

**BUDHA DAL PUBLIC SCHOOL, SAMANA**  
**ANNUAL CURRICULUM PLAN**  
**SESSION 2023-24**

**CLASS: VII**  
**SUBJECT: Science**

Month & Working Days	Topic/ Subtopic	Learning Objectives		Art integrated Activities & Resources	Learning Outcomes	Assessment/ Assignment
			Pedagogy/ Method (Skill, Application based)			
<b>Ist TERM</b>						
<b>3<sup>rd</sup> April to 17<sup>th</sup> April 2023 (term-1)</b>	1 Nutrition in plants	The students will be able to: Define nutrition and understand the importance of nutrition. Classify modes of nutrition. 3. Predict the modes of nutrition in different organisms. 4. Distinguish between autotrophic and heterotrophic modes of nutrition. 5. Illustrate the role of stomata in plants and explain how the	The teacher will use different pedagogies so that the students will be able to: 1. Apply (symbiotic relationship) give and take relationship in their day to day life like in lichen. 2. Discourage parasitic mode of survival i.e. the one-way relationship like parasitic plants. 3. Develop the tendency to reuse the substances (best out of waste) like plants convert excess CO <sub>2</sub> into food and O <sub>2</sub> . 4. Show sensitivity and concern towards plants. 5. Apply the concept of recycling of available material waste substances.	1: To show the presence of starch in leaves with the help of iodine test.	1. Students understand nutrition and modes of nutrition. 2. Students feel importance of nutrition. 3. They can analyze autotrophic and heterotrophic modes of nutrition. 4. They can draw the structure and explain role of stomata in plants. 5. They can understand parasitic and saprophytic mode of nutrition in plants. 6. They can	To prove leaves other than green in colour also undergo photosynthesis.

		opening and closing of guard cells is controlled. 6. Explain the effect of any waxy	6. Apply the concept of replenishing the nitrogen content in soil by growing leguminous plants in their garden 7. Appreciate the role of			
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		<p>coating on the rate of photosynthesis.</p> <p>7. Illustrate how nutrients are replenished in the soil.</p> <p>8. Demonstrate the presence of starch in leaves.</p> <p>9. Demonstrate the presence of starch in leaves.</p> <p>10. Explain how non-green plants undergo photosynthesis.</p>	<p>fertilizers and manure to increase soil fertility.</p>		<p>understand the symbiotic plants and insectivorous plants.</p> <p>7. Students know about photosynthesis and essential conditions for photosynthesis in plants.</p> <p>8. They can draw structure and understand mode of nutrition in pitcher plant.</p> <p>9. Students know about the role of fertilizers and manure to replenish the fertility of soil.</p> <p>10. They can feel the importance of leguminous plants to increase nitrogen content in soil and of symbiotic relationship and recycling of material/resources.</p>	
<p><b>18<sup>th</sup> April to 25<sup>th</sup> April 2023 (term-1)</b></p>	<p>2. Nutrition in animals</p>	<p>Students will be able</p>	<p>The teacher will use different pedagogies so that the learner will be able to prepare ORS solution to</p>	<p>1. Video watching of journey of food in the alimentary canal of</p>	<p>1. The students will be able to</p>	<p>Students will be asked to label the</p>

