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Primary Seven Science Scheme of Work

WK	PD	THEME / TOPIC	SUBTOPIC / CONTENT	SUBJECT COMPETENCES	LANGUAGE COMPETENCES	METHODS	ACTIVITY	SKILLS	VALUES	INST.MAT.	REF	RM
1	1 to 3		Orientation. Going through holiday work.									
	4	HUMAN BODY Muscular-Skeletal system	Description of muscular skeletal system. Types of skeleton Structure of skeletal system and its parts.	-the learner names different bones and muscles of the human body -Draws and labels the skeleton and voluntary muscles	-the learner reads words, sentences muscles and joints of the body. -Write guided notes on the system. - Names the different bones and muscles of the human skeleton.	Discussion Demonstration. Observation Discovery method.	Making observations. Naming different bones Drawing Labeling	Critical thinking Decision making	Logic Taking decision Responsibility	Human skeleton	Introduction to Biology pg 119	
	5		Classification of bones. Classification and types of Joints.	-Identifies different classes of bones in the human body. -Describes different joints in the body. -Explain the work of ligaments and tendons.	-Reads words, sentences and stories about muscles and joints of the body. -Write guided notes on the system.	Discussion Demonstration. Observation Discovery method.	Making observation Naming different bones Drawing Labeling.	Problem solving. Critical thinking Decision making	Logic Taking decision Making right choices. Confidence	A well drawn chart Human skeleton	Introduction to Biology pg 120 - 122	

2	1		Muscles Types of muscles Functions of muscular skeletal system. Diseases and disorders of the system	-Names different muscles of the human body -Discusses functions of the muscular skeletal system. -States diseases and disorders of the bones, muscles and the system.	-Recites a poem on diseases and disorders of muscles and bones. -Write guided notes on the system. -Draws and labels the structure of the skeletal system and voluntary muscles.	Discussion Demonstration. Observation Discovery method.	Drawing Labeling Reading stories. Describing diseases and disorders	Creative thinking Decision making Effective communication	Logic Taking decision Making right choices. Confidence Responsibility	A well drawn chart	Introduction to Biology pg 123	
	2		Prevention of diseases and disorders of the system. Health habits that keep the system in a healthy working condition. Posture. Importance of correct posture. Dangers of poor posture.	-States diseases and disorders of the skeletal system. -Explain ways of caring for the muscular-skeletal system. -Describes the importance of good posture	-Reads words, sentences and stories about muscles and joints of the body. -Recites a poem on diseases and disorders of muscles and bones. -Write guided notes on the system.	Discussion Demonstration. Observation Discovery method.	Making observation Naming different bones Drawing Labeling	Problem solving. Creative thinking Decision making Effective communication	Logic Taking decision Making right choices. Confidence	A well drawn chart	Mk book four.	

	3	MATTER AND ENERGY Electricity and Magnetism	Electricity Sources of electricity Cells Structure of a dry cell. Parts of a dry cell. Calculate for voltage.	-Explains the meaning of electricity. -Identifies the sources of electricity. -Discusses the parts of the dry cell -Calculates for voltage in dry cells.	-Reads words and sentences on electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work. -Draws the dry cell showing internal parts.	Discussion Demonstration. Observation Discovery method	Naming Generating static electricity Making temporary magnets. Drawing Reading Writing	Critical thinking. Creative thinking. Decision making	Logic Taking decision. Making right choices. Confidence Responsibility.	Dry cells.	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69	
	4		Simple cell//wet cells Chemical battery. Running water as sources of electricity. The sun Fossil fuels. Nuclear energy Wind.	-Explains the making of simple cells. -Explains the sources of electricity from chemical batteries, running water, the sun, fossil fuels, nuclear energy and wind.	-Reads words and sentences on electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work.	Discussion Demonstration. Observation Discovery method	Assembling circuits Naming Generating static electricity Drawing Reading Writing	Problem solving Critical thinking. Decision making Effective communication	Logic Taking decision. Making right choices. Confidence Responsibility.	Lemons Copper rods Dilute sulphuric acid	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	

