



SPLIT UP OF SYLLABUS (2017-18)

GRADE: 6
Subject: Science

Teacher Name: Mrs.Firdous Fatima

T	A	M	Unit/Chapter	Concepts/Sub topic	Learning Outcomes	Essential Questions
TERM 1	FORMATIVE ASSESMENT 1	April	Food and its sources	Importance of food for a living organism. Food habits based on the geographic location Sources of food	<ul style="list-style-type: none"> Realize the importance of food and nutrition in living organisms Differentiate between vegetarians and non vegetarians. List various examples of -raw and cooked food Classify the animals into different groups based on their eating habits. Herbivores, carnivores, omnivores , scavengers and parasites <p>SKILLS DEVELOPED:-logical thinking , Inquisitiveness, Observation , Recording data , Reasoning , Classifying , Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> Some vegetables are known as fruit vegetables. Why do you think they have been given this name? Name five food items that can be eaten raw and five cooked food items. What is a food chain? Explain with few examples. What do you think will happen to the carnivores and plant population if all the herbivores are wiped out from a food chain?
			Components of food	Nutrients in the food Balanced diet - meaning and importance, Components of food and their importance, Causes and symptoms of Deficiency diseases.	<ul style="list-style-type: none"> Identify the important sources of carbohydrates and fats in their diet. Explain the importance of carbohydrates and fats in the diet. Tabulate the important sources of proteins in their diet. Summarize the important functions of the proteins in our body. Identify the kinds of vitamins and minerals. Identify some foods rich in roughage. Enlist the importance of water in our diet. Recall the meaning of deficiency diseases and describe their symptoms. <p>SKILLS DEVELOPED:-Experimenting, Interpreting data , Reasoning , Observation , Recording data , Classifying and Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> Identify the deficiency diseases caused due to the lack of carbohydrates/fats in the diet. Identify the deficiency diseases caused due to the lack of proteins in the diet. Define balanced diet , and explain its importance
		May	Separation of substances	Pure and impure substances, Mixtures and compounds, Homogeneous and heterogeneous mixtures, Separation of solids from solids,	<ul style="list-style-type: none"> Differentiate between: Pure substances and mixtures Contrast Homogenous and Heterogeneous mixtures Analyze the different types of mixtures and the need for separation. Aware of the different methods used for the separation of mixtures and the principle behind each method Demonstrate the concept of solubility and the importance of water as a universal solvent 	<ul style="list-style-type: none"> Define the terms pure substances and mixtures Give various examples of homogeneous and heterogeneous mixtures. What characteristics in a mixture would you look for before selecting any method of separation? Distinguish between Winnowing and



