Fayol Inc. 0547824419/0549566881 SCIENCE ANNUAL SCHEME OF LEARNING – JHS I

WEEKS	FIRST TERM	SECOND TERM	THIRD TERM
I	Materials	The Human Body Systems	Conversion & Conservation Of Energy
2	Materials	The Human Body Systems	Conversion & Conservation Of Energy
3	Living Cells	The Solar System	Force & Motion
4	Living Cells	The Solar System	Force & Motion
5	Earth Science	The Ecosystem	Force & Motion
6	Earth Science	Farming Systems	Force & Motion
7	Life Cycles Of Organisms	Farming Systems	Agricultural Tools
8	Life Cycles Of Organisms	Energy	Waste Management Systems
9	Crop Production	Energy	Human Health
10	Crop Production	Electricity & Electronics	Science & Industry
11	Animal Production	Electricity & Electronics	Climate Change & Green Economy
12	Animal Production	Electricity & Electronics	Understanding The Environment

SCHEME OF LEARNING – TERM I

WEEKS	STRAND	SUB STRANDS	CONTENT STANDARD	INDICATORS	RESOURCES	
I	Diversity Of Matter	Materials	B7.1.1.1	B7.1.1.1.1-2	Picture chart of the states of	
2	Diversity Of Matter	Materials	B7.1.1.1	B7.1.1.1.3 B7.1.1.2.1	matte, The periodic table	
3	Diversity Of Matter	Living Cells	B7.1.2.1	B7.1.2.1.1	Picture chart of	
4	Diversity Of Matter	Living Cells	B7.1.2.1	B7.1.2.1.2	cell	
5	Cycles	Earth Science	B7.2.1.1	B7.2.1.1.1	Picture chart of	
6	Cycles	Earth Science	B7.2.1.1	B7.2.1.1.2	water cycle	
7	Cycles	Life Cycles Of Organisms	B7.2.2.1	B7.2.2.1.1	Picture chart of the life cycle of	
8	Cycles	Life Cycles Of Organisms	B7.2.2.1	B7.2.2.1.2	Housefly	
9	Cycles	Crop Production	B7.2.3.1	B7.2.3.1.1	picture chart of foods	
10	Cycles	Crop Production	B7.2.3.1	B7.2.3.1.2	picture chart of foods	
11	Cycles	Animal Production	B7.2.4.2	B7.2.4.1.1-2	Picture chart of	
12	Cycles	Animal Production	B7.2.4.2	B7.2.4.2.1-2	domestic animals.	

TERM 2 SCHEME OF LEARNING

WEEKS	STRAND	SUB STRAND	INDICATORS	RESOURCES	
I	Systems	The Human Body Systems	B7.3.1.1.1-2	Illustrations, the	
2	Systems	The Human Body Systems	B7.3.1.1.3	etc.	
3	Systems	The Solar System	B7.3.2.1.1	Pictures of the	
4	Systems	The Solar System	B7.3.2.1.2	moon, sun, stars and the planets.	
5	Systems	The Ecosystem	B7.3.3.1.1	Picture charts of animals and plants habitat.	
6	Systems	Farming Systems	B7.3.4.1.1-2	School farm,	
7	Systems	Farming Systems	B7.3.4.1.3	farming systems	
8	Forces & Energy	Energy	B7.4.1.1.1-2	Solar panels, Torch light, cardboards,	
9	Forces & Energy	Energy	B7.4.1.2.1 B7.4.1.3.1	candle, etc.	
10	Forces & Energy	Electricity & Electronics	B7.4.2.1.1-2	Wire, resistor, dry	
11	Forces & Energy	Electricity & Electronics	B7.4.2.2.1-2	inductor, pictures	
12	Forces & Energy	Electricity & Electronics	B7.4.2.2.3	devices, etc.	

TERM 3 SCHEME OF LEARNING

WEEKS	STRAND	SUB STRAND	INDICATORS	RESOURCES	
I	Forces & Energy	Conversion & Conservation Of Energy	B7.4.3.1.1	Dry cell, torch light,	
2	Forces & Energy	Conversion & Conservation Of Energy	B7.4.3.1.2-3	pictures of dams, etc.	
3	Forces & Energy	Force & Motion	B7.4.4.1.1-2	Seizeen	
4	Forces & Energy	Force & Motion	B7.4.4.1.3-4	wheelbarrow,	
5	Forces & Energy	Force & Motion	B7.4.4.2.1-2	machine oil, bottle opener, pictures of	
6	Forces & Energy	Force & Motion	B7.4.4.2.3	levers, etc.	
7	Forces & Energy	Agricultural Tools	B7.4.5.1.1-2	Rake, cutlass, hoe, mattock, etc.	
8	Humans & The	Waste Management Systems	B7.5.1.1.1	Pictures of dump sites	
9	Environment	Human Health	B7.5.2.1.1-2	Picture chart of the foods we eat	
10		Science & Industry	B.7.5.3.1.1	Pictures of renowned national scientist	
11	Environment	Climate Change & Green Economy	B7.5.4.1.1	Pictures and videos depicting greenhouse effect	
12	Humans & The Environment	Understanding The Environment	B7.5.5.1.1-2	Pictures of plants and animals depicting how they survive	

Date: 16 th SEPT, 2022	DAY:			Subject: Science			
Duration: 50MINS			Strand: Rev			ision	
Class: B7		Class Size:			Sub Strand:	Rev	ision
Content Standard: Provide appropriate answ exams questions.	term science	Indicator Provide ap science exa	: propriate answers ams questions	to last term		Lesson:	
Performance Indicator Learners can find answers	to last teri	m exams questio	ons.	Core Compete DL 5.3: Cl 6.8: D	e ncies: DL 5.1: Cl 6.6:		
References: Science Cur	riculum, Ex	ams Papers					
Phase/Duration	Learners	Activities				Re	sources
PHASE I: STARTER	Using qu the previ Share lea	estions and ans ious lesson. arning indicator	swers, revie rs and intro	ew learners unde oduce the lesson.	erstanding in		
PHASE 2: NEW LEARNING	Share learning indicators and introduce the lesson.Ask learners to bring out their last term science exams paper and note book.Exams papersHave learners to come out the difficult questions they couldn't answer during the exam.Exams papersGo through the instructions on answering the objective questions.Learners in turns read the objective questions for discussion and answering.Guide learners to explain questions and concept that they find difficult.Assessment Learners answer the essay type questions I and 2 in their				ams papers		
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. <u>Homework</u> Learners answer the essay type questions 3 and 4 in their workbooks.						

