

**UNIT PLAN for GRADE 10 AGRICULTURAL SCIENCE SEPTEMBER to DECEMBER 2025**

Weeks	Topics	Subtopics	Learning Objectives – Students should be able to:	Activities
One 01 – 05/09/25				Diagnostic Test
	<b>Millennium Development Goal 1</b> – Eradicate extreme poverty and hunger. <b>General Objectives</b> – Students should understand the different components of agriculture.			
	Agricultural Science and Agriculture	Definition and Scope of Agriculture	1. Define the term agriculture, science and agricultural science; 2. Explain the scope of agriculture; 3. Discuss the impact of agriculture on the economies;	Comprehension passage
	Livestock and or Crop Production	SBA Skills	1. Wash the poultry house and equipment along with cleaning the environment; 2. Clean and return tools to store room;	
Two 08 – 12/09/25				
	Agricultural Science and Agriculture	History of Agriculture	1. Define the following terms subsistence, peasant, plantation, conventional, alternative, etc.; 2. Discuss the history of agriculture in terms of the different changes that have been made; 3. Forecast agriculture in the next ten years; and 4. Appreciate the journey of agriculture in providing for an increase in population and a health-conscious society;	Matching Sketching
	Agricultural Science and Agriculture	Alternatives to Conventional Farming	1. Explain the concept of non-conventional farming techniques and differentiate it from traditional methods; 2. Identify various non-conventional farming techniques like hydroponics, aquaponics, vertical farming, permaculture, agroforestry, etc.; 3. Investigate how technology and innovation support non-conventional farming practices; 4. Explore careers in sustainable and non-conventional agriculture;	Matching Multiple choice

	Livestock and or Crop Production	SBA Skills	<ol style="list-style-type: none"> <li>1. Construct brooding area;</li> <li>2. Sow seeds in seed trays;</li> <li>3. Clean and return tools to store room;</li> </ol>	
Three 15 – 19/09/25	Agricultural Science and Agriculture	Alternatives to Conventional Farming (Hydroponics, Aquaponics and Vertical Farming)	<ol style="list-style-type: none"> <li>1. Define hydroponics, aquaponics and vertical farming;</li> <li>2. Explain the advantages and disadvantages hydroponics, aquaponics and vertical farming;</li> <li>3. Discuss the roles of hydroponics, aquaponics and vertical farming in sustainable agriculture;</li> <li>4. State the plants that are best suited for the systems;</li> <li>5. Make a model of a hydroponics, an aquaponics or vertical farm systems;</li> </ol>	Create a model
		Alternatives to Conventional Farming (Grow Box, Trough Culture and Key Hole)	<ol style="list-style-type: none"> <li>1. Define grow box, trough culture and key hole;</li> <li>2. Explain the advantages and disadvantages grow box, trough culture and key hole;</li> <li>3. Discuss the roles of grow box, trough culture and key hole in sustainable agriculture;</li> <li>4. State the plants that are best suited for the systems;</li> <li>5. Prepare trough and plant seeds;</li> </ol>	Cultivation
	Livestock and or Crop Production	SBA Skills	<ol style="list-style-type: none"> <li>1. Tend to chickens;</li> <li>2. Clear the agricultural plot;</li> <li>3. Clean and return tools to store room;</li> </ol>	
Four 22 – 26/09/25	Agricultural Science and Agriculture	Alternatives to Conventional Farming (Urban and Peri-Urban Farming (UPA))	<ol style="list-style-type: none"> <li>1. Define urban and peri-urban farming;</li> <li>2. Explain the advantages and disadvantages urban and per-urban farming;</li> <li>3. Discuss the roles of urban and peri-urban farming to the environment and in sustainable agriculture;</li> <li>4. State the plants that are best suited for the systems;</li> </ol>	Sketch a diagram