		5	Types of electricity; The flow of current and electrons. The D.C and A.C Forms of electricity. Conductors of electricity Insulators of electricity.	-Discusses the two types of electricity -Experiments with static electricity. -Explains the flow of current and electrons. -Identifies different forms of electricity. -Explains conductors and insulators of electricity	-Writes words, sentences and short stories about electricity and magnetism in the modern world of work. -Draws the diagram showing flow of current and electrons.	Discussion Demonstration. Observation Discovery method	Generating static electricity Making temporary magnets. Drawing Reading Writing	Critical thinking. Creative thinking. Decision making Effective communication	Logic Taking decision. Making right choices. Confidence. Responsibility.	Wires Insulated wires	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	
3	1		Electric circuit Components of a circuit Draw electric circuit. Uses of parts of the circuit. The conducting wire Symbols used in an electric circuit	Draws and labels the electric circuit. Identifies the use of the components of the circuit. Explains the components of a conducting wire.	Names different parts of the electric circuit. -Reads words and sentences on electricity and magnetism. -Writes words, sentences about electricity in the modern world of work.	Discussion Demonstration. Observation Discovery method	Assembling circuits Making temporary magnets. Drawing Reading Writing	Problem solving Critical thinking. Creative thinking. Decision making	Logic Taking decision. Making right choices. Confidence Responsibility.	Fuses Ammeters Dry cells	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	

		2	The torch Use of parts of the torch. The bulb Use of parts of a bulb.	Explains the parts and working of the torch. Explains the parts and working of the bulb. Identifies the symbols of the parts of the electric circuit.	-Reads words and sentences on electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work.	Discussion Demonstration. Observation Discovery method	Drawing Reading Writing	Critical thinking. Creative thinking. Decision making	Taking decision. Making right choices. Confidence Responsibility.	Torch Dry cells Electric bulbs	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	

		3	Short circuit Causes of short circuit. Effects of short circuit. How to avoid short circuit. Static electricity Lightning. Differences between static and current electricity. Disadvantage of electricity. Safety precautions in handling electricity and electrical appliances. Importance of electricity.	-Identifies the effects of short circuits. -Identifies ways of avoiding short circuits. -explains what static electricity is. -discusses dangers and safety precautions of electricity. -explains the advantages of electricity. -discusses the importance of electricity in day today problems.	-Reads words and sentences on electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work.	Discussion Demonstration. Observation Discovery method	Assembling circuits Naming Generating static electricity Making temporary magnets. Drawing Reading Writing	Problem solving Critical thinking. Creative thinking. Decision making Effective communication	Logic Taking decision. Making right choices. Confidence. Responsibility.	Electric wires Plastic pens Pencils	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	
		4	Magnetism and magnets	-explains what magnetism is.	-Reads words and sentences on	Discussion	Making tempora	Problem solving	Taking decision.	Magnets	Nelkon	

			Magnetic materials Types of magnets Properties of magnets.	-Identify magnetic and non magnetic materials. -Identifies natural and artificial magnets. - explains the classification of magnets.	electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work.	Demonstration. Observation Discovery method	ry magnets. Drawing Reading Writing	Critical thinking	Making right choices.		and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	
		5	Magnetic field Properties of magnetic fields Preventing magnets from losing magnetism. Methods of making magnets.	-explains magnetic field -demonstrates ways of making temporary magnets. -explains the properties of magnetic fields. -discusses ways of preventing loss of magnetism. -explains the methods of making magnets.	-Reads words and sentences on electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work. -Draws illustrations on making of temporary magnets.	Discussion Demonstration. Observation Discovery method	Assembling circuits Naming Generating static electricity Making temporary magnets. Drawing Reading Writing	Problem solving Critical thinking. Creative thinking. Decision making Effective communication	Logic Taking decision. Making right choices. Confidence. Responsibility.	Magnets	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	

