WEEKLY LESSON PLAN – B7

WEEK 1

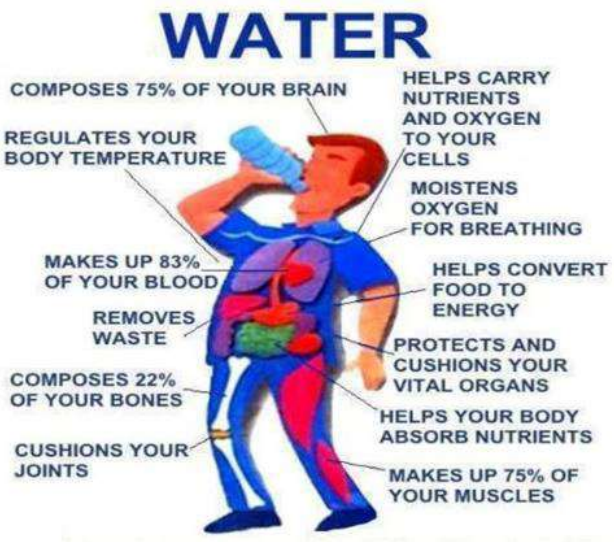
Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Diversity Of Matter	
Class: B7	**Class Size:**	**Sub Strand:** Materials	
Content Standard: B7.1.1.1 Recognize materials as important resources for providing human needs	**Indicator:** B7.1.1.1.1 Classify materials into liquids, solids and gases	**Lesson:** 1 of 4	
Performance Indicator: Learners can group materials in the environment into liquids, solids and gases	**Core Competencies:** CI 5.2, CP 5.1: CC 8.2: CP 5.6:		
References : Science Curriculum Pg.2			
Keywords: texture, appearance, assembled			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, find out from learners what they already know about the three states of matter. Share the performance indicators with learners.	Picture chart of the states of matte, The periodic table
PHASE 2: **NEW LEARNING**	Engage learners to create and complete a table to record the texture, appearance, color and shape of a group of materials assembled from the environment. Learners to group materials into liquids, solids and gases.  Discuss the differences among liquids, solids and gases. Solids / liquids Have fixed shape / Do not have a fixed shape Cant flow / Can flow Very dense / Less dense	

	Give examples of solids, liquids and gases that can be identified from your environment. <u>Assessment</u> 1. Mention three things in the environment that are gaseous in nature. 2. state three differences between liquids and gas	
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. Ask learners how the lesson will benefit them in their daily lives.	

Date:	**Period:**	**Subject:** Science
Duration:		**Strand:** Diversity Of Matter
Class: B7	**Class Size:**	**Sub Strand:** Materials

Content Standard: B7.1.1.1 Recognize materials as important resources for providing human needs	**Indicator:** B7.1.1.1.2 Discuss the importance of liquids in the life of humans	**Lesson:** 1 of 4
Performance Indicator: Learners can talk of the importance of liquids to living things	**Core Competencies:** CI 5.2, CP 5.1: CC 8.2: CP 5.6:	
References : Science Curriculum Pg.2		
Keywords: regulate, moistens, nutrients		

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, revise with learners what was studied in the previous lesson. Share the performance indicators with learners.	Picture chart of the states of matte, The periodic table
PHASE 2: **NEW LEARNING**	Learners to present a report on the importance of liquids to human life using the internet to search for information.  In groups of 3 or 4 let learners describe the need to preserve liquids for human use. Note the grouping should be mixed sex unless it is one sex school Record liquids they see being used in their community. <u>Assessment</u> 1. mention four importance of liquids to humans	
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. Ask learners how the lesson will benefit them in their daily lives.	

WEEK 2

Date:	**Period:**	**Subject:** Science
Duration:		**Strand:** Diversity Of Matter
Class: B7	**Class Size:**	**Sub Strand:** Materials

Content Standard: B7.1.1.1 Recognize materials as important resources for providing human needs	**Indicator:** B7.1.1.1.3 Discuss the importance of specific solids to life	**Lesson:** 3 of 4

Performance Indicator: Learners can Identify solids in the environment that support the survival of humans	**Core Competencies:** CI 5.2, CP 5.1: CC 8.2: CP 5.6:
References : Science Curriculum Pg.2	
Keywords: texture, appearance, assembled	

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, revise with learners what was studied in the previous lesson. Share the performance indicators with learners.	
PHASE 2: **NEW LEARNING**	Guide learners to Identify solids in the environment that support the survival of humans and other life forms. Example: *iron bars, tables, chair, table salt, sugar, ice block, frozen carbon dioxide (dry ice), glass, rock, metallic objects, and wood* Engage learners to name and describe materials assembled from the environment in terms of texture, appearance, color, smell and shape Guide learners to search on the internet to obtain information to explain the need to preserve useful solid materials in the environment for life. Model objects from solid materials that can be useful to humans and other life forms. <u>Assessment</u> Let learners search the internet, books, parents, people in their community to identify any household and commercial materials and explain their uses to humans	Picture chart of the states of matte, The periodic table
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. Ask learners how the lesson will benefit them in their daily lives.	

