

Subject : Science  
Grade : VII  
Year : 2021-22



Year Planner

Textbook used: New Science Ahead  
(Orient BlackSwan)

| Month & No. of Working Days | Units                  | No. of Periods | Sub- Units        | Learning Objectives  | Learning Outcomes  | Subject Enrichment Activities planned  | Assessment / Recap |
|-----------------------------|------------------------|----------------|-------------------|--|--|--|--------------------|
| April (17)                  | 3. The World of Living | 9              | Lesson: 9<br>Soil | Enable the students to understand the concept of <ul style="list-style-type: none"><li>Weathering, soil formation, profile, composition and properties.</li><li>Types of soil and their suitability for crops.</li><li>Soil erosion and soil conservation.</li></ul> | Students will be able to understand that <ul style="list-style-type: none"><li>Soil is important for life on the earth.</li><li>Percolation rate of water is different in different types of soil.</li><li>Clayey soil is used to make pots, toys and statues.</li></ul> | <b>Text book activity</b> <ul style="list-style-type: none"><li>Perform Pg.no-96 activity to find out how the soil particles are arranged.</li><li>To observe the absorption capacity and percolation rate of different soils.</li></ul> | Worksheet-1        |

|           |                     |   |                                      |  |   |   |              |
|-----------|---------------------|---|--------------------------------------|--|---|---|--------------|
|           | 6.Natural Phenomena | 8 | Lesson:15<br>Wind, Storms & Cyclones | <p>Enable the students to</p> <ul style="list-style-type: none"> <li>● understand the formation of wind</li> <li>● understand why wind currents are formed</li> <li>● differentiate between storms, cyclones and tornadoes <ul style="list-style-type: none"> <li>● identify safety measures to be taken during these natural disasters</li> </ul> </li> </ul> | <p>Students will be able to</p> <ul style="list-style-type: none"> <li>*understand how natural calamities are formed</li> <li>* learn to protect themselves during disasters. <ul style="list-style-type: none"> <li>• understand the effects of various calamities.</li> </ul> </li> <li>*Self-help is the best help. Therefore it is better to plan in advance and be ready with defence against any approaching disasters..</li> </ul> | <ul style="list-style-type: none"> <li>● Activity to show how high speed wind reduces air pressure.</li> </ul>  |              |
| June (20) | 1.Food              | 6 | Ls-1<br>Nutrition in Plants          | <p>Enable students to recognize,</p> <ul style="list-style-type: none"> <li>● how autotrophic plants make food by photosynthesis</li> <li>● distinguish between autotrophic and heterotrophic nutrition in plants.</li> <li>● how nutrients are taken from and returned to the soil.</li> </ul>  | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>* learn different modes of nutrition</li> <li>*understand photosynthesis and factors affecting photosynthesis</li> <li>*understand process of nutrient replenishment in soil</li> </ul>   | <ul style="list-style-type: none"> <li>● Lab activity in textbook <ul style="list-style-type: none"> <li>*To demonstrate the presence of starch in a leaf after photosynthesis.</li> <li>*To demonstrate that sunlight and carbon dioxide is necessary for photosynthesis.</li> </ul> </li> </ul> | Worksheet -2 |

|           |                                   |   |                           |  |  |  |  |
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|           | 4.Moving Things, People and Ideas | 8 | Ls-13 Time and Motion     | <p>Enable the students to</p> <ul style="list-style-type: none"> <li>● understand the need to measure time</li> <li>● identify the types of motion and plot graphs</li> <li>● calculate speed</li> </ul>                     | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>*recollect the various old methods of devices used to measure time.</li> <li>*understand different types of motion</li> <li>* know the relationship between speed and time</li> </ul>  | <ul style="list-style-type: none"> <li>● Plotting a graph on uniform and non-uniform motion</li> <li>● Measurement of time period</li> </ul> | <b>SLIP TEST -1</b>                    |
| July (25) | 7. Natural Resources              | 6 | Ls-17 Water               | <ul style="list-style-type: none"> <li>● Identify forms, uses and sources of water.</li> <li>● list and explain the causes of water scarcity</li> <li>● list the steps to conserve water</li> </ul>                          | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>*have an idea about how much water is available on earth for our use</li> <li>*know various methods by which they can conserve water</li> </ul>  | <ul style="list-style-type: none"> <li>● Group Activity: Soft board decoration with the Posters on Conservation of Water</li> </ul>          |  |
|           | 1.Food                            | 9 | L- 2 Nutrition in Animals | <p>Enable the students to</p> <ul style="list-style-type: none"> <li>● list the steps of nutrition</li> <li>● describe nutrition in Amoeba</li> <li>● describe nutrition in humans</li> <li>● distinguish between</li> </ul> | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Classify the steps involved in nutrition.</li> <li>● Explain the process of nutrition in Amoeba.</li> <li>● generalise the different steps of nutrition and the role of digestive juices in breaking complex food into simpler substances.</li> <li>● compare the structure</li> </ul> | <p>Text book activity- pg 12</p> <p>To observe the action of saliva on starch.</p>   | Worksheet -3<br><br><b>SLIP TEST-2</b> |

