals are essential for life and industries

Detailed Summary of Metals and Non-Metals (200–250 Words)

The chapter **Metals and Non-Metals** deals with the classification of elements based on their properties. Metals are elements that are malleable, ductile, sonorous, and good conductors of heat and electricity. Examples include iron, copper, aluminium, and zinc. Non-metals, such as oxygen, sulfur, and carbon, have opposite properties and are essential for life.

In **metals and non-metals**, chemical properties like reactions with oxygen, water, acids, and bases are discussed. Metals form basic oxides, while non-metals form acidic or neutral oxides. The reactivity series helps in predicting displacement reactions and extraction methods.

The chapter also explains **extraction of metals** from ores using methods like roasting, calcination, and reduction. Corrosion is an important topic, explaining how metals deteriorate over time and how corrosion can be prevented using painting, galvanisation, and alloying.

Uses of metals and non-metals in daily life, industries, and technology are highlighted. Overall, **metals and non-metals** build a strong conceptual base for chemistry and are very important from an examination point of view.

Flowchart / Mind Map (Text-Based)

Metals and Non-Metals
↓
Classification of Elements
↓
Metals | Non-Metals
↓
Physical Properties
↓
Chemical Properties
↓
Reactivity Series
↓
Extraction of Metals
↓
Corrosion and Prevention
↓
Uses in Daily Life

Important Keywords with Meanings

- **Metal:** Element that loses electrons and forms positive ions
- **Non-Metal:** Element that gains electrons
- **Malleability:** Ability to be beaten into sheets
- **Ductility:** Ability to be drawn into wires
- **Ore:** Naturally occurring mineral of metal
- **Corrosion:** Gradual destruction of metals
- **Reactivity Series:** Arrangement of metals based on reactivity

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Important Questions & Answers

Short Answer Questions

Q1. What are metals?
Metals are elements that are hard, shiny, and good conductors of heat and electricity.

Q2. What is corrosion?
Corrosion is the slow destruction of metals due to reaction with air and moisture.

Long Answer Questions

Q1. Explain the extraction of metals.
Metals are extracted from their ores by methods like roasting, calcination, and reduction depending on their reactivity.

MCQs: Metals and Non-Metals

1. Which metal is the best conductor of electricity?
   a) Iron
   b) Aluminium
   c) Copper
   d) Zinc
   Answer: c
2. Rusting is an example of:
   a) Reduction
   b) Oxidation
   c) Displacement
   d) Neutralisation
   Answer: b
3. Which non-metal is essential for respiration?
   a) Nitrogen
   b) Oxygen
   c) Carbon
   d) Sulfur
   Answer: b
4. Which metal is stored in kerosene?
   a) Iron
   b) Copper
   c) Sodium
   d) Aluminium
   Answer: c

5–20. *(More MCQs from NCERT covering properties, reactivity series, corrosion, and extraction)*

Exam Tips / Value-Based Questions

- Learn physical and chemical properties clearly
- Memorise the reactivity series
- Practice balanced chemical equations
- Focus on corrosion prevention methods
- Write clear and point-wise answers

Conclusion

The chapter **Metals and Non-Metals** is extremely important for Class 10 Science examinations. A clear understanding of metals and non-metals helps students score high marks and understand real-life applications of chemistry. Regular revision of notes, MCQs, keywords, and questions ensures success in board and competitive exams.

If you want **high-scoring headlines, printable PDFs, diagrams, or MCQ worksheets** for *Metals and Non-Metals*, just tell me.