Date:	**Period:**	**Subject:** Science
Duration:		**Strand:** Diversity Of Matter
Class: B7	**Class Size:**	**Sub Strand:** Materials

Content Standard: B7.1.1.2 Understand the periodic table as different elements made up of metals and non- metals and noble gases arranged in an order	**Indicator:** B7.1.1.2.1 Demonstrate the knowledge of the orderly arrangement of metals, non-metals and noble gases in the periodic table	**Lesson:** 4 of 4

Performance Indicator: Learners can identify the first 20 elements in the periodic table	**Core Competencies:** CI 5.2, CP 5.1: CC 8.2: CP 5.6:

References : Science Curriculum Pg.2

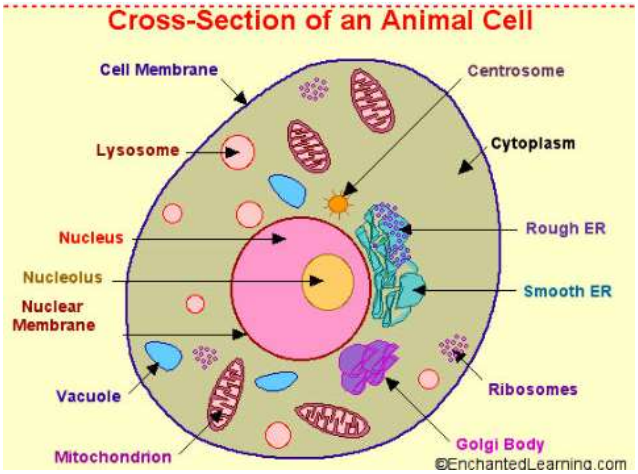
Keywords: periodic table, noble gases

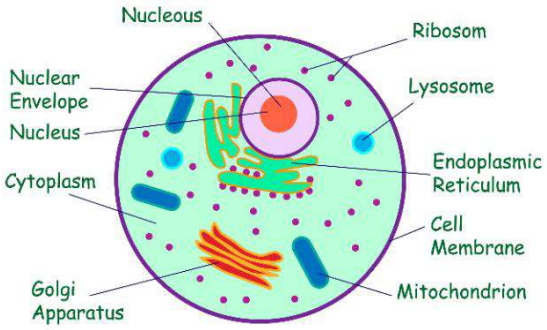
Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, revise with learners what was studied in the previous lesson. Recap to find out what learners already know about elements and the periodic table. Share the performance indicators with learners.	
PHASE 2: **NEW LEARNING**	Brainstorm to bring out the meaning of the term element Engage learners to gather different materials from the environment and classify them as elements. Name and write the chemical symbol of the first 20 elements in the periodic table. **Element** / **Symbol** Hydrogen / H Helium / He Lithium / Li Beryllium / Be Guide learners to Identify metals, non-metals and noble gases in the periodic table. Discuss the uses of the elements, nitrogen(N), phosphorus(P) and potassium(K) in crop production.	Picture chart of the states of matte, The periodic table

	Deduce from the periodic table that the elements are arranged in order of their atomic number and those in the same group have common properties. Assessment 1. what is an element? 2. use chemical symbols to represent the following elements; Sodium, Calcium, Potassium, Nitrogen, Phosphorus	
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. Ask learners how the lesson will benefit them in their daily lives.	

WEEK 3

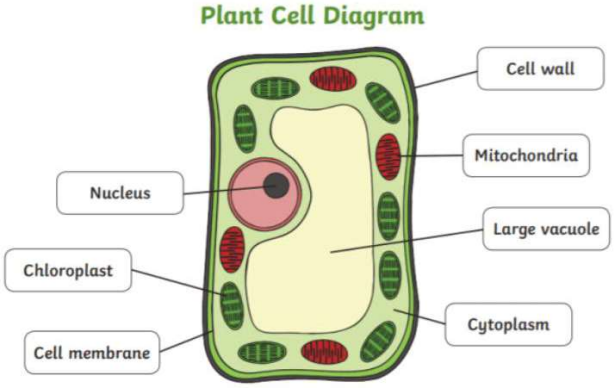
Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Diversity Of Matter	
Class: B7	**Class Size:**	**Sub Strand:** Living Cells	
Content Standard: B7.1.2.1 Demonstrate understanding of the structure of organisms and functions of cells in living systems	**Indicator:** B7.1.2.1.1 Describe the structure and function of living cells of an animal	**Lesson:** 1 of 2	
Performance Indicator: Learners can describe the structure and function of living cells		**Core Competencies:** DL 5.5, CC 8.2, CP 5.7, DL 6.6, CI 6.5, CI 5.3	
Reference: Science Curriculum Pg. 5			
Keywords: Nucleus, Membrane, vacuole, mitochondrion			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise the previous lesson with learners through questions and answers. Share the performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Identify and describe the structure of an animal cell seen in a picture, video, a chart and a magnifier.  State the function of each organelle in the animal cell. Example: *The Nucleus – the nuclear membrane controls the movement of substances in and out of the nucleus.* Look at a sample of animal cell from different parts of an animal with a microscope, magnifier or watch a video or pictures of cells and draw the conclusion that animals are made up of cells.	Picture chart of plant and animal cell

