

#CREATIVE PRINTERS
SCIENCE SCHEME OF WORK FOR P5 TERM II 2024

WK	PD	TOPIC	TOPIC	CONTENT	SUBJ. COMP'NCE S	LANG. COMP'NCE S	METHODS	ACTIVITIES	IND. OF L.S.V	INST. MAT.	REF.	RE M.
1	1	Components Of Environment- Soil	Types of soil	SOIL ⇒ Soil is the top layer of the earth's surface. Types of soil Sand soil, Loam soil Clay soil Soil formation 1. Weathering 2. Decomposition Weathering ⇒ Weathering is the breakdown of large rock particles into small soil particles. Decomposition ⇒ Decomposition is the breakdown of dead decaying substances into small soil particles.	The learner; 1. Defines soil. 2. States the types of soil. 3. Give the methods of soil formation .	The learner; 1. Pronounces, spells, reads and demonstrates meaning of words related to soil e.g. sand, loam and clay 2. Reads, internalize and writes texts and questions related to soil.	Guided discovery Discussion Observation	Defining soil Stating types of soil.	Appreciation. Care Awareness Fluency Concern	Soil sample	Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5	

1	2	Components of environment	Properties of soil	<p>Properties of different types of soil</p> <p>1. Loam soil ⇒ Has balanced particles of sand clay. ⇒ It contains more humus than sand and clay.</p> <p>2. Sand soil ⇒ It has large and rough particles. ⇒ It is well aerated because it has large air spaces. ⇒ It dries out quickly.</p> <p>3. Clay soil ⇒ It has fine smooth particles. ⇒ Difficult to plough because it is sticky when wet.</p> <p>An experiment to show drainage in different types of soil.</p>	<p>The learner; 1. States the CCCs of different types of soil.</p>	<p>The learner; 1. Pronounces, spells, reads writes and demonstrates meaning of words related to types of soil 2. Reads, internalize and writes texts and questions related to types of soil .</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p>	<p>Stating CCCs of different types of soil.</p> <p>Mentioning the functions of parts of a leaf.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Soil samples.</p>	<p>Mk. Int. sci. pbk 5</p> <p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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1	3	Components Of Environment- Soil	<p>Components of soil</p> <ul style="list-style-type: none"> ⇒ Water ⇒ Dissolved mineral salts ⇒ Air ⇒ Rock particles ⇒ Humus ⇒ Living organisms <p>Humus (Organic matter)</p> <ul style="list-style-type: none"> ⇒ Humus is formed from dead decaying matter. ⇒ Bacteria and fungi help in the formation of humus. <p>Water</p> <ul style="list-style-type: none"> ⇒ Water helps to dissolve many minerals to form solution. <p>Air</p> <ul style="list-style-type: none"> ⇒ Air is found in spaces between soil particles. <p>Living organisms</p> <ul style="list-style-type: none"> ⇒ Living organisms help in decomposition and - in the soil. <p>An experiment to prove that soil contains air and</p>	<p>The learner;</p> <ol style="list-style-type: none"> 1. Identifies the components of soil. 2. States the importance of each component of soil. 3. States the importance of soil to people. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to components of soil. 2. Reads, internalize and writes texts and questions related to soil components 	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Guided discovery</p> <p>Discussion</p> <p>observation</p>	<p>Identifying the components of soil.</p> <p>Stating the importance of each component of soil.</p> <p>Stating the importance of soil to people.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Different types of soil samples.</p>	<p>Mk. Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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1	4 & 5	Components Of Environment- Soil	Soil erosion	<p>Soil erosion ⇒ Soil erosion is the removal of top soil by its agents.</p> <p>Agents of soil erosion ⇒ Flowing water ⇒ Animals ⇒ Strong wind</p> <p>Types of soil erosion ⇒ Gully erosion ⇒ Rill erosion ⇒ Sheet erosion</p> <p>a) Gully erosion ⇒ This is a type of erosion where flowing water makes big tunnels along its path.</p> <p>b) Rill erosion ⇒ This is erosion where flowing water makes small tunnels called rills along its path.</p>	<p>The learner; 1. Defines soil erosion. 2. States the agents of soil erosion. 3. Gives the types of soil erosion.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to soil erosion. 2. Reads, internalize and writes texts and questions related to soil erosion.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>observation</p>	<p>Defining soil erosion</p> <p>Stating the agents of soil erosion</p> <p>Giving the types of soil erosion.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Soil</p> <p>Water</p> <p>School environment</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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1	6	Components Of Environment- Soil	Causes of Soil erosion	<p>Causes of soil erosion</p> <p>⇒ Mono cropping</p> <p>⇒ Bush burning</p> <p>⇒ Deforestation</p> <p>⇒ Ploughing downhill</p> <p>⇒ Over grazing</p> <p>a) Deforestation</p> <p>⇒ This is the massive cutting down of trees without replacement.</p> <p>⇒ It leaves the soil exposed to erosion agents.</p> <p>b) Over grazing</p> <p>⇒ This is the grazing of animals in the same piece of land.</p> <p>c) Mono cropping</p> <p>⇒ The growing of the same type of crop in the same piece of land seasonally.</p>	<p>The learner;</p> <p>1. Names the causes of soil erosion.</p> <p>2. States how each of the causes lead to soil erosion.</p>	<p>The learner;</p> <p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to causes of soil erosion</p> <p>2. Reads, internalize and writes texts and questions related to causes of soil erosion/</p>	<p>Guided discovery</p> <p>Discussion</p> <p>observation</p>	<p>Naming the Causes of soil erosion</p> <p>Stating how each of the causes lead to soil erosion.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>School environment</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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2	1	Components of environment- soil	Effects of soil erosion and control	<p>Effects of soil erosion</p> <p>⇒ Soil erosion leads to loss of soil fertility.</p> <p>⇒ It leaves the plant roots bare.</p> <p>⇒ It leads to silting of water bodies.</p> <p>⇒ It destroys roads by making trenches.</p> <p>Methods of controlling soil erosion</p> <p>a) Afforestation</p> <p>⇒ Afforestation is the planting of trees where they never existed.</p> <p>b) Bush fallowing:</p> <p>⇒ This is leaving the land to rest for some time without cultivation.</p> <p>c) Crop rotation</p> <p>⇒ This is the growing of different types of crops on the same piece of land seasonally.</p>	<p>The learner;</p> <p>1. States the effects of soil erosion.</p> <p>2. Describes the methods of controlling soil erosion.</p>	<p>The learner;</p> <p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to effects of soil erosion.</p> <p>2. Reads, internalize and writes texts and questions related to effects of soil erosion..</p>	<p>Guided discovery</p> <p>Discussion</p> <p>observation</p>	<p>Stating the effects of soil erosion.</p> <p>Describing the methods of controlling soil erosion.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>The School compound</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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2	2	Components of environment- soil	Soil conservation	<p>a) Soil conservation ⇒ This is the maintenance of the quality and productivity of the soil.</p> <p>b) Ways of conserving soil</p> <ol style="list-style-type: none"> 1. Proper disposal of solid wastes e.g. polythene bags, plastic materials, and broken glasses. 2. Proper disposal of liquid wastes. E.g. oils, pesticides. 3. Controlling soil erosion 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Defines soil conservation. 2. States ways of conserving soil. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to soil conservation 2. Reads, internalize and writes texts and questions related to soil conservation 	<p>Guided discovery</p> <p>Discussion</p> <p>observation</p>	<p>Defining soil conservation</p> <p>Stating ways of conserving soil</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>School demo. Garden</p> <p>Chalkboard illustration.</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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2	3 & 4	Components of environment- soil	Soil fertility	<p>Soil fertility ⇒ Soil fertility is the ability of soil to support good plant growth.</p> <p>Ways of improving soil fertility.</p> <p>a) Practicing crop rotation ⇒ Crop rotation is the growing of different types of crops on the same piece of land season after season.</p> <p>b) By practicing mulching ⇒ Mulching is the covering of top soil with dry plant materials.</p> <p>c) By using fertilizers. ⇒ These are substances added into the soil to improve its fertility.</p>	<p>The learner 1. Defines soil fertility. 2. States ways of improving soil fertility.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to soil fertility. 2. Reads, internalize and writes texts and questions related to soil fertility.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p> <p>Think pair and share</p>	<p>Defining soil fertility.</p> <p>Stating ways of improving soil fertility.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>The local environment</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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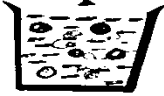
