FIRST TERM
WEEKLY LESSON NOTES
WEEK 1

Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Diversity Of Matter	
Class: B8	**Class Size:**	**Sub Strand:** Mixtures	
Content Standard: B8.1.1.1. Demonstrate knowledge of types of mixtures, and understanding of the processes of scientific ways of separating the components of mixtures	**Indicator:** B8.1.1.1.1 Identify types of mixtures by name and characteristics	**Lesson:** 1 of 2	
Performance Indicator: Learners can identify types of mixtures by name and characteristics	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:		
References: Science Curriculum Pg.			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm to come out with the meaning of the term mixture. Identify classes of mixtures and give examples: Solid – solid; Solid – liquid; liquid – liquid; solid – gas; gas – liquid; gas – gas. Group materials such as powder, pebbles, bottle tops, salt, sugar, sand, gari, gravel, oil, water and others into two main categories: solids and liquids Put any two of the materials (in 1) together and describe the resultant nature of the product formed Draw observable conclusions on homogeneous and heterogeneous characteristics from mixtures of two or more materials such as sand and gravel; sand and water; oil and water Compare and contrast solutes and solvents based on their physical characteristics Identify and separate mixtures such as sand and sugar mixture, sugar and salt mixture and solutions such as salt solution, sugar solution, fruit juice, vinegar solution based on their physical properties Identify a suspension as a type of mixture e.g. mixture of groundnut paste and water in a glass. Differentiate between a colloid and a suspension and show the colloidal effect. <u>Assessment</u> What is a mixture?	powder, pebbles, bottle tops, salt, sugar, sand, gari, gravel, oil, water

	State the types of mixtures and give an example in each case.	
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:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Diversity Of Matter	
Class: B8	**Class Size:**	**Sub Strand:** Mixtures	
Content Standard: B8.1.1.1. Demonstrate knowledge of types of mixtures, and understanding of the processes of scientific ways of separating the components of mixtures	**Indicator:** B8.1.1.1.1 Identify types of mixtures by name and characteristics	**Lesson:** 2 of 2	
Performance Indicator: Learners can identify types of mixtures by name and characteristics	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:		
References: Science Curriculum Pg.			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm to bring out the meaning of the terms solute, solvent and solution. List some solvents in the home and school and discuss their uses. List some common solutes and name their appropriate solvents. Compare and contrast solutes and solvents based on their physical characteristics. Guide learners to prepare of mixtures. Example: Weigh 5g of common salt and add it to 250ml of water. Stir for the salt to dissolve. Discuss their observation. Weigh 5g of powdered chalk and add it to 250ml of water. Stir vigorously and allow to stand. Observe and discuss the differences between this and the previous mixture. Add some palm oil to water in a container. Shake vigorously and allow it to stand. Discuss their observation. <u>Assessment</u> 1. Define the following terms i. Solute ii. Solvent and iii. Solution 2. In groups, learners prepare named mixtures.	powder, pebbles, bottle tops, salt, sugar, sand, gari, gravel, oil, water
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.	

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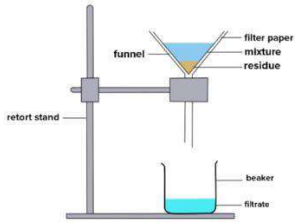
FIRST TERM
WEEKLY LESSON NOTES
WEEK 2

Week Ending:	**DAY:**	**Subject:** Science
Duration:		**Strand:** Diversity Of Matter
Class: B8	**Class Size:**	**Sub Strand:** Separation Of Mixtures

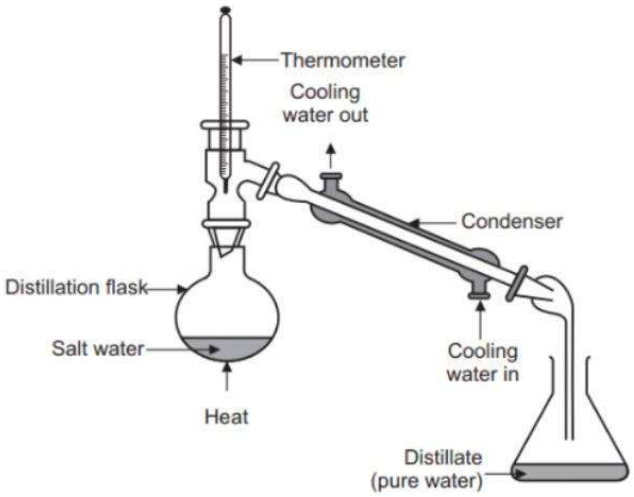
Content Standard: B8.1.1.1. Demonstrate knowledge of types of mixtures, and understanding of the processes of scientific ways of separating the components of mixtures	**Indicator:** B8.1.1.1.2 Design and perform processes for separating kinds of mixtures.	**Lesson:** 1 of 2
Performance Indicator: Learners can identify types of mixtures by name and characteristics	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg.		