		<p>1. To discuss the components of food and food sources</p> <p>2. To differentiate between modes of nutrition in plants and animals</p> <p>3. To comprehend that nutrition is the sum total of all processes from ingestion to egestion</p> <p>4. To understand role of various organs in the process of nutrition</p> <p>5. To understand the Journey of food in the alimentary canal : Different steps of nutrition (ingestion, digestion, absorption, assimilation, egestion)</p> <p>6. To understand and Analyse the process of digestion in grass-eating animals and unicellular</p>	<p>treat diarrhea</p> <p>2. Learner will be able to take necessary precaution to prevent tooth decay.</p> <p>3. Learner will learn to appreciate the quality of oneness in diversity around .</p> <p>4. Learner will understand that at some stages of life, one needs to take a helping hand for smooth going.</p> <p>5 Learner will also realize that a same common task may be performed by all, but its processing will be unique as every individual is a separate identity.</p>	<p>Humans and discussion.</p> <p>2. Various modes of feeding in different animals.</p> <p>3. To test the presence of starch in different food sample (potato, bread, boiled rice, banana).</p>	<p>2. Understand the function of various organs involved in the digestion of food.</p> <p>3. Illustrate journey of food in digestive system.</p> <p>4. Understand the concept of cud chewing</p> <p>5. Relate cud chewing with the structure of stomach</p> <p>6. Analyse the digestive system of human non-ruminant and ruminant</p> <p>7. Interpret and describe the steps of nutrition in amoeba</p>	<p>Various parts of human digestive system.</p> <p><b>Visual Art</b></p> <p><b>To prepare the denture of their own teeth in summer vacation.</b></p> <p><b>Craftmanship</b></p> <p><b>Originality and creative</b></p> <p><b>Participation</b></p>
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<p><b>19<sup>th</sup> July to 28<sup>th</sup> July 2023 (term-1)</b></p>	<p>3. Physical and chemical changes</p>	<p>Organisms.1 The students will be able to: 1. Define physical and chemical changes. 2. Understand the properties of physical and chemical changes. 3. Differentiate between physical and chemical change. 4. Classify the changes as physical</p>	<p>The teacher will use different pedagogies so that the students will be able to: 1. Realize the importance of crystallization technique in making of sugar, salt, potash alum (Phitkaric crystals) 2. Learn the reasons for rusting of iron. 3. Know chemical changes occurring in everyday life such as formation of curd from milk, souring of milk, burning of crackers etc 4. Prevent iron articles at home from rusting by simple methods such as oiling/painting or greasing 5. Appreciate alloying, galvanization and electroplating methods to prevent corrosion of iron</p>	<p>Activity 1: To study the following changes and record the observation Melting of ice Boiling of water Chopping of water Dissolving sugar in water Activity 2: The burning of magnesium ribbon OR Activity 3: Displacement Reaction between iron nail and copper sulphate solution. OR Activity 4: Reaction of vinegar with baking soda</p>	<p>1. The students have learned the definition and properties of physical and chemical change. 2. The students have learned the differences between physical and chemical change. 3. The students have learned to classify the changes observed in our day to day life as physical or chemical change. 4. The students have learned about the displacement reaction between iron nail and copper sulphate solution. 5. The students have learned the chemical reaction taking place</p>	<p>Activity- Identification of physical and chemical changes at home. Question answers related with topic.</p>
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		<p>or chemical change.</p> <p>9. List out physical and chemical changes which they observe in their surroundings.</p> <p>10. Understand the displacement reaction between iron nail and copper sulphate solution.</p> <p>11. Describe burning of magnesium ribbon as a chemical change.</p> <p>12. Demonstrate and write the reaction of vinegar with baking soda.</p> <p>13. Illustrate rusting of iron as a chemical change.</p> <p>14. Understand the essential conditions required for rusting of iron.</p>			<p>6. The students have learned the reaction of vinegar with baking soda.</p> <p>7. The students have learned how to test for <math>\text{CO}_2</math> gas with the help of lime water.</p> <p>8. The students have learned how to test the nature of magnesium oxide as an acid or base with the help of litmus paper.</p> <p>9. The students have learned about the rusting of iron and the essential conditions required for rusting.</p> <p>10. The students have learned about the various methods which are used to prevent corrosion of iron.</p> <p>11. They have learned how to apply the method of</p>	
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					crystallization to obtain pure	
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		<p>15. Define the term galvanization</p> <p>16. Demonstrate the crystallization of copper sulphate from its saturated solution.</p>			<p>crystals of sugar or salt from their impure saturated solution</p> <p>12. They have learned the uses of vinegar and baking soda in our day today</p>	
<p><b>10<sup>th</sup> July to 18<sup>th</sup> July 2023 (term-1)</b></p>	<p>4. Heat and its effects</p>	<p>Students will be able to-</p> <ol style="list-style-type: none"> <li>1. Understand the difference between heat and temperature</li> <li>2. Comprehend about the different modes of transfer of heat.</li> <li>3. Explain the construction and working of different types of thermometer and thermos flask.</li> <li>4. Understand the difference between the properties of different types of thermometer</li> </ol>	<p>The teacher will use different pedagogies so that students will be able to</p> <ol style="list-style-type: none"> <li>1. Analyze the various modes of transfer of heat in various day today activities</li> <li>2. Sensitize themselves towards energy conservation.</li> <li>3. Read the temperature using thermometer accurately.</li> <li>4. Take safety measures before and after using the thermometer.</li> <li>5. Compare the properties of silver and dark coloured objects.</li> </ol>	<ol style="list-style-type: none"> <li>1. Demonstration of clinical, laboratory and digital thermometer followed by comparison of their features by the learners.</li> <li>2. Converting one scale of temperature into another.</li> </ol>	<ol style="list-style-type: none"> <li>1. Students are aware about the difference between heat and temperature.</li> <li>2. They know about the condition for the transfer of heat and identify the direction of heat on the basis of their temperatures.</li> <li>3. Students know about the various modes of transfer of heat and can identify them in their daily life experiences.</li> <li>4. Students know about the different types of thermometer.</li> </ol>	<p><b>Summer Vacation Activity: Model making of any device demonstrating any of the modes of transfer of heat like</b></p> <ol style="list-style-type: none"> <li>1. Solar Cooker</li> <li>2. Thermos flask</li> <li>3. Greenhouse</li> </ol>

