

Annual Syllabus
Session: 2023-24
Class-VIII
Subject: Science

THEME	CONTENT	SUGGESTIVE LEARNING OUTCOMES	SUGGESTIVE ACTIVITIES
FOOD	<p><u>Ch-2 Microorganisms : Friends And Foe :</u></p> <ul style="list-style-type: none"> ❖ Microorganisms ❖ Major groups of microorganisms and their living place ❖ Microorganisms and us ❖ Harmful Microorganisms ❖ Food Preservation ❖ Nitrogen Fixation ❖ Nitrogen cycle <p style="text-align: center;">Aligned Chapter:-</p> <ul style="list-style-type: none"> ❖ Class VII: - Nutrition in Plants. ❖ Class VI: - Living Organisms and their surroundings. 	<ul style="list-style-type: none"> • Identify different types of microorganisms (both unicellular and multicellular) • Classify useful and harmful microorganisms. • Explore the role of micro organisms in life. • Asks questions and lead to investigations like how do vegetables or food items get spoiled. • Investigate various diseases caused by microorganisms (symptoms and its prevention). • Apply learning of scientific concepts in daily life (what helps in making curd? How does food go bad?) • Investigate the use of salt and sugar in preserving Pickles and jams. 	<ol style="list-style-type: none"> 1. To observe drops of pond water under microscope. 2. Observe the prepared slides of Microorganisms. 3. Pull out a gram/bean plant from the field and to study its root nodules. <p style="text-align: center;"><i>Activities suggested in Pragati</i></p> <p style="text-align: center;"><i>Refer to worksheet no.1-9,23-24</i></p>

MATERIAL	<p><u>CH-3 Coal and Petroleum</u></p> <ul style="list-style-type: none"> ❖ Properties of Inexhaustible and Exhaustible Natural Resources. ❖ Properties and types of Fossil fuels; Coal and Petroleum, Natural gas. ❖ Constituents of petroleum and their uses. ❖ Refining of petroleum. ❖ Ways of saving petrol/diesel. ❖ Some natural resources are limited. 	<ul style="list-style-type: none"> ❖ Identify and classify materials Inexhaustible and Exhaustible Natural Resources on the basis of their properties and limits. ❖ To know the meaning, process of formation, and types, and uses of fossil fuels. ❖ Apply learning of scientific concepts in day to day life using appropriate coal and petroleum products for various purposes. ❖ Apply learning of scientific concepts in day to day life using appropriate ways for conserving energy resources. 	<ol style="list-style-type: none"> 1. To make a list of various materials used by us in daily life and classify them as natural and man-made. (NCERT Activity 5.1) 2. To study the places in the map of India where coal, petroleum, natural gas are found and where petroleum refineries are situated. 3. To study the ways of consuming and conserving of energy resources like coal, gas, electricity, petrol, kerosene etc. 4. To study the location (with reasons) of major thermal power plants in India. 5. Listing of materials into natural and man-made which are required for our basic needs as fuel (activity 5.1). 6. With the help of activity 5.2. Find out how exhaustible resources are reducing in amount. <ul style="list-style-type: none"> ❖ Activities suggested in Pragati-5
HOW THINGS WORK	<p><u>CH-10 Sound</u></p> <ul style="list-style-type: none"> ❖ Meaning and properties of Sound. ❖ Process of production of Sound by a vibrating body. ❖ Process of production of sound by Humans. ❖ Medium of propagation of Sound. ❖ Process of hearing of sound by our ears. ❖ Audible and Inaudible sounds. ❖ Noise and music 	<ul style="list-style-type: none"> ❖ To know the meaning, process of formation of sound by musical instruments. ❖ To identify the properties of sound like Frequency, Oscillation, Amplitude, loudness, pitch, etc. ❖ To know the functions of Human body parts in the formation and hearing of sound. ❖ To find out the sources, impacts, of Noise pollution and the ways to control it. 	<ol style="list-style-type: none"> 1. To make a list of musical instruments, note down the parts of these instruments that vibrate to produce sound. 2. To make a list of famous musicians and the instruments they play. 3. To identify the sources of noise pollution in your locality and make a Suggestive list how to control noise pollution. 4. To learn the sign language for communicating effectively with children having hearing impairment.

