

Subject : Science
 Grade : VI
 Year : 2019-20



Year Planner

Text book used: Collins Science Now

Month& No. of Teaching Days	Units	Sub Units	Objectives	Activities Planned	Evaluation
March (6)	3: The World of the Living	L-7: Things Around us <ul style="list-style-type: none"> Characteristics of living things Habitat Biotic components Abiotic components 	<ul style="list-style-type: none"> To study the characteristics of living organisms Distinguish between Living and Non-Living things Identify different Biotic and Abiotic components of the environment To understand the concept of habitat. 	Lab. Activity: <ul style="list-style-type: none"> Observation of stomata and Amoeba to study the cells. Class Activity: <ul style="list-style-type: none"> Text book activity(Project) Design a habitat with biotic and abiotic components. 	
April (9)	7: Natural Resources	L-15 – Water <ul style="list-style-type: none"> Availability of water on Earth Uses of water States of water Change of forms of water Water cycle Drought and Flood Conservation of water 	<ul style="list-style-type: none"> To understand the importance of water. To study about the states of water. Define how water is circulated through water cycle Sensitize towards natural calamities like floods, drought etc., Realize the necessity for water conservation. 	Lab. Activity: <ul style="list-style-type: none"> Evaporation and Condensation. States of water Class Activity: <ul style="list-style-type: none"> Growing a plant without soil and tabulating the observations and drawing suitable conclusions. 	Worksheet-1
June (15)	3: The World of the Living	L-8: Plants <ul style="list-style-type: none"> Root – systems, functions and modifications Stem - functions and modifications Leaf - Parts of a leaf, functions and modifications Flower-Parts of a 	<ul style="list-style-type: none"> To recognize the different parts of a plant and realize the importance of how they work together towards the growth of the plant Identify the various ways in which plant parts are modified for different functions To describe the structure and function of a flower 	<ul style="list-style-type: none"> Arrange a twig to study different parts of a plant Observation of different types of roots Study of various attributes of leaves Lab. Activity: <ul style="list-style-type: none"> Activity to show transport of water through the stem Display of specimens showing 	Slip Test – 1 Worksheet-2

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		flower <ul style="list-style-type: none"> ● Pollination 	<ul style="list-style-type: none"> ● Generalize how pollination is vital for the survival of a plant species 	root, stem and leaf modifications. <ul style="list-style-type: none"> ● To observe transpiration in plants ● Study of parts of a flower and cutting sections of ovary to observe ovules Class Activity: Observe the given specimen and record it.	
	6: Natural Phenomena	L-14: Light, Shadows & Reflections <ul style="list-style-type: none"> ● Sources of light ● Transparent, translucent and opaque objects ● Propagation of light ● Reflection of light ● Pin-hole camera 	<ul style="list-style-type: none"> ● To explain different sources of light ● Distinguish between transparent, translucent and opaque objects ● To understand about rectilinear propagation of light ● Generalize the conditions necessary for a shadow to be formed ● List the differences between shadows and images ● To identify the different types of reflecting surfaces 	<ul style="list-style-type: none"> ● Classify different materials as transparent, translucent or opaque ● Formation of shadow and study its characteristics ● To show difference between image and shadow ● Model making: Pinhole Camera, Kaleidoscope. Lab. Activity: Propagation of light.	
July (24)	1: Food	L-1: Food and its sources <ul style="list-style-type: none"> ● Plants as a source of food ● Animals as a source of food ● Food habits of animals 	<ul style="list-style-type: none"> ● To understand that different parts of a plant and animal products serve as sources of food for human beings ● To identify dairy products – Paneer, Cheese, Cream, Butter, Ghee, Curd ● To classify animals based on food 	<ul style="list-style-type: none"> ● Germination of seeds-moong dal, chickpea, etc. ● Display of samples of different animal and plant products Class Activity: <ul style="list-style-type: none"> ● Identify the ingredients and source present in the dishes prepared by each group 	Worksheet-3 Slip Test 2 Periodic Test -1

