SECOND TERM
WEEKLY LESSON NOTES
WEEK 7

Week Ending:	**DAY:**	**Subject:** Science
Duration: 100mins		**Strand:** Systems
Class: B9	**Class Size:**	**Sub Strand:** Ecosystem

Content Standard: B9.3.3.1 Recognize the interdependence of organisms in an ecosystem and appreciate their interaction to maintain balance in the system	**Indicator:** B9.3.3.1.1 Conduct research into the composition of an ecosystem and discuss how the components depend on each other for survival.	**Lesson:** 1 of 1

Performance Indicator: Learners can differentiate between an ecosystem and a habitat and identify their key characteristics and appreciate the interconnectedness of life and the importance of maintaining healthy ecosystems.	**Core Competencies:** Critical Thinking and Problem Solving (CP), Communication and Collaboration (CC) Digital Literacy (DL), Creativity and Innovation

References: Science Curriculum Pg. 104

Key words:

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Begin by asking learners what they know about different environments where plants and animals live. Introduce the concept of an ecosystem as a community of living organisms interacting with each other and their non-living environment. Show pictures of various ecosystems around the world to spark their curiosity and showcase diversity Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Choose a specific ecosystem (e.g., a forest) and display related pictures of different organisms (trees, insects, birds, mammals). Explain the concept of interdependence and how organisms rely on each other for survival (food, shelter, pollination, etc.). Divide learners into small groups and provide them with yarn and construction paper. Challenge each group to create a web of interdependence, connecting pictures of organisms with yarn strands based on their interactions and dependencies.	Pictures or diagrams of various ecosystems (forests, deserts, ponds, etc.) Pictures of different organisms within each ecosystem

	Encourage discussion within groups about the different relationships they identified and the overall web of life within the chosen ecosystem. Introduce the concept of a habitat as the specific place where an organism lives and finds its basic needs. Compare and contrast habitats with ecosystems, emphasizing the narrower focus on a specific organism's niche. Show pictures of different organisms and their corresponding habitats (e.g., a coral fish in a reef, a penguin on ice). Play a "Habitat Hideout" game where learners act as different organisms and race to find their corresponding habitat picture based on clues about their needs and adaptations. Discuss the diversity of habitats and their importance in providing suitable conditions for different organisms to thrive. Provide learners with the worksheet containing pictures and descriptions of different ecosystems. Challenge them to identify the organisms, their interactions, and the key characteristics of each ecosystem. Have learners answer questions on the worksheet about interdependence, food webs, and potential threats to these ecosystems. Encourage group discussion and collaboration to analyze the information and understand the complex dynamics within each ecosystem <u>Assessment</u> Divide learners into groups and assign each group a different ecosystem they studied. Provide them with materials like construction paper, markers, and yarn to create a large collaborative mural of their assigned ecosystem. Challenge them to include diverse organisms, their interactions, and important features of the habitat. Allow time for creative expression and group teamwork to showcase their understanding of ecosystems and interdependence.	construction paper, yarn, markers, etc.

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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Performance Indicator: Learners can analyze and predict the impacts of various types of interference on ecosystem balance and understand the importance of maintaining the delicate balance in ecosystems for sustainable life.		**Core Competencies:** Critical Thinking and Problem Solving (CP), Communication and Collaboration (CC) Digital Literacy (DL), Creativity and Innovation	
References: Science Curriculum Pg. 104			
Key words:			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Begin by asking learners what they know about food chains and how organisms depend on each other for food. Introduce the concept of an ecosystem as a web of interconnected food chains and explain the role of producers, consumers, and decomposers. Show pictures of different ecosystems and mention specific examples of food chains within each.	

	Share learning indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Choose a specific ecosystem relevant to your location or learners' interest (e.g., a tropical rainforest, a coral reef, a grassland). Divide learners into small groups and provide them with food chain and food web templates. Challenge each group to research and construct a simple food chain within their assigned ecosystem, identifying producers, consumers, and decomposers. Encourage them to connect multiple food chains into a complex food web, illustrating the interconnectedness of organisms and energy flow. Have groups share their created food chains and webs, discussing the relationships between organisms and the overall ecosystem balance. Introduce the concept of ecosystem balance and its importance for the survival of all living organisms. Present the list of potential interferences (earthquake, volcanic eruptions, hunting, farming, mining, "galamsey," pollution, pesticides, bush burning). Divide the class into small groups and assign each group a specific interference. Provide them with the worksheet containing questions about the potential impacts of their assigned interference on different components of the chosen ecosystem and its overall balance. Challenge learners to analyze the impacts on producers, consumers, decomposers, food chains, and the web as a whole. Encourage group discussion and collaborative analysis to predict the consequences and potential long-term effects on the ecosystem. <u>Assessment</u> Organize a debate on the topic: "Development vs. Conservation: Striking a Balance for a Sustainable Future."	Pictures or diagrams of different ecosystems (forests, oceans, etc.) Food chain and food web templates List of potential ecosystem interferences (earthquake, volcanic eruptions, hunting, farming, mining, "galamsey," pollution, pesticides, bush burning)
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.	