

Cambridge International School, Mohal, Kullu  
Curriculum – 2021-22  
Class – VII  
Subject– Science  
First Term

	February/March	April	May	June/July
<b>C O N T E N T</b>	<p><b>*Nutrition in Plants.</b></p> <p><b>*Nutrition in Animals</b></p> <p><b>*Fiber To Fabric</b></p>	<p><b>*Respiration in Organisms</b></p> <p><b>* Heat</b></p>	<p><b>*Reproduction In Plants</b></p> <p><b>*Weather, Climate and Adaptations of Animals to Climate</b></p>	<p><b>*Winds, Storms and Cyclone, Air (Collaboration with Social Sciences)</b></p> <p><b>* Soil</b></p>
<b>L E A R N I N G I N G O U T C O M E S</b>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>-Classify the modes of nutrition in plants.</li> <li>-Demonstrate and generalize the process of photosynthesis.</li> <li>-Improvise mineral replenishment in soil.</li> </ul> <p><b>Activity:</b></p> <p>*Lab activities: To show chlorophyll plays an important role in starch formation. To demonstrate carbon dioxide is necessary for photosynthesis.</p> <p><b>Assessment: Pen – paper test, Concept map , HOTS , reasoning questions, Quiz ,Flow chart and Value Based Questions.</b></p> <p><b>observations</b></p> <p><b>Students will be able to</b></p> <ul style="list-style-type: none"> <li>-Describe and differentiate the process of nutrition in Amoeba, Human Beings and ruminants.</li> <li>- Explain the process of digestion in human beings.</li> </ul> <p><b>Activities:</b></p> <p>*Lab activity: To observe effect of saliva on starch. *Search work: To collect information about the dentures of different age groups in humans and compare with animals.</p> <p><b>Assessment : Pen – paper test, Concept map , HOTS , reasoning questions, Report and Value Based Questions</b></p> <p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>-Explain the process of fiber into wool</li> <li>-Describe the extraction of silk, cotton and jute.</li> </ul> <p><b>Activity:</b> Students will make Powerpoint presentations on extraction of fibre into Fabric and They can choose any one fiber (Wool,Silk,Cotton and jute)of their choice.</p> <p><b>(Integrated with IT)</b></p> <p><b>Assessment: PPT, Concept map , HOTS, Pen-Paper test</b></p>	<p>Students will be able to</p> <ul style="list-style-type: none"> <li>-Discuss the Mechanism of breathing in human beings.</li> <li>- Differentiate between aerobic and anaerobic respiration.</li> <li>-Identify respiratory organs of various animals.</li> </ul> <p><b>Class-Activities:</b></p> <p>*Students will make a model of lungs using a bottle, balloons and rubber sheet. *Video of respiratory organs of animals like Earthworm, cockroach and fish is shown during the class and then they will be asked to give a brief pictorial comparative information showing variation in structure of respiratory organs in animals. *Students will be asked to explore diseases of the respiratory system and make a brief report on it.</p> <p><b>Assessment : Pen – paper test, Concept map , HOTS, report,reasoning questions, and Value Based Questions</b></p> <p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>*Explain the concept of heat and use of a thermometer.</li> <li>*Analyze various modes of heat transfer.</li> </ul> <p><b>Activities:</b></p> <p>Students will be asked to get a clinical thermometer during the class and they will try to read the scale of the thermometer along with the teacher. *Teacher will demonstrate conduction of heat with hot water and some articles like steel spoon, plastic scale, pencil etc. during the class. Students will observe convection current in boiling water. Assessment :Test, Concept map and Observation table.</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>-Differentiate between different modes of reproduction in plants i.e. asexual and sexual. And vegetative propagation</li> <li>-Identify self and cross pollination.</li> <li>- Describe the process of fertilization in plants.</li> </ul> <p><b>Class-Activity:</b></p> <p>*Students will be asked to make a list of plants ,they observe in their surrounding which produced through vegetative propagation *Search Work: Students will be asked to think of any five fruit bearing plants and collect information to make a table showing (i) their seed dispersal,(ii)part of seed help in dispersal and then will share their data during the class.</p> <p><b>Assessment: Pen – paper test, Concept map , HOTS , reasoning questions</b></p> <p><b>-Students will be able to Analyze weather and climate of a place.</b></p> <p><b>-Differentiate the adaptive features of animals living in various environments.