4	1		Electromagnet Determining the poles of electromagnets. Demagnetizing. Electric bell.	-discusses the working of the electric bell. -explains the ways of determining the poles of electromagnets. -explains ways of demagnetizing a magnet.	-Reads words and sentences on electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work. -Draws and labels the electric bell.	Discussion Demonstration. Observation Discovery method	Assembling circuits electricity Making temporary magnets. Drawing Reading Writing	Problem solving Critical thinking. Creative thinking. Decision making	Logic Taking decision. Making right choices. Confidence Responsibility.	Solenoid An electromagnet	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	
	2		Generating electricity using a dynamo and a generator. Uses of dynamos and generators. Appliances that use electricity, magnetism and both electricity and magnetism.	-discusses the process involved in generation of electricity using a dynamo. -discusses the uses of electricity and magnetism in modern world of work. -Identifies appliances that use electricity alone, magnetism alone and both.	-Reads words and sentences on electricity and magnetism. -Writes words, sentences and short stories about electricity and magnetism in the modern world of work.	Discussion Demonstration. Observation Discovery method	Naming Generating static electricity Making temporary magnets. Drawing Reading Writing	Problem solving Critical thinking. Creative thinking. Decision making Effective communication	Logic Taking decision. Making right choices. Confidence. Responsibility.	A bicycle	Nelkon and parker pg 207-402 Science dictionary pg 58 – 69 Abbott	

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	3	THE ENVIRONMENT. Energy resources	Resources Energy resource Energy resources eg sun, water, minerals etc Importance of the sun as a resource. Water as an energy resource eg provides HEP, Steam, Tidal energy.	-explains what energy resources are. -names different energy resources. -discusses the importance of different energy resources to people and environment. -Carries out simple experiments using energy from wind or steam. -describes how to make solar equipment.	-Write guided notes on the Energy resource -Writes short descriptions on energy resources and sources. -Reads words and sentences about energy resources and their functions. -Writes a story about coal and petroleum. -Draws biogas digester. -Writes down steps of making biogas digester. -Writes down steps of making solar equipment.	Discussion Demonstration. Observation Discovery method	Naming energy resources. -Experimenting on steam and propeller. Drawing. Writing.	Critical thinking. Decision making. Creative thinking. Effective communication.	Logic Confidence. Taking right decision. Making right choices. Appreciation. Care	A well drawn chart Energy resources.	MK ,Fountain, ,SC. Bk 7	

	4		Fossil fuels eg petroleum, coal etc Uranium Geothermal energy Animals as energy resources. Wind as energy resources. Plants as energy resources.	explains the generation of atomic electricity. explains the working of geothermal energy. discusses the importance of animals, wind and plants as energy resources.	-Write guided notes on the Fossil fuels -Writes short descriptions on energy resources and sources. -Reads words and sentences about energy resources and their functions. -Write a story about coal and petroleum.	Discussion Demonstration. Observation Discovery method	Naming energy resources. - Experimenting on steam and propeller. Drawing. Writing	Critical thinking. Decision making. Creative thinking. Effective communication	Logic Confidence Taking right decision. Making right choices. Appreciation. Care	A well drawn chart Energy resources.	MK ,Fountain, ,SC. Bk 7	

	5		Biogas production Biomass as amount of living matter in the area. Steps of making biogas digester. Structure of biogas digester. Advantages of using biogas.	-describes how to make biogas digester. -draws the biogas digester -explains the working of biogas digester. -initiates the activities which cause safe and sustainable way of using energy resources. -explains the advantage of biogas digester.	-Write guided notes on the Biogas production -Writes short descriptions on energy resources and sources. -Reads words and sentences about energy resources and their functions. -Draws biogas digester. -write steps of making biogas digester.	Discussion Demonstration. Observation Discovery method	Naming energy resources. -Experimenting on steam and propeller. Drawing. Writing.	Critical thinking. Decision making. Creative thinking. Effective communication	Logic Confidence. Taking right decision. Making right choices. Appreciation. Care	A well drawn chart Energy resources.	MK ,Fountain, ,SC. Bk 7	

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1			**GOING THROUGH HOLIDAY WORK**									
2	1	MATTER AND ENERGY. Simple Machines and Friction.	Friction. Types of friction e. Properties of friction Friction as a useful force in our daily life. How to increase friction Advantages and disadvantages of friction. How friction can be reduced.	-States the meaning of friction -investigates the effect of friction on matter. -State the importance of friction. -States the types of friction. -experiments with friction. -Explain the advantages and disadvantages of friction.	-Writes guided notes on Friction. -Writes words, sentences and stories about simple machines. -Draw and labels diagrams. -Reads words, sentences and stories about frictional force and how simple machines operate. -Describes ways of reducing friction.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing. Writing Reading. Labeling.	Decision making Critical thinking. Problem solving Effective communication.	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Hubs,axle, knife,panga, ball bearings, grease, boots, tyres Bicycle.	Science dictionary 90	