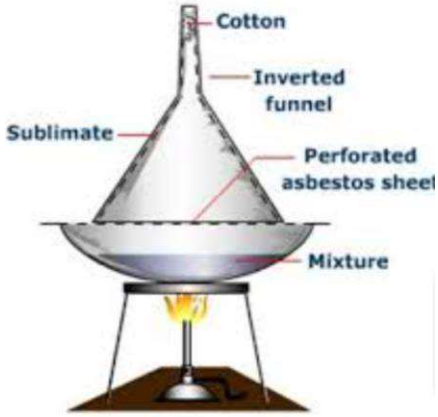
Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Guide learners to discuss some methods for separating mixtures. Filtration, Sieving, Evaporation, Magnetization, Distillation, Use of separating funnel, Sublimation, Crystallization, Winnowing, etc. Filtration *The process in which solid particles(insoluble solid) in a liquid or gaseous fluid are removed by the use of a filter medium that permits the fluid to pass through but retains the solid particles.* In groups, engage learners to separate the mixture, sand and water using the filtration method.  Evaporation *The process by which water changes to gas. This process is used to separate a soluble solid or solute from its solvent. E.g. salt and water.* In groups, engage learners to separate the mixture, salt and water using the evaporation method.  Perform experiments to separate different kinds of mixtures and present a report on your findings using drawing and written work. Guide learners to identify the application or industrial use of the filtration, evaporation, etc. methods of separation.	powder, pebbles, bottle tops, salt, sugar, sand, gari, gravel, oil, water

	<u>Assessment</u> Name the method which could be used to separate each of the following mixtures into their components i. Alcohol and water ii. Salt and water iii. Powered charcoal and iron filings iv. Powered chalk and water	
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:	**DAY:**	**Subject:** Science
Duration:		**Strand:** Diversity Of Matter
Class: B8	**Class Size:**	**Sub Strand:** Separation Of Mixtures

Content Standard: B8.1.1.1. Demonstrate knowledge of types of mixtures, and understanding of the processes of scientific ways of separating the components of mixtures	**Indicator:** B8.1.1.1.2 Design and perform processes for separating kinds of mixtures.	**Lesson:** 1 of 2
Performance Indicator: Learners can identify types of mixtures by name and characteristics	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg.		

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners on some methods for separating mixtures. Filtration, Sieving, Evaporation, Magnetization, Distillation, Use of separating funnel, Sublimation, Crystallization, Winnowing, etc. Distillation *It is process of separating the components or substances from a liquid mixture by using selective boiling and condensation, usually inside an apparatus known as still.* In groups, engage learners to separate the mixture, salt water using the simple distillation method.  Sublimation *This is used to separate substances that sublime from those that do not. A substance that sublime is the one that changes directly from the solid sate to the gaseous state especially when heated without passing through the liquid state examples of such substance are iodine crystals, ammonium chloride and camphor*	powder, pebbles, bottle tops, salt, sugar, sand, gari, gravel, oil, water

	In groups, engage learners to separate the mixture, iodine crystals and sand using the sublimation method.  Perform experiments to separate different kinds of mixtures and present a report on your findings using drawing and written work. Guide learners to identify the application or industrial use of the filtration, evaporation, etc. methods of separation. <u>Assessment</u> State one solvent for each of the following substances i. Common salt ii. Oil paint iii. Coal tar iv. Sucrose v. chlorophyll	
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.	

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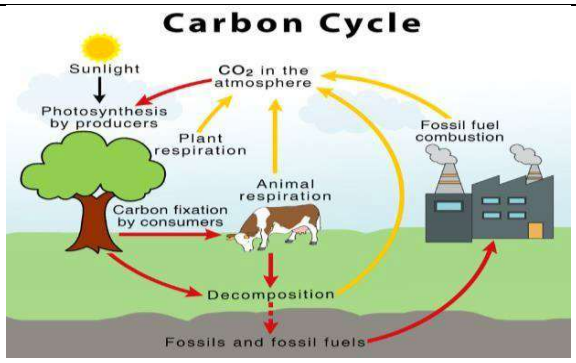
FIRST TERM
WEEKLY LESSON NOTES
WEEK 3

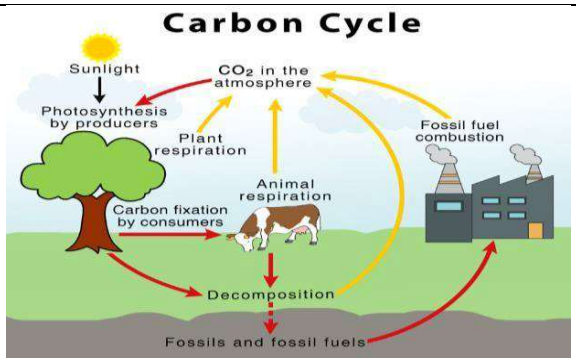
Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B8	**Class Size:**	**Sub Strand:** The Carbon Cycle	
Content Standard: B8.2.1.1 Demonstrate understanding of the process of Carbon cycle as an example of repeated pattern of change in nature and how it relates to the environment	**Indicator:** B8.2.1.1.1 Explain the process of the carbon cycle.	**Lesson:** 1 of 2	
Performance Indicator: Learners can describe the process of the carbon cycle.		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 57			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to name different forms of carbon that they have encountered. Revise with learners to define key terms such as photosynthesis and respiration. Have learners discuss the role of carbon dioxide in the atmosphere. Guide learners to explain the carbon cycle. The carbon cycle is the biological cycle by which carbon is exchanged among the biosphere, pedosphere, geosphere, and atmosphere of earth. Let learners identify the carbon cycle from charts or pictures and write short notes on what happens at each stage. Stage 1: *Carbon enters the atmosphere as CO2.* Stage 2: *CO2 is absorbed by autotrophs such as green plants.* Stage 3: *Animals consume plants, thereby, incorporating carbon into their system.* Stage 4: *Animals and Plants die, their bodies decompose and carbon is reabsorbed back into the atmosphere.* Produce a flow chart to trace the process of the carbon cycle in nature	Pictures and Charts