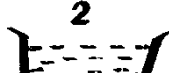
2	5 & 6	Components of environment- soil	<p>Fertilizers ⇒ Fertilizers are chemicals added into soil to improve its fertility.</p> <p>Types of soil fertility 1. Natural fertilizers 2. Artificial fertilizers</p> <p>Natural fertilizers ⇒ These are formed from plants and animal remains.</p> <p>Examples of natural fertilizers a) Green manure b) Farm yard</p> <p>Making compost manure ⇒ Compost manure is got from household refuse, plant remains, leftover food and kitchen refuses.</p> <p>Methods of making compost manure 1. Pit method 2. Heap method</p> <p>Refer to the lesson notes</p>	<p>The learner; 1. Defines fertilizers. 2. States the types of fertilizers. 3. Mentions and describes examples of natural fertilizers.</p>	<p>The learner 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to fertilizers 2. Reads, internalize and writes texts and questions related to fertilizers</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Defining fertilizers.</p> <p>Stating types of fertilizers.</p> <p>Mentioning and describing examples of natural fertilizers.</p>	<p>Appreciation-on</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Samples animal and plant remains</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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3	1	Components of environment- soil	<p>Artificial fertilizers</p> <p>⇒ These are man-made chemicals substances that are used to supply plants nutrients.</p> <p>Groups of artificial fertilizers</p> <ol style="list-style-type: none"> 1. Straight Fertilizers 2. Compound Fertilizers <p>Methods of applying artificial fertilizers</p> <ol style="list-style-type: none"> 1. Broadcasting in the garden. 2. Placing around the crop. 3. Advantages of artificial fertilizers <p>⇒ They are quick in improving soil fertility.</p> <p>⇒ They are easy to apply.</p> <p>Disadvantages of artificial fertilizer</p> <p>⇒ They are expensive to buy</p> <p>⇒ They need skilled man power to apply</p>	<p>The learner;</p> <ol style="list-style-type: none"> 1. Defines artificial fertilizers. 2. Describes the groups of artificial fertilizers. 3. States the advantages and disadvantages of artificial fertilizers. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to fertilizers 2. Reads, internalize and writes texts and questions related to fertilizers. 	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Defining the term fertilizers.</p> <p>Describing the groups of artificial fertilizers.</p> <p>Stating the advantage and disadvantages of artificial fertilizers..</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Sample artificial fertilizers</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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3	2 & 3	Heat energy	Matter	<p>Matter ⇒ Matter is anything that occupies space and has weight.</p> <p>Mass ⇒ Mass is the amount /quantity of matter contained in an object.</p> <p>Weight ⇒ Weight is the force of gravity acting normally on an object.</p> <p>Properties of matter</p> <p>a) Matter has weight.</p> <p>b) Matter occupies space</p> <p>c) Matter expands when heated. Matter exerts pressure.</p> <p>• Examples of matter Chair, Air, Water, milk</p>	<p>The learner;</p> <p>1. Gives the meaning of matter, mass and weight</p> <p>2. States the properties of matter.</p> <p>3. Give examples of matter</p> <p>4. Draws illustrations to show properties of matter.</p>	<p>The learner</p> <p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to matter.</p> <p>2. Reads, internalize and writes texts and questions related to matter.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Giving the meaning of matter, mass and weight.</p> <p>Stating the properties of matter.</p> <p>Giving the examples of matter.</p> <p>Drawing illustrations to show properties of matter.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Books Water Stones balloons</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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3	4 & 5	Heat energy	States of matter	<p>States of matter 1. Solid 2. Liquids 3. gases a) Matter is made up of molecules. <u>Solids</u> ⇒ Molecules are closely held together. ⇒ They have a definite shape. molecules in solids Examples of solids. Salt crystals Stones <u>Liquids</u> ⇒ Molecules are relatively spaced ⇒ They don't have a definite shape Examples of liquids Water Juice Arrangement of molecules in liquids Gases ⇒ Molecules are far apart ⇒ Most cannot be seen but felt ⇒ They do not have definite</p>	<p>The learner; 1. Names the states of matter. 2. Describes the properties of each state of matter. 3. Mentions the examples of each state of matter.</p>	<p>The learner 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to states of matter 2. Reads, internalize and writes texts and questions related to states of matter. 3. Mentions the examples of each state of matter.</p>	<p>Guided discovery Discussion Observation Brain storming</p>	<p>Naming the states of matter. Describes describing the properties of each states of matter. Mentioning the examples of each state of matter.</p>	<p>Appreciation. Care Awareness Fluency Concern</p>	<p>Books Water stones. Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5</p>	
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3	6	Heat energy	<p>mixtures</p> <ul style="list-style-type: none"> • Mixtures ⇒ A mixture is a combination of two or more substances. • Examples of mixtures ⇒ A mixture of sand and salt. ⇒ A mixture of gases. ⇒ A mixture of grains and chuff. • Solutes, solvents and solutions ⇒ A solute is a substance that dissolves in a solvent e.g. salt, sugar and glucose. ⇒ A solvent is a substance that dissolves a solute e.g. water, milk, kerosene ⇒ A solution is a uniform mixture of a solute and solvent. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Defines the meaning of mixtures, solvents, solutes and solutions. 2. State the examples of mixtures, solutes, solvents and solutions. 3. Demonstrates the making of solutions. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to mixtures. 2. Reads, internalize and writes texts and questions related to mixtures. 	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Defining mixtures, solvents, solutes and solutions.</p> <p>Stating the examples of mixtures, solutes, solvents and solutions.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Salt Sugar water Stones Bean seeds Tea leaves.</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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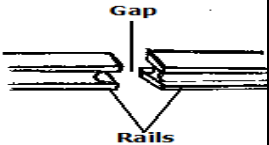
4	1 & 2	Heat energy	Separating mixtures	<p>Separating mixtures</p> <p>a) Physical sorting ⇒ This is a method where the hands are used to pick big particles from small particles e.g. picking stones from rice.</p> <p>b) Winnowing ⇒ Separating cereals from husks.</p> <p>c) By using a magnet ⇒ This method is used when one substance is a magnetic material.</p> <p>d) Decantation The method of separating solid from a liquid.</p> <p>Step one ⇒ Water mixed with impurities.</p> <p>1</p>  <p>Step two ⇒ Impurities left to settle at the bottom of the container.</p> <p>2</p> 	<p>The learner; 1. Describes the methods of separating mixtures that is physical sorting, winnowing and decantation</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to separating mixtures. 2. Reads, internalize and writes texts and questions related to separating mixtures.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Describing methods of separating mixtures.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Salt</p> <p>Sugar</p> <p>Water</p> <p>Stones</p> <p>Bean</p> <p>Seeds</p> <p>Tea leaves.</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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4	3 & 4	Heat energy	<p>Separation of mixtures.</p> <p>Filtration or filtering ⇒ This is a method of separating solids from liquids using a filter paper and a funnel.eg separating seeds from juice.</p> <p>Illustration Distillation ⇒ It involves heating the impure liquid and its vapor condensed e.g. a mixture of muddy water.</p> <p>Illustration of distillation</p> <p>Floatation ⇒ A method of separating mixtures where one sinks and the other floats e.g. mixture of saw dust and sand and a mixture of millet grain and stones.</p> <p>Using a separating funnel</p>	<p>The learner; 1. Describes the methods of separating mixtures that is filtration, distillation, floatation and boiling to dryness.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to separation of mixtures. 2. Reads, internalize and writes texts and questions related to separation of mixtures</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Describing methods of separating mixtures.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Tea leaves</p> <p>Water</p> <p>sand</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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4	5 & 6	Heat energy	Energy	<p>• Energy ⇒ Energy is the ability to do work.</p> <p>Types of energy ⇒ Kinetic energy ⇒ Potential energy</p> <p>a) Kinetic energy ⇒ This is a type of energy possessed by objects in motion or moving objects.</p> <p>Examples: ⇒ A ball rolling ⇒ A boy running</p> <p>b) Potential energy ⇒ This is the type of energy possessed by objects at rest or stationary objects.</p> <p>Examples ⇒ A stone resting on the ground ⇒ A book resting on a table ⇒ Standing/parking.</p> <p>• Forms of energy ⇒ Heat energy ⇒ light energy</p>	<p>The learner; 1. Defines energy. 2. States the types of energy. 3. Gives examples of situations in each type of energy. 4. Mentions the forms of energy.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to energy. 2. Reads, internalize and writes texts and questions related to energy.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Defining energy</p> <p>Stating the types of energy.</p> <p>Giving examples of situations in each type of energy.</p> <p>Mentioning the forms of energy.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>A stone</p> <p>String</p> <p>books</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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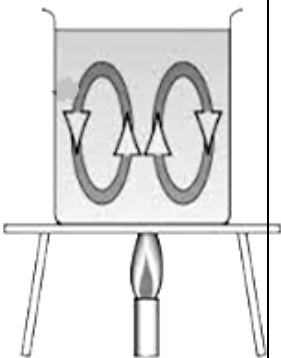