				<u>To find temperature of hot water and chilled water by using laboratory thermometer.</u>	<p>5. Students now select colour of clothes according to season. Thus they give more preference to comfort rather than fashion.</p> <p>6. They use thermos flask in order to maintain the temperature of liquid kept in it.</p> <p>7. They can read the temperature from different types of thermometer.</p> <p>8. Students can select thermometer on the basis of purpose of use.</p> <p>9. Construct a thermos flask and study its properties.</p>	
<b>16<sup>th</sup> August to 23<sup>rd</sup> August 2023 (term-1)</b>	5. Weather, climate and adaptation of animal to climate	Students will be able to- 1. Know the difference between climate and weather. 2. Make aware	The teacher will use different pedagogies so that learners will: Be able to understand the day to day condition of atmosphere at a place with respect to temperature,	1. A student will be asked to mark following places in world map- Canada, Greenland, Iceland, Norway, Sweden, Finland, Alaska, (polar region)	The student learnt: The meaning of weather and climate and elements of weather.	To collect the pictures of migratory birds and animals. To paste them in the notebook.

			humidity,rainfall,winds peedetc.(weather)			
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		<p>abouttheadaptationinpolarandtropic alregions.</p> <p>3. Recapitulate theconceptofadaptation.</p> <p>4. Understand theroleofadaptation indifferentclimatic conditions.</p> <p>5. Comprehendhow adaptationhelps these animalstosurvivein extreme harshclimaticconditions.</p> <p>6. Predictallchanges in theweatheraredriven bythesun.</p>	<p>Empathized towards thenecessity of adaptation.Reason for phenomenon foradaptationasitplaysimportant role in survival.Show concernfortheenvironment. Imbibe the value ofsensitivity towardsenvironment. Suggesttheweatherandclimate ofa place. Theywillbeabletomakethe ironrainauge.</p>	<p>Malaysia, Indonesia, Brazil,Republic of Congo, Kenya,Uganda and Nigeria ( Tropicalrainforest)</p> <p>Question will be asked to thestudent related to the activity.</p> <p>3.Students will be shown thevideo on adaptation in polarregion and in tropical rainforest.Teacherwillaskquestionrelatedtothe adaptationinvideo.</p>	<p>The role of sun inchangeofweather.Reasonforphenomenon ofadaptation in polarandtropicalrainforest regionsand its importanceHow adaptationplaysaroleinsurvival oforganismsinextreme climaticconditions .</p> <p>The reason ofMigratorybirdsflytodistantplacedur ingwinterseasons.</p>	<p>- Holiday Home Work Making of model of Rain Gauge.</p>
<p><b>26<sup>th</sup> April to 6<sup>th</sup> May 2023 (term-1)</b></p>	<p>6.Soil</p>	<p>Thestudentswillbe ableto</p> <p>1. Understandabout componentsofsoil .</p> <p>2. Develop theability to analyzedifferent types ofsoil like sandy,clayeyandloamy.</p> <p>3. Analyze variouslayersofsoil</p>	<p>The teacher will be able to use different pedagogies so that studentswillbe able to-</p> <p>1. Avoid soil pollution bynotthrowingthegarbageinthe soil.</p> <p>2. Understand why onlyclayey soil is used formakingMatkasandSurahis.</p> <p>3. Plant moreand moretreesto preventsoilerosion.</p> <p>4. Relatesoilstructureandproperties of soil with</p>	<p>Activity 1: Video demonstrationof process of weathering ofrocks.</p> <p>Activity2: Demonstrationofsoilprofile and explanation ofdifferentlayersofsoil.</p>	<p>1. Students areawareaboutthevariouscomponents ofsoil.</p> <p>2. They cananalyzedifferenttypes of soil onthe basis of theiravailability andproperties.</p> <p>3. Theyare aware</p>	