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FORMATIVE ASSESSMEN	2	SYSTEM	insoluble solid from liquids, soluble solids from liquids	<p>SKILLS DEVELOPED:-Experimenting, Interpreting data , Reasoning , Observation , logical thinking , Inquisitiveness, , Reasoning , Classifying , Describing ,Drawing and labeling</p>	<p>sieving</p> <ul style="list-style-type: none"> Articulate the difference between solvent, solute and solution Why is water called a universal solvent
		Sorting materials into groups	<p>Classification based on the materials they are made of. Classification based on properties , Transparent, opaque and translucent objects , Reasons for floating and sinking of objects</p>	<ul style="list-style-type: none"> Realize the importance of classification of materials Classify the objects based on their properties –Transparency, Luster, Hardness and Appearance , Classify the objects based on their properties- Solubility and Floatation Group the materials into three categories-solids, liquids and gases SKILLS DEVELOPED-, Observation , Recording data , Reasoning , Classifying and Describing ,Drawing and labeling 	<p>*What is the need of classification? *What is the basis of classifying different materials? *Write the definition of transparent , translucent and opaque substances and give any five examples for each. *Articulate the difference between solvent, solute and solution *Why is water called a universal solvent? *How will you differentiate between solids, liquids and gases?</p>
		Electricity and circuits	<p>Electric current, Electric circuits- components, Working of a torch, Conductors and insulators</p>	<ul style="list-style-type: none"> Study about electricity and its importance Explain the meaning of a circuit and its components. Construct a circuit diagram Compare and contrast various circuit symbols Analyze the structure of a torch Differentiate between good and bad conductors electricity. <p>SKILLS DEVELOPED:- logical thinking , Inquisitiveness, Experimenting, Interpreting data , Observation , Recording data , Reasoning , Classifying ,Drawing and labeling</p>	<ul style="list-style-type: none"> What do you mean by a fused bulb ? Write five safety measures while handling electrical appliances. What is the difference between closed and open circuits? Why do wires have plastic coverings? Describe the structure of a torch and explain its working. What are conductors and insulators ? Give some examples.
June	Fibre to fabric	<p>Types of fibres Sources of fibres Method of converting fibre to fabric</p>	<p>*List the different types of fibres and their sources *Discover the process of making of yarn from fibre and fabric from yarn *Differentiate between weaving and knitting *Recognize the history of clothing * Compare and contrast between natural and man-made fibre</p> <p>SKILLS DEVELOPED:- Interpreting data , Reasoning , Observation , Recording data , Classifying and Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> Explain the process of obtaining fabric from any fibre. Describe the process of weaving. How are natural fibres different from synthetic fibres? Explain the process of knitting. 	



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SYSTEM		September		
	The Living and the non living	Characteristics of living and non living Differentiate between Biotic and Abiotic components	<ul style="list-style-type: none"> All the characteristics of living beings- ‘MRS GREN’ and life span and life cycle. To differentiate between respiration and breathing. Know the words like response , stimulus Compare and contrast the growth in plants and animals. Differentiate between the movements and excretion in animals and plants. <p>SKILLS DEVELOPED:- logical thinking , Inquisitiveness, Observation , Recording data , Reasoning , Classifying ,Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> Expand the word MRSGREN Define the terms respiration and breathing Differentiate between the stimulus in plants and animals. What is excretion? How do plants and animals remove their wastes? Define the terms -movements and excretion
	Measurement and motion	Meaning of measurement , need for measurement Units of measurement, Importance of standard units, Rest and motion, Types of motion	<ul style="list-style-type: none"> Analyze the need for accurate measurements Recall the meaning of physical quantity, standard units and its importance. Learn to measure the length accurately without committing errors. Differentiate between motion and rest. Enhance the knowledge of different types of motion. Translatory motion , circular motion , rotational motion , oscillatory and vibratory motion <p>SKILLS DEVELOPED:- logical thinking , Inquisitiveness, Experimenting, Interpreting data , Observation , Recording data , Reasoning , Classifying , Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> Why is measurement so important? Why should body parts not to be used for measurement? What are the advantages of S.I system of units? What is parallax error? What kind of error may occur while measuring the length of a pencil? What can you do to avoid this error? When is a body said to be at rest or motion? How can a single body have multiple motions?

T	A	M	Unit/Chapter	Concepts/Sub topics	Learning Outcomes	Essential Questions
TERM 2	FORMATIVE ASSESSMENT 2	October	Light , shadow and reflection	Importance of light, Natural and man made sources of light, Luminous and non-luminous bodies, Transparent ,translucent and opaque objects,	<ul style="list-style-type: none"> know the meaning of light Analyze the sources of light Differentiate between luminous and non luminous objects Evaluate the types of optical media Enlist the Properties of light –Rectilinear propagation of light Construct a pin hole camera Demonstrate the formation of inverted image through pin hole camera. 	<ul style="list-style-type: none"> What are the different sources of light? Write the definition of transparent, translucent and opaque substances and give any five examples for each. Give one example from your daily life observation to prove rectilinear propagation of light. Explain the working of a pin hole camera.