5	1 & 2	Heat energy	Heat	<p>Heat ⇒ Heat is the form of energy that causes the temperature of matter to increase</p> <p>Sources of heat ⇒ A heat source is anything that can produce heat</p> <ol style="list-style-type: none"> 1. The sun (the main source of heat energy in the environment) 2. Friction – objects rubbing together 3. Food 4. Decaying matter 5. Burning fuel e.g. Charcoal, firewood. <p>Uses of heat ⇒ For cooking ⇒ For drying clothes ⇒ harvested crops ⇒ Heat helps in killing germs ⇒ For roasting food ⇒ Heat from the sun provides warmth for</p>	<p>The learner; 1. Defines heat as a form of energy. 2. States the sources of heat energy. 3. Mentions the uses of heat energy.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to heat energy. 2. Reads, internalize and writes texts and questions related to heat energy.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Defining heat energy</p> <p>Stating the sources of heat energy.</p> <p>Mentioning the uses of energy.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Stove</p> <p>Water source pan</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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5	3 & 4	Heat energy	Effects of heat on matter	<p>Effects of heat on matter</p> <p>⇒ Heat makes some objects to expand</p> <p>⇒ Heat changes some state of matter.</p> <p>⇒ Heat increases the temperature of matter.</p> <p><u>Expansion and contraction</u></p> <p>a) Expansion</p> <p>⇒ This is the increase in size of an object.</p> <p>b) Contraction</p> <p>⇒ This is the decrease in size of an object.</p> <p>Illustrations using a bras ball and a bimetallic strip</p> <p>• Devices with bimetallic strip</p> <p>⇒ Car indicators.</p> <p>⇒ Electric kettles</p> <p>⇒ Flat iron, air conditioners</p>	<p>The learner;</p> <p>1. States the effects of heat on matter.</p> <p>3. Draws an illustration to show effects of heat on matter.</p>	<p>The learner;</p> <p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to effects of heat on matter.</p> <p>2. Reads, internalize and writes texts and questions related to effects of heat on matter.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Defining heat.</p> <p>Stating the effects of heat on matter.</p> <p>Drawing illustrations to show effects of heat on matter.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>		<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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5	5 & 6	Heat energy	<p>Dangers of effects of heat on matter</p> <p>⇒ Weakens some objects</p> <p>⇒ Makes objects break</p> <p>⇒ Loss of shape to some objects</p> <p>⇒ Causes crack on some objects</p> <p><u>Prevention of effects of expansion and contraction</u></p> <p>⇒ Gaps are left between railway lines to leave room for</p>  <p>Electric wires and telephone wire are loosely fixed on poles to leave/give.</p> <p>Illustration</p> <p>⇒ Gaps are left on soda/bottled drinks to allow expansion of liquid inside when frozen.</p> <p>Illustration</p>	<p>the learner;</p> <ol style="list-style-type: none"> 1. States the dangers of effects of heat on matter. 2. Mentions ways in which dangers associated with heat gain in matter can be controlled. 3. Draws illustration to show how effects of heat on matter can be controlled. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to effects of heat on matter. 2. Reads, internalize and writes texts and questions related to effects of heat on matter. 	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Stating the effects of heat on matter.</p> <p>Mentioning ways in which effects of heat on matter can be controlled.</p> <p>Drawing illustrations to show how effects of heat on matter can be controlled.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Bottles of soda</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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6	1 & 2	Heat energy	Changes of states of matter	<p>Changes of states of matter ⇒ A change of state is caused due to change in temperature.</p> <p><u>Summary of changes of states of matter</u></p> <p><u>Key</u></p> <p>A- Condensation B- Evaporation C- Freezing D- Melting</p> <p>Changes of state of matter 1.melting is the process by which a solid changes to a liquid 2. Freezing is the process by which a liquid changes to a solid. 3. Condensation is the process by which gases change to a liquid. 4. Evaporation is the process by which liquid state change to gaseous state. 5. Sublimation is the process by which solid state change directly to gaseous state.</p>	<p>The learner; 1. Identifies the changes of states of matter. 2. Describes each of the changes with relevant examples .</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to changes in states of matter. 2. Reads, internalize and writes texts and questions related to changes in states of matter.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Identifying the changes of states of matter.</p> <p>Describing each of the changes in states of matter.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Stove</p> <p>Wax</p> <p>Match box</p> <p>Water</p> <p>Saucepan plate</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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6	3 & 4	Heat energy	Heat transfer	<p>Heat transfer ⇒ Heat transfer is the movement of heat from the source</p> <p>Conductors ⇒ These are materials or substances that allow heat to pass through them.</p> <p>Examples 1. Silver 2. Steel</p> <p>Insulators ⇒ These are materials that do not allow heat to pass through them</p> <p>Examples 1. Plastic 2. Rubber</p> <p>Methods of heat transfer a) Conduction The process by which heat travels through solids.</p> <p>Experiment on heat transfer in solids Candle wax with pins was placed at different points on a nail as shown below.</p>	<p>The learner; 1. Defines heat transfer. 2. describes conductors and insulators. 3. Gives examples of conductors and insulators. 4. Names the methods of heat transfer. 5. States the importance of heat transfer by conduction.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to heat transfer 2. Reads, internalize and writes texts and questions related to heat transfer</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Defining the term heat transfer</p> <p>Describing conductors and insulators.</p> <p>Diving examples of conductors and insulators.</p> <p>Naming the methods of heat transfer.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Nails</p> <p>Stoves</p> <p>Knife</p> <p>Dry wood</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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6	5 & 6	Heat energy	Heat transfer by convection and radiation	<p>Convection ⇒ Convection is the process by which heat travels through liquids and gases.</p> <p><u>Heat transfer in gases and liquids</u></p>  <p>⇒ When boiling water, heat passes through the pan by conduction ⇒ Water gets heat throughout by convection. ⇒ Water at the bottom of the saucepan warms first. ⇒ Warm/hot water gains</p>	<p>the learner; 1. Describes heat transfer by conduction and convection. 2. Draws illustrations to show heat transfer by convection and radiation.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to heat transfer by convection and radiation. 2. Reads, internalize and writes texts and questions related to heat transfer by convection and radiation.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Describing heat transfer by convection and radiation.</p> <p>Drawing illustrations to show heat transfer by convection and radiation.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Water</p> <p>Stove</p> <p>Sauce pan</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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				<p>kinetic energy and moves on top of the cold one.</p> <p>⇒ Someone near a charcoal stove receive heat by radiation.</p> <p>c) Radiation</p> <p>⇒ Radiation is the process by which heat travels through a vacuum or space.</p> <p>⇒ We get heat from the sun by radiation.</p> <p>⇒ Heat from a fire source reaches someone near it by radiation.</p>								
7	1	Heat energy	Importance of heat transfer	<p><u>Importance of conduction</u></p> <p>⇒ Helps us to cook</p> <p>⇒ Enables us roast meat/cassava</p> <p>⇒ Enables us to iron clothes</p> <p><u>Importance of convection</u></p>	<p>The learner;</p> <p>1. States the importance of heat transfer in different states of matter</p>	<p>The learner;</p> <p>1. Pronounces, spells, reads and demonstrates meaning of words related to</p>	<p>Guided discovery</p> <p>Discussion</p>	<p>Stating the importance of heat transfer</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p>	<p>Water</p> <p>Stove</p> <p>Sauce pan</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllab</p>	