	 Explain the process of the carbon cycle depicting processes such as a) Photosynthesis b) Respiration c) Burning d) Decay Have learners compile information on the carbon cycle and give reasons why it is a repeated pattern e.g. it is because the carbon is circulated continuously in the environment	
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:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B8	**Class Size:**	**Sub Strand:** The Carbon Cycle	
Content Standard: B8.2.1.1 Demonstrate understanding of the process of Carbon cycle as an example of repeated pattern of change in nature and how it relates to the environment	**Indicator:** B8.2.1.1.1 Explain the process of the carbon cycle.		**Lesson:** 1 of 2
Performance Indicator: Learners can describe the process of the carbon cycle.		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 57			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to name different forms of carbon that they have encountered. Revise with learners to define key terms such as photosynthesis and respiration. Have learners discuss the role of carbon dioxide in the atmosphere. Guide learners to explain the carbon cycle. The carbon cycle is the biological cycle by which carbon is exchanged among the biosphere, pedosphere, geosphere, and atmosphere of earth. Let learners identify the carbon cycle from charts or pictures and write short notes on what happens at each stage. Stage 1: *Carbon enters the atmosphere as CO2.* Stage 2: *CO2 is absorbed by autotrophs such as green plants.* Stage 3: *Animals consume plants, thereby, incorporating carbon into their system.* Stage 4: *Animals and Plants die, their bodies decompose and carbon is reabsorbed back into the atmosphere.* Produce a flow chart to trace the process of the carbon cycle in nature	Pictures and Charts

	 Explain the process of the carbon cycle depicting processes such as a) Photosynthesis b) Respiration c) Burning d) Decay Have learners compile information on the carbon cycle and give reasons why it is a repeated pattern e.g. it is because the carbon is circulated continuously in the environment	
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.	

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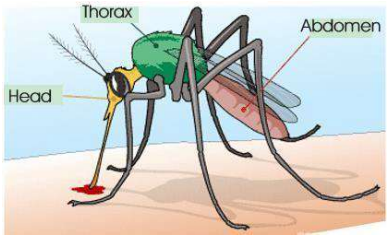
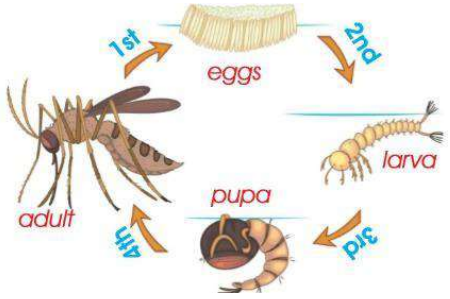
FIRST TERM
WEEKLY LESSON NOTES
WEEK 4

Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B8	**Class Size:**	**Sub Strand:** Life Cycle Of The Anopheles Mosquito	
Content Standard: B8.2.2.1 Demonstrate an activity to show the life cycle of the Anopheles mosquito and show how the effects of the mosquito on humans can be managed	**Indicator:** B8.2.2.1.1 Describe the life cycle and economic importance of the Anopheles mosquito	**Lesson:** 1 of 1	
Performance Indicator: Learners can describe the life cycle and economic importance of the Anopheles mosquito	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:		
References: Science Curriculum Pg. 59			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Ask learners to mention some common insects in their home and why they dislike them. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Paste a chart of pictures of common insects on the board. Let learners identify the names of these insects. Have learners relate to these insects and tell which are harmful and not harmful. Brainstorm learners to describe a mosquito. *The mosquito is a parasite that breeds in stagnant water bodies like; chocked gutters ponds bushy, and even in surroundings*  Explain to learners that, most of these species of mosquitoes do not bite humans nor transmit any kind of a disease, but the female anopheles mosquito does. In groups, have learners research on the internet to find more information on the female anopheles mosquito. Example: *The female anopheles mosquito is the vector/carrier of plasmodium which is the causative agent; i.e. causes the disease malaria.* Observe and draw the different stages of the life cycle of the Anopheles mosquito e.g. by breeding the mosquito in a glass jar.	Pictures and Charts

