

**BHARTIYA VIDYA MANDIR SENIOR SECONDARY SCHOOL  
SECTOR-39, CHANDIGARH ROAD,LUDHIANA.**

| <b>BOOK:NCERT</b> |   | <b>SUBJECT:SCIENCE</b>  |  | <b>SESSION-2024-25</b>  |   |
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| <b>MONTH</b>      | <b>CHAPTER NAME</b>                                     | <b>LEARNING OBJECTIVES</b>  | <b>RESOURCES/E-RESOURCES</b>   |   | <b>LEARNING OUTCOMES/ SKILLS LEARNT BY STUDENTS</b>   |
| <b>APRIL</b>      | <b>CH-1 COMPONENTS OF FOOD</b><br><br>(Old Book)        | <b>LEARNERS WILL BE ABLE TO:</b><br>*Know function of each nutrients in order to discuss the importance of nutrients in good health.<br>*Understand the term obesity and its causes<br>*Know about various deficiency diseases and their symptoms.<br>*Understand the importance of balanced diet for a healthy living.   | *Discussion<br>*Assignment<br>*Questioning<br>*Contextual teaching and learning<br>*Chalk and Board<br>* <b>Activity</b> –To test the presence of starch using iodine.   | <a href="https://dikhsha.gov.in/play/collection/do_3131034750873272321967?contentId=do_31279855469196083216854">dikhsha.gov.in/play/collection/do_3131034750873272321967?contentId=do_31279855469196083216854</a><br><br><a href="https://www.youtube.com/watch?v=3ZPwK95GNJU">https://www.youtube.com/watch?v=3ZPwK95GNJU</a>  | Students know about importance of healthy living and role of various nutrients in keeping us fit and disease free.<br><b>SKILLS:</b><br>*Skill of classification<br>*Skill of inquiring   |
|                   | <b>CH-2 SORTING MATERIALS INTO GROUPS</b><br>(Old Book) | <b>LEARNERS WILL BE ABLE TO:</b><br>*Understand the concept of sorting and grouping of materials<br>*Understand that same materials can be used to make multiple objects.<br>*Sort objects into different groups based on their properties<br>*Know the basis of classification of objects<br>*Understand various physical properties-lustre, transparency, translucence, opaqueness. | *Contextual teaching and learning<br>*Chalk and Board<br>*Assignment<br>*Questioning   | <a href="https://www.youtube.com/live/DGdHy8vNZw?si=sWbwDNu9HzXgH5vX">https://www.youtube.com/live/DGdHy8vNZw?si=sWbwDNu9HzXgH5vX</a>   | Students are able to classify objects into different groups according to the physical properties studied.<br><b>SKILLS:</b><br>*Gathering data and classification<br>*Sorting and grouping<br>*Analysis<br>*Conclusion  |
| <b>MAY</b>        | <b>CH-4 GETTING TO KNOW PLANTS</b><br>(Old Book)        | <b>LEARNERS WILL BE ABLE TO:</b><br>* Learn about different types of plants.<br>*Know about different parts of the plant and their function<br>*Know about the relationship between venation and type of roots:<br>*Know about structure of flower and their parts  | *Contextual teaching and learning<br>*Chalk and Board<br>*Concept Mapping<br>* <b>Activity</b> - To draw the leaf venation<br>*To cut the stem of a plant and dip into blue ink coloured water and see what happens. | <a href="https://dikhsha.gov.in/play/collection/do_3131034750873272321967?contentId=do_313066790524772352111213">dikhsha.gov.in/play/collection/do_3131034750873272321967?contentId=do_313066790524772352111213</a><br><br><a href="https://www.youtube.com/watch?v=AHk1v9Buh3Q">https://www.youtube.com/watch?v=AHk1v9Buh3Q</a><br><br><a href="https://www.youtube.com/watch?v=jDD49tnkP0w">https://www.youtube.com/watch?v=jDD49tnkP0w</a> | Students know about transpiration. They are able to differentiate between herbs, shrubs and trees. They can explain the process of photosynthesis. They can distinguish between tap root and fibrous root system<br><b>SKILLS:</b><br>*Observation,<br>*Experimentation<br>*Conclusion<br>*Scientific thinking and temper<br>*Drawing and labelling |
| <b>JUNE</b>       |   | <b>SUMMER VACATIONS</b>   |  |   |   |