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		Profile). 4. Understand properties of soil		Poster on soil erosion and soil pollution.	about the causes of soil pollution and soil erosion. 4. They know that the properties of soil decide the type of crop grown in it. 5. They know that clayey soil is most suitable for making matkas and surahis.	
<b>29<sup>th</sup> January to 3<sup>rd</sup> February 2024 (term-2)</b>	7. Wastewater story	Students will be able - 1. Recognize the importance of water for the survival of life 2. Value water as an important renewable resource 3. Know the terms sewage, sewers, contaminants and sewage treatment	The teacher will be able to use different pedagogies so that students will be able - 1. To choose between the alternatives as the best path for self 2. To impart an active role in keeping the environment clean.	Activity 1 Testing of water sample for pH.	1. They will understand the steps associated with the purification of sewage. 2. They will be able to compare and suggest the best methods of ancient and modern sewage practices. 3. Understand	Making of flowchart showing the various steps involved in wastewater treatment plant.

		<p>4. Understand the importance of drainage systems.</p> <p>5. Understand the various steps involved in the sewage treatment</p> <p>6. Know about the alternative arrangement for sewage disposal.</p> <p>7. Provide measures for effective sanitation.</p>			<p>about the alternative arrangement for sewage disposal.</p> <p>4. Learners will create awareness among others.</p>	
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<p><b>16<sup>th</sup> October to 23<sup>rd</sup> October 2023 (term-2)</b></p>	<p>8. Time and Motion</p>	<p>Students will be able to</p> <ol style="list-style-type: none"> <li>1. Explain uniform and non-uniform motion</li> <li>2. Understand the concept of speed and average speed</li> <li>3. Explain about the dependent and independent quantities and how they are used in the graph.</li> <li>4. Explain the various</li> </ol>	<p>The teachers will be able to use different pedagogies so that students will be able to</p> <ol style="list-style-type: none"> <li>1. Evaluate speed and average speed on the basis of given information.</li> <li>2. Convert the various systems of unit of distance and time according to the need and thus will emphasize on uniformity.</li> <li>3. Interpret the available data in the form of a graph.</li> <li>4. Place dependent and independent physical quantities correctly in the graph.</li> </ol>	<ol style="list-style-type: none"> <li>1. Activity: Demonstration of a video showing the history of measuring.</li> <li>2. Activity- Making of simple models of sundial, hour clock/sand clock, simple pendulum with the help of waste materials</li> <li>3. Activity: Demonstration of simple pendulum and calculation of time period with the changing length of simple pendulum.</li> </ol>	<ol style="list-style-type: none"> <li>1. Students will be enlightened with the importance of time and the need of accuracy.</li> <li>2. They will be acknowledged with uniform and non-uniform motion.</li> <li>3. They can evaluate the speeds of different moving objects with accuracy.</li> <li>4. They can</li> </ol>	<p>Aim of the activity: To calculate the time period of a simple pendulum and study the effect of length of pendulum on time period.</p>
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		Technological advancements regarding finding out time starting from the periodic events to the digital clocks. 5. Know different units of motion and time	and the need of accuracy. 6. Analyze the technological advancements and appreciate them.	4. Activity- Plotting of distance-time graph And Comparison of speeds-	compare the speeds by observing the pattern obtained in graph. 5. They will be motivated towards their physical well being through the sportive events.	Competency based question answers.
