

# **GENERAL SCIENCE (Class IX)**

## **Curriculum 2022-23**

### **1. NATURE OF SCIENCE**

- 1.1 Natural Science
- 1.2 Relationship between different branches of science
- 1.3 Science is a collaborative field

### **2. CELLS AND TISSUES**

- 2.1 Cell
- 2.2 Cell Organelles : Structure and Functions
- 2.3 Differences between Animal Cell and Plant Cell
- 2.4 Plant and Animal Tissues
- 2.5 Making a Three-D Model of Plant and Animal Cell

### **3. BIODIVERSITY**

- 3.1 Definition and Introduction to Biodiversity
- 3.2 Importance of Biodiversity
- 3.3 Impact of Human Beings on Biodiversity
- 3.4 Conservation of Biodiversity
- 3.5 Classification
- 3.6 Systems of Classification

### **4. STRUCTURE OF ATOM**

- 4.1 Atom
- 4.2 Arrangement of First 20 Elements in the Periodic Table
- 4.3 Isotope
- 4.4 Rutherford's Experiment
- 4.5 Limitations of Rutherford Model of the Atom
- 4.6 Bohr's Atomic Model

### **5. CHEMICAL BONDING**

- 5.1 Chemical Bonding (Shells and Subshells)
- 5.2 Number of Electron in Valence Shell
- 5.3 Definition of Duplet and Octet Rule
- 5.4 Applications of Duplet Rule
- 5.5 Why Atom form Chemical Bond
- 5.6 Formation of Ionic Bonds
- 5.7 Properties of Ionic Compound
- 5.8 Formation of Covalent Bonds
- 5.9 Properties of Covalent Compounds
- 5.10 Polar and Non Polar Bonds
- 5.11 Difference Between Covalent and Ionic Compounds

### **6. ENERGY RESOURCES**

- 6.1 Energy Resources
- 6.2 Advantages of Renewable Energy
- 6.3 The Phenomenon of Greenhouse Effect and Its Impact on Climate
- 6.4 Impact of Green House on Climate
- 6.5 Smog and Human Health
- 6.6 Significance of Greening Education
- 6.7 Greening Skills
- 6.8 Green Skills with 21st Century Skills and as a Pathway to the Future
- 6.9 Changes in Atmospheric Pressure with Altitude
- 6.10 Creation of Solar Oven and Identify the Scientific Concept Involved in It [Steam]

**7. STATES OF MATTER**

- 7.1 Common States of Matter
- 7.2 Properties of Gases
- 7.3 Properties of Liquids
- 7.4 Properties of Solids
- 7.5 Amorphous and Crystalline Solids
- 7.6 Allotropic Forms of Carbon

**8. MEASUREMENT**

- 8.1 Physical Quantities
- 8.2 Measurement

**9. FORCES**

- 9.1 Force of Gravitation
- 9.2 Fundamental Forces
- 9.3 Friction
- 9.4 Efficiency

**10. HEAT**

- 10.1 Heat and Temperature
- 10.2 Thermal Expansion
- 10.3 Melting and Boiling of Water
- 10.4 Conduction, Convection and Radiation