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| <b>JULY</b>               | CH-3 SEPARATION OF SUBSTANCES<br>(Old Book ) | LEARNERS WILL BE ABLE TO:<br>*Identify properties of given items and select a property that would help them easily separate the items from each other.<br>*Understand methods that can be adapted in everyday life situations such as separation of husk from grains, separation of fine sand from coarse sand and arrive at logical conclusion that certain specific methods can be employed to separate solid mixtures based on the size, colour or weight of the components | *Contextual teaching and learning<br>*Chalk and Board<br>*Concept Mapping  | <a href="https://youtu.be/Skog2s8EGHI?si=Q8dbAhW2_UZqn0nR">https://youtu.be/Skog2s8EGHI?si=Q8dbAhW2_UZqn0nR</a>                         | Students are able to understand the need for separation of substances and apply different methods to separate the components of a mixture.<br><br>SKILLS:<br><br>*Observation<br>*Scientific temper<br>*Reasoning and analysis  |
|                           |  |  |  | <a href="https://youtu.be/3uyjgXsbX">https://youtu.be/3uyjgXsbX</a>   |   |
| <b>New Book Chapters:</b> |  |  |  |   |   |
| <b>JULY</b>               | CH- 4 EXPLORING MAGNETS                      | LEARNERS SHOULD BE ABLE TO :<br>*Recognise the magnets.<br>*Differentiate between magnetic and non magnetic materials.<br>*Know about the discovery of magnet.<br>*List out the properties of magnets.<br>*Explain the uses of magnets.  | *Learning by doing<br>*Chalk and Board<br>*Explanation and discussion<br>ACTIVITY: *Using a compass to find the directions at a given place.<br>*To observe bar magnet, horse shoe magnet and see what happens when they are placed together and identify like and unlike poles. | <a href="https://www.youtube.com/live/zdz_B8GtJA4?si=t9pg1IPDXHa14jNh">https://www.youtube.com/live/zdz_B8GtJA4?si=t9pg1IPDXHa14jNh</a> | Students appreciate the importance of magnets in real life.They understand the properties of a magnet and their applications.<br>SKILLS:<br>*Observation<br>* Scientific attitude   |
| <b>AUGUST</b>             | CH- 2 DIVERSITY IN LIVING WORLD              | LEARNERS SHOULD BE ABLE TO:<br>*Define biodiversity and explain its importance<br>*Identify and describe various features of plants (e.g. stems,leaves,roots,venation)<br>*classify plants into herbs,shrubs,trees<br>*differentiate between monocot and dicot plants<br>*define adaptation and habitat.   | *Discussion<br>*Assignment<br>*Questioning<br>*Contextual teaching and learning<br>*Chalk and Board<br>*Activity –To show leaf venation and classify it  | <a href="https://youtu.be/AHk1v9Buh3Q?si=Gyq1mhMOFJhWOBjH">https://youtu.be/AHk1v9Buh3Q?si=Gyq1mhMOFJhWOBjH</a>                         | Students are able to understand the importance of biodiversity.They are able to classify plants into herbs,shrubs ,trees. Students appreciate the importance of adaptation process for survival in a habitat.<br>SKILLS:<br>*Observation<br>*Classification<br>*Critical thinking |
| <b>SEPTEMBER</b>          | REVISION                                     | LEARNERS SHOULD BE ABLE TO:<br>Revise all the concepts in a proper manner and clear their doubts, for Term 1 Examination.  | *Interaction and discussion method in the class  |   | SKILLS:<br>Skills of inquiry and learning   |
| <b>OCTOBER</b>            | CH-5 MEASUREMENT                             | LEARNERS SHOULD BE ABLE TO :   | *Brainstorming   | <a href="https://www.youtube.com/live">https://www.youtube.com/live</a>   | Students can define types motion like   |

