

BRIDGE COURSE PROGRAMME. 2021-2022

Class:- 8

30 days learning activities.

Subject :- Science.

Expected learning outcomes	Learning points	Suggestive activities	Instructions for the maintenance of activities
1. Understanding the Methods of nutrition in plants and animals.	1.1. Understands the meaning of photosynthesis in plants and explaining its importance.	Day-1. 1. Growing different kinds of plants in the class rooms and school premises. 2. Discussion about the importance of photosynthesis.	Growing different kinds of plants in the class rooms and school premises. After 5-6 days, let us help the students to identify the differences in growth of plants.
	1.2. Understanding the different Methods of nutrition plants.	Day-2. 1. Watching the video of nutrition methods in insectivorous plants. 2. Collecting the pictures of insectivorous plants.	Collecting the pictures of different kinds of insectivorous plants. Let us instruct to observe and discuss the nutrition methods in them.
		3. Observing the specimens of insectivorous plants.	

	1.3. Explaining the nutrition method in humans.	<p>Day-3</p> <ol style="list-style-type: none"> 1. Draw the picture of human digestive system. 2. Display the chart on human digestive system. 3. Watch the video of function of the human digestive system. 	Let us guide the students to draw the picture and to explaining the functions of different parts of human digestive system.
	1.4. Explaining the method of Nutrition in amoeba.	<p>Day-4.</p> <ol style="list-style-type: none"> 1. Chart of nutrition method in amoeba. 2. Displaying the video of method of Nutrition in amoeba. 	By showing the chart of amoeba, let us guide the students to explain the nutrition method in amoeba.
		3.Group discussion about method of nutrition in amoeba.	

2. Explaining the soil layers, texture, soil formation and their uses.	2.1 Analysing the soil layer texture.	Day -5 1. Practical activities of soil layer texture. 2. Chart of soil layer texture. 3. Discussion on soil layer texture.	Take a glass beaker half filled with water, add a small amount of tiny gravels, sand and clay. Stir it with a stick. Let us help to observe and discuss on it.
	2.2. Explaining the formation of soil	Day-6. 1. Watch the video of soil formation. 2. Chart on the soil formation. 3. Discussion on the soil formation.	By using the chart, let us discuss about the method of soil formation.
	2.3. Understanding the different types of soil and their	Day-7. 1. Collects and observes different types of soil available	Collects different kinds of soil available in local place. Let us exhibit and discuss about their

	uses.	in local place. 2. Chart of different types of soil and their uses. 3. Discussion on the uses of soil.	uses.
1. Understanding the meaning of conservation of water, importance of reuse water, water pollution, reason for water pollution and methods to control water pollution.	3.1. Understanding the conservation of water and importance of reuse of water.	Day -8. 1. Discussion on the importance and reuse of water. 2. Essay on water conservation and reuse of water. 3. Writing declarative sentences regarding importance of water and importance of reuse of water. 4. Composition of songs on conservation and importance of reuse of water.	Let us guide the students to write and present the declarative sentences on conservation of water and importance of reuse of water. Examples:- 1. Water is our life. 2. No life without water. 3. Conservation of water is our responsibility. 4. A drop of water is immortal and no living beings can survive without water. 5. No earth without water.

	<p>1.2.Explaining water pollution, its reasons and methods of controlling water pollution.</p>	<p>Day-9.</p> <ol style="list-style-type: none"> 1. Visit to local water polluted place or watching video. 2. Essay on water pollution. 3. Discussion on water pollution. 	<p>Let us guide the students to discuss in groups and present the topic on water pollution, its reasons and methods to control water pollution.</p>
	<p>4.1. Identifies mirror and lens.</p>	<p>Day-10.</p> <ol style="list-style-type: none"> 1. Demonstration on lens and mirror. 2. Chart of lens and mirror. 3. Draw the diagrams of lens and mirror. 	<p>By showing the concave and convex lens and mirrors in a class, let us help to identify them.</p>

<p>4. Introducing mirror and lens. Explains reflection of light and image formation.</p>	<p>4.2 Understanding reflection of light.</p>	<p>Day-11.</p> <ol style="list-style-type: none">1. Experiments on reflection of light.2. Watching video on reflection of light.3. Drawing the ray diagrams of reflection of light.	<p>Let us help to do experiments on reflection of light by using plane mirror and torch light.</p>
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	<p>4.3. Differentiates between plane mirror, convex and concave mirrors.</p>	<p>Day-12.</p> <ol style="list-style-type: none"> 1. Demonstration of plane mirror, convex and concave mirrors. 2. Chart of plane mirror, convex and concave mirrors. 3. Draw the diagrams of plane mirror, convex and concave mirrors. 4. Watching the video on plane mirror, convex and concave mirror. 	<p>By showing the plane mirror, convex and concave mirrors in a class, let us help to identify the different types of mirrors.</p>
	<p>4.4. Observes images</p>	<p>Day -13. 1.Experiments of image</p>	<p>Keep the burning candle in between concave mirror and card</p>

	<p>formed in convex and concave mirrors.</p>	<p>formation in plane mirror, concave and convex mirrors.</p> <ol style="list-style-type: none"> 2. Ray diagram of image formation in plane mirror, convex and concave mirrors. 3. Chart of image formation in plane mirror, convex and concave mirrors. 4. Watching the videos of experimentation on convex and concave mirrors. 	<p>board sheet at definite distance in a straight line. Let us help to adjust the card board sheet such that clear image is observed on the screen.</p>
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	4.5. Observing the image formation in	Day-14. 1.Experiments of image	Keep the burning candle in between concave lens and card
	concave and convex lenses.	<p>formation in concave and convex lenses.</p> <p>2. Ray diagram of image formation in concave and convex lenses.</p> <p>3. Chart of image formation on concave and convex lenses.</p> <p>4. Watching videos of experiments of image formation in concave and convex lenses.</p>	board sheet at definite distance in a straight line. Let us help to adjust the card board sheet such that clear image is observed on the screen.

