



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



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<b>FORMATIVE ASSESSMEN</b>	<b>2</b>	SYSTEM	insoluble solid from liquids, soluble solids from liquids	<p><b>SKILLS DEVELOPED:-</b>Experimenting, Interpreting data , Reasoning , Observation , logical thinking , Inquisitiveness, , Reasoning , Classifying , Describing ,Drawing and labeling</p>	<p>sieving</p> <ul style="list-style-type: none"> <li>Articulate the difference between solvent, solute and solution</li> <li>Why is water called a universal solvent</li> </ul>
		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"> <li>Realize the importance of classification of materials</li> <li>Classify the objects based on their properties –Transparency, Luster, Hardness and Appearance ,</li> <li>Classify the objects based on their properties- Solubility and Floatation</li> <li>Group the materials into three categories-solids, liquids and gases</li> <li><b>SKILLS DEVELOPED-</b>, Observation , Recording data , Reasoning , Classifying and Describing ,Drawing and labeling</li> </ul>	<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"> <li>Study about electricity and its importance</li> <li>Explain the meaning of a circuit and its components.</li> <li>Construct a circuit diagram</li> <li>Compare and contrast various circuit symbols</li> <li>Analyze the structure of a torch</li> <li>Differentiate between good and bad conductors electricity.</li> </ul> <p><b>SKILLS DEVELOPED:-</b> logical thinking , Inquisitiveness, Experimenting, Interpreting data , Observation , Recording data , Reasoning , Classifying ,Drawing and labeling</p>	<ul style="list-style-type: none"> <li>What do you mean by a fused bulb ?</li> <li>Write five safety measures while handling electrical appliances.</li> <li>What is the difference between closed and open circuits?</li> <li>Why do wires have plastic coverings?</li> <li>Describe the structure of a torch and explain its working.</li> <li>What are conductors and insulators ? Give some examples.</li> </ul>
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><b>SKILLS DEVELOPED:-</b> Interpreting data , Reasoning , Observation , Recording data , Classifying and Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> <li>Explain the process of obtaining fabric from any fibre.</li> <li>Describe the process of weaving.</li> <li>How are natural fibres different from synthetic fibres?</li> <li>Explain the process of knitting.</li> </ul>	



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

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"> <li>know the meaning of light</li> <li>Analyze the sources of light</li> <li>Differentiate between luminous and non luminous objects</li> <li>Evaluate the types of optical media</li> <li>Enlist the Properties of light –Rectilinear propagation of light</li> <li>Construct a pin hole camera</li> <li>Demonstrate the formation of inverted image through pin hole camera.</li> </ul>	<ul style="list-style-type: none"> <li>What are the different sources of light?</li> <li>Write the definition of transparent, translucent and opaque substances and give any five examples for each.</li> <li>Give one example from your daily life observation to prove rectilinear propagation of light.</li> <li>Explain the working of a pin hole camera.</li> </ul>