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| <b>OCTOBER</b>  | CH-7 TEMPERATURE AND ITS MEASUREMENT                    | LEARNERS SHOULD BE ABLE TO:<br><ul style="list-style-type: none"> <li>*understand the concept of temperature as a measure of hotness or coldness.</li> <li>*recognize the limitations of touch in determining temperature.</li> <li>*use clinical thermometer to measure body temperature.</li> <li>*understand the features and use of laboratory thermometer and precautions while using. *differentiate between Celsius,Fahrenheit and Kelvin scale</li> <li>*understand the concept of air temperature and its importance.</li> </ul>   | <ul style="list-style-type: none"> <li>*Chalk and Board</li> <li>*Learning by doing method</li> <li>*Discussion</li> <li>Activity- *To observe and determine the range of laboratory thermometer.</li> <li>*Conversion exercise between Celsius and Kelvin scales.</li> </ul>  |   | <p>Students appreciate the importance and need of thermometers for measurement of temperature.They are able to take readings on thermometer.</p> <p>SKILLS:<br/> <ul style="list-style-type: none"> <li>*Scientific attitude</li> <li>*Observation</li> <li>*Calculation</li> </ul> </p>   |
| <b>NOVEMBER</b> | CH-8 A JOURNEY THROUGH STATES OF WATER                  | LEARNERS SHOULD BE ABLE TO:<br><ul style="list-style-type: none"> <li>*identify three states of water *understand the process of evaporation and condensation.</li> <li>*describe the factors that affect rate of evaporation.</li> <li>*explain cooling effect of evaporation and its applications.</li> <li>*understand water cycle.</li> <li>*apply their understanding of states of water to real life situations</li> </ul>  | <ul style="list-style-type: none"> <li>*Chalk and Board</li> <li>*Brainstorming</li> <li>*Experiential learning method</li> <li>Activity- To make a model on water cycle.</li> </ul>   | <a href="https://www.youtube.com/live/jAeAXtj0wzA?si=Utf8vbH56saafVZK">https://www.youtube.com/live/jAeAXtj0wzA?si=Utf8vbH56saafVZK</a> | <p>Students are now able to identify states of water .Students appreciate the importance of evaporation and its cooling effect. They are able to understand real life situations related to factors of evaporation.</p> <p>SKILLS:<br/> <ul style="list-style-type: none"> <li>*Scientific temper</li> <li>*Observation</li> <li>*Analysis</li> </ul> </p>   |
| <b>DECEMBER</b> | CH-10 LIVING CREATURES: EXPLORING THEIR CHARACTERISTICS | LEARNERS SHOULD BE ABLE TO:<br><ul style="list-style-type: none"> <li>*differentiate between living and non living things based on their special features. *understand characteristics essential for living(movement,nutrition,growth,respiration,excretion,respond to stimuli,reproduction) *understand concept of seed germination.</li> <li>*understand lifecycle of plants.</li> <li>*describe lifecycle of different animals(e.g. mosquito and frog)</li> </ul>  | <ul style="list-style-type: none"> <li>*Chalk and Board</li> <li>*Brainstorming</li> <li>*Concept Mapping</li> <li>*Discussion and explanation.</li> <li>ACTIVITY- *To make a model or a picture book showing lifecycle of a frog/mosquito.</li> <li>*Creating a poem about the lifecycle of a chosen organism.</li> </ul> | <a href="https://youtu.be/f9IXbmTtXa0?si=W-oL8inFlasy0zM">https://youtu.be/f9IXbmTtXa0?si=W-oL8inFlasy0zM</a>                           | <p>Students are able to list the basic characteristic features essential for living.They get familiar with the lifecycle of frog , mosquito and are able to explain it.</p> <p>SKILLS:<br/> <ul style="list-style-type: none"> <li>*Observation</li> <li>*Scientific temper</li> <li>*Drawing skills</li> </ul> </p>   |
| <b>DECEMBER</b> | CH-11 NATURE'S TREASURE                                 | LEARNERS SHOULD BE ABLE TO:<br><ul style="list-style-type: none"> <li>*identify and describe various natural resources.</li> <li>*understand the importance of air and its composition.</li> <li>*recognize the significance of water and methods of water conservation. *explain the role of the Sun as the main source of energy.</li> <li>*understand the importance of forests and soil.</li> <li>*describe the formation and uses of rocks and minerals.</li> <li>*explain fossil fuels and their environmental impact.</li> <li>*differentiate between renewable and non renewable resources and sort the objects into two categories.</li> <li>*recognize the need for conservation of natural resources.</li> </ul> | <ul style="list-style-type: none"> <li>*Interaction and discussion</li> <li>*Chalk and Board method</li> <li>ACTIVITY: *Group discussion on ways to conserve natural resources.</li> <li>*Making a firki (paper pinwheel) to demonstrate wind energy.</li> </ul>   | <a href="https://www.youtube.com/live/gGo1Qj1udrE?si=qBvInMf9V5_9N5Cg">https://www.youtube.com/live/gGo1Qj1udrE?si=qBvInMf9V5_9N5Cg</a> | <p>Students are able to appreciate the importance of natural resources and they understand the alarming need of their conservation. Students know about air composition, fossil fuels, rocks and minerals.</p> <p>SKILLS:<br/> <ul style="list-style-type: none"> <li>*Interactive skills</li> <li>*Critical thinking</li> <li>*Sorting and grouping</li> <li>*Scientific attitude</li> </ul> </p> |

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| <b>JANUARY</b>  | CH-12 BEYOND EARTH | LEARNERS SHOULD BE ABLE TO:<br>*identify and describe celestial objects visible in the sky.<br>*understand the concept of constellations and their cultural significance.<br>*describe the basic structure of our solar system.<br>*differentiate between stars and planets.<br>*understand the Earth's place in our solar system and the Milky Way galaxy. | *Demonstration method<br>*Interaction and discussion<br>*Concept mapping<br>ACTIVITY: *To identify Venus in the night sky. *To identify constellations: Orion and Sirius | <a href="https://www.youtube.com/live/Clk0f-HggAg?si=24pMP-Y5vx_ZIIF">https://www.youtube.com/live/Clk0f-HggAg?si=24pMP-Y5vx_ZIIF</a> | Students appreciate the vastness of universe and the ongoing research for extraterrestrial life. They understand the concept of stars, planets, solar system and galaxy.<br>SKILLS:<br>*Observation<br>*Conclusion<br>*Scientific temper<br>*Critical thinking |
| <b>FEBRUARY</b> | REVISION           | LEARNERS SHOULD BE ABLE TO:<br>Revise all the concepts in a proper manner and clear their doubts, for Term 2 Examination.   | *Interaction and discussion method in the class  |   | SKILLS:<br>Skills of inquiry and learning  |