	1. The adult female anopheles mosquito adult lays eggs onto the surface of a stagnant water body. *2. The eggs hatch into larvae in eggs 2-5 days after they are laid.* *3. The larvae grows to become the larvae pupa.* *4. The pupa develops into the pupa adult [imago].*  Guide learners to describe the economic importance of the Anopheles mosquito. Example: *1. Mosquitoes visit flowers for nectar and in the process cause pollination of the flowers of such plants* *2. Mosquitoes help to preserve fossil when their larvae feed on microorganisms such as algae and microbes that speed the decay of organic matter.* *3. Mosquito larvae aquatic food chain by serving as food sources for many predators like fish and birds.* <u>Assessment</u> • Describe the stages in the life cycle of a mosquito • State three economic importance of the Anopheles mosquito	
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:	**DAY:**	**Subject:** Science
Duration:		**Strand:** Cycles
Class: B8	**Class Size:**	**Sub Strand:** Life Cycle Of The Anopheles Mosquito

Content Standard: B8.2.2.1 Demonstrate an activity to show the life cycle of the Anopheles mosquito and show how the effects of the mosquito on humans can be managed	**Indicator:** B8.2.2.1. 2 Discuss the impact of the Anopheles mosquito on humans and how it can be controlled	**Lesson:** 1 of 1
Performance Indicator: Learners can discuss the impact of the Anopheles mosquito on humans and how it can be controlled		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:
References: Science Curriculum Pg. 59		

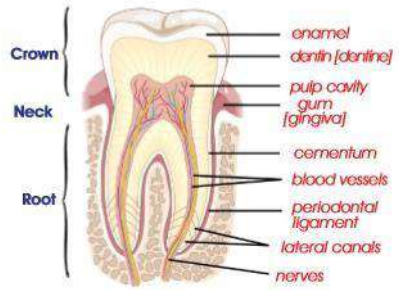
Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Put learners in groups of four. Let them discuss the impact of the female Anopheles mosquito as a vector of plasmodium on humans. Give learners enough time for this activity. Have them present their findings to the whole class for discussion. Example: 1. Mosquitoes cause various diseases in humans and other animals Brainstorm learners to mention some methods to control malaria. • the environmental control method, • the chemical control method • the biological control method • The genetic method. Guide learners to discuss each of the methods of controlling malaria in Ghana. 1. *The environmental method of mosquito control involves; the draining of chocked gutters [stagnant/standing water] and the weeding/clearing of bushes in order to destroy the breeding grounds of the female anopheles mosquito.* 2. *The chemical method of controlling mosquitoes involves the use of chemicals like; insecticides or pesticides to kill the mosquitoes during the various stages of their development.* 3. *The biological method involves the use of the natural enemy mosquito parasite to control its population. For instance, mosquito eating fishes like; Tilapia and Guppies could be introduced into mosquito infested ponds to feed on the mosquito eggs and larvae and thus control their population* 4. *The genetic method involves the breeding [producing] and the release of sterile [infertile] male mosquitoes; i.e. male anopheles mosquitoes into the environment [surroundings].* When the sterile	Pictures and Charts

	male mosquitoes mate with the fertile female mosquitoes, there are no eggs laid. Have learners role play to generate solutions to control malaria in Ghana. <u>Assessment</u> 1. State and explain the methods to control malaria in Ghana. 2. Write two advantages and two disadvantages each for the following; I. the environmental control method, II. the chemical control method III. the biological control method IV. The genetic method	
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.	

Vetted By: …… Sign: ……

FIRST TERM
WEEKLY LESSON NOTES
WEEK 5

Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Systems	
Class: B8	**Class Size:**	**Sub Strand:** Mammalian Tooth	
Content Standard: B8. 3.1.1 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man	**Indicator:** B8.3.1.1.1 Identify parts of a mammalian tooth	**Lesson:** 1 of 1	
Performance Indicator: Learners can identify parts of a mammalian tooth		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 59			

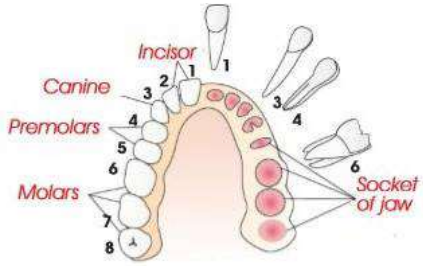
Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Ask learners to mention some common insects in their home and why they dislike them. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to explain the dentition. Dentition refers to the shape, number and the arrangement of in the teeth mouth of an animal Have learners understand that the type of dentition in an animal is mainly suited [adapted] to the animal's mode of feeding. Guide learners to discuss the types of dentition in mammals. Homodont dentition and Heterodont dentition Learners talk about the milk [deciduous teeth] and the permanent [wisdom] teeth. Guide learners to draw and label parts of a mammalian tooth.  In groups, learners discuss the three parts of the mammalian tooth. • The crown is the part of the tooth which is crown found above the gum • The is the part of the tooth which is root embedded in the jaw bone • The is the region [part] of the tooth neck where the crown meets the root	Pictures and Charts