Date: 16 th SEPT, 2022	DAY:	DAY:		Subject: Science		
Duration: 50MINS				Strand: Forces & Energy		
Class: B7	Class Size:			Sub Strand: Conversion & Conservation Of Energy		
Content Standard: B7.4.3.1. Demonstrate an principle of conservation a and their application in re	understanding of the and conversion of energy al life situations.	Indicator: B7.4.3.1.1 E conservatio	xpl n a	ain the principle underlying nd conversion of energy.		Lesson:
Performance Indicator Learners can explain the p conversion of energy.	r: principle underlying conserv	vation and	C o DL	ore Competencies: . 5.3: Cl 6.8: DL 5.1: Cl 6.6:		
References: Science Cu	ırriculum Pg. 33-34					
Phase/Duration	Learners Activities				Res	sources
PHASE I: STARTER	Using questions and answ previous lesson. Share learning indicators	ers, review le and introduce	earn	e lesson.		
PHASE 2: NEW	Guide learners to expla	ain the follov	win	g terms;	Ch	arts and diagrams
LEARNING	 Guide learners to explain the following terms; Energy conservation also refers to the judicious and wise use of our sources of energy and replacing them whenever possible. Law of conservation of energy states that energy can neither be created nor destroyed but only converted from one form of energy to another. This means that a system always has the same amount of energy, unless it's added from the outside. Guide learners to explain the law of conservation of energy by using diagram to show that in a closed system the value of chemical energy, for example in dry cell which changes into electrical, heat and light energy will remain the same. Guide learners to explain energy conversion and its application to life. Example: Turning off the light when leaving the room Unplugging appliances when not in use. Walking instead of driving. 					
	State the law of energy	State the law of energy conservation.				
	State three examples o	f energy con	nser	rvation		
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.					
	<u>Homework</u> Using diagrams, explain th	ne law of cons	serv	vation of energy		

TERM THREE

WEEKLY LESSON NOTES

WEEK 2

Date: 23 rd SEPT, 2022		DAY:		Subject: Science			
Duration: 50mins					Strand: Forces & Energy		
Class: B7		Class Size:			Sub Strand:		
Content Standard: B7.4.3.1. Demonstrate an understanding of the principle of conservation and conversion of energy and their application in real life situations			Indicator: B7.4.3.1.2 Demonstrate the conversion of energy into useable forms.			Lesson: I of 2	
Performance Indicator: Learners can demonstrate the conversion of energy into useable forms.			ito I	Co DL	re Competencies: 5.3: Cl 6.8: DL 5.1: Cl 6.6:		
References: Science Cu	ırriculum l	Pg. 33-34					
New words: Conversion	, transform	ation, useable , conser	vation				
Phase/Duration	Learners	Activities				Resources	
PHASE I: STARTER	 Have learners give examples of forms of energy. Examples: Chemical energy (energy stored in the bonds between atoms). Heat energy (energy of the motion of atoms). Electrical energy (energy of moving electrons) 						
PHASE 2: NEW	Learners	in groups discuss ho	w the	for	ms of energy are related	Batteries Torch	
LEARNING	Learners in groups discuss now the forms of energy are related if and can be converted into any other forms. S Example: The electrical energy in wires is converted to light energy when a G light switch is turned on. S				Switch Radio, Charts and drawings showing energy conversion		
	Engage learners in an activity to trace the conversion of light energy from the sun to heat and mechanical energy in the body of an organism.						
	Guide learners Illustrate and demonstrate everyday use of conversion of energy and show diagrammatically the conversion of energy to other forms.						
	In a torch, the chemical energy of the batteries is converted into electrical energy, which is converted into light energy and heat energy. Chemical energy→Electrical energy → Light energy + heat energy						
	When a energy a Chemica	wood burnt, its chen nd light energy. I energy—> heat ener	nical er °gy + liş	ner; ght	gy is converted into heat energy		

	In an electric fan the electrical energy from the electricity is	
	Electrical energy \rightarrow Kinetic energy	
	Have learners research for more everyday use of conversion of	
	energy.	
	Assessment	
	What is energy transformation?	
PHASE 3:	Use peer discussion and effective questioning to find out from	
REFLECTION	learners what they have learnt during the lesson.	
	Take feedback from learners and summarize the lesson.	
	Homework	
	In a torch, the chemical energy of the batteries is converted into	
	energy, which is converted into energy and	
	energy. In hydroelectric power plants, waterfalls on the	
	turbines from a height. This, in turn, rotates the turbines and	
	generates electricity. Hence, theenergy of water is	
	converted into theenergy of the turbine, which is further	
	converted intoenergy.	

Date: 23 rd SEPT, 2022		DAY:		Subject: Science				
Duration: 50mins		Strand: Forces & End		nergy	rgy			
Class: B7		Class Size:		Sub S	trand:			
Content Standard: B7.4.3.1. Demonstrate an understanding of the principle of conservation and conversion of energy and their application in real life situations			India B7.4 cons	ator: .3.1.3 K erved f	now how ene or future use	ergy could in life.	be	Lesson:
Performance Indicator: Core Competencies: Learners can describe how energy could be conserved DL 5.3: CI 6.8: DL 5.1: CI 6.6: for future use in life DL 5.3: CI 6.8: DL 5.1: CI 6.6:					6.6:			
References: Science Cu	ırriculum F	Pg. 33-34						
New words: Conversion	, transform	ation, useable , conservati	on					
	1.	A						
Phase/Duration	Learners	Activities			un de vete n din	a in the	Kesc	ources
PHASE I: SIARIER	Using qu	estions and answers, re lesson	view l	earners	understandin	ig in the		
	premeas							
	Share lea	rning indicators and int	roduc	e the le	sson.			
PHASE 2: NEW LEARNING	Guide learners to describe how energy is conserved and explain how it can be done for the benefit of humans and other life forms.Batteries Torch Switch Radio, Charts and drawings showing energy. They present their findings to the class for discussion.Batteries Torch Switch Radio, Charts and drawings showing energy conversionGuide learners to find ways of conserving energy. Example: 1.Use energy efficient light bulbs 2. Iron all dresses in bulk but not in bit.In groups, have learners to find ways of conserving energy. conversion					eries Torch ch Radio, rts and drawings ving energy rersion		
	 4. Turn off your electrical gadgets when they are not in use. 5.Close all doors and windows when using an air conditioner <u>Assessment</u> What is energy transformation? Mention four ways of conserving energy in the home. 							
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. <u>Homework</u> In a loudspeaker,energy is converted intoenergy. In a microphone, soundenergy is converted intoenergy. In a generator,energy is converted intoenergy. When fuels are burnt,energy is converted into energy andenergy. Write four ways of conserving energy at home.							

Week Ending: 30 th SEPT	, 2022	DAY:		Subject: Science		
Duration: 60mins				Strand: For	ces & Energy	
Class: B7		Class Size:		Sub Strand	: Force & Motion	
Content Standard: B7.4.4.1 Examine the cond law of motion, magnetic for understand their application	ion, Newton's first tion to motion and	Indicate B7.4.4.1 unbalan cause it	or: I.I Understand that need forces acting on an object		Lesson: I of 2	
Performance Indicator: Learners can explain that unbalanced forces acting on an object cause it to move Core Comp DL 5.3: Cl 6.					Core Compete DL 5.3: CI 6.8: DI	ncies: L 5.1: Cl 6.6:
References: Science Cu	ırriculum F	² g. 33-34				
New words: balanced, un	nbalanced, f	orce				
Phase/Duration	Learners	Activities		-		Resources
	 I ake learners out of the class and engage them to play the game of tag of war. Did you enjoy the game? How is the winner determined in this game? 					
PHASE 2: NEW LEARNING	Fill a bucket full with sand. Place the bucket of sand on floor and call learners in turns to push the bucket with one finger.Batteries Torch Switch Radio, Charts and drawir sh owing energy				Batteries Torch Switch Radio, Charts and drawings sh owing energy	
	 Drill learners on the correct pronunciation and meanings of the terms. Balanced forces are forces that are equal in size and opposite in direction. Balanced forces do not result in any change in motion. Unbalanced forces are forces applied to an object in opposite directions that are not equal in size. Unbalanced forces result in a change in motion. Friction. The force that opposes the motion of two objects that are in contact. Explain to learners that when you pushed the heavy bucket with a small push, the bucket did not move. The frictional force balanced the small pushing force. Call learners again to push the bucket with their two hands. Now it could be observe that, when a larger force was applied, the bucket moved. The pushing force was now greater than the friction. Since the forces were unbalanced, the bucket moved. 				conversion	