<b>8<sup>th</sup> May to 18<sup>th</sup> May 2023 (term-1)</b>	9. Acids, bases and salts (10 periods)	Students will be able to: 1) Know about indicators and their types. 2) Identify acids and bases with the help of indicators. 3) Understand the properties of acids and bases. 4) Differentiate between acids and bases. 5) Express the chemical reaction of neutralisation reaction. 6) Demonstrate the	The teacher will use different pedagogies so that students will be able to: Recognize acid and base on the basis of taste. Test acid and base with the help of indicators. Use China rose, red cabbage, turmeric, bougainvillea, beet root as natural indicators. Appreciate and use lemon and tamarind to clean corrosive layers on utensils like brass and copper. Handle and store acids safely. Treat acidity in stomach and tooth decay. Treat ant bite at home	Activity 1: To prepare natural indicators like turmeric, china rose indicator and red cabbage etc. and to test the nature of samples given. Activity 2: To show the Neutralisation reaction between hydrochloric acid and base sodium hydroxide with the help of <u>phenolphthalein indicator</u> .	Students have learnt about: 1. Indicators and their types. 2. Action of indicators on acid and bases. 3. Differences between acids and bases. 4. Neutralisation reaction. 5. Chemical reaction between HCl and NaOH. 6. Use of Neutralisation reaction in our day to day life.	Activity : To find out the changes in the colour of the indicators and note them in the table and write their nature.  Parameters 1. Observation with indicators. 2. Analysis of nature of substance.

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		<p>neutralisation reaction of NaOH &amp; HCl with the help of phenolphthalein indicator.</p> <p>7) Describe use of neutralization reaction in our day to day life.</p>	chemicals.			
<p><b>3<sup>rd</sup> October to 13<sup>th</sup> October 2023 (term-2)</b></p>	<p>10. Respiration in living organisms</p>	<p>Students will be able to</p> <ol style="list-style-type: none"> <li>1. Learn and understand the concept of respiration and can compare between aerobic and anaerobic respiration.</li> <li>2. They will be able to understand the mechanism of breathing.</li> <li>3. They will be able to comprehend and relate how, in cellular respiration, complex organic compounds such as glucose are broken down to provide energy in the form of ATP which is used to provide</li> </ol>	<p>The teacher will use different pedagogies so that students will be able to</p> <ol style="list-style-type: none"> <li>1. Understand how different microbe can be beneficial to human beings.</li> <li>2. They will be able to understand why heavy exercise leads to anaerobic respiration which is responsible for cramps in muscle in human</li> <li>3. They will be able to understand why breathing becomes faster after physical exercises and slower during sleep.</li> <li>4. They will be able to understand how to identify exhaled gas.</li> <li>5. They will apply warm water in case of muscle cramps in order to get relief.</li> <li>6. They will be able to analyze that cramps in muscle as well as bakery products, south Indian</li> </ol>	<ol style="list-style-type: none"> <li>1. Explanation of human respiratory system through chart and video.</li> <li>2. Demonstration of anaerobic respiration of yeast through youtube link.</li> </ol>	<p>Expected Learning Outcome</p> <ul style="list-style-type: none"> <li>- 1. Students know about the aerobic and anaerobic respiration.</li> <li>2. They know the mechanism of inhalation and exhalation and can record the change in chest size while inhalation and exhalation</li> <li>3. They will apply warm water in case of muscle cramps in order to get relief.</li> <li>4. They were able to analyze that cramps in muscle as well as bakery</li> </ul>	<p>Teacher will ask the students to prepare a model to show mechanism of breathing in holidays.</p>