	Guide learners to explain the functions of each part of the mammalian tooth of humans. • *The enamel is the outermost layer of the enamel tooth which forms the biting surface of the crown. It is the most hardest material in the human body.* • *The dentine is the layer of the tooth which is found beneath the enamel. It forms a greater part of the tooth.* • *The pulp cavity is a region within the tooth where the blood vessels are found.* • *The gum is the flesh that holds the crown and the root together.* • *The jaw bone contains the sockets that serve as a basement for the tooth.* • *The cement is the adhesive substance that holds the tooth firmly in the jawbone and also to the periodontal fibers and membranes* <u>Assessment</u> Draw a well labelled mammalian tooth. State and explain the types of dentition with examples. What is dentition?	
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:	**DAY:**	**Subject:** Science
Duration:		**Strand:** Systems
Class: B8	**Class Size:**	**Sub Strand:** Mammalian Tooth

Content Standard: B8. 3.1.1 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man	**Indicator:** B8.3.1.1.2 Discuss the functions of the different types of teeth such as incisors, canines, premolars, and molars.	**Lesson:** 1 of 1

Performance Indicator: Learners can discuss the functions of the different types of teeth	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:
References: Science Curriculum Pg. 59	

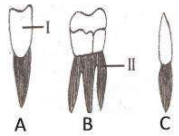
Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Ask learners to mention some common insects in their home and why they dislike them. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Discuss the functions of the different types of human teeth. Types of teeth • Incisors- The incisors are the front row teeth and are used for cutting food. • Canines- The canines are conical edged in shape and are used for shearing flesh from bones • Molars and Premolars- they have broad surfaces with some tiny projections on them called cups. They are used for grinding food. Engage learners to draw the different types of teeth.  <u>Assessment</u> State one function of each of the following 1) Incisors 2) Canines 3) Molars 4) Premolars	Pictures and Charts
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.	

Vetted By: …… Sign: ……

FIRST TERM
WEEKLY LESSON NOTES
WEEK 6

Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Systems	
Class: B8	**Class Size:**	**Sub Strand:** Tooth And Gum Decay	
Content Standard: B8. 3.1.1 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man	**Indicator:** B8.3.1.1.3 Explain the causes and prevention of tooth and gum decay.		**Lesson:** 1 of 1
Performance Indicator: Learners can explain the causes and prevention of tooth and gum decay		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 65			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to mention some disease of the teeth. Write learners ideas on the board and discuss with them. Drill learners for the correct pronunciation and meaning of the keywords in the lesson. *There are many diseases that can affect the teeth, but the common among them includes; tooth decay, plaque and gum disease* Guide learners to describe the causes of tooth decay, gum diseases and formation of plaque and the proper way of preventing tooth decay. 1. Dental caries [tooth decay] *Tooth decay occurs when small holes are created in the enamel of the teeth. This is due to the accumulation of acids as a result of the action of some bacteria on sugary foods that are left on the enamel for a long time.* 2. Plague *It consists of a sticky film layer deposit that is made up of food remains on the teeth which has been mixed with saliva by the action of bacteria and other microorganisms.* 3. Periodontal [gum] disease *Gum disease is an advanced form of plaque occurs when bacteria causes the gum to be inflamed; i.e. to feel painful when it is touched and to also bleed frequently.* *Periodontal disease may also lead to bad breath and the loss of teeth if it is not treated.* Guide learners to discuss how each of the tooth diseases could be treated or prevented. <u>Treatment of Tooth Decay</u>	Pictures and Charts

	1. The affected tooth can be removed in order to prevent the infection from spreading. *2. The cavities that have been created within the tooth can either be removed or filled.* <u>Treatment of Plague</u> *Plague can easily be removed by the proper brushing of the teeth using a good tooth paste and brush.* <u>Treatment of Gum disease</u> *1. The teeth should be brushed properly in order to prevent the accumulation of bacteria or plaque.* *2. The teeth should be brushed at least twice daily.* <u>Assessment</u> The diagrams below are illustrations of the different types of teeth in humans. Study them carefully and use them to answer the questions that follow.  i. Identify each type of teeth labeled A, B and C. ii. Describe the shape of each of the teeth labeled A, B and C. iii. State one function of each of the teeth labeled A, B and C. iv. Name the parts of the teeth labeled I and II	
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.	

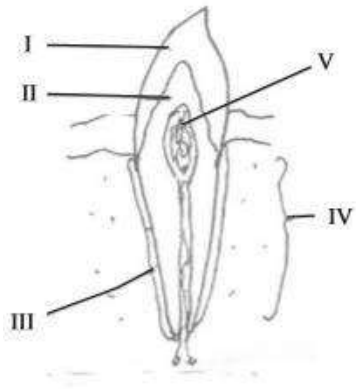
Week Ending:	**DAY:**	**Subject:** Science
Duration:		**Strand:** Systems
Class: B8	**Class Size:**	**Sub Strand:** Tooth And Gum Decay

Content Standard: B8. 3.1.1 Demonstrate knowledge of parts of mammalian tooth and the functions of the different types of teeth in relation to feeding in man	**Indicator:** B8.3.1.1.3 Explain the causes and prevention of tooth and gum decay.	**Lesson:** 2 of 2