				<p>⇒ Helps move out smoke from the kitchen through the chimneys</p> <p>⇒ Helps in formation of rainfall</p> <p>⇒ Water in a kettle/drum/saucepan boils by convection</p> <p>⇒ Enables fresh air enter the house.</p> <p><u>Importance of radiation.</u></p> <p>⇒ Radiant heat from the sun dries clothes</p> <p>⇒ Heat from the sun helps to keep us warm</p> <p>⇒ Heat from the sun helps in heating water causing evaporation helpful in rain formation.</p>		<p>heat transfer by convection and radiation.</p> <p>2. Reads, internalize and writes texts and questions related to heat transfer by convection and radiation.</p>	<p>Observation</p> <p>Brain storming</p>		Concern		<p>us bk 5</p> <p>New Fount . Pbk 5</p>	
7	2	Heat energy	The thermos flask	<p><u>A thermos flask/vacuum</u></p> <p>⇒ Flask is an item used to</p>	<p>The learner;</p> <p>1. Describes</p>	<p>The learner;</p> <p>1. Pronounce</p>	Guided discovery	Describing the structure of a thermos	Appreciation. Care	Thermos flask	Mk. Int. sci. pbk 5	

				<p>keep hot thing hot and cold things cold.</p> <p>⇒ A flask keeps hot things hot and cold things cold by preventing heat loss or heat gain.</p> <p><u>Parts of a thermos flask</u></p> <p><u>Functions of the parts</u></p> <p>i. <u>Cork</u> prevents heat loss or gain by conduction</p> <p>ii. <u>Vacuum</u> prevents heat loss or gain by conduction or convection</p> <p>iii. <u>Double silvered wall</u> reflects heat preventing heat gain or loss by radiation.</p> <p>v. <u>Vacuum seal</u>: it is seal of the vacuum during manufacture.</p>	<p>the structure of a thermos flask.</p> <p>2. Draws and names parts of a thermos flask.</p>	<p>s, spells, reads writes and demonstrates meaning of words related to a thermos flask</p> <p>2. Reads, internalize and writes texts and questions related to thermos flask.</p>	<p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>flask.</p> <p>Draws and labels parts of a thermos flask.</p>	<p>Awareness</p> <p>Fluency</p> <p>Concern</p>		<p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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				v. <u>Cup</u> for taking the fluid inside.								
7	3 & 4	Heat energy	Heat and temperature	<p>Heat and temperature Temperature is the hotness or coldness of an object. -Temperature is measured using an instrument called a thermometer ⇒ Temperature is measured in units called degrees. Thermometric scale ➤ Celsius or centigrade scale (C) ➤ Fahrenheit scale (F) ⇒ The Celsius scale runs from 0°C to 100°C. ⇒ It has the freezing point at 0C and boiling point at 100° C. ⇒ The Fahrenheit scale runs from 32°F to 212°F. ⇒ The freezing</p>	<p>the learner; 1. Defines the temperature. 2. Identifies the types of thermometers. 3. States the temperature scales. 4. Describes a clinical thermometer.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to temperature. 2. Reads, internalize and writes texts and questions related to temperature.</p>	<p>Guided discovery Discussion Observation Brain storming</p>	<p>Defining the term temperature. Identifying the types of thermometers. Stating the temperature scales and thermometric liquids. Describing a clinical thermometer.</p>	<p>Appreciation. Care Awareness Fluency Concern</p>	<p>Thermos flask</p>	<p>Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5</p>	