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		energy for other reactions in the cell. 4. Identify the process of fermentation is due to anaerobic respiration which is used in production of alcohol, vinegar and bakery industries as well as in making of dosa etc.	dishes and production of alcohol is due to anaerobic respiration.		production of alcohol is due to anaerobic respiration.	
<b>25<sup>th</sup> October to 10<sup>th</sup> November 2023 (term-2)</b>	11. Transportat ion in animals and plants	Specific Objectives 1. Students will be able to understand the importance of different life processes and mechanism of circulatory system where and how materials such as oxygen, carbon dioxide, food and excretory products are transported 2. Students will be able to understand the components and functions of blood, calculate pulse rate,	The teacher will use different pedagogies so that students will be able to- 1. Know the importance of iron rich food in order to increase the percentage of haemoglobin in blood. 2. Know how a stethoscope records the heart beat. 3. Aware how urinary system removes out waste from the body. 4. They will be able to analyze how osmosis and transpiration are important for transport of water and minerals in highly differentiated plants. 5. Understand how food is transported in all trees.	1) Video on human circulatory system. 2) To make a model of stethoscope. 3) To understand the process of transpiration.	1. Students know about the various components of blood and their functions. 2. They can calculate the pulse rate and feel the heart beat. 3. They know the structure of heart and its function. 4. They are aware about the fact that the wastes have to be eliminated out from the body as they are toxic. 5. They are equipped with the	Prepare a handmade stethoscope.

		<p>understand and draw the structure of heart and learn the transportation of materials in plants and animals.</p> <p>3. Students will be able to understand the components and functions of blood cells and about importance of hemoglobin.</p> <p>4. Students will be able to enhance the ability to understand the mechanism of excretion in human beings in the form of soluble nitrogenous compounds.</p> <p>5. They will understand the process of osmosis and transpiration.</p> <p>6. Students will be able to understand and summarize about different technologies and its</p>			<p>role of kidney and other parts involved in excreting wastes in human beings and other animals.</p>	<p>Students will draw a diagram along with the flowchart of double circulation of blood.</p>
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		renal dialysis.				
<b>5<sup>th</sup> February to 13<sup>th</sup> February 2024 (term-2)</b>	12. Winds, storms and Cyclone	Students will be able to- 1. Demonstrate that air exerts pressure 2. Demonstrate that air expands on heating and contracts on cooling 3. Explain the formation of monsoon winds. 4. Explain the formation of thunderstorm and cyclones.	The teacher will use different pedagogies so that students will be able to- 1. Relate the formation of thunderstorm and cyclone with the variation in air pressure. 2. Adopt safety measures during cyclone and thunderstorm.	1. Activities to show that- air exerts pressure. 2. Making of model of a fanemometer. 3. Video showing the formation of cyclone and tornado.	1. Students can comprehend the various changes brought about by the difference in air pressure. 2. They can relate the concept in real life situations like formation of cyclone and thunderstorm occurred due to difference in air pressure. 3. Students know how monsoon winds are generated which play a very important role in bringing rain fall.	Drawing of flow chart showing the various steps involved in the formation of cyclone. Competency based question answers.
<b>8<sup>th</sup> January to 20<sup>th</sup> January 2024 (term-2)</b>	13 Light	Students will be able to - 1. To enable students to obtain images of different objects by reflecting light on different surfaces. 2. To make	The teacher will use different pedagogies so that students will be able to 1. Know why AMBULANCE is written in a different pattern. 2. Obtain spectrum by using prism and source of light. 3. Identify different types of lenses and mirrors used	1. Reflection of light through concave and convex mirrors 2. The size of the image changes with the change in the distance of the object from mirror. 3. Bending of light through concave and convex lenses 4. The size of the image changes with	1. Students know the various conditions required for regular and irregular reflection. 2. They are acquainted with the properties and	Identification of concave and convex mirrors and lenses and applications. Very short, short and long question answers.