	Draw and label an animal cell.  Develop a model to represent an animal cell. <u>Assessment</u> 1. Draw a well labelled diagram of an animal cell. 2. Write the importance of mitochondrion in an animal cell.	
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 4

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Diversity Of Matter	
Class: B7	**Class Size:**	**Sub Strand:** Living Cells	
Content Standard: B7.1.2.1 Demonstrate understanding of the structure of organisms and functions of cells in living systems	**Indicator:** B7.1.2.1.2 State the functions of each organelle in a plant cell	**Lesson:** 3 of 4	
Performance Indicator: Learners can talk about the functions of organelle in plant cells		**Core Competencies:** DL 5.5, CC 8.2, CP 5.7, DL 6.6, CI 6.5, CI 5.3	
Reference: Science Curriculum Pg. 6			
Keywords: Nucleus, Membrane, vacuole, mitochondrion			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners through questions and answers to review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners the meaning of living cell. A living cell is the smallest unit of a living organism. Let learners identify and describe the structure of a plant cell as seen in a video, a chart, pictures and magnifiers.  Guide learners to state the function of each organelle in the plant cell. Example: Cell wall encloses the cell membrane in plants cells. Chloroplast contains the green pigment called chlorophyll. Let learners look at a sample of a plant cell from different parts of a plant with a microscope, magnifier or, watch a video or pictures and confirm that plants are made up of cells.	Picture chart of plant and animal cell

	Guide learners to draw and label a plant cell. <u>Assessment</u> Draw a well labelled diagram of a plant cell State the function of the nucleus, cell membrane and cytoplasm	
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.	

Date:	**Period:**	**Subject:** Science
Duration:		**Strand:** Diversity Of Matter
Class: B7	**Class Size:**	**Sub Strand:** Living Cells

Content Standard: B7.1.2.1 Demonstrate understanding of the structure of organisms and functions of cells in living systems	**Indicator:** B7.1.2.1.2 State the similarities and difference between a plant cell and animal cell	**Lesson:** 4 of 4

Performance Indicator: Learners can state the difference between a plant cell and animal cell	**Core Competencies:** DL 5.5, CC 8.2, CP 5.7, DL 6.6, CI 6.5, CI 5.3

Reference: Science Curriculum Pg. 6

Keywords: Nucleus, Membrane, vacuole, mitochondrion

<table>
<tr><td>Phase/Duration</td><td>Learners Activities</td><td>Resources</td></tr>
<tr><td>PHASE 1: STARTER</td><td>Revise with learners through questions and answers to review learners understanding in the previous lesson.

Share performance indicators and introduce the lesson.</td><td></td></tr>
<tr><td>PHASE 2: NEW LEARNING</td><td>With a well labelled diagram, paste a chart on the board showing pictures of the animal cell and plant cell.

Guide learners to discuss the similarities between a plant cell and animal cell.
<table>
<tr><td>Animal cell</td><td>Plant cell</td></tr>
<tr><td>Has cytoplasm</td><td>Has cytoplasm</td></tr>
<tr><td>Has cell membrane</td><td>Has cell membrane</td></tr>
<tr><td>Has nucleus</td><td>Has nucleus</td></tr>
</table>
Guide learners to discuss the similarities between a plant cell and animal cell.
<table>
<tr><td>Animal cell</td><td>Plant cell</td></tr>
<tr><td>Has no cellulose cell wall</td><td>Has cellulose cell wall</td></tr>
<tr><td>Has no fixed or rigid shape</td><td>Has a fixed or rigid shape</td></tr>
<tr><td>Stores food in the form of glycogen</td><td>Stores food in the form of starch</td></tr>
<tr><td>Has small and temporary vacuole</td><td>Has large and permanent vacuole</td></tr>
</table>
Guide learners to develop a model to represent a plant cell.
Example: In groups, learners watch slice onions under the light microscope.
Learners to look for nucleus, cytoplasm, cell membrane, etc.
Learners to write a report on what they saw.