</b></p> <p><b>Activities:</b></p> <p>*Students will be asked to collect information about the meteorological department and write a brief report about the things this department does. *Students will be asked to give a weather report of Kullu (For 15 days) and compare the weather and climate of kullu with any other place of India.</p> <p><b>Assessment : Pen – paper test, Concept map , HOTS , reasoning questions, Report and Value Based Questions</b></p>	<p>Students will be able to:</p> <p><b>Describe the concept of wind, atmosphere and air pressure.</b></p> <ul style="list-style-type: none"> <li>- Differentiate between winds, storms and cyclones in relation to uneven heating of earth.</li> <li>-Identify the safety measures during storms and cyclones and weather instruments.</li> </ul> <p><b>*Class-Activities:</b></p> <p>Teachers will demonstrate using bottles, Paper and balloons to show high pressure areas and low pressure areas and students will be asked to note down their observations and conclusions *Students will be asked to collect articles and photographs from newspapers and magazine And make a story on the basis of what you learnt in chapter and the matter collected by you.(Integrated with English)</p> <p><b>Assessment : Pen – paper test, Concept map , HOTS , reasoning questions, and Value Based Questions</b></p> <p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>*Analyze the horizons of soil profile.</li> <li>*Discuss the properties of soil.</li> </ul> <p><b>*Identify the causes of soil erosion and ways of prevention.</b></p> <p><b>Activities:</b></p> <p>*Students will be asked to get some soil in glass and then pour water in it, leave it for some time .Then they will observe horizons of soil during the class. *Students will be asked to put some soil in a container and heat it on the flame under the supervision of the teacher.They will observe and compare it with soil which is not heated. They will be asked to note down their observations and moisture content of soil will be discussed in the class.</p> <p><b>Assessment: Pen – paper HOTS,Observations,Flow-chart.</b></p>
	<p><b>Notebook Maintenance</b></p> <p><b>Main Book: NCERT</b></p>			

**Second Term**

	<b>August</b>	<b>September</b>	<b>October</b>	<b>November</b>
<b>C O N T E N T</b>	<p><b>* Acids, Bases and Salts</b></p> <p><b>*Transportation Animals and Plants.</b></p>	<p><b>*Physical And Chemical Changes</b></p> <p><b>*Light</b></p>	<p><b>*Electric current and its effect.</b></p>	<p><b>* Motion And Time</b></p> <p><b>*Forests:Our Lifeline</b></p>
<b>L E A R N I N G  O U T C O M E S</b>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>-Differentiate between acids, bases and salts.</li> <li>-Observe the effect of natural indicators on food items.</li> <li>-Analyze the effect of Neutralization in daily life.</li> </ul> <p><b>Activities:</b></p> <p>*Students will be asked to taste a few substances like Lemon, Curd, Amla, Baking soda , vinegar they found in their kitchen and make a table. Then there will be discussion about acid and base during the class.</p> <p>* The teacher will demonstrate how to make natural indicators with turmeric powder during class and then students will be asked to make indicators at their home to check acidity and basicity of food products at their home.</p> <p>*Students will check acidity and basicity of various substances with litmus solution during the class.</p> <p>Search- Work: Students will be asked to Find out the medicines to treat acidity and make a report showing their chemical composition, working as well as effect..</p> <p>(Integration with IT)</p> <p><b>Assessment: Pen – paper test, , HOTS , , Report, observation table, Quiz, and Value Based Questions, Search work</b></p> <p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>-Describe Circulatory and Excretory System with functions</li> <li>-Differentiate between Arteries and Veins.</li> <li>-Analyze Importance of xylem and phloem in transportation of substances.</li> </ul> <p><b>Class-Activities:</b></p> <p>*Students will be asked to make a model of stethoscope using rubber sheet, tube and compare their heart beat at rest and after exercise.</p> <p>*Students will be performing activity using potato, water, sugar solution to show cell to cell movement of water during the class under the guidance of the teacher.</p> <p>(Integration with Art)</p> <p><b>Assessment: Pen – paper test, Concept map , HOTS , , Flowcharts, Model, quiz.</b></p>	<p><b>Students will be able to:</b></p> <ul style="list-style-type: none"> <li>-Analyze the changes in their surroundings.</li> <li>-Explain the process of galvanization .</li> </ul> <p><b>Activities:</b></p> <p>Lab-Activities</p> <p>-Students will be showing physical change with Ice and water during the class.