	2		MACHINES **Types of machines** Examples of complex Examples of simple machines **Classes of simple machines** Classes of levers i.e. first class lever.	-explains the two types of machines. explains how to determine the class of levers. -carries out experiments with different simple machines. -describes the parts of the lever.	-Write guided notes on machines - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility.	Pulleys, crowbar,	Science dictionary 138 - 139	
	3		Levers Second class levers e.g. wheel barrow Third class levers.eg human arm.	-describes different classes of levers. Models simple machines from local materials. -discuss the parts of the lever. - describes the effect of force on lever.	-Write guided notes on the Levers - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Levers, Human arm, pair of tweezers	Science dictionary 138 - 139	

	4		The principle of levers. The load X load arm is equal to the effort x effort arm. Calculations on moments.	Calculates for the unknowns.	-Write guided notes on the Levers - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Crow bar	Science dictionary 138 - 139	
	5		Harder tasks on moments involving more than one weight.	Calculates for the unknowns.	-Write guided notes on the Levers - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Appreciation Responsibility. Care Taking		Science dictionary 138 - 139	

3	1		The inclined plane Examples of inclined planes. Importance of the inclined plane. Find the load distance, effort distance, W.D, M.A Work Calculation about work done.	explains what inclined planes are, -gives examples of inclined planes. -workout simple calculation on inclined planes. -Calculates the M.A of machines.	-Write guided notes on the inclined plane - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Slope, slanting surfaces, ramp,	Science dictionary 138 - 139	
	2		Wedges Examples of wedges. Uses of wedges Screws Uses of screws Examples of screws	-describes wedges. -Identifies different examples wedges. -explains the nature of screws. -Identifies examples of screws. -proves that screws are inclined planes.	-Write guided notes on the wedges. - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Appreciation Care Taking decision Making right choices. Logic	Panga, knife, etc	Science dictionary 138 - 139	

	3		An axle is a rod passed through a wheel. Examples of devices that use the principle of wheels and axles How wheels and axles work.	describes wheels and axle. Identifies different examples Wheels and axles Identifies examples of Wheels and axles.	-Write guided notes on the wheels and axles - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Appreciation Responsibility. Care Taking decision Making right choices.	Screws	Science dictionary 138 - 139	
	4		Pulleys Importance of pulleys. Types of pulleys Explanation on the working of the single fixed and single movable pulleys. Calculations on the two pulleys.	-explains what pulleys are. -Identifies types of pulleys. -explains the working of pulleys -Calculates the M.A of pulleys. -gives the importance of pulleys in everyday life.	-Write guided notes on the Pulleys - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Pulleys.	Science dictionary 138 - 139	

	5		Differences between fixed and movable pulley. Block and tackle system Making a pulley system.	-gives the differences between fixed and movable pulley. -explains the making of the pulleys.	-Write guided notes on the Pulleys - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Pulleys.	Science dictionary 138 - 139	
4	1		Gear wheels/cog wheels or toothed wheels. A gear wheel is a special form of the wheel with teeth around the edge. -Calculate for the number of turns the gear wheels make in certain number of revolutions.	-Identifies examples of gear wheels. -explains the working of gearwheels. -finds the number of turns made.	-Write guided notes on the Gear wheels/cog - Writes words, sentences and stories about simple machines. -Draw and labels diagrams.	Discussion Demonstration. Observation Discovery method	Set experiments Calculating Identifying Drawing. Writing Reading. Labeling	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A bicycle,	Science dictionary 138 - 139	