	 Guide learners to conclude that when one force is greater than another, the forces are said to be unbalanced. If the forces acting on an object are unbalanced, this is what happens: An object at rest start move. A moving object stop, or change the direction and speed of the object.
	Assessment Define the following i. Balanced force ii. Unbalanced force iii. Friction
PHASE 3:	Use peer discussion and effective questioning to find out from
REFLECTION	learners what they have learnt during the lesson.
	Take feedback from learners and summarize the lesson.
	Homework
	How is Kojo able to push a wheel barrow full of sand from his
	house to the site?

In groups, learners research the occurrence of things around us	
using Newton's first law of motion.	
Example:	
Car air bags: The function of the air bag is to inflate in an accident	
and prevent the driver's head from hitting the windshield.	
Assessment	
State and explain Newton's first law of motion.	
Use peer discussion and effective questioning to find out from	
learners what they have learnt during the lesson.	
Take feedback from learners and summarize the lesson.	
Homework	
Learners research the occurrence of some of the things around us	
using Newton's first law of motion.	
	In groups, learners research the occurrence of things around us using Newton's first law of motion. Example: Car air bags: The function of the air bag is to inflate in an accident and prevent the driver's head from hitting the windshield. <u>Assessment</u> State and explain Newton's first law of motion. Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. <u>Homework</u> Learners research the occurrence of some of the things around us using Newton's first law of motion.

Week Ending: 7 th OCT,	, 2022 DAY:				Subject: Science		
Duration: 100mins Strand:				Strand: Forces & Energy			
Class: B7		Class Size:		:	Sub Strand: Force	& Motion	
Content Standard: B7.4.4.1 Examine the concept of motion, Newton's first law of motion, magnetic force in relation to motion and understand their applications to life					Lesson: I of 2		
Performance Indicator Learners can describe t life	: he applicat	tion of Newton's Firs	st Law of motior	in	Core Competer DL 5.3: CI 6.8: DL	ncies: . 5.1: Cl 6.6:	
References: Science Cu	rriculum F	^o g. 33-34					
New words: newton, ine	rtia, motioi	n					
		A					
Phase/Duration	Learners Roviso w	Activities	rovious losson			Resources	
	ILEVISE W	ith learners on the p	levious lesson.				
	Share lea	rning indicators and	introduce the le	sson			
PHASE 2: NEW LEARNING	 Pick a ball and perform these activities; I. Place the ball at a stationary position on the teachers table. 2. Roll the ball on the ground from end to end of the class Let learners write down their observations for discussion. Guide learners to state Newton's first law of motion. Newton's First Law of motion states that an object at rest will stay at rest, and 					Batteries Torch Switch Radio, Charts and drawings showing energy conversion	
	is acted upon by some external force to act otherwise. It is also called the law of inertia.						
	 In groups Inert stay f Inert until Inert direc Guide lea A book k displaced running u 	ia of rest: An object there until you or so ia of motion: An obje a force act on it. ia of direction: An ol ation unless a force a arners to demonstra- kept on a table remai l. Similarly, a ball rolli unless an external for With no external force his hall will never more	e types of inertia stays where it is mething else mo ect will continue bject will stay mo cts on it. te Newton's first ins placed at its p ing on a horizon rce stops it. With the bal	plac ves i at th oving : law blace cal su	ed, and it will t ne same speed in the same of motion. unless it is unface keeps on		

	In groups, learners research the occurrence of things around us using Newton's first law of motion.							
	 Car air bags: The function of the air bag is to inflate in an accident and prevent the driver's head from hitting the windshield. 							
	• The motion a ball through the atmosphere or a model rocket launched into the atmosphere							
	Guide learners to discuss some applications of Newton's First Law of Motion.							
	E.g. when a metallic ball is put on a smooth surface and given a push it will be in motion until it gets to a blockade and it stops. Use of seat belts in a vehicle, etc.							
	Explain the importance of Newton's First Law of Motion							
	Assessment							
	I.INEWTOR STIFET IAW OF MOTION STATES THAN AN ODJECT S MOTION WILL							
	not change unless.							
	A. a force continues to be applied to the object.							
	B. its inertia is stronger than the applied force.							
	C. the net force acting on it is greater than zero.							
	D. the object has no inertia.							
	2. Overcoming an object's inertia always requires a /an.							
	A. large mass							
	B. massive force							
	C. two of the above							
	D. unbalanced force							
	3. It is more difficult to start a 50kg box sliding across the floor							
	than a 5-kg box because the 50- kg box has greater.							
	A. inertia B. size C. velocity D. volume							
PHASE 3:	Use peer discussion and effective questioning to find out from							
REFLECTION	learners what they have learnt during the lesson.							
	, 5							
	Take feedback from learners and summarize the lesson.							
	Homework							
	Learners research the occurrence of some of the things around us							
	using Newton's first law of motion							

Week Ending: 7 th OCT, 2022 DAY:				Subject: Science				
Duration: 100mins					Strand: Forces & Energy			
Class: B7		Class Size:			Sub Strand:			
Content Standard: B7.4.4.1 Examine the concept of motion, Newton's first law of motion, magnetic force in relation to motion and understand their applications to life.			r: 4 D and	emonstrate the behavior its use to life.	of	Lesson: I of 2		
Performance Indicator: Core Competencies: Learners can demonstrate the behavior of magnet and its DL 5.3: CI 6.8: DL 5.1: CI 6.6: use to life DL 5.3: CI 6.8: DL 5.1: CI 6.6:								
References: Science Cu	ırriculum F	Pg. 33-34	·					
		A						
Phase/Duration	Learners	Activities	iors rovio		arnors understanding in	Res	ources	
	the previ Share lea	ous lesson.	and introd	luce	e the lesson.			
PHASE 2: NEW LEARNING	 Bring to class a real magnet. Call learners in turns to have a feel of it. What is the name of this obje Do you know its uses? Write learners responses and discuss Drill learners on the correct pronunct the terms; A magnet is any metallic substance materials and repels non-magnetic Magnetic materials are materials t magnets. Examples iron, nickel and A magnetic field is the area or reg where the magnetic force can be of the properties/characteristics. Let groups present their findings to the Guide learners to demonstrate the pr Example: They have poles at opposite ends. Opposite poles of two magnets attrastical of a magnet than at the middle. 			of bjec uss 1 ncia nce etic s th and regi of e e gro d of pro s. attr: net	the magnet and relate to tr? them. ation and meanings of which attracts magnetic materials nat are attracted by cobalt. on around a magnet experienced or felt. Dup a piece of magnet. bserve its behavior of the class for discussion. operties of magnet. act each other. is greater at the poles the types of magnets	batt capa light (LEI	ery, transistor, acitor, inductors, c emitting diode D) and diodes	

	Learners in their groups demonstrate the uses of magnet in everyday life.
	Example:
	1. They are used in making electric meters.
	2. They are used in making electric door bells.
	3. They are used in fridges and freezers as doors seals.
	4. They are used in loud speakers.
	Assessment
	State some everyday applications of magnets.
	Explain how magnets cause motion in magnetic materials
PHASE 3:	Use peer discussion and effective questioning to find out from
REFLECTION	learners what they have learnt during the lesson.
	Take feedback from learners and summarize the lesson.