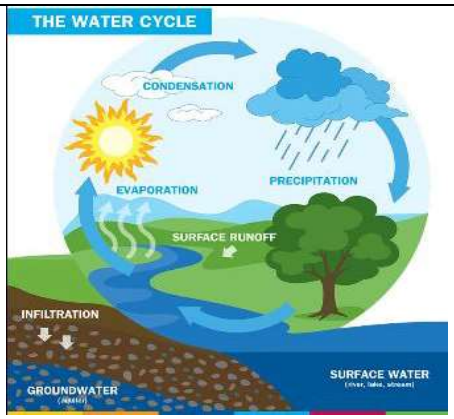
<u>Assessment</u></td><td>Picture chart of plant and animal cell</td></tr>
</table>

	State three main differences between a plant cell and animal cell.	
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 5

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Earth Science	
Content Standard: B7.2.1.1 Recognize that the water cycle is an example of repeated patterns of change in nature and understand how it occurs	**Indicator:** B7.2.1.1.1 Explain how the water cycle occurs as a repeated pattern in nature	**Lesson:**	
Performance Indicator: Learners can describe the water cycle		**Core Competencies:** DL5 .1: CI 5.2: CI 6.3: CP 5.1: DL 5.1:	
Reference: Science Curriculum Pg. 7			
Keywords: evaporation ,condensation, cycle			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners through questions and answers to review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to identify the natural sources of water. Example: groundwater, rainwater, seawater, lakes and rivers Guide learners to list the stages of the water cycle: evaporation, condensation, precipitation and transpiration while watching pictures and videos.  Draw a flow chart or diagram to show the order of the stages in the water cycle and how they are linked to each other.	Pictures, charts, videos, etc.

	 Guide learners to explain why the water cycle is a repeated pattern in nature by searching the internet, books, journals, TV news, radio news and any other sources. <u>Assessment</u> 1. State any three sources of natural water. 2. With a well labelled diagram, describe the water cycle.	
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.	

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Earth Science	
Content Standard: B7.2.1.1 Recognize that the water cycle is an example of repeated patterns of change in nature and understand how it occurs	**Indicator:** B7.2.1.1.1 Explain how the water cycle occurs as a repeated pattern in nature	**Lesson:**	
Performance Indicator: Learners can demonstrate evaporation and condensation as important processes of the water cycle		**Core Competencies:** DL5 .1: CI 5.2: CI 6.3: CP 5.1: DL 5.1:	
Reference: Science Curriculum Pg. 7			
Keywords: evaporation ,condensation,			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners through questions and answers to review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners the meaning of water cycle. *The water (hydrological) cycle is a biological cycle that describes the continouns movement of water on, above and below the surface of the earth*. Paste the water cycle chart on the board for learners to observe and talk about it. In groups, learners demonstrate evaporation and condensation, e.g. learners observe water drying off their wet hands (evaporation), covering water with a lid and observing water droplets on the lid after some time (evaporation & condensation). Guide learners to demonstrate evaporation by heating water until it boils (to be done by the teacher), then covering the boiling water with a sheet of transparent glass. Water vapor condenses on transparent glass (condensation). Learners are assisted to understand how evaporation and condensation lead to the formation of rain. Display pictures or simple diagrams of the water cycle showing evaporation and condensation.	Pictures, charts, videos, etc.

	<u>Assessment</u> • What is a water cycle? • What process occurs when water changes from a gas to liquid? • What is transpiration?	
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 6

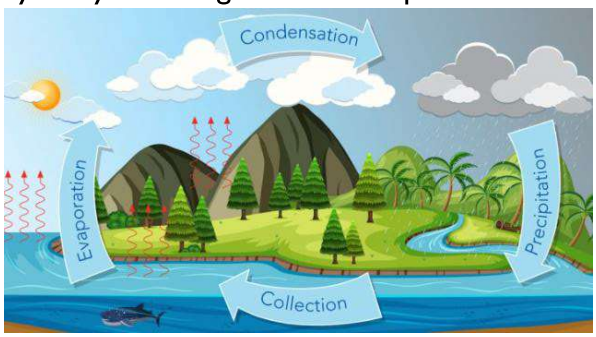
Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Earth Science	
Content Standard: B7.2.1.1 Recognize that the water cycle is an example of repeated patterns of change in nature and understand how it occurs	**Indicator:** B7.2.1.1.1 Explain how the water cycle occurs as a repeated pattern in nature	**Lesson:**	
Performance Indicator: Learners can demonstrate the process of transpiration and know how clouds are formed		**Core Competencies:** DL5 .1: CI 5.2: CI 6.3: CP 5.1: DL 5.1:	
Reference: Science Curriculum Pg. 7			
Keywords: transpiration, condensation			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners through questions and answers to review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners the meaning of water cycle. *The water (hydrological) cycle is a biological cycle that describes the continouns movement of water on, above and below the surface of the earth.* Guide learners to breathe out or blow air onto a transparent surface, e.g. a glass or plastic bottle and share their observations. Explain to learners that just as humans release water vapor when they respire, so do plants when they transpire. Put learners into groups and give each group a young potted plant, plastic wrap bag and a rubber band to undertake the following activities: *(1) Let learners examine the surface of the leaves of the plants and mop off any water droplets on the leaves.* *(2) Tie the plastic wrap bag around the plant up to the stem and leave it for an hour.* *(3) Observe both plant and plastic wrap surfaces.* *(4) Let learners report on what happens.* Review composition of air with learners. This should include water vapor.	Pictures, charts, videos, etc.