Performance Indicator: Learners can explain the causes and prevention of tooth and gum decay	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:

References: Science Curriculum Pg. 59

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Guide learners to discuss how to ensure a strong and a healthy teeth. 1. *Brush your teeth at least two [2] times daily; i.e. in the morning and in the evening, in order to remove plaque which leads to teeth decay.* 2. *Avoid eating too much sugary foods* 3. *Avoid eating either too hot or too cold foods.* 4. *Change your toothbrush at least once every three months* 5. *Frequently chew tough substances like bones and fibers like sugarcane in order to strengthen the teeth* 6. *Avoid sharp pointed objects like pins, needles, knife, broom, sticks, etc.* 7. *Visit the dentist regularly, at least twice a year for teeth examination, advice and treatment.* Using pictures and charts demonstrate to learners the proper ways of cleaning the teeth.  1 Place the brush at a 45° angel to the front tooth surface. Bristles must contact both lines of tooth and gum. 2 Move the brush in a small, jiggling, circular motion. 3 Clean the inside surfaces of the back teeth by moving the brush in a small back and forth motion.	Pictures and Charts

	 Assessment The diagram below is an illustration of a longitudinal section of a canine tooth in humans Study the diagram carefully and answer the questions that follow  I. Name each of the parts labeled I, II, III, IV and V. ii. What is the function of each of the parts labeled I and III? iii. Which of the labeled parts could be affected by tooth decay? iv. State three ways by which tooth decay may be prevented.	
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.	

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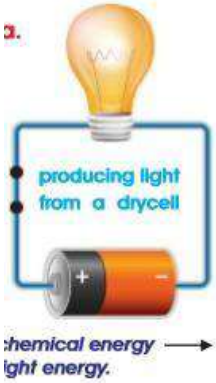
FIRST TERM
WEEKLY LESSON NOTES
WEEK 7

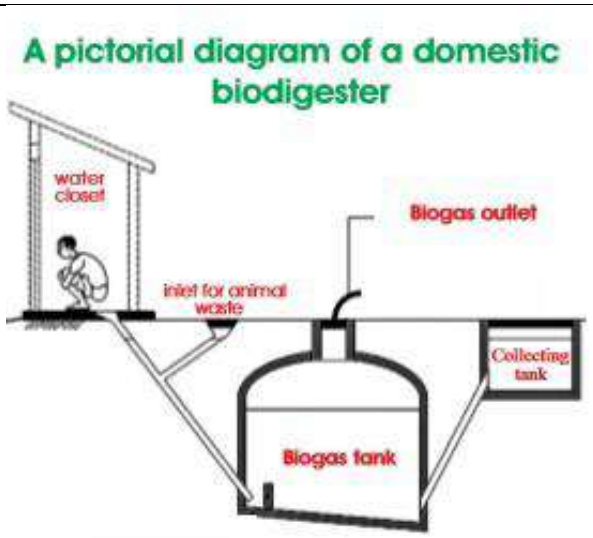
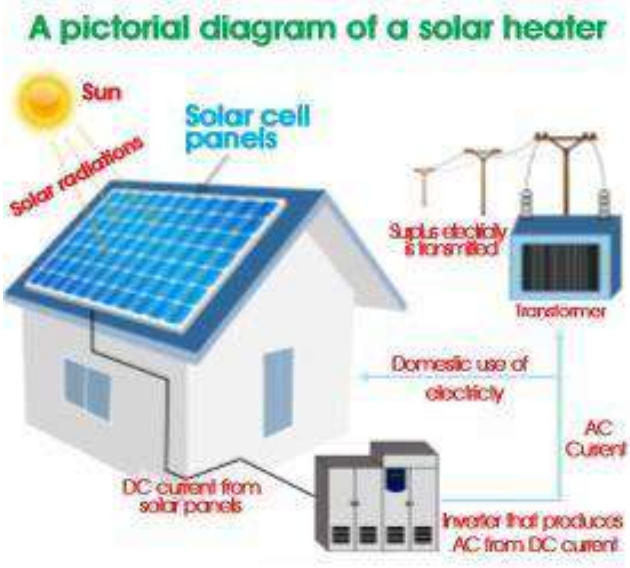
Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Forces & Energy	
Class: B8	**Class Size:**	**Sub Strand:** Energy Conversion	
Content Standard: B8.4.1.1 Demonstrate the skill to evaluate the conversion of energy from one form to another	**Indicator:** B8.4.1.1.1 Describe energy conversion	**Lesson:** 1 of 2	
Performance Indicator: Learners can describe energy conversion		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 69			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Have learners to understand that energy is needed to be able to do all the various kinds of work Every type of energy has a particular form of work that it can be used to do. There is the need to sometimes change one form of energy into another form that can be used to perform particular work. Brainstorm learners for the meaning of energy conversion. *The process during which one form of energy changes into another form of energy is known as energy conversion.* Revise with learners on the law of conservation of energy. *The law of conservation of energy states that energy can neither be created nor be destroyed but it can only be changed.* Have learners discuss the importance of energy conversion. *It enables a more available but a less useful energy form to be changed into a less available but a more useful energy form.* Guide learners to describe how energy is converted from one form to another.  electrical energy → sound energy  producing light from a drycell chemical energy → light energy.	Pictures and Charts