				<p>point is at 32°F and the boiling point at 212°F.</p> <p>⇒ Thermometric liquids</p> <p>1. Mercury</p> <p>2. Alcohol</p>								
7	5	Heat and energy	Types of thermometers	<p>Types of thermometers</p> <ul style="list-style-type: none"> Clinical thermometers The six's maximum and minimum thermometer. The wall thermometer The ordinary scientific thermometer. <p><u>The clinical thermometer.</u></p> <p>⇒ The clinical thermometer is used to measure the human body temperature.</p> <p>⇒ It's marked from 32°C to 42°C.</p> <p><u>Diagram of a clinical thermometer.</u></p>	<p>The learner;</p> <ol style="list-style-type: none"> Identifies the types of thermometers. Describes the clinical thermometer. Draws and label the parts of a clinical thermometer. 	<p>The learner;</p> <ol style="list-style-type: none"> Pronounce s, spells, reads writes and demonstrates meaning of words related to thermometers Reads, internalize and writes texts and questions related to thermometers. 	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Identifying the types of thermometers.</p> <p>Describing a clinical thermometer.</p> <p>Drawing and labeling the parts of a clinical thermometer</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Clinical thermometers</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	

7	6	Heat energy	Six's thermometer	Six's minimum and maximum thermometer ⇒ The six's thermometer measures the highest and the lowest temperatures of the day. ⇒ The thermometer uses both mercury and alcohol. ⇒ It is used in weather stations and by farmers.	The learner; 1. Describes the Six's thermometer. 3. Draws and label the parts of a Six's thermometer.	The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to thermometers 2. Reads, internalize and writes texts and questions related to thermometers.	Guided discovery Discussion Observation Brain storming	Describing the Six's thermometer. Drawing and labeling the parts of the Six's thermometer	Appreciation. Care Awareness Fluency Concern	The Six's thermometers	Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5	
8	1	Heat energy	Temp. conversion	Changing temp. from Celsius scale to Fahrenheit scale Formula $(9/5C) + 32 = ^\circ F$ Example I Change $75^\circ C$ to Fahrenheit scale Solution	The learner; 1. Converts temperature from Celsius scale to Fahrenheit scale using the given formula.	The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to temperature.	Guided discovery Discussion Observation	Converting temp. from Celsius scale to Fahrenheit scale using the given formulae.	Appreciation. Care Awareness Fluency	Chalkboard illustration	Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount	

				$(9/5) + 32 = ^\circ\text{F}$ $(9/5 \times 75) + 32 = ^\circ\text{F}$ $9 \times 15 = 135$ $135+32 = ^\circ\text{F}$ $167 = ^\circ\text{F}$ <p>Therefore $75^\circ\text{F} = 167^\circ\text{F}$.</p> <p>Example II Convert 20°C to Fahrenheit. Solution</p> $(9/5\text{C}) + 32 = ^\circ\text{F}$ $9/5 \times 20 + 32 = ^\circ\text{F}$ $9 \times 4 = 36$ $36 + 32 = 68$ $68 = ^\circ\text{F}$ <p>Therefore $20^\circ\text{C} = 68^\circ\text{F}$</p>		2. Reads, internalize and writes texts and questions related to temperature.	Brain storming		Concern		. Pbk 5	
8	2	Heat energy	Temp. Conv'n.	Changing temp. from Fahrenheit scale to Celsius scale Formula $(9/5\text{C}) + 32 = ^\circ\text{F}$ <p>Example I Change 212°F to Celsius scale Solution</p>	The learner; 1. Converts temperature from Fahrenheit scale to Celsius scale using the given formula.	The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to temperature. 2. Reads, internalize	Guided discovery Discussion Observation Brain storming	Converting temp. from Fahrenheit scale to Celsius scale using the given formulae.	Appreciation. Care Awareness Fluency Concern	Chalkboard illustration	Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5	

				<p>Solution</p> $5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$ $5/9(212 - 32) = ^{\circ}\text{C}$ $5/9 \times 180 = ^{\circ}\text{C}$ $5 \times 20 = ^{\circ}\text{C}$ $100 = ^{\circ}\text{C}$ <p>Therefore $212^{\circ}\text{F} = 100^{\circ}\text{C}$</p>		and writes texts and questions related to temperature.						
8	3 & 4	Growing crops	Tuber crops	<p><u>Classification of tubers</u></p> <ul style="list-style-type: none"> • Tuber crops ⇒ These are crops that store their food in swollen underground roots or stems. • Classes of tuber crops ⇒ Root tubers ⇒ Stem tubers a) Root tubers ⇒ These are crops that store their food in the swollen underground roots. • Examples of root tubers ⇒ Cassava ⇒ Sweet potatoes ⇒ Carrots 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Defines tuber crops. 2. States the classes of tuber crops. 3. Gives examples of tuber crops. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to tuber crops 2. Reads, internalize and writes texts and questions related to tuber crops. 	<p>Guided discovery Discussion Observation Brain storming</p>	<p>Defining tuber crops. Stating the classes of tuber crops. Giving examples of tuber crops.</p>	<p>Appreciation. Care Awareness Fluency Concern</p>	<p>Different tuber crops like Irish potatoes Carrots cassava</p>	<p>Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5</p>	

