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BASIC 7

WEEKLY LESSON PLAN – WEEK 5

Strand:	Forces and Energy		**Sub-Strand:**	Agricultural Tools	
Content Standard:	B7.4.5.1Demonstrate knowledge and skills in handling and maintenance of basic and simple agricultural tools				
Indicator (s)	B7.4.5.1.1 Explain the basic rules in handling and maintaining simple agricultural tools. B7.4.5.1.2 Apply the handling and maintenance of basic and simple agricultural tools in their community		**Performance Indicator:** Learners can use agricultural or farm tools.		
Week Ending					
Class	B.S.7	**Class Size:**		**Duration:**	
Subject	Science				
Reference	Science Curriculum, Teachers Resource Pack, Learners Resource Pack.				
Teaching / Learning Resources	Cutlass, hoe, Word chart, Poster, Pictures		**Core Competencies:**	• Digital Literacy • Critical Thinking and Problem Solving • Communication and Collaboration.	
DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**			**PHASE 3: REFLECTION**

MONDAY	Learners are to be guided to identify 5 basic farm tools.	1. Call individual Learners to give examples each of tools used in Crop Farms and Animal Farms. 2. Assist Learners to explain handling and maintenance of Agricultural tools. 3. Discuss the importance of Agricultural tools with the Learners. 4. Learners brainstorm to list and match the basic rules in handling and maintenance of tools with specific simple tools used in agriculture. **Agricultural tools;** *Agricultural tools* *are implements* and *machinery* employed in the sector of *agriculture*.  **i.** Cultivator **ii.** Harrow **iii.** Spade **iv.** Secateurs **v.** hand trowel **vi.** garden fork **vii.** sprinklers **viii.** Rake **ix.** pruning saw **x.** spray pumps **xi.** grass shear **xii.** budding **xiii.** grafting knives **Following are the different types of agricultural implements used by the farmers to facilitate easy production of crops:** • Irrigation Machinery. It includes central pivot irrigation systems and pump units. • Soil Cultivation Implements. • Planting Machines. • Harvesting Implements. • Other Agricultural Equipment.	Through questioning, reflect on the importance of using Agricultural tools. **Exercise;** 1. State 5 examples of tools used in crop Farms. 2. Write 5 importance of using Agricultural tools.

THURSDAY	Take a field trip with the learners to the school farm to observe how handling and maintenance of basic and simple agricultural tools are used in farms .	1. Learners to write a report on their observation. 2. Assist Learners to assemble agricultural tools from the community and practice handling the tools to perform simple agricultural operations. 3. Discuss operational rules of handling agricultural tools with the Learners. **How to Effectively Maintain Farm Tools and Equipment** • Sharpen tool before and after use. • Oil or grease metal parts. • Wooden handles should be strong. • Hang your garden tools. • Store tools in their original cases. • Use silica gel packs. • Dry Tools After Use. 	Take Learners to the school farm to practice using agricultural tools. **Exercise;** State the uses of the following; a. Hoe b. Rake c. Cutlass d. Pick Axe
FRIDAY	Review Learners knowledge on the previous lesson.	1. Learners brainstorm to identify examples of modern technology tools used for farming. 2. Discuss with Learners on how technology tools are used for farming. 3. Assist Learners to compare simple farm tools and modern technology tools used for farming. **Examples of Agricultural technology tools;** ○ Smart Agriculture Sensors Weather conditions, plant moisture, **soil temperature** and fertility, pest infestations, and weed locations can all be determined with the help of agriculture sensor technology. The use of this data assists growers, agri-consultants, insurers, and others involved in the agricultural	Learners in small groups to discuss and report to the class about the impact of technology on Agriculture. **Exercise;** 1. State 5 modern technology tools used for farming. 2. Write the uses of the technology tools identified.

sector in making more informed decisions, leading to more output from farms at lower costs

- Agricultural Drone Technology

Drones, also known as unmanned aerial vehicles (UAVs), are becoming more and more common in the agricultural industry. Drones may scan a field from above and report on problems like pests, infections, and a lack of essential nutrients. This agricultural data gives farmers command over the state of their fields.

- Robotic Technology In Agriculture

Robotic farm labor technology appears to be a viable choice for precision agricultural needs because it can **do monotonous tasks without sacrificing accuracy**. The autonomous performance of such robots would allow for continuous field management and improved agricultural productivity and efficiency as a result of the robot's ability to gather information about its environment on its own

Benefits Of Technology In Agriculture

The implementation of smart agricultural technology is advantageous for all players in the agri-food chain. With its use in optimizing and automating agricultural operations and

		field activities, growers and landowners can now save significant amounts of time and effort. These are just a few examples of how farming has benefited from advances in agriculture technology: • using less water, fertilizer, pesticides, and other inputs allows agricultural producers to cut costs and keep more of their profits; • by preventing or drastically reducing the amount of chemical runoff into waterways, businesses lessen agriculture's impact on the environment and take steps toward greater sustainability; • **increasing crop yields** while decreasing labor inputs; • making it easier for farmers, agronomists, or other agricultural workers to communicate and coordinate activities using mobile devices, apps, or web-based resources; • lowering barriers to accessing agricultural insurance and financial services as well as market and technological data; • mitigation of the damage that could be caused by pests, natural calamities, and bad **weather in agriculture** with the help of affordable, always-on agricultural monitoring systems; • increase in farm income through improved product quality and increased quality controls; • timely recognizing **nutrient deficiency in plants** and notifying agricultural producers of the type and amount of fertilizer and other amendments needed; • ability to foresee potential problems on the farm through the visualization of production patterns and trends gleaned from an analysis of current and historical agricultural data. By estimating their overall crop yield, agricultural producers can precisely budget for the next growing season and better prepare for emergencies.	

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Name of Teacher: ***School:*** ***District:***