		them understand regular	in everyday life.	he change in the distance of the object from lens.		
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		<p>and irregular reflection.</p> <p>3. To understand formation of images by concave and convex lenses.</p> <p>4. To understand Characteristics of the image formed by changing the distance from the lens.</p> <p>5. To prove White light as a mixture of seven colours.</p> <p>6. To explain Formation of rainbow</p>		<p>5. Dispersion of light through prism</p>	<p>uses of spherical lenses and mirrors.</p> <p>3. They can identify the concave and convex lens found in their daily life like rear view mirror uses the convex mirror while identifies the concave mirror.</p> <p>4. They can explain the formation of rainbow and how we can obtain white light.</p>	
<p><b>1<sup>st</sup> December to 12<sup>th</sup> December 2023 (term-2)</b></p>	<p>14. Electric current and circuits</p>	<p>Students will be able to-</p> <p>1. Understand the various components of electric circuit and draw their symbols.</p> <p>2. Understand why heat is produced when an electric current passes through a wire.</p> <p>3. Explain im</p>	<p>The teacher will use different pedagogies so that students will be able to</p> <p>1. Know the importance of safety fuse and M.C.B.</p> <p>2. Understand why CFL should be preferred instead of electric bulb.</p> <p>3. Understand how cranes work. (Electromagnetic effect)</p>	<p>1. To draw the symbols of various electrical components</p> <p>2. Demonstration of working of electric circuit and electromagnet.</p>	<p>1. Students know that electric current produces heating effect and magnetic effect.</p> <p>2. They are aware about the advantages of CFL over electric bulb.</p> <p>3. They can relate the concept to real life situations like cranes use</p>	<p>Making of electric circuit. Competency based question and answers.</p>

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		<p>heating effects of electric current in our daily life</p> <p>4. List out some of the electrical appliances which work on the property of heating effects of electric current.</p> <p>5. Make an electromagnet</p> <p>7. Distinguish between temporary and permanent magnets</p> <p>8. Explain the working of electric bell.</p>			<p>lifting heavy objects, electric heater gets heated up because of the heating element.</p> <p>4. They know that the fuse wire has low melting point hence it immediately breaks in case of excess current.</p>	
<p><b>13<sup>th</sup> November to 24<sup>th</sup> November 2023 (term-2)</b></p>	<p>15. Reproduction in plants</p>	<p>I - Specific Objectives To enable the students to: Define reproduction Know the types of reproduction and define them. Define vegetative propagation Illustrate vegetative propagation in rose, potato, ginger, bryophyllum,</p>	<p>The teacher will use different pedagogies to enable the students to: Appreciate the use of yeast powder for formation of cakes Grow potato, ginger and rose plant using the various techniques of vegetative propagation Express the gratitude towards the various agents of pollination and seed dispersal. Grow plant of desired quality by vegetative propagation.</p>	<p>1) Demonstration of vegetative propagation in potato, ginger, and cutting in rose and bryophyllum leaf. OR 2) Demonstration of various parts of the flower. OR 3) Collection of flowers of different plants and grouping them as unisexual and bisexual flowers.</p>	<p>The students have learnt about: Reproduction and the types of reproduction Vegetative propagation and how to grow plants by vegetative parts of plants. Vegetative propagation in rose, potato, ginger,</p>	<p>1. Listing of any five fruit bearing plants along with the agents of seed dispersal and the part which helps in dispersal. 2. Oral questions and case study.</p>