				<p>⇒ Beat root</p> <p>⇒ Turnips</p> <p>b) Stem tubers</p> <p>⇒ These are crops that store their food in swollen underground stems.</p> <p>• Example of stem tubers</p> <p>⇒ Irish potatoes</p> <p>⇒ Yams</p>								
8	5 & 6	Growing crops	Growing and caring for tuber crops.	<p>Planting materials for common tuber crops</p> <p>⇒ Stem cuttings</p> <p>⇒ Veins/runner stems</p> <p>⇒ Tubers with buds</p> <p>Care of tuber crops</p> <p>⇒ Watering: water helps during photosynthesis.</p> <p>⇒ Pruning: This is the removal of excess branches from the plant.</p> <p>⇒ Manuring: Adding</p>	<p>The learner;</p> <p>1. Name the planting materials for different tuber crops.</p> <p>2. Describes the common care given to tuber crops.</p>	<p>The learner;</p> <p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to tuber crops</p> <p>2. Reads, internalize and writes texts and questions related to tuber crops.</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Naming the planting materials for tuber crops.</p> <p>Describing the common care given to tuber crops.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>Different tuber crops like Irish potatoes</p> <p>Carrots</p> <p>Cassava stem cuttings</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	

				<p>manure/fertilizers for better crop yields.</p> <p>⇒ Mulching: the covering of top soil with dry plant materials to keep moisture in the soil.</p> <p>⇒ Spraying: helps to kill pests.</p> <p>⇒ Thinning: This is removing excess plants or unproductive plants from the garden.</p> <p>⇒ Weeding: This is the removal of unwanted plants.</p>								
9	1	Growing crops	Common tuber crop pests	<p>Common pests of tuber crops</p> <p><u>Tuber crop pests</u></p> <p>⇒ These are organisms that destroy crops.</p> <p><u>Examples of tuber pests</u></p> <p>⇒ Moles</p> <p>⇒ Army worms</p> <p>⇒ Nematodes</p>	<p>The learner;</p> <p>1. Defines tuber crop pests.</p> <p>2. Mentions the CCCs of tuber crop pests.</p>	<p>The learner;</p> <p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related</p>	<p>Guided discovery</p> <p>Discussion</p>	<p>Defining tuber crop pests.</p> <p>Mention CCCs of tuber crop pests.</p> <p>Stating examples</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p>	<p>Chalkboard illustrations .</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllab</p>	

				<p>⇒ Rats ⇒ Caterpillars ⇒ Sweet potato weevils.</p> <p><u>Characteristic of common tuber pests.</u></p> <p>⇒ Some have strong claws for digging into the soil. ⇒ Some have well developed incisor teeth for cutting tubers. ⇒ Some stay in tunnels ⇒ Some have fingers in their limb for uprooting crops.</p> <p><u>Controlling tuber crop pests.</u></p> <p>⇒ By use of scare crows ⇒ Using traps to catch. ⇒ Physical guarding. ⇒ Spraying and dusting.</p>	<p>3. States examples of tuber crop pests.</p> <p>4. Mentions ways of controlling tuber crop pests.</p>	<p>tuber crop pests.</p> <p>2. Reads, internalize and writes texts and questions related to tuber crop pests.</p>	<p>Observation</p> <p>Brain storming</p>	<p>of tuber crop pests.</p> <p>Mentioning ways of controlling tuber crop pests.</p>	<p>Concern</p>		<p>us bk 5</p> <p>New Fount . Pbk 5</p>	
9	2	Growing crops	Tuber crop	Diseases of tuber crops	The learner;	The learner;	Guided discover	Identifying common	Appreciation.	Chalkboard	Mk. Int.	

				<p>diseases</p> <p>1. cassava mosaic ⇒ Cassava mosaic attacks. ⇒ Caused by a virus and spread by white fly.</p> <p>2. Bacteria blight ⇒ Attacks sweet potatoes, Irish potatoes and yam.</p> <p>3. Wilt disease ⇒ Affects the leaves of tuber crops.</p> <p>Effects of diseases on tuber crops ⇒ They lower the quantity and quality of yields ⇒ They damage roots, leaves and fruits.</p> <p>• Controlling tuber crop disease ⇒ Uprooting and burning the infected crops.</p>	<p>1. Identifies common tuber crop diseases.</p> <p>2. States the effects of diseases on tuber crops.</p> <p>3. States ways of controlling tuber crop diseases.</p>	<p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related tuber crop diseases</p> <p>2. Reads, internalize and writes texts and questions related to diseases</p>	<p>y</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>tuber crop diseases.</p> <p>Stating the effects of diseases on tuber crops.</p> <p>Stating ways of controlling the diseases of tuber crops.</p>	<p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>illustrations .</p>	<p>sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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				⇒ Spraying and dusting with pesticide.								
9	3	Growing crops	Harvesting, processing and storage of tuber crops.	Harvesting, processing and storage of tuber crops Harvesting ⇒ The process of removing ready tuber crops from the garden. Ways of harvesting ⇒ Uprooting them using hands ⇒ Digging out using a hoe ⇒ Digging out using small sticks Processing tuber crops. ⇒ Peeling using knives ⇒ Slicing in small pieces ⇒ Sun drying them for storage. Storage of tuber crops ⇒ Storing in granaries	The learner; 1. Defines harvesting. 2. States ways of harvesting, processing and storing tuber crops.	The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to tuber crops. 2. Reads, internalize and writes texts and questions related to tuber crops.	Guided discovery Discussion Observation Brainstorming	Defining harvesting Stating ways of harvesting, processing and storing tuber crops.	Appreciation. Care Awareness Fluency Concern	Sacks Floor	Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5	