Week Ending: 14th OCT	Г, 2022	DAY:			Subject: Science		
Duration: 100mins				S	Strand: Forces & Energy		
Class: B7 Class Size:			S	Sub Strand: Simple Machine			
Content Standard: B7.4.4.2 Recognize some simple machines, and show understanding of their efficiency in doing work. B7.4.4.2.1 Identify simple machines					mple machines	Lesson:	
Performance Indicator	Performance Indicator: Core Competen						
Learners can identify simp	le machine	and categorize them.			DL 5.3: CI 6.8: DL	5.1: CI 6.6:	
References: Science Cu	Irriculum I	g. 38-39					
New words: Pulley, lever	r, machine,	efficiency, fulcrum , for	rce, weight , moments	s, v	vatts, work input, w	vork, output	
Dhasa/Duratian	1.00.000.000					Deserves	
Phase/Duration	Learners	Activities	:	41-		Resources	
PHASE I: SIARIER	Task lear	ners to mention son	ne simple machines	τη	ey use in their		
	 What 	t machines do vou h	ave in your homes?				
	 Why 	do you call these ec	uipment machines?				
	,		1				
	Write lea	arners responses on	the board and discu	uss	with them.		
	- ·						
	Share lea	rning indicators and	introduce the lesso	on.			
IFARNING	A simple n	m learners for the n	neaning of machine.	16 I	easier and faster	Seesaw, crowdar, a	
	in simple ii	define is any defice the				wheel barrow,	
	In groups	s learners give examp	oles of simple machi	ine	s and describe	shovel, spoon,	
	Its uses.	ola a pair of scissor	s can be used to cu	it a	piece of cloth	pliers, knife	
	easier an	d faster than tearing	it with your hands.		ne use of the		
	scissors	saves us time and en	ergy that can be use	ed	for other things		
	as well.				-		
	Other ex	amples include plier	, spanner, hammer,	w	heelbarrow,		
	screw dr	iver, crow bar, etc.					
	Engage learners to draw some simple machines in their workbooks						
	1 Hammer	2.Crowbar 3.Wheelbarro	w 4.Screw driver 5.Pli	ier	6.Spanner		
	5		1 -	7	- ~		
	Have lea Lever, inc	rners group simple n lined Plane, Wedge, Pu	nachines into the fo ulley, Wheel and axle	llo , C	wing categories. Gears, Screws.		
	In groups	s, learners discuss th	e various categories	5.			

	Chart Load Arrow Load	
	Assessment Define simple machines and give five examples.	
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson	
	Take feedback from learners and summarize the lesson. <u>Homework</u> Evaluin how levers function as simple machines	
PHASE 3: REFLECTION	Assessment Define simple machines and give five examples. Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Homework Explain how levers function as simple machines	

Week Ending: 14 th OCT, 2022 DAY:			Subject: Science			
Duration: 100mins				Strand: Forces & Energy		
Class: B7		Class Size:		Sub Strand: Simple	Machine	
Content Standard: B7.4.4.2 Recognize some s understanding of their effi	simple macl ciency in do	nines, and show bing work.	Indicator: B7.4.4.2.2 Describe the t levers	types and functions of	Lesson: 2 of 2	
Performance Indicator	Performance Indicator: Core Competen					
References: Science Cur	riculum Pg.	38-39	•	DE 5.5. CI 0.0. DE	5.1. CI 0.0.	
New words: Pulley, lever	r, machine,	efficiency, fulcrum	, force, weight , moments	, watts, work input, w	ork, output	
		• *			•	
Phase/Duration	Learners	Activities			Resources	
PHASE 1: STARTER	Revise w	ith learners on t	he previous lesson.			
	Share lea	rning indicators	and introduce the lesso	n.		
PHASE 2: NEW LEARNING	Brainston A lever is a pivot o Learners Examples Guide lea U Learners The dista distance distance. needed t Learners demonst easier in First the e	rm learners for t s any rigid bar, w r fulcrum. give examples o s bottle opener, arners to identify The effort is the oad(weight). The load is weigh The pivot is the f to note that; ance from the pivot The distance fro The closer the pivot o lift the load an Distance from Effort to classify levers rate how the pri everyday life. class lever In the effort (E) and the	he meaning of lever. which rotate at a certain of lever and relate to the a pair of scissors and which a and discuss the parts of force applied to the level of which is to be lifted. Tixed point about which wot to the effort is called in the pivot to the load pivot is to the load; the d vice versa. s into first, second and the ncipals involved in each e first-class lever, the pivel load (L) Examples of fir	fixed point called em. heelbarrow. of lever. er to lift the the lever rotates. d the effort is called the load less force is chird classes and class make work	Seesaw, crowbar, a pair of scissors, wheel barrow, shovel, spoon, pliers, knife	



Week Ending: 21st OCT, 2022 DAY:				Subject: Science		
Duration: 100mins				Strand: Forces & Energy		
Class: B7	Class S	Size:		Sub Strand: Simple	e Machine	
Content Standard:Indicator:B7.4.4.2 Recognize some simple machines, and showB7.4.4.2.3 Know work input, and outputunderstanding of their efficiency in doing work.efficiency as they apply to machines					Lesson:	
Performance Indicator	•			Core Competen	cies:	
Learners can describe the	types and functions	s of levers.		DL 5.3: CI 6.8: DL	5.1: CI 6.6:	
References: Science Cur	riculum Pg. 38-39	6.1	(
New words: Pulley, lever	, machine, efficiency,	y, fuicrum	, force, weight, moments	s, watts, work input, w	ork, output	
Phase/Duration	Learners Activitie	es			Resources	
PHASE I: STARTER	Revise with learn	ners on t	ne previous lesson.			
	Share learning inc	dicators	and introduce the lesso	n.		
PHASE 2: NEW LEARNING	Brainstorm learner A lever is any riginal pivot or fulcrum Learners give exal Examples bottle of Guide learners to The efformed load (weighted the formed learners to The formed learners to noted the pivot Learners to noted the pivot Learners to noted the distance. The distance from distance from distance from distance. The closed to lift the Distance the distance from distance the distance from distance from distance from distance from distance the distance from distance fr	rers for the gid bar, we m. amples of opener, a o identify rt is the fi ght). d is weigh ot is the fi e that; m the pive tance from oser the pive tance from oser tance from o	he meaning of lever. hich rotate at a certain f lever and relate to the a pair of scissors and whe r and discuss the parts of force applied to the leve t which is to be lifted. ixed point about which rot to the effort is called m the pivot to the load bivot is to the load; the d vice versa.	fixed point called em. heelbarrow. of lever. er to lift the the lever rotates. d the effort is called the load less force is chird classes and class make work	Seesaw, crowbar, a pair of scissors, wheel barrow, shovel, spoon, pliers, knife	