	Ask learners the question: what are clouds? And assists learners to come out with this explanation: Clouds consist of many tiny water droplets resulting from the condensation of water vapor into liquid water or ice. Explain that upward vertical motion of air through the atmosphere cools water vapor to form clouds. Learners demonstrate formation of clouds in a bottle. Learners explain why clouds are not formed close to the surface of the ground. <u>Assessment</u> • What is a cloud? • How are clouds formed in the atmosphere? • What is transpiration?	
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.	

Date:	**Period:**	**Subject:** Science
Duration:		**Strand:** Cycles
Class: B7	**Class Size:**	**Sub Strand:** Earth Science

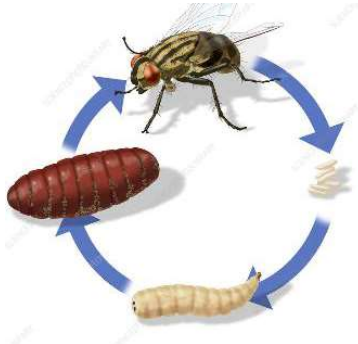
Content Standard: B7.2.1.1 Recognize that the water cycle is an example of repeated patterns of change in nature and understand how it occurs	**Indicator:** B7.2.1.1.2 Describe the importance of the water cycle in nature	**Lesson:**
Performance Indicator: Learners can describe the importance of the water cycle in nature	**Core Competencies:** DL5 .1: CI 5.2: CI 6.3: CP 5.1: DL 5.1:	
Reference: Science Curriculum Pg. 8		
Keywords: precipitation, condensation, evaporation		

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Revise with learners through questions and answers to review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Guide learners to describe the stages of the water cycle by watching a video or a picture of it.  i. evaporation- the process of turning liquid into vapor ii. condensation – is the change of the state of matter from the gas phase into the liquid phase iii. precipitation – falling products of condensation in the atmosphere, as rain, snow, or hail. Guide learners to describe the importance of the water cycle in terms of: *a) Energy source (release of energy to warm the environment)* *b) Carrier of nutrients* *c) Improving water table* *d) Regulating weather pattern* *e) Provision of clean water.*	Pictures, charts, videos, etc.

	With a diagram, illustrate the importance of the water cycle in a 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 7

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Life Cycles Of Organisms	
Content Standard: B7.2.2.1 Demonstrate the skills of carrying out activities to show the stages of the life cycle of a housefly, the effects of its activities on humans and how to reduce them	**Indicator:** B7.2.2.1.1 Describe the life cycle of the housefly	**Lesson:**	
Performance Indicator: Learners can describe the life cycle of the housefly		**Core Competencies:** DL 5.3:. CC 8.1: DL 5.6: CC 9.6: CI 5.5: CI 6.2: CC 8.2:	
Reference: Science Curriculum P.g. **9**			
Keywords : Nuisance, disease, menace, food poison			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, find out what learners already know about houseflies. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Guide learners to Identify and describe the stages of the life cycle of the housefly. Show the order of the stages of the life cycle of the housefly e.g. eggs ➡ larva ➡ pupa ➡ adult. Arrange flashcards or the cut-outs to illustrate the stages. Learners to draw each stage of the life cycle of the housefly and use arrows to link the stages to make the cycle complete.  Use the diagram to describe the life cycle of the housefly.	Pictures/videos/ models/charts/drawings/ cut-outs, science journals, internet of the stages of the life cycle of the house fly

	Show how each stage affects the other Guide learners to write notes on each of the stages of the housefly. Example: Eggs – the cycle starts with an egg. The egg is laid by the female fly onto breeding material, usually dead animal or vegetable material, etc. <u>Assessment</u> 1. Draw and label the life cycle of mosquito. 2. Describe the stages of the life cycle of 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. Ask learners how the lesson will benefit them in their daily lives.	