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			habits – herbivores, carnivores, omnivores, scavengers and decomposers <ul style="list-style-type: none"> Generalize that different types of animals possess distinct characteristics that allow them to eat a particular kind of food 		
	1: Food	L-2: Components of Food <ul style="list-style-type: none"> Understand the importance of nutrients Carbohydrates Fats Proteins Vitamins Minerals Dietary fibres Balanced diet 	<ul style="list-style-type: none"> Categorize food into various components and understand the importance of a balanced diet To identify the diseases that are caused due to deficiencies of certain food components and list their symptoms 	Lab. Activity: <ul style="list-style-type: none"> Test the presence of sugar, starch, fat & proteins in the food items. Inviting a dietician for a brief presentation. 	
August (22)	2: Materials	L-5: Sorting Materials <ul style="list-style-type: none"> Grouping of materials on the basis of common properties – Lustre, Texture, Hardness, State, Transparency, Solubility, Floatation, Attraction towards a magnet, Conduction of heat and electricity 	<ul style="list-style-type: none"> To study the properties of materials Generalize the advantages of grouping things Identify the basis of classification To classify the materials, present around us on the basis of certain common properties 	<ul style="list-style-type: none"> Collecting and grouping things on basis of gross properties e.g., roughness, lustre, transparency, solubility, sinking/floating To classify the given materials as magnetic and non-magnetic substances 	Worksheet-4 Slip Test-3
	2: Materials	L-3: Separation of Substances <ul style="list-style-type: none"> Pure substance and mixture 	<ul style="list-style-type: none"> To understand and gain practical knowledge of different methods used for separation of substances 	Lab. Activity: <ul style="list-style-type: none"> To demonstrate the process of winnowing, sieving & hand-picking 	Worksheet-5 Slip Test-4

Month& No. of Teaching Days	Units	Sub Units	Objectives	Activities Planned	Evaluation
		<ul style="list-style-type: none"> Types of mixtures Threshing, winnowing, hand-picking, and sieving Sedimentation and decantation Filtration Evaporation and condensation Solution and solubility 	<ul style="list-style-type: none"> To study the methods of separating substances and understand the underlying principles behind each method Identify different kinds of solutions, and pick out the solutes and solvents in each 	<ul style="list-style-type: none"> To observe cleaning of rice by sedimentation and decantation To separate a mixture of sand and water by filtration Testing the solubility of commonly available substances 	Subject Enrichment Assessment -1
September (18)	HALF-YEARLY EXAMINATION				Revision worksheet -1
October (17)	2: Materials	L-6: Changes Around Us <ul style="list-style-type: none"> Reversible and irreversible changes Physical and chemical changes Expansion and contraction of materials Real life applications 	<ul style="list-style-type: none"> To understand the different types of Changes-Physical and Chemical Predict the causes and effects of changes Explain about reversible and irreversible changes To identify the difference between physical and chemical changes To recognize that substances expand on heating and contract on cooling 	<ul style="list-style-type: none"> Discussion on reversible and irreversible changes-child growing, ripening of fruits, curdling of milk etc. Lab. Activity: <ul style="list-style-type: none"> Contraction and expansion of substances 	Worksheet-6
	6: Natural Phenomena	L-12: Electricity & Circuits Electric current <ul style="list-style-type: none"> Sources of electric current Flow of electric current Electric circuit Electric Bulb 	<ul style="list-style-type: none"> To study about electricity and its importance To understand the concept of Electric current and Structure of a dry cell To examine the working of an electric bulb and an electric torch and analyze electric cells 	<ul style="list-style-type: none"> Display of an electric bulb and its parts Making a simple electrical circuit - Open and closed circuit. Study of battery or cell Demonstration of working of an electric torch To identify conductors and 	