<p>5. Understanding meaning of motion, different types of motion, speed and velocity.</p>	<p>5.1. Meaning of motion and understands the different types of motion.</p>	<p>Day-15.</p> <ol style="list-style-type: none"> 1. Practical activity. 2. Watching videos. 3. Chart to exhibit different types of motion. 	<p>Using marbles, pendulum, paper made fan etc., let us show linear, oscillatory and rotatory motion.</p>
	<p>5.2 Understanding the meaning of speed.</p>	<p>Day-16.</p> <ol style="list-style-type: none"> 1. Practical activity. 2. Watching videos. 3. A chart to understand the meaning of speed. 	<p>A toy car is moved in between two marked points and time is recorded in a table. Let us guide to calculate the speed of car.</p>
	<p>5.3 Understanding the meaning of speed and velocity.</p>	<p>Day- 17.</p> <ol style="list-style-type: none"> 1. Practical activity. 2. Watching videos. 3. A chart to understand the meaning of velocity. 	<p>A toy car is moved in between two marked points in a definite direction and time is recorded in a table. Let us guide to calculate the speed and velocity of the toy car.</p>

6. Understanding the simple electrical circuit and magnetic effects of electric current.	6.1. Understanding the simple electrical circuit.	Day-18. 1. Practical activities. 2. Preparation of models. 3. Chart of simple electrical circuit.	Let us guide the students to prepare simple circuit using battery, bulb, conducting wire and switch.
	6.2 Understanding magnetic effects of electric current.	Day-19. 1. Practical activities. 2. A chart to display magnetic effects of electric current. 3. Watching videos.	Let us guide the students to prepare an electro magnet by using iron nail, copper wire, battery and observing it.
7. Understanding the meaning of acids, bases, salts and their importance in daily life.	7.1 Understands the meaning of acids and explains their characteristics.	Day-20. 1. Tasting activity. 2. Litmus paper experiment. 3. Discussion on characteristics of acids.	Let us help the students to understand the characteristics of acids by tasting lemon/orange juice, goose berry, mango, grapes, tomato etc.,

	7.2 Understanding the meaning of bases and explains their	Day-21. 1. Activity using turmeric indicator. 2. Litmus paper	Smear the turmeric paste on white paper and dry it. Add few drops of solutions of baking soda, lime water and soap water one by one on dried turmeric paper and observe the
	characteristics.	3.experiment. Discussion on characteristics of bases.	changes. Let us help the students to understand the characteristics of bases.
	7.3. Understanding the meaning of salts and explains their characteristics.	Day-22. 1. Litmus paper test. 2. Discussion on characteristics of salts.	Let us help the students to understand the characteristics of available salts. Example:- salt, potassium chloride etc.

	7.4 Explaining the importance of acids, bases and salts in daily life.	Day-23. 1. Discussion on importance of acids, bases, and salts in our daily life. 2. Collects the list of importance of acids, bases, and salts.	Let us guide the students to discuss in groups and present the importance of acids, bases and salts.
8. Identifies physical and chemical changes and explains the process of	8.1. Identifies the physical changes.	Day-24. 1. Practical activity.	Let us demonstrate the following activities and make them to observe.
crystalisation.		2. Watching the video on physical changes.	Cut the paper into pieces and join them, powdering of piece of chalk, hammering the metal piece, changing the physical state of ice/water by heating etc.,

	8.2. Identifies chemical changes.	Day-25. 1. Practical activity 2. Watching the video on chemical changes.	Burning magnesium ribbon in air, dip an iron nail in CuSO_4 (copper sulfate) solution. Let us Guide to observe the chemical changes in these reactions.
	8.3. Explains the crystallisation process.	Day-26. 1. Practical activity. 2. Watching the video on crystallisation process.	Let us help to heat the solution of common salt and copper sulfate and observe the crystals in this experiment.
9. Understanding the fabrics made from wool and silk yarn	9.1. Understanding wool producing animals and their uses.	Day- 27. 1. Chart of wool producing animals. 2. Listing the names of wool producing animals.	Let students will observe the chart of Yak, Angora goat, Camel, Lama, Alpacas, Sheep and Goat and discuss about the products of these animals.

	<p>9.2. Understanding the method of processing thread into wool.</p>	<p>Day-28</p> <ol style="list-style-type: none"> 1. Chart explaining the method of processing thread into wool. 2. The video on method of processing thread into wool. 3. Collects the pictures of method of processing thread into wool. 	<p>By using the chart, let us guide the students to discuss the method of processing thread into wool.</p>
	<p>9.3. Understanding the production of silk and their uses.</p>	<p>Day 29</p> <ol style="list-style-type: none"> 1. Chart on production of silk. 2. Video on production of silk. 3. Visit to the place of silk production farm. 4. List out the fabrics made from silk. 	<p>By using the chart of silk production and their uses, let us help to understand the method of silk production.</p>

	<p>9.4. Understanding the life cycle of silk moth.</p>	<p>Day – 30.</p> <ol style="list-style-type: none"> 1. A chart to exhibit the life cycle of silk moth. 2. Video on life cycle of silk moth. 3. Visit to nearest local silk farmer to know about the life cycle of silk moth. 	<p>Let us explain about the different stages of the life cycle of a silk moth by using the chart and discuss the different transitional stages of silk moth.</p>
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