Week Ending: 21st OCT, 2022		DAY:		Subject: Science		
Duration: 100mins				Strand: Forces &	rces & Energy	
Class: B7		Class Size:		Sub Strand: Simp	le Machine	
Content Standard:Indicator:B7.4.4.2 Recognize some simple machines, and show understanding of their efficiency in doing work.B7.4.4.2.3 Know work input, and outp efficiency as they apply to machines					Lesson: 2 of 2	
Performance Indicator: Learners can explain the relationship between work input, and output and efficiency as they apply to machinesCore Competen DL 5.3: CI 6.8: DL					ncies: L 5.1: Cl 6.6:	
References: Science Cu	irriculum F	Pg. 38-39				
New words: Pulley, lever	r, machine,	efficiency, fulcrum	, force, weight , moments	, watts, work input,	work, output	
Phase/Duration	Learners	Activities			Resources	
PHASE I: STARTER	Revise w	ith learners on t	he previous lesson.		Resources	
	Share lea	rning indicators	and introduce the lesso	n.		
PHASE 2: NEW LEARNING	Brainston and effici • V • V • V • V • V • V • V • V • V • V	rm learners to ex- ency. Nork input is the work in- nultiplying the effort Nork output is the off Nork output is the off Nork output is the off Nork output is the off Nork output of a machi- because part of the officiency of a machi- partial. B. gravitational force Efficiency of a machi- part to the work inposed Mathematically; E Efficiency = Load Efficiency = Load Efficiency is used to over between moving participation anners to explain ncy of a machine is energy is used to over between moving participation force tance s, learners descrip- oved (e.g. by oiling the upon the efficiency lecrease friction by on- maintaining the machine is the output the machine is one or of the output of the o	xplain the terms work in ork done by the effort applie input can be calculated math t by the distance moved by the useful work done by a mach d × distance moved by the lo chine is always less than input input energy is used to over moving parts of the machine ine is defined as the ratio of nput expressed as a percent of the efficiency of a mach ut expressed as a percent ficiency = $\frac{\text{Work output}}{\text{Work input}}$ $\frac{x \text{ distance moved by load}}{\text{work input}}$	nput, work output Ind on a hermatically by he effort ine. had. it energy come the work age hine as the ratio of ntage. < 100% × 100% cy of a machine. huse some or part of higher machines can ction. I parts of machines.	Seesaw, crowbar, a pair of scissors, wheel barrow, shovel, spoon, pliers, knife	

	Assessment 1. Explain how levers function as simple machines. 2. Find out why the efficiency of simple machines is less than 100%.	
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	

Week Ending: 28 th OCT, 2022 DAY:					Subject: Science		
Duration: 100mins Strand: Fo			Strand: Forces & E	Forces & Energy			
Class: B7		Class Siz	e:		Sub Strand: Agricu	ltural Tools	
Content Standard: B7.4.5.1 Demonstrate knowledge and skills in handling and maintenance of basic and simple agricultural tools Indicator: B7.4.5.1.1 Explain the basic rules in handling an maintaining simple agricultural tools					lles in handling and I tools	Lesson: I of 2	
Performance Indicator Learners can describe bas agricultural tools.	: sic rules in	handling a	nd maintaining simple	2	Core Competen DL 5.3: CI 6.8: DL	cies: 5.1: Cl 6.6:	
References: Science Cu	irriculum P	g. 41-42					
Phase/Duration	Loorpore	Activition				Pasauraa	
PHASE I: STARTER	Revise wi	th learner	s on the previous less	son.		Resources	
	Share lear	rning indic	ators and introduce 1	the lesson			
PHASE 2: NEW	Have lear	ners list s	ome simple or basic f	farm tools	in agriculture.	Seesaw, crowbar, a	
LEARNING	Examples	. nand tro	wei, measuring tape,	rake, wate	ering can, etc.	wheel barrow.	
	Discuss th of agricult 1. Hand trowel Uses: a. For transplar b. For earthing trops on bed	he meanin tural tools ating seedlings up vegetables 6. Ho	g and importance of 3. Rake 2. Measuring tape Uses: For taking measurement on the farm	handling a	A. Watering can Uses: a. For sprinkling water onto seedlings. b. For watering crops in the field. crops.	shovel, spoon, pliers, knife	
	5. Spade: Uses: a. For digging hold plant crops b. For turning ove soil. In groups maintenal	Uses: es to a. Por b. For er the c. For , learners nce of too	weeding. planting. making mounds List and match the bals ls with specific simple	straight line out planting asic rules i e tools use	8.Shears Uses: a. For trimming hedges. b. For pruning crop plants in handling and ed in agriculture.		
	Guide lea simple an The follow remembe • Dress tied wh injuries • Mainta where • Avoid	erners to c d basic ag wing are s ar when us appropriate hen using fo s. ain awarene you are goi alcohol: Eve	lescribe how handling ricultural tools are do ome basic rules or sa ing or operating agric ly: An untied shoelace and rm tools. Dressing approp ss: Stay focused. Beware ng. n one shot of drink can a	g and main one. Ifety preca cultural to d flowing loo priately can of what you ffect your a	ntenance of nutions to ools. ng hair should be reduce the risk of a are doing and bility to operate		

	• Keep alcohol out of the picture until you are done for the day.	
	• Have enough rest: Feeling fatigued when using farm tools can be dangerous. Make sure you take break from work when you need rest.	
	Assessment	
	Identify and state the uses of five basic farm tools in agriculture.	
PHASE 3:	Use peer discussion and effective questioning to find out from	
REFLECTION	learners what they have learnt during the lesson.	
	Take feedback from learners and summarize the lesson.	
	<u>Homework</u>	
	Draw any five basic farm tools.	

Week Ending: 28th OCT	T, 2022 DAY:				
Duration: 100mins			Strand: Forces & E	nergy	
Class: B7	: B7 Class Size:			ltural Tools	
Content Standard:Indicator:B7.4.5.1 Demonstrate knowledge and skills in handling and maintenance of basic and simple agricultural toolsB7.4.5.1.2 Apply the handling and maintenance basic and simple agricultural tools in their community.				Lesson: I of 2	
Performance Indicator	r:	Core Competen	cies:		
Learners can describe way	ys of maintaining fa	arm tools.	DL 5.3: CI 6.8: DL	5.1: CI 6.6:	
References: Science Cu	irriculum Fg. 41-42				
Phase/Duration	Learners Activiti	25		Resources	
PHASE I: STARTER	Revise with learn	ers on the previous lesson.			
	Share learning inc	dicators and introduce the lesso	n.		
PHASE 2: NEW LEARNING	 Engage learners to maintenance of be visited in the commaintenance of be visited in the commaintenance of the comperform simple a operational rules. Assemble agricul basic rules in too Let learners under and maintenance the various farmitenance the various farmitenance the various farmitenance the various farmitenance of force. Sharpen tools be cutlasses, axes, use. They shoul specially made amount of force. Oil and grease always be clear rubbed with oil rusting. Wooden handle are strong and Hang tools. The floor can cause on th	to observe and discuss the handlasic and simple agricultural tools munity and write a report. Atrations, lead learners to assemion ommunity and practice handling gricultural operations. Write do of handling agricultural tools. Atural tools from the community ls maintenance and list the rules erstand that Agricultural tools n so that they can be used efficien ng operations for a longer perior efore and after use: The cutting edges harvesting knives and shears become d be sharpened by rubbing the blunt of stone or with a file. When you sharpe e you need to apply to perform the tas metal parts: Tools made of iron or me ed after use, wash and dry them with or grease before they are stored to pr es should be strong: Make sure tools w durable. If there is any defect, replace ey should be Keep your tools hanged. If rusts as they come in contact with mo o cause injury to persons or g on them may break or deform them work.	ling and s used in farms ble agricultural the tools to own the and practice the s used. eed proper care ently to perform of of time. s of tools such as blunt after regular tutting edge against in tools, it reduces the sk. tal parts should rag. They should be event them from with wooden handles them. Leaving them on the bisture. Leaving tools in. This make them	Seesaw, crowbar, a pair of scissors, wheel barrow, shovel, spoon, pliers, knife	