</p> <p>-Teacher will demonstrate activity using glass bottles, water, iron nails and cooking oil and students will be asked to observe the changes in iron nails,note down in their notebook.</p> <p><b>Assessment: Pen – paper test, HOTS, reasoning questions, Quiz. Students will be able to:</b></p> <ul style="list-style-type: none"> <li>- Recall the rectilinear propagation of light.</li> <li>- Compare the images formed by different types of mirror and lenses</li> </ul> <p>Comprehend dispersion of light and its application</p> <p><b>Class-Activities:</b></p> <p>*Students will be asked to get one candle and pipe or chart and then they will perform activity for rectilinear propagation of light during the class and will discuss their observation.</p> <p>*Students will place a lighted candle in front of the mirror and try to find characteristics of images formed by a plane mirror and note down in a notebook.</p> <p>*Teachers will demonstrate image formation by various types of mirrors.</p> <p>*Students will be asked to get steel spoon .They will bring outer and inner side of spoon one by one near their face and look in to it and will compare the images formed by concave and convex mirror with plane mirror.</p> <p>*Students will be shown a video for images formed by lenses during the class and will try to draw ray diagrams.</p> <p>*Teacher will demonstrate the phenomenon of dispersion with the help of prism.</p> <p>*Students will be asked to blow soap bubbles and the surface of the CD in light.</p> <p>They will discuss their observations with the teacher.</p> <p><b>Assessment: Pen – paper test, Observations, HOTS reasoning questions.</b></p>	<p><b>*Students will be able to:</b></p> <ul style="list-style-type: none"> <li>-Identify the electric components and their symbols</li> <li>-Describe the heating effect of current.</li> <li>-Discuss about electromagnets and their use in different devices.</li> </ul> <p><b>Activities:</b></p> <p>*Students will be asked to get a cell, piece of wire, small bulb and will try to make an electrical circuit along with the teacher during the class. They will be asked to touch the bulb in both the condition (Switch off and on) and discuss the heating effect of current.</p> <p>*Students will be asked to make two electromagnets using Iron nails, wires and cells, paper clips under the guidance of the teacher. And will compare their strength.</p> <p><b>Assessment: Pen – paper test, Quiz,, HOTS , reasoning questions, Model</b></p> <p><b>*Students will be able to:</b></p> <ul style="list-style-type: none"> <li>*Discuss the measurement of time using periodic events.</li> <li>-Analyze motion along a straight line using graph.</li> <li>-Calculate speed in various motions.</li> </ul> <p><b>Activities:</b></p> <p>*Students will be asked to observe periodic motion of an object with a small stone ,string and iron nail from which stone with a string can be hanged freely.</p> <p>Students will be shown videos of objects having uniform and non uniform motion in the class and then they will try to show them on a graph.</p> <p>Students will be asked to collect information about time measuring devices used in ancient times and prepare a brief write up.</p> <p>(Integration with History and English)</p> <p><b>Assessment: Pen – paper test, HOTS, reasoning questions, model and write-up.</b></p>	<p><b>*Students will be able to:</b></p> <ul style="list-style-type: none"> <li>-Discuss the measurement of time using periodic events.</li> <li>-Analyze motion along a straight line using graphs.</li> <li>-Calculate speed in various motions.</li> </ul> <p><b>Activities:</b></p> <p>*Students will be asked to observe periodic motion of an object with a small stone ,string and iron nail from which stone with a string can be hanged freely.</p> <p>Students will be shown videos of objects having uniform and non uniform motion in the class and then they will try to show them on a graph.</p> <p>Students will be asked to collect information about time measuring devices used in ancient times and prepare a brief write up.</p> <p>(Integration with History and English)</p> <p><b>Assessment: Pen – paper test, HOTS, reasoning questions, model and write-up.</b></p> <p><b>*Students will be able to:</b></p> <ul style="list-style-type: none"> <li>-Enlist the importance of forest in our daily lives.</li> <li>-Classify different layers of forest.</li> <li>-Analyze the importance of humus and decomposers in the forest.</li> </ul> <p><b>Activities:</b></p> <p>Role Play(Importance of forest. Jigsaw (different layers of forest)</p>
	<p><b>Notebook Maintenance</b></p> <p><b>Main Book: NCERT</b></p> <p><b>(Diksha App. is taken in to consideration)</b></p>			