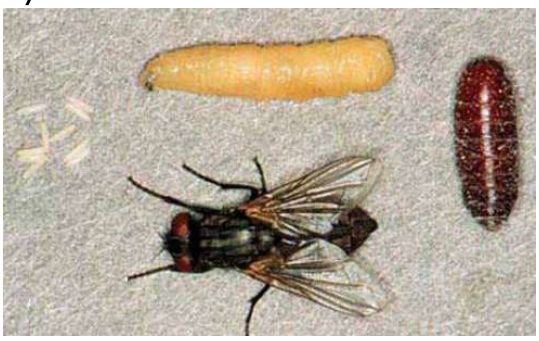
Date:	**Period:**	**Subject:** Science
Duration:		**Strand:** Cycles
Class: B7	**Class Size:**	**Sub Strand:** Life Cycles Of Organisms

Content Standard: B7.2.2.1 Demonstrate the skills of carrying out activities to show the stages of the life cycle of a housefly, the effects of its activities on humans and how to reduce them	**Indicator:** B7.2.2.1.1 Describe the life cycle of the housefly	**Lesson:**

Performance Indicator: Learners can discuss the developmental stages of the housefly through an experiment	**Core Competencies:** DL 5.3:. CC 8.1: DL 5.6: CC 9.6: CI 5.5: CI 6.2: CC 8.2:

Reference: Science Curriculum P.g. **9**

Keywords : Nuisance, disease, menace, food poison

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners to Identify and describe the stages of the life cycle of the housefly. Show the order of the stages of the life cycle of the housefly e.g. eggs ➡ larva ➡ pupa ➡ adult. Guide learners to describe how and what a housefly feeds on. e.g. feeding on dead animals, rotten food, manure, solid and liquid waste Using an experiment, discuss the developmental stages of the housefly from the egg to full grown housefly.  Caution learners to wash their with soap under running water after the experiment. <u>Assessment</u>	Pictures/videos/ models/charts/drawings/ cut-outs, science journals, internet of the stages of the life cycle of the house fly

	1. Draw and label the life cycle of mosquito. 2. Copy and do the work as presented on this sheet and as you may be directed by your teacher. 1. Write about things the housefly feeds on. Think of school, home and the community. A. ……..... B. ……..... C. ……..... D. ……..... E. ……....	
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. Ask learners how the lesson will benefit them in their daily lives.	

WEEK 8

Date:	**Period:**	**Subject:** Science	
Duration: 50mins		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Life Cycles Of Organisms	
Content Standard: B7.2.2.1 Demonstrate the skills of carrying out activities to show the stages of the life cycle of a housefly, the effects of its activities on humans and how to reduce them.	**Indicator:** B7.2.2.1.2 Discuss the activities of the housefly as a menace to humans and show how to reduce the effects of those activities.	**Lesson:** 3 of 4	
Performance Indicator: Learners can describe why the organism is considered as a menace on humans		**Core Competencies:** CI 5.1: CI 6.6: CC 8.1: DL5 .1: CI 5.3: CI 6.3: DL 5.6:	
Reference: Science Curriculum Pg. 10			
Keywords: dead animals, rotten food, manure, regurgitates			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Revise with learners through the stages of the life cycle of a housefly. *The life cycle of the fly starts with the egg and larval stage. These two stages develop in animal and vegetable refuse. The eggs hatch in as little as 24hrs. fly larvae(maggots) are a creamy-white color and are about ½ inch long. This stage lasts for 4-7 days and the shell hardens and darkens. This marks the beginning of the pupal stage. When the pupal stage is complete, the adult fly exits the puparium, dries, hardens, and flies away to feed, with mating occurring soon after emergence.* Learners in groups, use pictures, videos, models and charts to describe how and what a housefly feeds on. (E.g. feeding on dead animals, rotten food, manure, solid and liquid waste)  Have learners to discuss how the activities of the housefly affect humans in terms of: a) Transfer of types of diseases (such as dysentery). *The housefly carry about 1 million bacteria on their bodies and can transfer these to contaminated surfaces and food. The common*	Pictures, Videos, Charts, Cut-outs

	housefly can transmit the pathogens that causes shigellosis, typhoid fever and cholera. b) food poisoning. *The disease - causing agents can either be transmitted to food or surfaces when the fly lands. Additionally, pathogens can be transmitted when a fly regurgitates onto food in order to liquefy material for digestion.* c) nuisance in the environment. *Files may be more than a bother, since many breed, feed, or live in our food or in unclean sites such as in manure, garbage and dead animals. Files may spread germs to people, food and eating utensils.* <u>Assessment</u> 1. Describe why the organism is considered as a menace on humans. 2. Draw and label the life cycle of house fly.	
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. Ask learners how the lesson will benefit them in their daily lives.	