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	2	HUMAN BODY Excretory system.	Excretion Excretion is the process by which harmful materials are removed from the body. Examples of excretory products e.g. carbon dioxide, water, salts etc Excretory organs	-defines excretion. -Identifies examples of excretory organs and products. -draws the structure of human skin	-Write guided notes on the system. -Reads words and sentences about excretory system and their functions.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing.	Decision making Critical thinking. Problem solving Effective communication	Appreciation Responsibility. Care Taking decision Making right choices.	A chart of the skin, text books	MK ,Fountain, ,SC. Bk 7 Introduction .to Biology pg 109 - 111	
	3		The human skin. The structure of the human skin The layers of the skin ie epidermis and dermis. Uses of the parts of the skin.	-describes the human skin. -gives the uses of the parts of the human skin.	-Write guided notes on the human skin. - Reads words and sentences about the skin.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing.	Decision making Critical thinking. Effective communication	Appreciation Responsibility.	A chart of the skin, Text books.	MK ,Fountain, ,SC. Bk 7 Introduction .to Biology pg 109	

	4		The human skin Functions of the skin. Regulation of the body temperature. Diseases of the human skeleton. Disorders of the skin. Care of the human skin.	-Explains the uses of the skin. -Describes how the body regulates body temperature. -Identifies the diseases and disorders of the human skin. -explains ways of caring for the skin.	-Write guided notes on the human skin. - Reads words and sentences about the skin.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing .	Decision making Critical thinking. Problem solving Effective communication	Responsibility. Care Taking decision Making	.	MK ,Fountain, ,SC. Bk 7 Introduction to Biology pg 109	
	5		Kidneys. Structure of the kidney Functions of the parts of the Kidney. Functions of the kidney. Good habits for the kidney.	-draws the structure of the Kidney. -explains the functions of the parts of the kidney -identifies the general functions of the kidney to the body.	-Write guided notes on the Kidneys. -Reads words and sentences about Kidneys and their functions.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart of the human kidneys	MK ,Fountain, ,SC. Bk 7 Introduction to Biology pg 106	

5	1		Functions of the parts. Diseases of the Kidney. Disorders of the urinary system. Good habits for the urinary system.	-explains the functions of the parts of the urinary system. -identifies the diseases of the urinary system. -Identifies any disorders of the kidney and urinary system. -explains the good habits for the proper functioning of the system.	-Write guided notes on the Kidneys. -Reads words and sentences about Kidneys and their functions.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart of the Urinary system	MK ,Fountain, ,SC. Bk 7 Introduction to Biology pg 106	
	2		Lungs The lungs as excretory organs. Diseases of the lungs eg lung cancer. Disorders of lungs.eg choking etc Liver Functions of the liver. Circulation to and from the liver- Diseases of the liver.	-explains how the lungs work as excretory organs. -identifies the diseases of the lungs. -identifies the disorders of the lungs. -explains how the livers works as an excretory organ. -identifies the function of the liver. -explains the circulation in liver	-Write guided notes on the Lungs -Reads words and sentences about the lungs as excretory organ.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7 Introduction to Biology pg 102	

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	3	MATTER AND ENERGY Light Energy	Light Sources of light. Natural and artificial sources of light. Luminous and non luminous objects. Properties of light.	-explains the meaning of light. -identifies the natural and artificial sources of light. -explains the luminous and non-luminous objects. -explains and demonstrates the properties of light.	-Write guided notes on the Sources of light. - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method.	Writing Reading. Drawing Demonstration.	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Torch, candle, match box, lamp,	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	
	4		Beams of light. Types of beams Ray Uses of light from different sources of light	-explains the meaning of beam of light. -identifies the types of beams of light. -explains the meaning of ray. Identifies the uses of different sources of light.	-Write guided notes on the Beams of light - Reads words and sentences about light energy. .	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A torch.	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	

	5		Effects of different materials on light Transparent materials eg clear glass Translucent materials eg frosted glass Effects of different materials on transparent translucent and opaque objects. .	-explains the effects of different materials on light. -identifies examples of different materials.	-writes guided notes on the effects of different materials on light - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Clear glass, frosted glass, wood	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	
6	1		Shadows Shadow formation From a point source. From a source bigger than a point. Parts of the shadow.	-defines shadows -explain formation of shadows. -draws shadows from a point source and from a source bigger than a point.	-Write guided notes on the Shadows - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Effective communication	Appreciation Responsibility. decision Making right choices.	Torch, candle, match box,	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	
	2		Defn of eclipse. Types of eclipse. Draw the eclipses.	-defines eclipse. -explains the types of eclipse. -draws the lunar and solar eclipses.	-Write guided notes on the eclipse. - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Critical thinking. Problem solving Effective communication	Appreciation decision Making right choices.	A chart showing eclipses	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	