				<p>⇒ Storing in silos</p> <p>⇒ refrigerating</p> <p><u>Importance of storing tuber crops.</u></p> <ul style="list-style-type: none"> • Prevents wastage. • For future use. • For planting in the next season. 								
9	4	Growing crops	Science oriented clubs in schools	<p>Science oriented clubs in schools</p> <ul style="list-style-type: none"> • <u>Aims of science oriented clubs</u> <p>⇒ Make science lessons interesting</p> <p>⇒ Enable pupils get science skills</p> <p>⇒ Teach members new farming methods</p> <p>⇒ Give opportunity to learners to meet and share scientific knowledge</p> <ul style="list-style-type: none"> • <u>Example of science oriented clubs.</u> <p>⇒ Young farmers club</p> <p>⇒ Wildlife club</p>	<p>The learners;</p> <ol style="list-style-type: none"> 1. States the aims of science oriented clubs in schools. 2. Mentions examples of science oriented clubs. 3. States the aims of young farmers' association in a school. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to science oriented clubs 2. Reads, internalize and writes texts and questions related to science oriented clubs. 	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Mentioning stating the aims of a science oriented club</p> <p>Mentioning examples of science oriented clubs.</p> <p>Stating the aims of young farmers' association .</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>The school environment</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	

				<p>⇒ Science and technology club</p> <ul style="list-style-type: none"> • <u>The young farmers club</u> • An organization of young boy and girls in or out of school who participate in farming activities. • <u>Aims of young farmers club.</u> <p>⇒ Teach how to grow and care for crops.</p> <p>⇒ Grow crops and sell to get money</p> <p>⇒ Teach new methods of farming.</p>								
9	5	Bacteria and fungi	Bacteria	<ul style="list-style-type: none"> • <u>Bacteria</u> <p>⇒ Bacteria are single celled organisms that reproduce by binary fission or cell division.</p> <p>Structure of a bacterium</p>	<p>The learners;</p> <ol style="list-style-type: none"> 1. Describes bacteria. 2. States the habitat for bacteria. 	<p>The learner;</p> <ol style="list-style-type: none"> 1. Pronounce s, spells, reads writes and demonstrates meaning of words 	<p>Guided discovery</p> <p>Discussion</p>	<p>Describing bacteria</p> <p>Stating the habitat for bacteria.</p> <p>Stating the CCCs of bacteria.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p>	<p>A chart showing the structure of a bacterium .</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci.</p>	

				<ul style="list-style-type: none"> • Places where bacteria are found <ul style="list-style-type: none"> ⇒ Pit latrine ⇒ Rubbish pits ⇒ In the soil ⇒ Contaminated water • <u>Reproduction in bacteria.</u> <ul style="list-style-type: none"> ⇒ Bacteria reproduce by a process of binary fission. ⇒ In binary fission, one cell divides into two bacterial cells <p>Illustration.</p> <ul style="list-style-type: none"> • <u>Characteristics of bacteria</u> <ul style="list-style-type: none"> ⇒ Bacteria are single celled ⇒ Bacteria reproduce by cell division. ⇒ They are microscopic organisms (only seen with a microscope). 	3. States the CCCs of bacteria.	related to bacteria 2. Reads, internalize and writes texts and questions related to bacteria	Observation Brain storming		Fluency Concern		syllabus bk 5 New Fount . Pbk 5	
9	6	Bacteria and fungi	Nature of bacteria	• Nature of bacteria	The learners;	The learner;	Guided discover	Describing the nature	Appreciation.	A chart showing	Mk. Int.	

				<p>1. Harmful bacteria</p> <p>2. Useful bacteria /harmless bacteria.</p> <p>• Harmful bacteria</p> <p>⇒ They cause diseases to people, animals and plants.</p> <p>⇒ They make milk go bad.</p> <p>⇒ They make wound and cuts become septic.</p> <p>• Types of bacteria</p> <p>⇒ The bacteria is grouped according to their shapes</p> <p>1. Cocci or coccus bacteria.</p> <p>2. Bacilli or bacillus.</p> <p>3. Spirilla and spirochete</p> <p>4. Vibrio bacteria.</p>	<p>1. Describes the nature of bacteria.</p> <p>2. Draws the diagrams of the shapes of bacteria.</p>	<p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to nature bacteria</p> <p>2. Reads, internalize and writes texts and questions related to the nature of bacteria</p>	<p>y</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>of bacteria</p> <p>Drawing the structure of bacteria.</p>	<p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>the structure of a bacterium .</p>	<p>sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
10	1	Bacteria and Fungi	Harmful bacteria	<p>Harmful bacteria</p> <p>• Cocci or coccus</p> <p>⇒ These are</p>	<p>The learner</p> <p>1. Describes the</p>	<p>The learner;</p> <p>1. Pronounce</p>	<p>Guided discovery</p>	<p>Describing the harmful bacteria</p>	<p>Appreciation.</p> <p>Care</p>	<p>A chart showing the shapes</p>	<p>Mk. Int. sci. pbk 5</p>	

				<p>spherical shaped in shape.</p> <p>Example</p> <ol style="list-style-type: none"> 1. Staphylococcus which causes boils. 2. Streptococcus which causes sore throat. 3. Pneumococcus which causes pneumonia. <p>• Bacilli/bacillus</p> <p>⇒ These are rod shaped bacteria.</p> <p>Example</p> <ol style="list-style-type: none"> 1. Bacillus anthracis which cause anthrax. 2. Salmonella typhi which causes typhoid. <p>• Spirilla (spirochetes)</p> <p>⇒ These are spiral shaped.</p> <p>Example</p> <ol style="list-style-type: none"> 1. Treponema pallidum which causes syphilis 	<p>different harmful bacteria.</p> <p>2. Identifies the examples of harmful bacteria.</p>	<p>s, spells, reads writes and demonstrates meaning of words related to harmful bacteria</p> <p>2. Reads, internalize and writes texts and questions related to the nature of harmful bacteria</p>	<p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Drawing the different shapes of bacteria.</p>	<p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>bacterium .</p>	<p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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- **Vibrio**
⇒ These are comma shaped.
- Example**
- 1. *Vibrio cholerae* which causes cholera.
- **Useful/harmless bacteria**
- ⇒ These are bacteria that are useful in our daily lives.
- ⇒ Break volumes of faeces in latrines, tanks and sewage systems.
- ⇒ Help in decaying and rotting.
- ⇒ Help in making of cheese.
- ⇒ They are found in root nodules of legumes.
- ⇒ Help in making vitamin **B₁₂** and **K**.
- ⇒ Help in process of digestion of food.

				<ul style="list-style-type: none"> • Vibrio ⇒ These are comma shaped. Example 1. <i>Vibrio cholerae</i> which causes cholera. • <u>Useful/harmless bacteria</u> ⇒ These are bacteria that are useful in our daily lives. ⇒ Break volumes of faeces in latrines, tanks and sewage systems. ⇒ Help in decaying and rotting. ⇒ Help in making of cheese. ⇒ They are found in root nodules of legumes. ⇒ Help in making vitamin B₁₂ and K. ⇒ Help in process of digestion of food. 								
10	2	Bacteria and Fungi	Common bacterial	Common bacterial	The learner;	The learner;	Guided discover	Describing the harmful	Appreciati-on.	A chart showing	Mk. Int.	