			5. Sketch a diagram showing how they would implement urban and peri-urban farming systems in their communities;	
		Alternatives to Conventional Farming (Permaculture)	<ol style="list-style-type: none"> <li>1. Define permaculture;</li> <li>2. Explain the advantages and disadvantages permaculture;</li> <li>3. Discuss the impact of permaculture on human settlement and sustainable agriculture;</li> <li>4. State the plants that are best suited for permaculture;</li> <li>5. Design a poster or sketch a diagram to show how human settlement and agriculture can mimic the natural environment;</li> </ol>	Design a poster or sketch a diagram
	Livestock and or Crop Production	SBA Skills	<ol style="list-style-type: none"> <li>1. Tend to chickens;</li> <li>2. Perform primary and secondary tillage;</li> <li>3. Clean and return tools to storage room;</li> </ol>	
Five 29/09 – 03/10/25	Agricultural Science and Agriculture	Alternatives to Conventional Farming (Agroforestry)	<ol style="list-style-type: none"> <li>1. Define agroforestry;</li> <li>2. Explain the advantages and disadvantages agroforestry;</li> <li>3. Discuss the roles of agroforestry in sustainable land use;</li> <li>4. State the plants that are best suited for the system;</li> <li>5. Create a model of an agroforestry system;</li> </ol>	Create a model
		Alternatives to Conventional Farming (Organic Farming – Benefits and Principles)	<ol style="list-style-type: none"> <li>1. Define organic farming;</li> <li>2. Explain the advantages and disadvantages organic farming;</li> <li>3. Discuss the four core principles (health, ecology, fairness and care) of organic farming;</li> <li>4. Create a chart demonstrating four core principles of organic farming;</li> </ol>	Make a chart
	Livestock and or Crop Production		<ol style="list-style-type: none"> <li>1. Tens to chickens;</li> <li>2. Create ridges and furrows;</li> <li>3. Clean and return tools to store room;</li> </ol>	

Six 06 – 10/10/25	Agricultural Science and Agriculture	Alternatives to Conventional Farming (Organic Farming – Certification)	<ol style="list-style-type: none"> <li>1. Explain the purpose of the organic farming certification process;</li> <li>2. State three organizations in Jamaica that are involved in the certification process and their roles;</li> <li>3. Do a play to show how the certification process is carried out;</li> </ol>	Role play Crossword puzzle
				<b>Sessional Test # 1</b>
	Livestock and or Crop Production	SBA Skills	<ol style="list-style-type: none"> <li>1. Tend to chickens;</li> <li>2. Transplant seedlings or plant seeds;</li> <li>3. Clean and return tools to store room;</li> </ol>	
Seven 13 – 17/10/25				
	Role of Agriculture and Support Services	Role and Importance of Agriculture	<ol style="list-style-type: none"> <li>1. List two economic importance of agriculture;</li> <li>2. Discuss the importance of agriculture in Jamaica now versus five years ago;</li> </ol>	Multiple choice Short answer questions
		Types of agricultural Enterprises	<ol style="list-style-type: none"> <li>1. State various career opportunities in agriculture;</li> <li>2. Describe the types of agricultural enterprises from input suppliers to marketing;</li> </ol>	Multiple choice Short answer questions
Eight 20 – 24/10/25	Livestock and or Crop Production	SBA Skills	<ol style="list-style-type: none"> <li>1. Tend to the chickens;</li> <li>2. Tend to the crops;</li> <li>3. Clean and return tools to the store room;</li> </ol>	Practical Paragraph writing
			<ol style="list-style-type: none"> <li>1. Prepare for slaughter;</li> <li>2. Tend to the crops;</li> <li>3. Clean and return tools to the store room;</li> </ol>	Practical Paragraph writing
			Trip	Worksheet
Nine 27 – 31/10/25	Livestock and or Crop Production		<ol style="list-style-type: none"> <li>1. Slaughter;</li> <li>2. Tend to crops;</li> <li>3. Clean and return tools to store room;</li> </ol>	Practical Paragraph writing
	Role of Agriculture and Support Services	Local Institutions	<ol style="list-style-type: none"> <li>1. State at least two local institutions;</li> <li>2. Explain the functions of at least one institution;</li> <li>3. Discuss the impact of at least one institution on rural agriculture;</li> </ol>	Multiple choice Short answer question