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November	TEM	Rectilinear propagation of light, Shadow-its formation, nature and properties, Phenomenon of reflection by a plane mirror	<ul style="list-style-type: none"> Recall the meaning of shadow and image. Differentiate between Lunar and Solar eclipses <p>SKILLS DEVELOPED:-Experimenting, Interpreting data , Reasoning , Observation , Recording data , Reasoning , Classifying and Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> How can plane mirrors be used in magic shows? Differentiate between shadow and image.
	Magnets and their effects	Meaning of magnet Poles of a magnet Properties of a magnet, Preserving magnets, magnetic compass	<ul style="list-style-type: none"> Differentiate between magnetic and nonmagnetic substances Realize the fact that earth is a huge magnet Explain the fact that a magnet always rests in north-south direction, Magnet always exerts more magnetic force at the ends Analyze the properties of a magnet-Magnets exert their influence through various materials Analyze the properties of a magnet- Like poles repel and unlike poles attract each other. <p>SKILLS DEVELOPED:-Experimenting, Interpreting data , Reasoning , Observation , Recording data , logical thinking , Inquisitiveness, Classifying Drawing and labeling</p>	<ul style="list-style-type: none"> Differentiate between magnetic and non-magnetic substances Describe the fact that a magnet always rests in north-south direction, Magnet always exerts more magnetic force at the ends What will happen if a magnet breaks into two pieces? List all the properties of a magnet Explain the terms attraction and repulsion of magnets
	Changes around us	Types of changes Difference between chemical and physical change Types of solutions	<ul style="list-style-type: none"> Observe and classify the changes as physical and chemical changes- cooking of food, curdling of milk , germinating seeds, spoilt food, cutting of an apple , torn papers , broken glass etc. To observe that the States of matter are interchangeable Enlist the causes of physical and chemical changes SKILLS DEVELOPED:-Experimenting, Interpreting data , Reasoning , Observation , Recording data , Reasoning , Classifying ,Describing ,Drawing and labeling 	<ul style="list-style-type: none"> Mention some characteristics of reversible and irreversible changes Differentiate between physical and chemical changes and give various examples from your daily life situations Give the meaning of the following terms- freezing, melting ,boiling evaporation ,condensation



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FORMATIVE ASSESSMEN 4	December	<p>TEM</p> <p>The plant world</p>	<p>Types of roots and their functions</p> <p>Classification of plants</p> <p>Functions and modifications of roots ,stems, and leaves</p> <p>Parts of a leaf- functions of a leaf</p> <p>Parts of a flower</p> <p>Pollination</p>	<ul style="list-style-type: none"> • Classify the plants into various groups based on their sizes, stems , colors or place where they grow. • Categorize them into herbs, shrubs , trees , climbers or climbers. • Differentiate between the kinds of roots. • Enumerate the functions of roots. • Analyze the structure of a leaf. • Compare the types of venation. • Enumerate the functions of a leaf. • Describe the modifications of roots ,stems, and leaves <p>SKILLS DEVELOPED:-Experimenting, Interpreting data , Reasoning , logical thinking , Inquisitiveness, Observation , Recording data , Reasoning , Classifying ,Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> • Differentiate between the types of plants. • Define and give examples for each variety of plants • Find out about respiratory roots and supporting roots • Draw ,label and explain all the parts of a leaf • Write the functions of a leaf. • Enlist one or two modifications of roots ,stems, and leaves
	January	<p>Movements in the body</p>	<p>Movements of living and Non-living things, Joints-types and their working, X-ray and their importance, Human skeletal system and its parts, Control of movements by muscles, Movements of some animals</p>	<ul style="list-style-type: none"> * Differentiate between movement and locomotion * Analyze the various parts of the human skeleton *Describe the four basic functions of the human skeleton: * Describe the basic structure of a bone and label its three major parts: compact bone, bone marrow and spongy bone. * Understand the structure and function of these parts. *Realize the significance of joints in our body. *Explain the importance of proper diet and exercise for the development of bones and muscles in the body. <p>SKILLS DEVELOPED:- logical thinking , Inquisitiveness,Observation , Recording data , Reasoning , Classifying ,Describing ,Drawing and labeling</p>	<p>Enumerate the functions of a human skeletal system</p> <p>Explain the basic structure of a bone using a neat well labeled diagram</p> <p>Describe with examples the four movable joints of our body.</p>