	Maintenance prolong the life span and efficiency of the tools. A well maintained tool is safe to handle and the risk associated with the handling of these tools are reduced.	
	Assessment	
	State and explain four ways of maintaining farm tools	
PHASE 3:	Use peer discussion and effective questioning to find out from	
REFLECTION	learners what they have learnt during the lesson.	
	Take feedback from learners and summarize the lesson.	

Week Ending: 4 TH NOV, 2022		DAY:		Subject: Science			
Duration: 100mins				Stra	and: Humans & Th	e Environment	
Class: B7		Class Siz	e:	Sub	Strand: Waste M	anagement Systems	
Content Standard:Indicator:B7.5.1.1 Exhibit knowledge and skill of scientific basis for management practices of types of waste in the environmentB7.5.1.1.1 Apply information from research o good management practices of waste to make the environment clean.						Lesson:	
Performance Indicator: Learners can identify the types of waste and discuss ways of managing waste in the community. Core Competent DL 5.3: CI 6.8: DL						cies: 5.1: Cl 6.6:	
References: Science Cu	rriculum F	² g. 44					
Dhana/Duratian	1	A ativitian				Deserves	
Phase/Duration		Activities	the class have they diases	o cf .	wasta in their	Kesources	
PHASE I: STARTER	Ask learn homes ar Drill lear new wor						
	Share lea	rning indic	ators and introduce the le	sson.			
PHASE 2: NEW LEARNING	 Share learning indicators and introduce the lesson. Task learners in groups to discuss and come out with ideas to minimize waste in their classroom, school environment, homes and their communities. Have each group discuss measures of minimizing waste in the classroom, school environment, home, market, at the bus station, hospitals, church, mosque, beach, etc. Take learners responses and write them on the board. What is waste? What are the types of waste we produce in our homes, community or school? House hold food waste can also be used as? Brainstorm learners for the meaning of waste. Waste can also be described as an unwanted material which is no longer needed. It is usually discarded after its primary use. Guide learners to identify and describe the sources of waste. Waste can be generated from various sources. These include wastes from households, schools, offices, marketplaces, restaurants and other public places, Evampler. 					Pictures of dump sites	

	plant. Other examples include plastics, Styrofoam containers, bottles,
	cans, papers, scrap iron, and other trash
	2. Liquid Wastes: These are wastes in a form of liquid form. Examples
	include domestic washings, chemicals, oils, waste water from ponds,
	manufacturing industries and other sources
	Have learners in groups, classify waste as Biodegradable waste,
	Non-biodegradable wastes, Hazardous wastes and Non-hazardous
	wastes.
	Learners do a presentation on their findings to the class for
	discussion.
	I.Biodegradable waste: The waste materials that can be broken down or
	decomposed into simple forms in nature by the action of microorganisms
	such as bacteria.
	2. Non-biodegradable wastes: These are the waste materials that cannot
	be decomposed or broken down by natural organisms or agents.
	Assessment
	What is a waste?
	Identify the types of waste and give one example in each case.
PHASE 3:	Use peer discussion and effective questioning to find out from
REFLECTION	learners what they have learnt during the lesson.
	Take feedback from learners and summarize the lesson.
	Homework
	Assign learners to observe how waste is being minimized at home
	and then report on it.

Week Ending: 4 TH NOV, 2022		DAY:		Subject: Science			
Duration: 100mins			Strand: Humans &		and: Humans & Th	The Environment	
Class: B7		Class Siz	e:	Sub	Strand: Waste M	anagement Systems	
Content Standard:Indicator:B7.5.1.1 Exhibit knowledge and skill of scientific basis for management practices of types of waste in the environmentB7.5.1.1.1 Apply information good management practice the environment clean.				tion from research on ices of waste to make		Lesson: 2 of 2	
Performance Indicator: Learners can identify the types of waste and discuss ways of managing waste in the community.Core Competer DL 5.3: CI 6.8: DL						cies: 5.1: Cl 6.6:	
References: Science Cu	Irriculum F	Pg. 44					
Phase/Duration	Learners					Resources	
PHASE I: STARTER	Revise w	ith learner	s on the previous lesson.			Resources	
			,				
	Share lea	rning indic	ators and introduce the le	sson.			
PHASE 2: NEW	Show vid	leos or pic	tures that teaches and des	cribe	s ways of	Pictures of dump	
	111111111111111111111111111111111111111	ig waste in		CI 3.		3125	
	In a think	k-pair-shar	e activity, have learners dis	cuss	what will happen		
	if people	do not mi	nimize waste in the comm	unity			
	Write m	aior answe	ers on the board for learne	ers to	read for more		
	understa	nding					
	• How	can we re	ecycle the waste we produ	ce?			
		where in an	ours discuss the impact of		a an baalth and		
	environm	nent	oups discuss the impact of	wasi	e on nealth and		
	I. Chemic	al poisoning	g through chemical inhalation	•			
	2. Increase	e in hospita 	lization of diabetic residents l	iving	near hazardous		
	3. Burning	s. g of wastes i	in the open causes air pollution	on wh	nich has effects on		
	the humai	ns.			den and		
	4. Gases f	rom inciner e to acid rai	n, while the ash from inciner	' poilt ators	may contain heavy		
	metals and	d other tox	ins.		, , ,		
	5. Incinera	ating waste oxic substa	also causes problems, becaus nces, such as dioxins, when t	e plas hev ar	stics tend to re burnt		
	p						
	Brainston	m learner	s for the meaning of waste	disp	osal		
	environme	ntal guideline	es or laws.	.coruu	nce with local		
	Cuidala						
	• Landf	5.					
	• Incine	eration (cor	nbustion)				
	Resor	urce recove	ery.				
	 Kecyc Plasm 	ciing 1a gasificatic	n				

	<u>Assessment</u> Mention three ways of minimizing waste in the school and home. Have learners plan, design and make their own litterbins for use in the class, school and community.	
PHASE 3:	Use peer discussion and effective questioning to find out from	
REFLECTION	Take feedback from learners and summarize the lesson.	
	Homework	
	Instruct learners to use the internet to find out how waste is minimized in other places. Then prepare a poster to show their	
	information	