	3		Reflection Reflection is the bouncing of light Types of reflection e.g. regular, irregular reflection. Calculation on regular reflection The laws of reflection eg angle of incidence is equal to the angle of reflection. Uses of reflection in our daily life.	-defines reflection. -explains types of reflection -identifies the parts of a regular reflection. -calculates for the unknown angles on a regular reflection. -explains the laws of reflection. -identifies uses of reflection in our daily life.	-Write guided notes on the Reflection - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Chalkboard drawings	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	
	4		**Reflection and colour** Primary colours eg Red, Green, Blue. Secondary colours eg yellow, Magenta, Cyan Complementary colours eg Blue and Yellow, Red and Cyan, Green and Magenta. Why certain colours appear the way they appear.	-identifies the primary colours of light -explains the properties of primary colours of light. -explain why certain colours appear the way they appear.	-Writes guided notes on the Reflection. - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Colours	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	

	5		Simple optical instruments They use light to function. E.g. plane mirrors, lenses X-tics of images formed in plane mirrors. Uses of plane mirrors. Curved mirrors Types of curved mirrors	-give the meaning of simple optical instruments. -identifies examples of optical instruments. -identifies characteristics of images formed in a plane mirror. -identifies uses of plane mirrors. -draws and names types of curved mirrors -shows the effect of light on curved mirrors.	-Writes guided notes on the Simple optical instruments - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Plane mirrors, lenses, Curved mirrors.	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	
7	1		Real and virtual images Periscope Pinhole camera Making a pinhole camera. x-tics of images formed with a pinhole camera.	-explains the real and virtual images -explains the working of periscope. -explains the process of making a pinhole camera. -explains the x-tics of images formed on a pinhole camera.	-Writes guided notes on the Periscope - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Model of a periscope, a pinhole camera, tins, tracing paper	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	

	2		Refraction of light. It is the bending of light as it moves from one transparent medium to another. Principles of refraction Effects of refraction. Prisms and light spectrum. Refraction of white light by glass prism.	-gives the meaning of refraction of light. -identifies the principles of refraction. -identifies the effects of refraction. -explains what spectrum is. -explains what dispersion of light is. -draws and explains refraction of white light by glass prism.	-Writes guided notes on the Refraction of light. - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A glass, A ruler, Glass prisms,	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	
	3		Refraction of light in water Refraction through a rectangular glass prism, The formation of the rainbow.	-explains refraction of light in water. -explains refraction of light by a rectangular glass prism. -explains the formation of a rainbow.	-Writes guided notes on the Refraction of light in water - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Glass prisms	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	

	4		Lenses Types of lenses Convex and concave. The effect of lenses on beams of light. X-tics of images formed by the lenses. Uses of lenses.	-explains what lenses are. -identifies the types of lenses. -draws the two types of lenses -explains the effect of beams of light on lenses. -explains the x-tics of images formed by the lenses. -explains the uses of lenses.	-Writes guided notes on the Lenses - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	Lenses.	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	
	5		The lens camera. Structure of the lens camera. Parts of the camera and their functions. X-tics of images formed by a lens camera. Other optical instruments eg microscope etc	-draws and explains the working of a lens camera. -explains the x-tics of images formed by the lens camera. -identifies other optical instruments.	-Writes guided notes on the lens camera. - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A lens camera.	Science dictionary 130 – 137 MK ,Fountain, ,SC. Bk 7	

8	1		The human eye Structure of the human eye. Front view Cross section view. Uses of the parts of the eye.	-draws the human eye-front and cross section view . -identifies the parts of the human eye and their functions.	-Writes guided notes on the human eye - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart	Introduction to biology pg 130 – 133 Science dictionary pg 86 - 87	
	2		The human eye X-tics of images formed by the eye. Comparison btn an eye and camera. Compare and eye and a pinhole camera.	-explains the X-tics of images formed by the eye. -compares the mammalian eye and the lens camera. -Compares the mammalian eye and a pinhole camera.	-Writes guided notes on the human eye - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart, a lens camera	Introduction to biology pg 130 – 133 Science dictionary pg 86 – 87	