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



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<b>FORMATIVE ASSESSMEN 4</b>	<b>December</b>	<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"> <li>• Classify the plants into various groups based on their sizes, stems , colors or place where they grow.</li> <li>• Categorize them into herbs, shrubs , trees , climbers or climbers.</li> <li>• Differentiate between the kinds of roots.</li> <li>• Enumerate the functions of roots.</li> <li>• Analyze the structure of a leaf.</li> <li>• Compare the types of venation.</li> <li>• Enumerate the functions of a leaf.</li> <li>• Describe the modifications of roots ,stems, and leaves</li> </ul> <p><b>SKILLS DEVELOPED:-</b>Experimenting, Interpreting data , Reasoning , logical thinking , Inquisitiveness, Observation , Recording data , Reasoning , Classifying ,Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> <li>• Differentiate between the types of plants.</li> <li>• Define and give examples for each variety of plants</li> <li>• Find out about respiratory roots and supporting roots</li> <li>• Draw ,label and explain all the parts of a leaf</li> <li>• Write the functions of a leaf.</li> <li>• Enlist one or two modifications of roots ,stems, and leaves</li> </ul>
	<b>January</b>	<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"> <li>* Differentiate between movement and locomotion</li> <li>* Analyze the various parts of the human skeleton</li> <li>*Describe the four basic functions of the human skeleton:</li> <li>* Describe the basic structure of a bone and label its three major parts: compact bone, bone marrow and spongy bone.</li> <li>* Understand the structure and function of these parts.</li> <li>*Realize the significance of joints in our body.</li> <li>*Explain the importance of proper diet and exercise for the development of bones and muscles in the body.</li> </ul> <p><b>SKILLS DEVELOPED:-</b> 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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<b>February</b>	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"> <li>• Differentiate between adaptation and habitat</li> <li>• Analyze all the features of a camel with all its adaptations</li> <li>• Recall the meaning of aquatic habitat.</li> <li>• Differentiate between fresh water and marine habitat.</li> <li>• Enumerate all the features of the fish and know with adaptations of the fish, the adaptations in whales and dolphins.</li> <li>• Realize the extreme weather conditions in cold mountains.</li> <li>• Analyze that some animals that exist in cold regions have the special features to survive.</li> <li>• Compare and contrast the terms- blubber, migrate, hibernate.</li> </ul> <p><b><u>SKILLS DEVELOPED</u></b>:- Observation , Recording data , Reasoning , Classifying , Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> <li>• Reason out why animals like polar bear cannot survive in deserts.</li> <li>• List the features of a desert.</li> <li>• Mention at least three adaptations in a camel.</li> <li>• Why can't land animals survive in water</li> <li>• Differentiate between fresh water and marine habitat.</li> <li>• Define hibernation, migration.</li> <li>• List some animals that hibernate.</li> </ul>
		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"> <li>* Identify the various layers of atmosphere.</li> <li>* List the uses of atmosphere</li> <li>* Identify that air is a mixture of different gases and the relative proportions of these gases in air.</li> <li>* Discuss the importance of the ozone layer.</li> <li>* Enlist the properties of air.</li> <li>• Appreciate the importance of air to all living beings.</li> <li>Carry out some experiments on air.</li> <li>• Explain the process of rusting.</li> <li>• Analyze the causes and effects of air pollution.</li> <li>• Explain the terms : atmosphere, respiration, photosynthesis, combustion, fuel, rusting, galvanization, air pollution.</li> <li>• Explore the key physical processes affecting weather and climate.</li> </ul> <p><b><u>SKILLS DEVELOPED</u></b>:-Experimenting, Interpreting data , Reasoning , Observation , Recording data , Classifying ,Describing ,Drawing and labeling</p>	<ul style="list-style-type: none"> <li>* Define atmosphere</li> <li>* Explain the layers of atmosphere-Troposphere , stratosphere, Mesosphere , Thermosphere , exosphere</li> <li>* Enlist the properties of air</li> <li>* Mention the importance of the ozone layer.</li> </ul>



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		TEM	<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"> <li>* Distinguish between soluble and insoluble impurities</li> <li>*Recognize the ways by which soluble and insoluble impurities can be removed.</li> <li>* Identify the various ways of purifying water.</li> <li>*Observe the formation of water cycle</li> <li>*Realize that- water as a disaster in the form of flood and drought</li> <li>* Enlist few points about the importance of conservation of water</li> <li>* Mention the sources of water.</li> <li>* Discuss about Water pollution, water conservation , Rain water harvesting</li> </ul> <p><b><u>SKILLS DEVELOPED</u></b>:-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"> <li>*Sedimentation</li> <li>*Decantation</li> <li>*Filtration</li> <li>* Distillation</li> <li>*Evaporation</li> </ul> <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>
		<b>March</b>			<p>REVISION AND FINAL EXAMINATIONS</p>	<ul style="list-style-type: none"> <li>•</li> </ul>