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February	TEM	Adaptations in living organisms	<p>Characteristics of living and non living</p> <p>Biotic and Abiotic components</p> <p>Adaptations based on their habitats</p>	<ul style="list-style-type: none"> • Differentiate between adaptation and habitat • Analyze all the features of a camel with all its adaptations • Recall the meaning of aquatic habitat. • Differentiate between fresh water and marine habitat. • Enumerate all the features of the fish and know with adaptations of the fish, the adaptations in whales and dolphins. • Realize the extreme weather conditions in cold mountains. • Analyze that some animals that exist in cold regions have the special features to survive. • Compare and contrast the terms- blubber, migrate, hibernate. <p><u>SKILLS DEVELOPED</u>:- Observation , Recording data , Reasoning , Classifying , Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> • Reason out why animals like polar bear cannot survive in deserts. • List the features of a desert. • Mention at least three adaptations in a camel. • Why can't land animals survive in water • Differentiate between fresh water and marine habitat. • Define hibernation, migration. • List some animals that hibernate.
		Air around us	<p>Importance of Air, Properties of air, Components of Air, Presence of Air in water and soil</p> <p>Oxygen-carbon-dioxide cycle in nature, Pollution of Air-causes and steps taken to reduce it.</p> <p>Humidity level in UAE.</p>	<ul style="list-style-type: none"> * Identify the various layers of atmosphere. * List the uses of atmosphere * Identify that air is a mixture of different gases and the relative proportions of these gases in air. * Discuss the importance of the ozone layer. * Enlist the properties of air. • Appreciate the importance of air to all living beings. Carry out some experiments on air. • Explain the process of rusting. • Analyze the causes and effects of air pollution. • Explain the terms : atmosphere, respiration, photosynthesis, combustion, fuel, rusting, galvanization, air pollution. • Explore the key physical processes affecting weather and climate. <p><u>SKILLS DEVELOPED</u>:-Experimenting, Interpreting data , Reasoning , Observation , Recording data , Classifying ,Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> * Define atmosphere * Explain the layers of atmosphere-Troposphere , stratosphere, Mesosphere , Thermosphere , exosphere * Enlist the properties of air * Mention the importance of the ozone layer.



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		FEB	<p>Water –the life giving liquid</p>	<p>Role of water in our life Water as unique liquid States of water Evaporation, transpiration, formation of clouds and precipitation Sources of water, Water as a disaster, Conservation of water, Rain water harvesting, Importance of Conservation of water in UAE</p>	<ul style="list-style-type: none"> * Distinguish between soluble and insoluble impurities *Recognize the ways by which soluble and insoluble impurities can be removed. * Identify the various ways of purifying water. *Observe the formation of water cycle *Realize that- water as a disaster in the form of flood and drought * Enlist few points about the importance of conservation of water * Mention the sources of water. * Discuss about Water pollution, water conservation , Rain water harvesting <p><u>SKILLS DEVELOPED</u>:-Experimenting, logical thinking , Inquisitiveness, Interpreting data , Reasoning , Observation , Recording data , Classifying ,Drawing and labeling</p>	<p>Explain the terms:-</p> <ul style="list-style-type: none"> *Sedimentation *Decantation *Filtration * Distillation *Evaporation <p>What do you know about -Water pollution, water conservation, Rain water harvesting. Explain the formation of water cycle Enlist few points about the importance of conservation of water</p>
		March			<p>REVISION AND FINAL EXAMINATIONS</p>	<p>•</p>