	Role of Agriculture and Support Services	Regional Institutions	<ol style="list-style-type: none"> <li>1. State at least two regional institutions;</li> <li>2. Explain the functions of at least one institution;</li> <li>3. Discuss the impact of at least one institution on regional agriculture;</li> </ol>	Multiple choice Short answer
	Livestock and or Crop Production	SBA Skills	<ol style="list-style-type: none"> <li>1. Clean poultry house and equipment;</li> <li>2. Tend to crops;</li> <li>3. Clean and return tools to store room;</li> </ol>	Practical Paragraph writing
Ten 03 – 07/11/25	Role of Agriculture and Support Services	International Institutions	<ol style="list-style-type: none"> <li>1. State at least two regional institutions;</li> <li>2. Explain the functions of at least one institution;</li> <li>3. Discuss the impact of at least one institution on international agriculture;</li> </ol>	Multiple choice Short answer
	Challenges Confronting Agriculture	Local and Regional Issues	<ol style="list-style-type: none"> <li>1. Identify the issues that affect agriculture at Ascot High School;</li> <li>2. Explain at least two issues that agriculture faces;</li> <li>3. Discuss possible solution of at least one issue;</li> </ol>	Short answer Crossword puzzle
	Livestock and or Crop Production	SBA Skills	<ol style="list-style-type: none"> <li>1. Tend to crops;</li> <li>2. Clean and return tools to store room;</li> </ol>	Practical SBA
Eleven 10 – 14/11/25	Plant Anatomy and Physiology	Uses of Plants in Agriculture	<ol style="list-style-type: none"> <li>1. State at least three uses of plants in agriculture;</li> <li>2. Explain one of the uses of plants in agriculture;</li> <li>3. Choose terms related to the use of plants and match with the most appropriate word or phrase;</li> <li>4. Appreciate the importance of plants to the sustaining of life;</li> </ol>	Matching
		External Structure of Dicotyledonous Plants	<ol style="list-style-type: none"> <li>1. Identify and label at least six parts of a dicot plant;</li> <li>2. Explain the function of at least three parts of a dicot plant;</li> <li>3. Discuss the importance of a named dicot plant to the environment and agriculture;</li> </ol>	Labelling Matching Short answer

	Livestock and or Crop Production	SBA Skills		SBA
Twelve 17 – 21/11/25	Plant Anatomy and Physiology	External Structure of Monocotyledonous Plants	<ol style="list-style-type: none"> <li>1. Identify and label at least six parts of a monocot plant;</li> <li>2. Explain the function of at least three parts of a monocot plant;</li> <li>3. Discuss the importance of a named monocot plant to the environment and agriculture;</li> </ol>	Labelling Matching Short answer
		Classification of Plants	<ol style="list-style-type: none"> <li>1. Classify plants based on their life cycle, growth habit, parts consumed and utility of product using examples;</li> <li>2. Complete a crossword puzzle on classification terms;</li> <li>3. Identify different plant specimen;</li> </ol>	Plant identification Crossword puzzle
	Livestock and or Crop Production	SBA Skills		SBA
Thirteen 24 – 28/11/25	Plant Anatomy and Physiology	Internal Structure of Plants (Roots)	<ol style="list-style-type: none"> <li>1. Identify the two main types of root systems;</li> <li>2. Explain at least two functions of the root system;</li> <li>3. Examine the internal structure of a root using a microscope;</li> <li>4. Label the internal structure of a root;</li> <li>5. Match each structure with the correct function;</li> </ol>	Labelling Matching
		Internal Structure of Plants (Stem)	<ol style="list-style-type: none"> <li>1. Explain at least two functions of a stem;</li> <li>2. Examine the internal structure on a monocot and dicot stem using a microscope;</li> <li>3. State at least two differences between the monocot and dicot stem;</li> <li>4. Label the internal structure of a monocot and dicot stem;</li> <li>5. Match structures with the correct function;</li> </ol>	Labelling Matching Crossword puzzle
		External and Internal Structure of a Leaf	<ol style="list-style-type: none"> <li>1. Label a typical leaf;</li> <li>2. Identify five different types of leaf;</li> <li>3. Explain at least two functions of a leaf;</li> </ol>	Labelling Matching Short answers

			4. Examine the internal structure of a leaf using a microscope; 5. Label a least six internal structures of a leaf; 6. Match each structure with the correct function;	
Fourteen 01 – 05/12/25		External and Internal Structure of a Monocot and Dicot Seed	1. Identify different types of seeds; 2. Label the external structure of a dicot seed; 3. Explain the function of at least two external structures; 4. Open and examine the internal structure of a dicot seed; 5. Compare the internal structures of a dicot and monocot seed using pictures; 6. Match structures with the correct function;	Seed identification Labelling Short answer Matching
	Livestock and or Crop Production	SBA		SBA
	Livestock and or Crop Production	SBA		SBA
<b>Comments</b>				