Date:	**Period:**	**Subject:** Science
Duration: 50mins		**Strand:** Cycles
Class: B7	**Class Size:**	**Sub Strand:** Life Cycles Of Organisms

Content Standard: B7.2.2.1 Demonstrate the skills of carrying out activities to show the stages of the life cycle of a housefly, the effects of its activities on humans and how to reduce them.	**Indicator:** B7.2.2.1.2 Discuss the activities of the housefly as a menace to humans and show how to reduce the effects of those activities.	**Lesson:** 4 of 4

Performance Indicator: Learners can describe why the organism is considered as a menace on humans	**Core Competencies:** CI 5.1: CI 6.6: CC 8.1: DL5 .1: CI 5.3: CI 6.3: DL 5.6:

Reference: Science Curriculum Pg. 10

Keywords: dead animals, rotten food, intervention, Chemical

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, review learners understanding in the previous lesson. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Engage learners to discuss the methods of controlling houseflies in the environment. Example: <u>Environmental method</u> – protection of food and eating utensils, reduction of sources that attract flies from other places. Prevention of contact of flies and disease. <u>Chemical method</u> - This include the use of insecticides. Have learners to examine the advantages and disadvantages in the methods identified above. Let learners explore and design an intervention that can reduce the effects of the activities of the housefly on humans. Engage learners to educate people of their community about the intervention. <u>Assessment</u> 1. Explain the environmental method of controlling houseflies. 2. State two advantages of the environmental method over the chemical method of controlling houseflies.	Pictures, Videos, Charts, Cut-outs

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. Ask learners how the lesson will benefit them in their daily lives.	

WEEK 9

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Crop Production	
Content Standard: B7.2.3.1 Demonstrate understanding of the different plant nutrients (organic, and inorganic fertilizers) and their application in school farming (school gardening)	**Indicator:** B7.2.3.1.1 Observe and list all plant nutrient sources available in a community and categorize them into organic and inorganic nutrient sources.	**Lesson:** 1 of 2	
Performance Indicator: Learners can describe organic and inorganic nutrient sources.		**Core Competencies:** CI 5.2: CP 5.6: CP 5.7:	
References : Science Curriculum Pg.11			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Recap with learners to review their understanding in the previous lesson. Introduce the lesson by sharing the performance indicators.	
PHASE 2: **NEW LEARNING**	Revise with learners on soil nutrients as one of the main resources that improve soil fertility. Brainstorm learners for the meaning of organic plant nutrients. *Organic plant nutrients are obtained from natural sources and also contain carbon.* *Inorganic plant nutrients are chemicals and doesn't contain carbon.* Learners to give examples of organic plant nutrients. Example: vitamins Create a table to explain the differences between organic and inorganic plant nutrients. Learners to compare the volumes of organic and inorganic nutrient source required by different plants	Samples of organic and inorganic fertilizers, Videos, Charts, Pictures
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.	

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Crop Production	
Content Standard: B7.2.3.1 Demonstrate understanding of the different plant nutrients (organic, and inorganic fertilizers) and their application in school farming (school gardening)	**Indicator:** B7.2.3.1.2 Describe the physical characteristics of different plant nutrients (organic and inorganic) and how each is applied to plants in the field	**Lesson:** 2 of 2	
Performance Indicator: Learners can describe the physical characteristics of different plant nutrients.		**Core Competencies:** CI 5.2: CP 5.6: CP 5.7:	
References : Science Curriculum Pg.11			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Recap with learners to review their understanding in the previous lesson. Introduce the lesson by sharing the performance indicators.	
PHASE 2: **NEW LEARNING**	Guide learners to Identify each plant nutrient source and explain how its physical structure and appearance affect its application. Learners to describe in groups how each type of nutrient source may be applied to plants in the field (e.g. school garden). Demonstrate practical application of each type of nutrient source to plants in the field (e.g. school garden).	Samples of organic and inorganic fertilizers, Videos, Charts, Pictures
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 10

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** ANIMAL PRODUCTION	
Content Standard: B7.2.4.1 Demonstrate an understanding of the differences among domestic animals such as ruminants, monogastrics and poultry (monogastric herbivore)	**Indicator:** B7.2.4.1.1 Examine and list domestic animals in the community	**Lesson:** 1 OF 2	
Performance Indicator: Learners can identify domestic animals in the community		**Core Competencies:** DL 5.1: CP 5.6: DL 5.6: CC 9.1CC 8.2	
Reference: Science Curriculum Pg. 12			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, find what learners already know about domestic animals. Have learners mention some animals in their homes. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Guide learners to identify different types of domestic animals in the community. Have learners match different domestic animals with their breeds. List and discuss the characteristics, such as shape, colour, size, food/ feeding and others, that can be used to classify domestic animals	Picture chart of domestic animals.
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.	