Week Ending: II TH NOV, 2022		DAY:		Subject: Science			
Duration: 100mins				Stra	Strand: Humans & The Environment		
Class: B7		Class Siz	e:	Sub	Strand: Human H	lealth	
Content Standard: B7.5.2.1 Demonstrate & common deficiency dise their causes, symptoms prevention	Content Standard: 37.5.2.1 Demonstrate knowledge of common deficiency diseases of humans, heir causes, symptoms, effects and prevention Indicator: B7.5.2.1.1 Explain the relationship betw food nutrients and common deficiency and how they affect humans			ship between eficiency diseases	Lesson: I of 2		
Performance Indicator Learners can explain th common deficiency dise	Performance Indicator:Core CompeterLearners can explain the relationship between food nutrients and common deficiency diseases and how they affect humansCore CompeterDL 5.3: CI 6.8: DL				Core Competen DL 5.3: Cl 6.8: DL	cies: 5.1: Cl 6.6:	
References: Science Cu	ırriculum F	Pg. 45					
Dhana (Duns tilan		A				Deserves	
Phase/Duration	Learners Rovious +	Activities	is losson with loarnors three	Such	questions and	Kesources	
	answers. Share learning indicators and introduce the lesson.						
LEARNING	Guide learners to name and analyze food nutrients such as carbohydrates, proteins, fatty acids, and their uses in the human bodyPictures of dump sites						
	Have learners discuss and make presentations on deficiency diseases associated with lack of food nutrients such as carbohydrates, proteins, fatty acids, vitamins and others in the human body						
	Have learners relate the nutrients they gain or lack to the foods they normally eat e.g. lack of protein leads to kwashiorkor, lack of iron lead to anaemia, etc.						
	In groups, let learners describe symptoms, effects and prevention of common deficiency diseases such as night blindness, rickets, scurvy, kwashiorkor and others.						
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.						
	Take feedback from learners and summarize the lesson.						

Week Ending: II TH NOV, 2022		DAY:		Subject: Science		
Duration: 100mins				Strand: Humans & Th		e Environment
Class: B7		Class Siz	e:	Sub	Strand: Human H	lealth
Content Standard: B7.5.2.2 Demonstrate k nature of selected viral, humans, their causes, sy and management	Attent Standard:Indicator:5.2.2 Demonstrate knowledge of the ure of selected viral, diseases of hans, their causes, symptoms, effectsB7.5.2.2.1 Explain the natu with special emphasis on c 19) /Ebola/HINI disease in effects on humans and its p			coro coro its ca	of viral diseases na virus (COVID- auses, symptoms, vention	Lesson: 2 of 2
Performance Indicator Learners can explain the corona virus	r: e nature o	f viral disea	ases with special emphasis	on	Core Competen DL 5.3: Cl 6.8: DL	cies: 5.1: Cl 6.6:
References: Science Cu	ırriculum F	Pg. 46				
Phase/Duration	Learners	Activitios				Resources
PHASE I: STARTER	Learners Activities Resources Review the previous lesson with learners through questions and answers. Share learning indicators and introduce the lesson				Resources	
PHASE 2: NEW LEARNING	Share learning indicators and introduce the lesson.PictureBrainstorm learners to discuss the nature of viral diseases.PictureIn groups, learners search for information and make presentations on the corona virus disease (COVID -19), Ebola, and H1N1 diseases their mode of transmission from person to person, community to community and from country to country.PictureGuide learners to describe the symptoms, effects and prevention of COVID-19), Ebola, and H1N1 diseases and why they are declared pandemic.Guide learners to describe the role of individuals, community members and government in managing COVID-19 Ebola, and H1N1 diseases.Engage learners to design and produce a poster to educate their community members on the incidence and control of named viral diseases				Pictures of dump sites	
REFLECTION	Use peer learners Take fee	discussion what they dback fron	n and effective questioning have learnt during the less n learners and summarize t	to fir on. the le	nd out from sson.	

Week Ending: 18 TH NOV, 2022 DAY:		DAY:		Subject: Science		
Duration: 100mins			Stra	Strand: Humans & The Environment		
Class: B7		Class Siz	.e:	Sub	Strand: Science &	Industry
Content Standard: B7.5.3.1 Realise how car can improve life of huma about Ghanaian and inter recognised scientists and educators and model aff	I:Indicator:ow careers in scienceB.7. 5.3.1.1 Discover and explain how careerhumans and researchin science can improve human conditions arid internationallyrelate these careers to the work of greatsts and sciencenational and international scientists and sciedel after themeducators			ain how careers conditions and ork of great ntists and science	Lesson: I of 2	
Performance Indicator Learners can discover a human conditions	: nd explain	how care	ers in science can improve	;	Core Competen DL 5.3: Cl 6.8: DL	cies: 5.1: Cl 6.6:
References: Science Cu	rriculum F	Pg. 46				
Phase/Duration	Learners	Activities	<u> </u>			Resources
PHASE I: STARTER	Review t answers. Share lea	he previou Irning indic	ators and introduce the le	sson.	questions and	
LEARNING	 Ingage real nerve to menution the type of career they wish to take up in future. Let learners describe the various careers in science and relate them to the work of national scientist e.g. Prof. Ibok Nsa Oduro, Prof. Francis Allotey Professor Ewurama Addy, and science educationists: Professor Anamuah-Mensah, Professor Theophilus Ossei-Anto, Professor Christian Anthony-Krueger and others in groups. Let learners describe various careers in science and relate them to the work of international scientists: Albert Einstein, Alexander Fleming, Charles Darwin, Paul Ratnei, Stephen Hawkins etc through group presentations. 					
	Let learners explain the impact of science, technology and innovation in homes, schools, communities and the universe and create interest for learners to research for information to build portfolios Let learners identify the science and technology careers that Ghana must focus on and explain their reasons in groups. Let learners relate the lesson to everyday life to understand why Ghana should focus on specific science and technology careers Let learners discuss how careers can improve human conditions.					

	Assessment I. Name and write five science-related careers you can identify in your community. 2. Write the impact of the careers you have named in your community.
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.

Week Ending: 18 TH NOV, 2022		DAY:		Subject: Science		
Duration: 100mins				Strand: Humans & T		e Environment
Class: B7		Class Siz	e:	Sub Strand: Science & Industry		
Content Standard:IndicaB7.5.3.1 Realise how careers in scienceB.7.5.can improve life of humans and researchin scieabout Ghanaian and internationallyrelaterecognised scientists and sciencenationeducators and model after themeducatPerformance Indicator:Endicator			Indicator: B.7. 5.3.1.1 Discover and in science can improve herelate these careers to the national and international educators	nd explain how careers human conditions and the work of great nal scientists and science		
Learners can discover a	ind explain	how care	ers in science can improve	;	DL 5.3: CI 6.8: DL	5.1: CI 6.6:
References: Science Cu	ırriculum F	Pg. 46				
		0				
Phase/Duration	Learners	Activities				Resources
PHASE I: STARTER	Review t answers. Share lea	Review the previous lesson with learners through questions and answers. Share learning indicators and introduce the lesson				
LEARNING	Share learning indicators and introduce the lesson.Engage learners to mention the type of career they wish to take up in future.Videos, Pict Text books, Internet seaLet learners describe the various careers in science and relate them to the work of national scientist e.g. Prof. Ibok Nsa Oduro, Prof. Francis Allotey Professor Ewurama Addy, and science educationists: Professor Anamuah-Mensah, Professor Theophilus Ossei-Anto, Professor Christian Anthony-Krueger and others in groups.Videos, Pict Text books, Internet seaLet learners describe various careers in science and relate them to the work of international scientists: Albert Einstein, Alexander Fleming, Charles Darwin, Paul Ratnei, Stephen Hawkins etc through group presentations.Let learners explain the impact of science, technology and innovation in homes, schools, communities and the universe and create interest for learners to research for information to build portfoliosLet learners relate the lesson to everyday life to understand why Ghana should focus on specific science and technology careersLet learners relate the lesson to everyday life to understand why Ghana should focus on specific science and technology careersLet learners technology careers					Text books, Internet search