	<ul style="list-style-type: none"> ❖ Noise pollution: Sources, harms, and its measures. 	<ul style="list-style-type: none"> ❖ Apply learning of scientific concepts of sound like sources, loudness, and its harmful and useful impact in day to day life. 	<ol style="list-style-type: none"> 5. To make a list of range of audible frequencies for various animals and the loudness in decibel for various sound producing sources. 6. To make a toy telephone to know that how sound can travel through strings (NCERT Activity 13.14) and to understand the action of ear drum by plastic can stretched with rubber balloon and containing five grains of dry cereal in it. (NCERT Activity 13.10).
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Note:-

- ❖ **The above mentioned syllabus is to be completed by 15th September, 2023.**
- ❖ **Revision of syllabus for Mid Term Examination.**
- ❖ **The above said syllabus is for the assessment purpose and remaining topics/chapters may be taught as Subject Learning Enrichment.**

MID TERM EXAM

THEME	CONTENT	SUGGESTIVE LEARNING OUTCOMES	SUGGESTIVE ACTIVITIES
HOW THINGS WORK	<p><u>CH-11 Chemical effects of Electric Current</u></p> <ul style="list-style-type: none"> ❖ Do liquids conduct electricity? ❖ Chemical effects of electric currents. ❖ Electroplating and its uses. 	<ol style="list-style-type: none"> 1. To test the conduction of electricity through various fruits, vegetables, wood piece, metal piece and display your result in tabular form (Good Conductor/Bad Conductor). 2. To study the phenomenon of electroplating by simple circuit. 	<ol style="list-style-type: none"> 1. Identify liquids on the basis of conductivity as electrical conductors or insulators. 2. Conduct simple investigation to seek the answer for queries like why acids, bases and salts conduct electricity? And why do we get shock when we touch electric appliance with wet hands?

	<ul style="list-style-type: none"> ❖ Good conductors and bad conductors of electricity. Aligned Chapter:- ❖ Class VII:-Electric Current and its Effects. ❖ Class VI: - Electricity and Circuits. 		<ol style="list-style-type: none"> 3. Explain the process of Chemical effects of electric current. 4. Apply learning of scientific concepts in day to day life of depositing a layer of any desired metal on another material by electroplating. 5. Activities suggested in Pragati-5.
NATURAL PHNOMENA	<p><u>CH-13 Light</u></p> <ul style="list-style-type: none"> ❖ What makes things visible ❖ Laws of reflection, ❖ Regular and diffused reflection multiple reflection ❖ Reflected light can be reflected again. ❖ Multiple Images ❖ Sunlight-,white or colored, ❖ What is inside Our Eyes? ❖ (human eye-structure andfunction) ❖ Care of the Eyes ❖ Visually challenged persons can read and write. ❖ What is the Braille system? Aligned Chapter:- ❖ Class VII: - Light. ❖ Class VI: - Light Shadows and Reflection. 	<ul style="list-style-type: none"> • To differentiate between regular and irregular reflection. • Conduct simple investigations to seek answer to queries whether angle of incidence is equal angle of reflection? • Explain the process for the formation of multiple images. • Explain with the help of self drawn labeled diagram the structure of eye. 	<ol style="list-style-type: none"> 1.To verify laws of reflection of light. 2.To study the structure of eye with the help of a chart/model. 3.To make your own Kaleidoscope. <p style="text-align: center;"><i>Activities suggested in Pragati</i></p> <p style="text-align: center;"><i>Refer to worksheet no.19-25</i></p>
The World of the Living	<p><u>CH-6 Reproduction In Animals</u></p> <ul style="list-style-type: none"> ❖ Modes of reproduction ❖ Sexual Reproduction (male reproductive organs, 	<ul style="list-style-type: none"> • Classify organism based on asexual and sexual mode of reproduction. • Explain process of Reproduction in human and animals. • Identify between viviparous and 	<ol style="list-style-type: none"> 1. To study the various modes of asexual reproduction in Hydra and Amoeba (with the help of permanent slides) 2. To study the life cycle of frog/mosquito with the help of a chart/model.

