

**Subject .....SCIENCE..... Class .....VIII.....**  
**Term 1 (April-September)**

| CHAPTER  | CONTENT  | ACTIVITIES/ Co-curricular Activities   |
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| <b>April</b><br><b>Chapter 1- The cell – its structure and its functions</b> | Discovery of the cell, The cell-Variation, Parts of cell, Levels of organization in an organism, Comparison between plant cell & animal cell.  | i) Preparation of Onion peel mount<br>ii) Comparative study of plant & animal cell using charts.<br>iii) Multimedia Module.  |
| <b>April</b><br><b>Chapter 2 Micro-organisms - Friends or Foes</b>           | Types of microorganisms, Role of microorganisms, Microorganisms as our friends, Microorganisms- The foes, Food poisoning, Food preservation. Multimedia Module.  | *Survey to find out the cause, symptoms and preventive measures of diseases Typhoid & Malaria.<br><br>Make a chart on use of natural and chemical preservatives in different food items.   |
| <b>May</b><br><b>Chapter 3 Metals and non - metals</b>                       | Classification & occurrence of elements, Minerals and ores, Physical & Chemical properties of metal and non-metals, Displacement reactions, Noble metals, Uses of metals and non-metals, Alloy-Composition | To demonstrate chemical properties of metals & Non-Metals, Multimedia Module.<br>Collage making on metals, non-metals & alloys functionalities   |
| <b>May</b><br><b>Chapter 4: Force and Pressure</b>                           | Force and its effects, Balanced & unbalanced forces, Types of forces, Pressure & its application in daily life, Liquid pressure & its properties, Atmospheric pressure & Its importance                    | i)Group activity to show the effects of force, pressure in daily life.<br>ii) To study the properties of liquid pressure.<br>iii) Worksheet on nature and kind of forces, use of atmospheric pressure in our daily life  |
| <b>May</b><br><b>Chapter 5: Friction</b>                                     | Concept of friction & cause, Factor affecting friction, Types of friction, Friction –A Necessary Evil, Methods of increasing/ reducing friction, Fluid Friction  | i) To study effect of friction in daily life.<br>ii) How rolling reduces friction.<br>iii) Fluid friction can be reduced by adjusting the shapes of bodies.<br>* Make a report on electrical consumption in your house from last 6 months bills, note down the units and the charges. Suggest some ways that can help to reduce the consumption. |
| <b>July</b><br><b>Chapter 6: Sources of energy</b>                           | Classification of sources of energy, Fossil fuels, Coal & petroleum, Wood as Fuel, Cleaner fuels.  | i)Conditions required for combustion.<br><br>ii)To demonstrate that oxygen is necessary for combustion. iii) To study Zones of candle flame.   |
| <b>July</b><br><b>Chapter 7: Combustion</b>                                  | Combustion & Combustible materials, Conditions required for Combustion, Types of Combustion, Fire control, Flame, Fuel & calorific value, Characteristics of a good fuel, Harmful effects                  |  |

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| <p><b>July</b><br/>Chapter 8. Conservation of Plants and Animals.</p> <p><b>August</b><br/>9. Crop production and its management</p> <p>August<br/>10. Refraction and dispersion of light</p> <p>August<br/>Chapter 19 Pollution of air</p> | <p>Domestic &amp; global Consequences of deforestation, Conservation of forests &amp; wild-life, Ecosystem, Species, Biosphere reserves, National Parks, Wildlife Sanctuaries, Flora &amp; Fauna, Endemic species, Red data book, Migration, Reforestation, Recycling of paper.</p> <p>Introduction of agricultural practices, Role of leguminous plants, Crop improvement</p> <p>Refraction and its cause, Refracted index, Rules for refraction, Refraction by a glass slab, Dispersion, Spherical lenses &amp; basic terms, Image formation by convex and concave lenses, Application of lenses</p> <p>Air pollution, Causes, Harmful effects of pollutants, Acid Rain &amp; its harmful effects, Greenhouse effect, its Causes &amp; consequences, global warming, its consequences, measures to check, Methods to Control air pollution.</p> | <p>i) Multimedia Module</p> <p>ii) Slogan Writing &amp; Poster Making on- Save Forests &amp; Save wild Life</p> <p>i) Visit to a nearby farm to see the agricultural practices. Make a report and find out the names and uses of various machines that are used in the farm.</p> <p>ii) To prepare compost at home.</p> <p>i) To show refraction of Light.</p> <p>ii) To study the formation and nature of the image, using lenses.</p> <p>Slogan Writing on Pollution of water or air</p> |
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**Term 2 (October-March)**

