

SECOND TERM

WEEKLY LESSON NOTES

WEEK 10

Week Ending:		DAY:	Subject: Science
Duration: 100mins		Strand: Humans & the Environment	
Class: B9	Class Size:		Sub Strand: Waste management
Content Standard: B9.5.1.1 Demonstrate an understanding of the scientific ways of waste management		Indicator: B9.5.1.1.1 Investigate the scientific methods used in waste management.	Lesson: 1 of 2
Performance Indicator: Learners can identify scientific methods such as recycling and composting used in waste management		Core Competencies: Critical Thinking and Problem Solving (CP), Communication and Collaboration (CC) Digital Literacy (DL), Creativity and Innovation	
References: Science Curriculum Pg. 109			
Key words: Waste management, Recycling, Composting, Scientific methods			
Phase/Duration	Learners Activities	Resources	
PHASE 1: STARTER	<p>Begin the lesson with a brief discussion about waste management.</p> <p>Ask learners what comes to mind when they think about waste and how it is managed in their school or community. Write down their responses on the board.</p> <p>Share learning indicators and introduce the lesson.</p>		
PHASE 2: NEW LEARNING	<p>Define key terms: waste management, recycling, composting. Briefly explain the importance of effective waste management for environmental sustainability.</p> <p>Introduce the focus of the lesson: identifying scientific methods in waste management and understanding the scientific principles behind them.</p> <p>Divide the class into small groups.</p> <p>Provide each group with information about specific waste management methods (recycling, composting, etc.).</p> <p>Instruct learners to identify the scientific principles behind each method and how they contribute to waste reduction.</p> <p>Each group presents their findings to the class, fostering a collective understanding of scientific methods in waste management.</p>	<p>Visual aids or diagrams depicting waste management methods</p> <p>Real-life examples or case studies of waste management practices</p>	

	<p>Engage the class in a discussion about the scientific principles behind various waste management methods.</p> <p>Discuss topics such as decomposition, material transformation, and resource recovery.</p> <p>Use visual aids to enhance understanding and clarify any misconceptions.</p> <p><u>Assessment</u></p> <ol style="list-style-type: none"> 1. What scientific principle allows plastic bottles to be recycled into new clothing? 2. How does adding water and turning compost piles help accelerate decomposition? 3. Why is it important to properly sort different materials during recycling? 4. What is one way your school could reduce the amount of waste it generates? 	
<p>PHASE 3: REFLECTION</p>	<p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>	

Week Ending:	DAY:	Subject: Science
Duration: 100mins		Strand: Humans & the Environment
Class: B9	Class Size:	Sub Strand: Waste management
Content Standard: B9.5.1.2. Demonstrate an understanding of the impact of waste on an environment, innovative waste management technologies for sustainable development and waste management practices in Ghana		Indicator: B9.5.1.2.1 Describe innovative ways of waste management for sustainable development.
		Lesson: 1 of 2
Performance Indicator: Learners can explain the impact of waste on the environment, identify innovative ways to manage waste for sustainable development		Core Competencies: Critical Thinking and Problem Solving (CP), Communication and Collaboration (CC) Digital Literacy (DL), Creativity and Innovation
References: Science Curriculum Pg. 109		
Key words: Plastic pollution, Upcycling, Waste-to-energy		
Phase/Duration	Learners Activities	Resources
PHASE 1: STARTER	<p>Begin the lesson with a thought-provoking question: "What do you think happens to the waste produced in your community, and how might it affect the environment?"</p> <p>Allow learners to share their thoughts and ideas. Write down key points on the board.</p> <p>Share learning indicators and introduce the lesson.</p>	
PHASE 2: NEW LEARNING	<p>Define key terms: waste impact, sustainable development, innovative waste management.</p> <p>Provide an overview of the lesson's objectives and the importance of addressing waste issues for sustainable development.</p> <p>Discuss the environmental impact of different types of waste, such as plastic pollution, air pollution from burning waste, and soil contamination.</p> <p>Use visual aids to illustrate the consequences of improper waste disposal.</p> <p>Encourage learners to think critically about the long-term effects on ecosystems and human health.</p> <p>Divide the class into small groups.</p>	<p>Visual aids or infographics on waste impact</p> <p>Examples of innovative waste management practices</p> <p>Information on types of waste in Ghana</p>

	<p>Provide examples of innovative waste management practices (e.g., upcycling, waste-to-energy projects, community recycling initiatives).</p> <p>Instruct each group to research and present an innovative method, discussing its environmental benefits and challenges.</p> <p>Assign each student or group a specific type of waste commonly produced in Ghana (e.g., plastic waste, electronic waste).</p> <p>Learners research the characteristics, sources, and impacts of their assigned waste type.</p> <p>Present findings to the class, fostering a comprehensive understanding of waste in the local context.</p> <p><u>Assessment</u></p> <ol style="list-style-type: none"> 1. How does plastic waste pollution in Ghana's water bodies affect marine life? 2. What environmental benefit does converting organic waste into biogas offer? 3. Briefly explain why e-waste is a particular challenge for Ghana's waste management system. 4. What is one action individuals can take in their communities to improve waste management practices? 	
<p>PHASE 3: REFLECTION</p>	<p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>	