	 Name and write five science-related careers you can identify in your community. Write the impact of the careers you have named in your community. 	
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	

Week Ending: 25 TH NO	DV, 2022 DAY: Sut		Subject: Science				
Duration: 100mins				Strand: Humans & Th		ne Environment	
Class: B7		Class Size:		Sub Strand: Climate Economy		Change & Green	
Content Standard: B7.5.4.1 Demonstrate understanding of sustainable energy choices and their impact on the environment		Indicator: B7.5.4.1.1 Search fo sustainable energy o used to protect the	r info hoice: envii	ormation on ways es and scientific ide ronment.	eas are	Lesson: 1 of 2	
Performance Indicator: Learners can search for information on ways sus and scientific ideas are used to protect the envir			tainable energy choice	es	Core Competer DL 5.3: CI 6.8: DL	n cies: . 5.1: CI 6	5.6:
References: Science Cu	Irriculum	Pg. 48					
Phase/Duration	Learners	Activities				Resources	
PHASE I: STARTER	Review t	he previous les	son with learners thro	ough	questions and		
PHASE 2: NEW LEARNING	Share learning indicators and introduce the lesson.Drill learners on the correct pronunciation and meaning of key terms.Weather: Weather describes the condition of the atmosphere over a short period of time. It describes the state of the atmosphere for example the degree to which it is hot or cold, wet or dry, calm or stormy, clear or cloudy.Pictures of pla Pictures and depicting greenhouseClimate: Climate is the condition of the atmosphere at a particular location over a long period of time. It is the long-term summation of the atmospheric elements and their variations.Pictures of pla up to the term summation of the atmospheric depicting how surviveClimate change: The term climate change refers to significant changes in average weather patterns (i.e. precipitation, temperature, wind and other indicators) that persist within a climate system, caused directly or indirectly by human activities.In groups, let learners discuss the effects of climate change on the Environment.1. Direct physical harm on humans 2. Crop failure and farmland loss 3. Sea level rises and coastal submersion 4. Freshwater loss and desertificationBrainstorm learners for the meaning of greenhouse effect. The greenhouse effect is a natural process that warms the Earth's surface. The major greenhouse gases are i. water vapor (H2O) ii. carbon dioxide (CO2) iii. methane (CH4) iii. methane (CH4) iii. methane (CH4) iii. Dinitrogen oxide (N2O).HCFCs) vii. Dinitrogen oxide (N2O).			es of plants an es and videos ing nouse d animals ng how they e			

	Have learners research on the meaning of green economy. Green economy is one whose growth of income and jobs is driven by investments that reduce carbon emissions and pollution, enhance efficiency and sustain biodiversity and ecosystem service.	
	 Guide learners to discuss the advantages of green economy. I. Green economy potentially works towards decreasing environmental pollution, and thus improves the quality of soil, water and air and also protects environmental well-being. 2. Global warming, loss of biodiversity, deforestation, desertification, resource depletion can gradually be obstructed by implementing green economy which will automatically save the earth and its animals from destruction as far as toposible 	
	 J. Economic growth is also enhanced due to the establishment of new markets for biofuels and renewable energy resources. 4. Establishment of new markets have potential to support international advantages when these new markets will invite funds through exports and also increase domestic sales. 5. Agricultural industries will be able to achieve a dignified place due to the emphasis on green technologies. 	
PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	

Week Ending: 25 TH NO	NOV, 2022 DAY:		Subject: Science				
Duration: 100mins				Strand: Humans & T		he Environment	
Class: B7		Class Size:		Sub Strand: Climate Economy		Change & Green	
Content Standard: B7.5.4.1 Demonstrate understanding sustainable energy choices and their in the environment		ling of eir impact on	Indicator: B7.5.4.1.1 Search fo sustainable energy o used to protect the	: Search for information on ways le energy choices and scientific id protect the environment.			Lesson: 2 of 2
Performance Indicator: Learners can search for information on ways s and scientific ideas are used to protect the env			tainable energy choice	es	Core Competer DL 5.3: CI 6.8: DL	ncies: 5.1: CI 6	5.6:
References: Science Cu	ırriculum l	Pg. 48					
Phase/Duration	Learners	Activities				Resour	rcos
PHASE I: STARTER	Review t	he previous less	son with learners thro	ough	questions and	Resour	
	answers.				1		
	Share lea	rning indicators	s and introduce the le	sson.	as and asigntific	Disture	
	Describe how people use sustainable energy choices and scientific Pictures and videos					ing	
	Sustain	able Energy: E	nergy is sustainable if	it m	eets the need of	greenh	louse
	the prese	ent without con	npromising the ability	of th	e future	effect	
	generatio	on to meet their	r own needs.			enecc	
	Guide learners to identify sustainable energy choices as; solar						
	energy, wind energy, hydropower, geothermal energy and ocean						
	1. Solar Energy : Solar energy is derived by capturing radiant energy from the						
	sun and convert it into electricity. Photovoltaic (PV) systems can convert direct						
	sunlight into electricity through the use of solar cells. Benefits: One of the benefits of solar energy is that sunlight is always available.						
	Denerts. One of the benefits of solar energy is that sunlight is always available. It improves public health and environmental conditions because there no release						
	of greenhouse gases in the environment.						
	2. Wind Energy: Wind farms capture the energy of the wind by using turbines						
	Benefits: Wind energy is clean energy source which means that it does not						
	pollute the air like other forms of energy.						
	3. Geothermal Energy: Geothermal energy allows us to fetch energy from						
	4. Ocean Energy: The waves or tides of the ocean have great power which can						
	tapped can generate a lot of energy to power millions of homes.						
	5. Biomass Energy: Bioenergy is a renewable energy derived from biomass. Biomass is organic matter that comes from living blants and organisms						
	6. Hydroelectric Power: There are the rivers or waterfalls whose energy of the						
	moving water when captured that can turn turbines to generate power.						
	In group	s lat laarnars d	iscuss the need for Su	Istain	able Energy		
	In groups, let learners discuss the need for Sustainable Energy.						
	2. Renewable energy will never deplete or run out.						

	3. Sustainable energy does not harm the environment and can help improve
	public health.
	4. Renewable energy resources emit little or no greenhouse gases, which is
	better for the environment and our health.
	5. Sustainable energy can reduce or eliminate our reliance on fossil fuels.
	Guide learners to discuss the Impact of sustainable energy choices
	on the environment.
	Assessment
	Explain the following terms:
	Sustainable energy choice
	Greenhouse effects
	Climate change
PHASE 3:	Use peer discussion and effective questioning to find out from
REFLECTION	learners what they have learnt during the lesson.
	Take feedback from learners and summarize the lesson.