	3		The human eye Diseases of the human eye. Eg River blindness Disorders/defects of the eye.eg short sight etc Care of the human eye.	-identifies the diseases of the eye. -explains the signs and symptoms of the eye diseases. -explains and draws the eye defects. -explains how to care for the eyes.	-Writes guided notes on the human eye - Reads words and sentences about light energy.	Discussion Demonstration. Observation Discovery method	Writing Reading. Drawing	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart showing eye defects.	Introduction to biology pg 130 – 133 Science dictionary pg 86 – 87	

WK	PD	THEME/ TOPIC	SUBTOPIC/ CONTENT	SUBJECT COMPETENCES	LANGUAGE COMPETENCES	METHODS	ACTIVITY	SKILLS	VALUES	INST.MAT.	REF	RM
	4	THE ENVIRONMENT. Interdependence of things in the environment	Interdependence Components of the environment. Plants depend on animals. Animals depend on plants Animals depend on other animals Plants depend on other plants. Interdependence of living things and non living things.	-explains the meaning of interdependence. -explains how plants depend on animals. -explains how animals depend on plants. -explains how animals depend on other animals. -explains how plants depend on other plants. -explains interdependence of living and non living things.	-Writes guided notes on Interdependence - Reads words and sentences about interdependence in the environment	Discussion Demonstration. Observation Discovery method Field trips	Writing Reading.	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart showing interdependence	MK ,Fountain, ,SC. Bk 7	

	5		Agro forestry Importance of agro forestry Indigenous trees X-tics of indigenous trees. Exotic trees Xtics of exotic trees	-explains what agro forestry is. -explains the importance of agro forestry. -explains what indigenous trees are. -explains the characteristics of indigenous trees. -explains the characteristics of exotic trees.	-Writes guided notes on Agro forestry - Reads words and sentences about interdependence in the environment	Discussion Demonstration. Observation Discovery method Field trips	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7	
9	1		Tree growing A nursery bed Care for seedlings Hardening off. Transplanting Types of nurseries Seed bed Starting a tree nursery bed.	-explains the process of tree growing. -explains the meaning of nursery bed. -explains starting a tree nursery bed. -describes hardening off. -explains types of nurseries -give the meaning of a seed bed.	-Writes guided notes on the Tree growing - Reads words and sentences about interdependence in the environment	Discussion Demonstration. Observation Discovery method Field trips	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart showing a nursery bed	MK ,Fountain, ,SC. Bk 7	

	2		Care for trees in agro forestry Advantages of pruning Advantages of thinning. Why staking Crop spacing How to control weeds.	-explains the ways of caring for plants. -gives the advantages of thinning. -explains the advantages of thinning. -gives reasons for staking crops.	-Writes guided notes on the Tree growing - Reads words and sentences about interdependence in the environment	Discussion Demonstration. Observation Discovery method Field trips	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility.	Real plants in the garden	MK ,Fountain, ,SC. Bk 7	
	3		Tree pests. Vermin Crop pests Methods of controlling pests Crop diseases	-describes a pest and a vermin. -identifies examples of crop pests -explains the methods of controlling pests. -identifies examples of crop diseases	-Write guided notes on the Tree growing - Reads words and sentences about interdependence in the environment	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving	Fluency Appreciation Responsibility.		MK ,Fountain, ,SC. Bk 7	
	4		Harvesting of trees. Starting and managing a school/home wood project. Factors considered when choosing trees for planting. Maintaining a tree and crop growing project.	-identifies proper ways of harvesting trees. -explains the factors considered when starting a tree and crop growing project. -explain how to	-Write guided notes on the Harvesting of trees - Reads words and sentences about interdependence in the environment	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective commun	Fluency Appreciation Responsibility. Care Taking decision Making	A chart showing methods of harvestin	MK ,Fountain, ,SC. Bk 7	