Date:	**Period:**	**Subject:** Science
Duration:		**Strand:** Cycles
Class: B7	**Class Size:**	**Sub Strand:** ANIMAL PRODUCTION

Content Standard: B7.2.4.1 Demonstrate an understanding of the differences among domestic animals such as ruminants, monogastrics and poultry (monogastric herbivore)	**Indicator:** B7.2.4.1.2 Show the differences and similarities among domestic animals	**Lesson:** 2 OF 2
Performance Indicator: Learners can describe the differences and similarities among domestic animals	**Core Competencies:** CP 5.6: CC 8.1: DL 5.3: DL5 .1: CC 8.2:. CP 5.1: CP 5.1: CP 5.2:	
Reference: Science Curriculum Pg. 13		

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, review learners understanding in the previous lesson. Introduce the lesson as you share performance indicators.	
PHASE 2: **NEW LEARNING**	Guide learners to classify domestic animals into ruminants, monogastrics and poultry. Learners to give examples of animals classified as ruminants, monogastrics, and poultry. In groups, learners discuss and write the differences among ruminants, monogastrics and poultry. Have learners write similarities in the nature and characteristics of ruminants, monogastrics and poultry in Ghana and other countries	Picture chart of domestic animals.
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 11

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Animal Production	
Content Standard: B7.2.4.2 Show an understanding of the usefulness of the different types of animals for domestic and commercial purposes	**Indicator:** B7.2.4.2.1 Discuss and write the domestic and commercial uses of different types of animals	**Lesson:**	
Performance Indicator: Learners can describe the uses of animals		**Core Competencies:** CP 5.6: CC 8.1: DL 5.3: DL5 .1: CC 8.2:. CP 5.1: CP 5.1: CP 5.2:	
Reference: Science Curriculum Pg. 14			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, find what learners already know about domestic animals. Have learners mention some animals in their homes. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Brainstorm learners to explain the concepts of domestic use and commercial use of animals. Make a poster of any two domestic animals that are useful and describe the domestic uses of ruminants, monogastrics and poultry. <u>Assessment</u> 1. State one domestic use each of ruminants, monogastrics and poultry	Picture chart of domestic animals
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.	

Date:	**Period:**	**Subject:** Science	
Duration:		**Strand:** Cycles	
Class: B7	**Class Size:**	**Sub Strand:** Animal Production	
Content Standard: B7.2.4.2 Show an understanding of the usefulness of the different types of animals for domestic and commercial purposes	**Indicator:** B7.2.4.2.2 Observe and compare the uses of the different types of animals	**Lesson:**	
Performance Indicator: Learners can describe the uses of animals		**Core Competencies:** CP 5.6: CC 8.1: DL 5.3: DL5 .1: CC 8.2:. CP 5.1: CP 5.1: CP 5.2:	
Reference: Science Curriculum Pg. 15			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, review learners understanding in the previous lesson. Introduce the lesson as you share performance indicators.	
PHASE 2: **NEW LEARNING**	Make a research on animals in your communities by observing them and discuss their different uses. List and match the different domestic animals to their commercial uses including their by-products (such as animal waste). <u>Assessment</u> 1. Identify any three domestic animals and state their uses	Picture chart of domestic animals
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 12

REVISION AND END OF TERM ASSESSMENT

Date:	**Period:**	**Subject:** Science
Duration: 50 mins		**Strand:** Strands treated for the term
Class: B7	**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.
Performance Indicator: Learners can recall and summarize all what they have learnt within the term		**Core Competencies:** CP 5.6: CC 8.1: DL 5.3: DL5 .1: CC 8.2:. CP 5.1: CP 5.1: CP 5.2:
Reference: Science Curriculum Pg. 1 to 15		

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Using questions and answers, find out from learners what they already know about the three states of matter. Share the performance indicators with learners.	
PHASE 2: **NEW LEARNING**	Revise with learners to create and complete a table to record the texture, appearance, color and shape of a group of materials assembled from the environment. Learners to group materials into liquids, solids and gases.  Discuss the differences among liquids, solids and gases. Revise with learners on the importance of liquids in the life of humans. Revise with learners the meaning of living cell. A living cell is the smallest unit of a living organism. Let learners identify and describe the structure of a plant and animal cell as seen in a video, a chart, pictures and magnifiers.	Pictures and chart.

	Guide learners to Identify and describe the stages of the life cycle of the housefly. Show the order of the stages of the life cycle of the housefly e.g. eggs ⇒ larva ⇒ pupa ⇒ adult. Revise with learners to describe how and what a housefly feeds on. e.g. feeding on dead animals, rotten food, manure, solid and liquid waste. <u>Assessment</u> 1. Draw a well labelled diagram of a plant and animal cell. 2. State the function of the nucleus, cell membrane and cytoplasm. 3. Draw and label the life cycle of mosquito. 4. Describe the stages of the life cycle of 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.	

Date:	**Period:**	**Subject:** Science
Duration: 50 mins		**Strand:** Strands treated for the term
Class: B7	**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
Performance Indicator: Learners can answer all end of term assessment questions in their exercise books.		**Core Competencies:** CP 5.6: CC 8.1: DL 5.3: DL5 .1: CC 8.2:. CP 5.1: CP 5.1: CP 5.2:
Reference: Science Curriculum Pg. 1 to 15		

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.