	<p>female reproductive organs and fertilization)</p> <ul style="list-style-type: none"> ❖ Development of embryo, ❖ Viviparous and oviparous animals. ❖ Young to adults ❖ Asexual reproduction by budding and binary fission <p>Aligned Chapter:-</p> <ul style="list-style-type: none"> ❖ Class VII: Reproduction in Plants. ❖ Class VI: - Living Organisms and their surroundings. 	<p>oviparous animals on the basis of egg laying or baby birth.</p> <ul style="list-style-type: none"> • Explain with the help of self drawn labeled diagram/flow chart of human reproductive organ. 	<p><i>Activities suggested in Pragati</i></p> <p>Refer to worksheet no. 26-33</p>
FOOD	<p><u>CH-1 Crop Production and management</u></p> <ul style="list-style-type: none"> ❖ Crops and their types, and the related climatic conditions. ❖ Basic Agricultural Practices for crop production. ❖ Manure and Fertilizers: as nutrient substances for crops. ❖ Crop Rotation-for different types of crops growing alternatively. ❖ Weeds, weedicides. ❖ Storage of grains and Animal Husbandry. 	<ul style="list-style-type: none"> • Identify and classify various types of Crops as Kharif and Rabi based on the season in which they grow. • Identify various types of climatic conditions for the growth of crops based on the region in which they grow. • To understand the basic agricultural activities involved in cultivation of crops. • To classify and identify and differentiate the properties of various manmade and natural nutrients for the healthy growth of plants. • To understand the importance of crop rotation for the replenishment of the soil with nitrogen. 	<ol style="list-style-type: none"> 1. To study the steps of basic agricultural practices used for growing any type of crops. 2. To prepare an experiment for growing (germination of moong or gram seeds) seedlings with manure and fertilizer. (NCERT Activity 1.2). 3. To make a list some important food and their sources from which they obtain.(NCERT Activity 1.3). 4. To make a list some important types of Kharif and Rabi Crops. 5. To sow some seeds in the soil and arrange to water them by drip irrigation, and observe daily to note down the changes in the seed. 6. Collect different types of seeds and put them in small bags and label each of them. 7. To collect pictures/draw diagrams of various agricultural tools or machines.

	<p>Aligned Chapter:-</p> <p><u>Class VII:</u></p> <p>CH-16 Water:A Precious Resource.</p>	<ul style="list-style-type: none"> • To understand the ways of protecting the main crops from undesirable plants in the field. • Show awareness for using resources judiciously like making controlled use of fertilizers and pesticides. • Apply learning of scientific concepts in daily life, eg. Increasing of crop production(in kitchen garden). 	<p>8.To draw pictures of various methods of irrigation</p> <ul style="list-style-type: none"> ❖ Activities suggested in Pragati-5
<p>Moving Things, People and Ideas.</p>	<p><u>CH-8 Forces And Pressure</u></p> <ul style="list-style-type: none"> ❖ Force – a push or a pull ❖ Forces are due to an interaction ❖ Exploring forces. ❖ A force can change the state-of motion ❖ Force can change the shape of an object , direction and speed of an object ❖ Contact forces ❖ Non- contact forces ❖ Pressure ❖ Pressure exerted by liquids and gases. ❖ Atmospheric pressure 	<ul style="list-style-type: none"> • Identify various types of forces by giving examples from daily life. • Understand the reason how force arises due to interaction between two objects. • Investigate the effect of force on speed and direction of moving objects. • Differentiate between contact and non Contact forces. • Identify and demonstrate the relation between force, area and pressure. • Conduct simple investigation to seek answer to queries e.g. Do liquids exert pressure at same depth? • To investigate on like what happens when we push or pull anything? or why needles are made 	<ol style="list-style-type: none"> 1. To study various types of forces and their impacts. 2. To study the relation between force and motion in daily life experiences. 3. To observe the forces of attraction and repulsion between two types of a bar magnet. 4. To study the dependence of pressure on area. 5. To study increase in pressure exerted by the liquids at the greater depths. <p><i>Activities suggested in Pragati</i></p> <p><i>Refer to worksheet no.34-37</i></p>

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Note:-

- ❖ The above mentioned syllabus is to be completed by the 31st January, 2024.
- ❖ Revision of syllabus for Annual Examination.
- ❖ Whole syllabus will be evaluated in the Annual Examination.
- ❖ The above said syllabus is for the assessment purpose and remaining topics/chapters may be taught as Subject Learning Enrichment.

Annual Exam 2024