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		<ul style="list-style-type: none"> ● Electric torch ● Conductors and insulators ● Safety precautions 	<ul style="list-style-type: none"> ● To know the difference between conductors and insulators ● Adopt safety measures while handling electric appliances 	insulators from a given set of materials	
November (22)	3: The World of the Living	L-9: Movement in Animals <ul style="list-style-type: none"> ● How animals move ● Movement in earthworm, snail, cockroach, fish, birds, snakes, and human beings ● Joints and movement ● Cartilage 	<ul style="list-style-type: none"> ● To study the movements in different animals and humans ● Understanding the relation between movements in animals and body structure. 	<ul style="list-style-type: none"> ● Human Skeleton model. ● Observation of specimens: Earthworm, Snail, Cockroach, Fish, Birds and Snake. 	Worksheet-7 Slip Test-5 Worksheet-8
December (20)	7: Natural Resources	L-16 – Air <ul style="list-style-type: none"> ● Composition of air ● Air and life ● Balance of oxygen and carbon-dioxide in nature ● Air pollution 	<ul style="list-style-type: none"> ● To explain how air supports life and balance of various gases exists in nature ● To examine the oxygen cycle ● To realize how our personal and industrial activities cause pollution of air 	Lab. Activity: <ul style="list-style-type: none"> ● Presence of Oxygen and Nitrogen in air. ● Discussion on air pollution 	Worksheet 9 & 10 Slip Test-6
	2: Materials	L-4: Fibre to Fabric <ul style="list-style-type: none"> ● History of clothing ● Fibre and fabric ● Types of fibres ● Importance of natural fibres ● Obtaining fabric from fibre. 	<ul style="list-style-type: none"> ● To recall the brief history of clothing ● To understand the process of converting yarn to fabric ● Distinguish between weaving and knitting ● Study the different types of fibres, their sources, properties and uses ● Explain about the process involved in the production of jute and cotton 	<ul style="list-style-type: none"> ● Weaving with paper strips ● Display of different types of fibres and fabrics. Lab. Activity: <ul style="list-style-type: none"> ● Burning test to differentiate natural and artificial fibres 	

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January (19)	5: How Things Work	L-13: Magnets <ul style="list-style-type: none"> Discovery of magnets What is a magnet? Natural & artificial magnets Poles of a magnet Attraction and repulsion Earth as a magnet & magnetic compass Care of magnets Uses of magnet 	<ul style="list-style-type: none"> To learn about magnets and their properties Explain the significance of poles of a magnet To differentiate between magnetic and non-magnetic substances Describe the mechanism of attraction and repulsion Study how magnets are made Analyze how and where magnets are used 	<ul style="list-style-type: none"> To find the poles of a magnet, shapes of magnets Attraction and repulsion Making a magnet Magnetic compass <p>Lab. Activity:</p> <ul style="list-style-type: none"> To prove that freely suspended magnet always aligns itself in a particular direction 	Worksheet-11 Periodic Test -3 Subject Enrichment Assessment -2
	3: The World of the Living	L-10: Habitat and Adaptation <ul style="list-style-type: none"> Habitats on the earth – Forest, Grassland, Deserts, Mountains & Polar region, and Aquatic habitat Adaptations of organisms in different habitats Acclimatization 	<ul style="list-style-type: none"> To generalize the various distinctive features of each habitat Understand the importance of adaptations for the survival of species Evaluate adaptations and study the adaptive features of animals and plants living in their natural habitat To describe about acclimatization 	<ul style="list-style-type: none"> Observation of specimens Group discussion on effects of environmental factors (water availability & temperature) affect living organisms 	
February (15)	4: Moving Things, People, and Ideas	L-11: Measurement & Motion <ul style="list-style-type: none"> What is measurement? SI system of units Estimation Motion and Rest Types of motion 	<ul style="list-style-type: none"> To summarize the history of transportation To understand how people measured time and distance in ancient times Realize the need of standard units of measurements Explain the importance of measurement in life 	<ul style="list-style-type: none"> Identifying different types of motions. (bicycle wheel, fan, top, clock, sun etc.) Measuring length of different objects. 	Revision worksheet - 2

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			<ul style="list-style-type: none"> Learn the concept of motion and identify the different types of motion 		
	7: Natural Resources	L-17: Waste management (Briefing Lesson) <ul style="list-style-type: none"> Types of wastes. Segregation of waste. Management of biodegradable wastes. Management of non-biodegradable wastes. Role of Municipality & public's role. 	<ul style="list-style-type: none"> To differentiate between the types of wastes – biodegradable and non- biodegradable wastes. To analyze the procedure involved in composting and landfilling. Realize the importance of recycling and becoming aware of the need to control wastes and help in reducing and reusing things. 	<ul style="list-style-type: none"> Model making – green bin and blue bin. Structure of landfill and vermicomposting 	
March	ANNUAL EXAMINATION				
				<ul style="list-style-type: none"> 	