				maintain a tree and crop growing project.				ication	right choices.	g trees .		
	5		Preparing wood for different purposes and proper storage Uses of wood. Wood for timber. Wood for electricity telephone poles. Seasoning Record keeping Types of records Importance of keeping farm records. Young farmers club.	-explain how to prepare wood for firewood, for wood for electricity, timber. -explain the meaning of seasoning timber. -identify reasons for seasoning timber. -explains what record keeping is. -lists types of farm records. -explains the importance of keeping farm records. -explains the roles of young farmers clubs.	-Write guided notes on the Harvesting of trees - Reads words and sentences about interdependence in the environment	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7	

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WK	PD	THE TOPIC/ THEME	SUBTOPIC/ CONTENT	SUBJECT COMPETENCES	LANGUAGE COMPETENCES	METHODS	ACTIVITY	SKILLS	VALUES	INST.MAT.	REF	RM
10	1	**The community,population and family life. Population and health.**	Community Health Social problems. Community health Methods of preventing diseases in the community.	-explains the meaning the terms community, health, social problems, community health. -identifies the methods of preventing diseases in the community.	-Write guided notes on Community Health - Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7	
	2		Sicknesses in a home. Types of common sicknesses in a home.	-explains types of common sickness in a home. -identifies examples of types of the common sicknesses in a home. -explains the cause of the sicknesses.	-Write guided notes on Sicknesses in a home. - Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic	A chart showing certain sicknesses	MK ,Fountain, ,SC. Bk 7	

	3		STDS Hereditary diseases Causes of sickness in a home. Control of common sicknesses. Common health and social problems. How to avoid health and social problems. Life skills to avoid social and health problems.	-identifies examples of types of the common sicknesses in a home. -explains the cause of the sicknesses. -explains the control of the common sicknesses in a home. -explain examples of common health and social problems and how to avoid them. -identifies the life skills of avoiding social and health problems.	-Write guided notes on the STDS - Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7	
	4		Sexual deviations. Reasons why people practice sexual deviations Ways of avoiding sexual deviations.	-explains the meaning of sexual deviations. -identifies examples of sexual deviations. -gives reasons for sexual deviations. -explains ways of avoiding sexual deviations.	-Write guided notes on the Sexual deviations. - Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Responsibility. Care Taking decision Making right choices.	Presentation showing effects of sex deviations.	MK ,Fountain, ,SC. Bk 7	

	5		Population and health concerns Poor sanitation Antisocial behavior Violence Types of violence.	-defines population and health concerns. -identifies examples of population and health concerns. -identifies indicators of poor sanitation. -identifies activities to poor sanitation. -explains the meaning of antisocial behavior -explains examples, causes and effects of antisocial behavior. -identifies the activities to address antisocial behavior.	-Write guided notes on Poor sanitation - Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7	
11	1		Poor water supply Water associated diseases	-describe poor water supply -explain water associated diseases. Identify activities	-Write guided notes on Poor water supply - Reads words and sentences about population and	Discussion Demonstration. Observation	Writing Reading	Decision making Critical thinking. Problem solving	Appreciation Responsibility.		MK ,Fountain, ,SC. Bk 7	

				to address poor water supply	health.	Discovery method					
	2		Inadequate food. Food security Activities to address health concern. Care for home Health survey	-explains the meaning of inadequate food. -explains the causes of inadequate food. -gives the meaning of food security. -identifies the activities to address inadequate food. -explains the activities to address the health concerns	- Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7	
	3		Health education Having a family budget. Advantages of family budgeting.	-explains health education -explains the family budget. -gives the advantages of having a family budget	- Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Appreciation Responsibility. Care Taking decision		MK ,Fountain, ,SC. Bk 7	

	4		Demography. Importance of demography. Housing information. Available health services. -immunization -Family planning -treatment of infections Provision of water. Control of epidemic diseases		- Reads words and sentences about population and health.	Discussion Demonstration. Observation Discovery method	Writing Reading	Decision making Critical thinking. Problem solving Effective communication	Fluency Appreciation Responsibility. Care Taking decision Making right choices. Logic		MK ,Fountain, ,SC. Bk 7	