	<u>Assessment</u> • What is energy conversion? • State and explain the law of conservation of energy. • Describe three ways how energy is converted from one form to another	
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:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Forces & Energy	
Class: B8	**Class Size:**	**Sub Strand:** Energy Conversion	
Content Standard: B8.4.1.1 Demonstrate the skill to evaluate the conversion of energy from one form to another	**Indicator:** B8.4.1.1.2 Discuss the importance of conversion of energy.		**Lesson:** 2 of 2
Performance Indicator: Learners can discuss the importance of conversion of energy		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 69			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Have learners understand that the more available but less useful energy forms are usually obtained from renewable sources while the less available but more useful energy forms are also obtained from non-renewable sources. Guide learners to explain renewable and non-renewable sources of energy. a. Renewable Sources Of Energy *Renewable sources of energy refers to all those energy sources that are inexhaustible in supply or cannot get depleted with time as a result of continuous use.* *Examples of the renewable sources of energy includes; solar energy from the sun, tidal energy from the sea, wind energy from moving air, hydro energy from moving water, etc.* b. Non - Renewable Sources Of Energy *Non - renewable sources of energy refers to all those energy sources that are exhaustible in supply or can get finished with time as a result of continuous use.* *Examples of non - renewable sources of energy includes; chemical energy from firewood [charcoal], nuclear energy from radioactive substances, chemical energy from natural gas or crude oil like petrol, biogas from decaying organic waste, etc.* Guide learners to explain the processes that a plant and animal waste goes through to produce biogas. The biogas digester *The biogas digester is a device/machine that turns biofuel; i.e. plant and animal waste into biogas.*	Pictures and Charts

	 Guide learners to explain the processes that a solar heater goes through to produce electricity. The solar heater The solar heater is a device that converts solar energy which is obtained from the sun into other energy forms like electricity or heat for various domestic purposes.  Guide learners to describe how to harness natural forms of energy into other forms. Assessment Explain the processes that a dammed river goes through to produce electricity.	
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.	

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FIRST TERM
WEEKLY LESSON NOTES
WEEK 8

Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Forces & Energy	
Class: B8	**Class Size:**	**Sub Strand:** Renewable & Non-Renewable Energy	
Content Standard: B8.4.1.2 Show an understanding of the sources of renewable energy and how to manage these sources in a sustainable manner	**Indicator:** B8.4.1.2.1 Describe renewable and non-renewable forms of energy	**Lesson:** 1 of 2	
Performance Indicator: Learners can describe renewable and non-renewable forms of energy	**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:		
References: Science Curriculum Pg. 70			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to explain renewable and non-renewable sources of energy. Guide learners to identify the various sources of renewable and non-renewable forms of energy and classify them e.g. wind, coal, hydro, crude oil, natural gas, solar and biogas. Describe how to produce energy from a renewable source.	Pictures and Charts
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:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Forces & Energy	
Class: B8	**Class Size:**	**Sub Strand:** Renewable & Non-Renewable Energy	
Content Standard: B8.4.1.2 Show an understanding of the sources of renewable energy and how to manage these sources in a sustainable manner	**Indicator:** B8.4.1.2.2 Demonstrate how to manage sources of renewable energy sustainably		**Lesson:** 2 of 2
Performance Indicator: Learners can demonstrate how to manage sources of renewable energy sustainably		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 70			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Research about information on the stages involved in managing renewable energy sources Create a table to describe challenges associated with the management of different sources of renewable energy	Pictures and Charts
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.	

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FIRST TERM
WEEKLY LESSON NOTES
WEEK 9

Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Forces & Energy	
Class: B8	**Class Size:**	**Sub Strand:** Heat And Temperature	
Content Standard: B8.4.1.3 Demonstrate an understanding of the relationship between heat and temperature	**Indicator:** B8.4.1.3.1 Discuss the differences and the relationship between heat and temperature in the environment	**Lesson:** 1 of 2	
Performance Indicator: Learners can describe the differences and the relationship between heat and temperature		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 71			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners for meaning of temperature and heat *Temperature is a measure of the degree of hotness or coldness of a substance* *Heat is a form of energy that is transferred from one body to another due to a difference in temperature.* Create a table to show the distinguishing features of temperature and heat. 1. Definition: Temperature is a measure of the degree of hotness or coldness of a substance, while heat is a form of energy that is transferred from one body to another due to a difference in temperature. 2. Units: Temperature is typically measured in units of degrees Celsius (°C) or Fahrenheit (°F), while heat is measured in units of joules (J) or calories (cal). 3. Transfer: Temperature can be transferred from one object to another when the two objects are in contact. Heat, on the other hand, always flows from a hotter object to a cooler object. 4. Sensation: Temperature can be sensed by touch or with a thermometer, while heat is not directly sensed, but rather it is inferred from changes in temperature or other physical effects. 5. Dependence: Temperature depends only on the average kinetic energy of the particles in a substance, while heat depends on both the temperature and the amount of substance. 6. Effect: Temperature affects the physical properties of a substance, such as its volume, density, and state of matter. Heat, on the other hand, can change the temperature and physical state of a substance, as well as do work. Guide learners to discuss the relationship between temperature and heat	Pictures and Charts