		<p>sweetpotato.Differentiate between sexual and asexual reproduction. Illustrate budding in yeast, fragmentation in Spirogyra and spore formation in Rhizopus.</p> <p>Know the various vegetative parts of plants. Know the various parts of flower and understand their function. Understand the advantages of vegetative propagation. Define pollination and its types. Understand the process of fertilization and the process of formation of fruit and seed. Know the agents of seed dispersal and its importance.</p>	<p>Compare the mechanism of cloning with reproduction</p>		<p>bryophyllum, sweet potato. Difference between sexual and asexual reproduction. Budding in yeast, fragmentation in Spirogyra and spore formation in Rhizopus. The various parts of flower and understand their function. The advantages of vegetative propagation. Pollination and its types. The process of fertilization and the process of formation of fruit and seed. The agents of seed dispersal and its importance. The difference in vegetative, asexual, sexual and cloning.</p>	
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<p><b>25<sup>th</sup> August to 31<sup>st</sup> August 2023 (term-1)</b></p>	<p>16 Fibre to Fabric</p>	<p><b>The students will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Distinguish between natural and synthetic fibers.</li> <li>2. Understand the process of making wool.</li> <li>3. Understand the life cycle of silk moth.</li> <li>4. Differentiate the types of silk.</li> </ol>	<p><b>The teacher will use different pedagogies so that the students will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Apply the knowledge of different types of silk in selecting the fabric in daily life.</li> <li>2. Sensitize themselves toward animals.</li> <li>3. Compare the qualities of different types of wool and silk.</li> </ol>	<p><b>To collect different types of cloth materials and paste it down in scrap book.</b>  <b>Also write type of cloth and sources from where they are obtained.</b></p>	<p><b>Students will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Identify animal fiber.</li> <li>2. Explain the processing of animal fibers.</li> <li>3. Describe the life cycle of silk moth.</li> <li>4. Explain the process of rearing of silkworm.</li> </ol>	<p><b>Oral questions, science quiz, multiple choice questions and case related with the topic.</b></p>
<p><b>22<sup>nd</sup> January to 27<sup>th</sup> January 2024 (term-2)</b></p>	<p>17 Water: A precious natural resource</p>	<p><b>The student will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Know about the percentage of water available on earth.</li> <li>2. Understand about different forms of water and diseases caused by contaminated water.</li> <li>3. Become aware about how water is supplied in cities.</li> </ol>	<p><b>The teacher will use different pedagogies so that student will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Analyze the reasons for depletion of water table.</li> <li>2. Apply different methods of conserving water in daily life.</li> <li>3. Compare the exhaustible and inexhaustible natural resource.</li> <li>4. Sensitise themselves towards the use of water for different activities.</li> </ol>	<ol style="list-style-type: none"> <li>1. To mark percentage of rainfall in different regions of India on the map.</li> <li>2. Draw the schematic diagram of rooftop rainwater harvesting in notebooks.</li> </ol>	<p><b>The students will be able to:</b></p> <ol style="list-style-type: none"> <li>1. Define exhaustible and inexhaustible natural resources.</li> <li>2. List uses of water.</li> <li>3. Define depletion of water table and analyze the reason for it.</li> <li>4. List and describe the way to conserve water.</li> </ol>	<p>Case study, multiple choice questions, science quiz and oral questions.</p>

<p>23<sup>rd</sup> August to 25<sup>th</sup> August 2023 (term-1)</p>	<p>18 Forest: Our life line</p>	<p><b>The student will be able to:</b></p> <ol style="list-style-type: none"> <li>1. <b>Explain the role of plants in cleaning the environment.</b></li> <li>2. <b>Understand the interdependence of plants and animals.</b></li> <li>3. <b>Differentiate different layers of forest.</b></li> <li>4. <b>Apply the knowledge of importance of trees and grow more trees and plants in their surrounding.</b></li> </ol>	<p>The teacher will use different pedagogies so that students will be able to:</p> <ol style="list-style-type: none"> <li>1. Analyze the interdependence of plants and animals.</li> <li>2. Sensitize themselves towards plants and environment.</li> <li>3. Become eco-friendly in daily life.</li> <li>4. Become aware of wildlife.</li> </ol>	<p><b>To make a poster on conservation of forest.</b> <b>To make the flow chart of food web of terrestrial and aquatic habitats.</b></p>	<p><b>The students will be able to:</b></p> <ol style="list-style-type: none"> <li>1. <b>Define forest and explain its types.</b></li> <li>2. <b>Define and describe different layers of forests.</b></li> <li>3. <b>List the importance of forest.</b></li> <li>4. <b>Explain food chain and food web.</b></li> <li>5. <b>Explain deforestation and explain the steps to conserve forest.</b></li> </ol>	<p><b>Multiple choice questions and case study related to topic.</b></p>
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