			<p>diseases</p> <p>Tuberculosis Typhoid Cholera</p> <p><u>Control of bacterial diseases</u></p> <p>⇒ Keeping cleanliness</p> <p>⇒ Good feeding/eating a balanced diet.</p> <p>• <u>Prevention of bacterial diseases.</u></p> <p>⇒ Through immunization of children.</p> <p>⇒ Boiling water for drinking.</p> <p>• <u>Treatment.</u></p> <p>⇒ Using antibiotics.</p> <p>⇒ Using antiseptics.</p> <p>• <u>Antibiotics</u></p> <p>⇒ These are substances used to kill germs in our bodies.</p> <p>• <u>Antiseptics</u></p> <p>⇒ These are substances used to kill</p>	<p>1. Describes the harmful bacteria.</p> <p>2. Draws the diagrams to show different shapes of bacteria.</p>	<p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to harmful bacteria</p> <p>2. Reads, internalize and writes texts and questions related to the nature of harmful bacteria</p>	<p>y</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>bacteria</p> <p>Drawing the different shapes of bacteria.</p>	<p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>the shapes bacterium .</p>	<p>sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	
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				<p>germs on wounds and cuts.</p> <ul style="list-style-type: none">• <u>Disinfectants</u> <p>⇒ These are chemicals used to kill germs on surfaces e.g. toilet and floors.</p>								
10	3	Bacteria and Fungi	<u>Fungi</u>	<p><u>Fungi</u></p> <p>⇒ These are multicellular organisms that mostly reproduce by spores.</p> <ul style="list-style-type: none">• Places where fungi are found <p>⇒ Rotting or decaying matter.</p> <p>⇒ In the soil</p> <ul style="list-style-type: none">• <u>Examples of fungi</u> <p>⇒ Mushrooms</p> <p>⇒ Puffballs</p> <p>⇒ Toadstools</p> <p>⇒ Moulds</p> <ul style="list-style-type: none">• <u>Reproduction in fungi</u> <p>⇒ Most fungi reproduce by means of spores except</p>	<p>The learner</p> <p>1. Describes fungi.</p> <p>2. State the examples of fungi</p>	<p>The learner;</p> <p>1. Pronounce s, spells, reads writes and demonstrates meaning of words related to fungi</p> <p>2. Reads, internalize and writes texts and questions related to the nature of fungi</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Describing the fungi</p> <p>Stating the different examples of fungi</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>A chart showing the shapes bacterium .</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	

				yeast which reproduces by means of budding. <ul style="list-style-type: none"> • <u>Breeding and feeding of fungi</u> ⇒ Fungi breed in places that are moist, warm and dark.								
10	4	Bacteria and fungi	fungi	<u>Harmless/useful fungi</u> <ul style="list-style-type: none"> • <u>Harmless/useful fungi</u> ⇒ Some fungi are eaten as food e.g. mushroom ⇒ Fungi decays and help in humus formation. <u>Harmful fungi</u> ⇒ Some are poisonous to man e.g. toadstool. Some cause diseases e.g. ringworms, eczema. ⇒ Fungi make food go bad. <ul style="list-style-type: none"> • <u>Parts of a mushroom</u> 	The learner; <ol style="list-style-type: none"> 1. Describes useful fungi 2. Draws and labels the parts of a mushroom 	The learner; <ol style="list-style-type: none"> 1. Pronounce s, spells, reads and demonstrates meaning of words related to harmless fungi 2. Reads, internalize and writes texts and questions related to the harmless fungi 	Guided discovery Discussion Observation Brain storming	Describing the harmful fungi Drawing and labeling parts of a mushroom.	Appreciation. Care Awareness Fluency Concern	A chart showing the shapes bacterium .	Mk. Int. sci. pbk 5 Int. sci. syllabus bk 5 New Fount . Pbk 5	

Functions of the parts.

- Cap - It holds and protects the gills.
- Gills -It produces and store spore.
- Stalk -It holds the cap in upright position.

Fungal disease

1. Ringworms
2. Eczema
3. Athletes foot
4. Candidiasis.

Prevention and control.

- ⇒ Proper personal hygiene.
- ⇒ Use of disinfectant to clean toilet.
- ⇒ Avoid sharing clothes, towels and knickers.

Facts about fungi

- ⇒ Fungi reproduce by spores except

The learners;

1. Identifies some of the fungal diseases.
2. States ways of preventing and controlling fungal diseases.
3. Mentions some of the facts about fungi and bacteria.

The learner;

1. Pronounce s, spells, reads writes and demonstrates meaning of words related to Fungal diseases.
2. Reads, internalize and writes texts and questions related to the Fungal diseases.

Guided discovery

Discussion
Observation

Brain storming

Identifying some of the fungal diseases.

Stating ways of preventing and controlling fungal diseases.

Mentioning some facts about fungi

Appreciation.

Care

Awareness

Fluency

Concern

Local environment

Mk. Int. sci. pbk 5

Int. sci. syllabus bk 5

New Fount . Pbk 5

				<p>yeast which reproduces by budding. ⇒ Fungi are multicellular.</p>								
10	6	Bacteria and fungi	<p>Comparing fungi and bacteria. Similarities</p>	<p>Comparing fungi and bacteria. Similarities. ⇒ Both are useful and harmful. ⇒ Both cause diseases. ⇒ They both cause diseases that are cured and treatable. ⇒ They both feed and reproduce.</p> <p>Differences between fungi and bacteria Fungi reproduce by spores while bacteria reproduce by cell division.</p>	<p>The learner; 1. States the similarities between fungi and bacteria. 2. States the differences between fungi and bacteria.</p>	<p>The learner; 1. Pronounce s, spells, reads writes and demonstrates meaning of words related to harmless fungi 2. Reads, internalize and writes texts and questions related to the harmless fungi</p>	<p>Guided discovery</p> <p>Discussion</p> <p>Observation</p> <p>Brain storming</p>	<p>Stating the similarities Between fungi and bacteria.</p> <p>Stating the differences between fungi and bacteria.</p>	<p>Appreciation.</p> <p>Care</p> <p>Awareness</p> <p>Fluency</p> <p>Concern</p>	<p>A chart showing the shapes bacterium .</p>	<p>Mk. Int. sci. pbk 5</p> <p>Int. sci. syllabus bk 5</p> <p>New Fount . Pbk 5</p>	