| CHAPTER  | CONTENT  | ACTIVITIES/ Co-curricular Activities  |
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| <b>October<br/>Chapter 11 - The Human Eye</b>                    | Structure of human eye & function of various parts, Working of human eye, Range and defects of vision, Care of eyes, Visually challenged persons-help for them, Braille system.  | i) To Study human eye with model of eye.<br>ii) Survey on defects of vision. Multimedia Module.   |
| <b>October<br/>Chapter 12 - Sound</b>                            | Sound & vibrations, Sounds produced by human and animals, Propagation of sound, Amplitude, time period and frequency of a vibration, Loudness and pitch, Audible & inaudible sounds, Noise & music, Noise pollution, Hearing | i) To show propagation of sound through water.<br>ii) To study human ear with model of ear.   |
| <b>October<br/>Chapter 13 Synthetic fibres and plastics</b>      | Synthetic fibres, Advantages & disadvantages, Plastics, Characteristics, Types of synthetic plastic, plastics & the environment, Damage caused, Measures to control  | i) To study material made up of Thermoplastic & thermosetting plastic<br>ii) Collection of different types of fibres and compare their properties   |
| <b>November<br/>Chapter 14 Reproduction in animals</b>           | Asexual & sexual reproduction, Reproductive patterns, systems, Fertilization, development of the embryo, Reproduction by hens, Viviparous & oviparous animals, Journey of young ones to adult                                | i) Clay molding, showing life cycle of frog<br>ii) Enlist five organisms with their reproductive patterns, number of eggs laid at one time, the incubation period etc.  |
| <b>November<br/>Chapter 15 Reaching the age of adolescence</b>   | Adolescence and puberty, Changes, Sexual development, Determination of sex of the child, The Endocrine system, Role of hormones in the life cycle of insects & frogs, Reproductive health.                                   | i) Group discussion on the topic: " Adolescence: A unique phase marked by concerns and challenges."<br>ii) Find out the sex ratio of your state. Compare it with the state having the best ratio and prepare a report, mentioning the probable reasons, demerits etc. |
| <b>November<br/>Chapter 16 – Electric current and its effect</b> | Conductor & Insulators, Conduction through liquids & its cause, Electrolytes,  | i) Arrangement of a continuity tester and checking of different types of liquids and how to increase their conductivity.  |

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| <p><b>December</b><br/><b>Chapter 17 Stars and solar system</b></p> | <p>Conversion of chemical energy into electrical energy, Chemical effects, their applications, Faraday's discovery, Electromagnetic induction</p> <p>Galaxy, Stars, Constellations, The moon, The solar system, Sun, Planets, Minor bodies, Artificial satellites &amp; their applications</p> | <p>ii) Hydrolysis of water.</p> <p>iii) Demonstration of electroplating.</p> <p>iv) Demonstration of electro-magnetic induction.</p> <p>i) Presentation on stars and solar system by students</p> |
| <p><b>December</b><br/><b>Chapter 18 Earthquakes</b></p>            | <p>Earthquakes and their effects, Cause, The Focus, predicting an earthquake, Measuring an earthquake, Protection &amp; safety precautions</p>   | <p>On the map of world, indicate the places where tsunami is more likely to occur. Find out the problems faced by people living in these regions.</p>   |
| <p><b>December</b><br/><b>Chapter 20 Pollution of water</b></p>     | <p>Water pollution &amp; its causes, Potable water, Purification of water, Control of water pollution, Conservation of water</p>   | <p>Discuss with your grandparents and learn about the methods of purification of water of old times, collect the pictures and make a report on it.</p>  |