	Temperature is a measure of the average kinetic energy of the particles in a substance, while heat is a form of energy that is transferred from one body to another due to a difference in temperature. *When two objects of different temperatures are brought into contact, heat will flow from the hotter object to the cooler object until they reach thermal equilibrium and have the same temperature.*	
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:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Forces & Energy	
Class: B8	**Class Size:**	**Sub Strand:** Electricity And Electronics	
Content Standard: B8.4.2.1 Demonstrate knowledge of electricity transmission	**Indicator:** B8.4.2.1.1 Explain how electricity transmission occurs.		**Lesson:** 2 of 2
Performance Indicator: Learners can explain how electricity transmission is generated		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 72			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to identify different stages of electricity transmission 1. Generation: This is the process of producing electrical energy in power plants, either through burning fossil fuels, using nuclear reactions, or harnessing renewable energy sources like solar, wind, or hydroelectric power. 2. Step-up transformation: The electrical energy produced by power plants is typically at a low voltage level. To minimize energy losses during transmission, the voltage is stepped up using transformers, which increase the voltage to several hundred kilovolts or even megavolts. 3. Transmission: The high-voltage electricity is then transported over long distances via overhead power lines or underground cables. The transmission lines are designed to minimize energy losses due to resistance and other factors. 4. Step-down transformation: Once the electricity reaches its destination, it is stepped down using transformers to a lower voltage suitable for distribution to homes, businesses, and other consumers. 5. Distribution: The final stage of electricity transmission involves distributing the electricity to end-users via a network of power lines and transformers. The distribution system delivers electricity to local substations, which then distribute the electricity to homes and businesses in the surrounding area. Draw a flow chart to show the stages of electricity transmission from the point of generation to the point of consumption	Pictures and Charts
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.	

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FIRST TERM
WEEKLY LESSON NOTES
WEEK 10

Week Ending:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Strands for the term	
Class: B8	**Class Size:**	**Sub Strand:** Sub strands for the term	
Content Standard: Demonstrate knowledge and understanding in the topics treated so far.	**Indicator:** Recall and summarize all what they have learnt within the term		**Lesson:** 1 of 1
Performance Indicator: Learners can recall and summarize all what they have learnt within the term		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum Pg. 71			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners on the previous lesson. Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners for meaning of temperature and heat *Temperature is a measure of the degree of hotness or coldness of a substance* *Heat is a form of energy that is transferred from one body to another due to a difference in temperature.* Create a table to show the distinguishing features of temperature and heat. 1. Definition: Temperature is a measure of the degree of hotness or coldness of a substance, while heat is a form of energy that is transferred from one body to another due to a difference in temperature. 2. Units: Temperature is typically measured in units of degrees Celsius (°C) or Fahrenheit (°F), while heat is measured in units of joules (J) or calories (cal). 3. Transfer: Temperature can be transferred from one object to another when the two objects are in contact. Heat, on the other hand, always flows from a hotter object to a cooler object. 4. Sensation: Temperature can be sensed by touch or with a thermometer, while heat is not directly sensed, but rather it is inferred from changes in temperature or other physical effects. 5. Dependence: Temperature depends only on the average kinetic energy of the particles in a substance, while heat depends on both the temperature and the amount of substance. 6. Effect: Temperature affects the physical properties of a substance, such as its volume, density, and state of matter. Heat, on the other hand, can change the temperature and physical state of a substance, as well as do work. Guide learners to discuss the relationship between temperature and heat	Pictures and Charts

	Temperature is a measure of the average kinetic energy of the particles in a substance, while heat is a form of energy that is transferred from one body to another due to a difference in temperature. *When two objects of different temperatures are brought into contact, heat will flow from the hotter object to the cooler object until they reach thermal equilibrium and have the same temperature.*	
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:	**DAY:**	**Subject:** Science	
Duration:		**Strand:** Strands treated for the term	
Class: B8	**Class Size:**	**Sub Strand:** Sub strands for the term	
Content Standard: Demonstrate knowledge and understanding in the topics treated so far.	**Indicator:** Preparation towards vacation		**Lesson:** 1 of 1
Performance Indicator: Learners can answer all end of term assessment questions in their exercise books.		**Core Competencies:** DL 5.3: CI 6.8: DL 5.1: CI 6.6:	
References: Science Curriculum			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Ask learners to bring and display all the materials needed for the assessment. Educate them on the consequences of examination mal practice.	Exercise books, pen, pencils, erasers, Answer sheets.
PHASE 2: **NEW LEARNING**	Engage learners to arrange themselves properly to sit for the assessment test. Mark learners answer sheets or exercise books. Fill in learner's SBA books and report cards. Distribute learners answer sheets or exercise books for feedback.	SBA, Assessment Questions and exercise books.

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