|             |              |   |                           |   |  |   |  |
|-------------|--------------|---|---------------------------|---|--|---|--|
|             |              |   |                           | <p>the different kinds of teeth in humans</p> <ul style="list-style-type: none"> <li>● describe nutrition in ruminants.</li> </ul>  | <p>and function of teeth.</p> <ul style="list-style-type: none"> <li>● analyse the process of digestion in ruminants that takes place in two steps.</li> </ul>   |   |  |
|             | 2. Materials | 7 | Ls-4 Heat and its Effects | <p>Enable the students to</p> <ul style="list-style-type: none"> <li>● Define temperature and recognize different types of thermometer</li> <li>● Solve numerical problems on temperature</li> <li>● Identify and differentiate between the three modes of heat transfer</li> </ul> | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>*understand the modes of heat transfer</li> <li>*know the correct method of measurement of temperature with the help of thermometer</li> <li>*usage of clinical and laboratory thermometers.</li> </ul>  | <ul style="list-style-type: none"> <li>● Lab activity to show the process of Conduction, Convection and Radiation.</li> </ul> | <b>PERIODIC TEST- I</b>                        |
| August (22) | 2. Materials | 7 | L- 5 Transfer of Heat     | <p>Enable the students to understand the</p> <ul style="list-style-type: none"> <li>● the difference between heat and temperature.</li> <li>● to distinguish between conduction, convection and radiation.</li> <li>● describe the working of a thermos.</li> </ul>                 | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● analyse the difference between heat and temperature.</li> <li>● differentiate between conduction, convection and radiation and its application.</li> <li>● working of thermos to show the maintenance of temperature for a longer time through conduction, convection</li> </ul> | <p>Experiment to show that some materials are conductors of heat and some are insulators.</p>                                 | <p>Worksheet -4</p> <p><b>SLIP TEST -3</b></p> |

|                |                           |   |                                       |   |   |  |   |
|----------------|---------------------------|---|---------------------------------------|---|---|--|---|
|                |                           |   |                                       |   | and radiation.  |  |   |
|                | 3.The World of the Living |   | Ls-12<br>Reproduction in Plants       | <p>Enable the students to</p> <ul style="list-style-type: none"> <li>• identify different types of reproduction in plants and compare them</li> <li>• recognize the agents of pollination and seed dispersal methods</li> </ul> | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• explain the meaning of reproduction and types of asexual reproduction</li> <li>• understand different types of asexual modes of reproduction</li> </ul> | <ul style="list-style-type: none"> <li>• Observation of vegetative reproduction in plants</li> <li>• Dissection of flower</li> </ul> | <p><b>SLIP TEST – 4</b></p> <p><b>Subject Enrichment Assessment-I</b></p> |
| September (12) | 2. Materials              | 6 | Ls-6<br>Physical and Chemical changes | <p>Enable the students to</p> <ul style="list-style-type: none"> <li>• define elements, compounds and mixtures</li> </ul>   | <p>Students will be able to:</p> <ul style="list-style-type: none"> <li>• differentiate elements, compounds and mixtures</li> </ul>   | <p>Text book activity- Activity 6.6 -pg 64<br/>To study the reaction of iron with copper sulphate.</p>                               |   |

|  |          |  |                                      |  |   |  |   |
|--|----------|--|--------------------------------------|--|---|--|---|
|  |          |  |                                      | <ul style="list-style-type: none"> <li>● to list and tabulate chemical symbols, formulae, reactions and equations.</li> <li>● interpret how pure salts can be obtained by crystallisation.</li> <li>● understand the process of rusting</li> </ul> | <ul style="list-style-type: none"> <li>● identify different chemical symbols, formulae and interpret reactions and balance the equations.</li> <li>● explain the process of crystallisation and demonstrate how pure salts can be obtained through evaporation.</li> <li>● describe the process of rusting and recommend ways to prevent it.</li> </ul> |  |   |
|  | Revision |  | Revision for Half Yearly examination | <b>PT-2 EXAMINATIONS</b>   |   |  | Revision Worksheet 1 & 2<br><b>PT-2</b> |