

**REPUBLIC OF TRINIDAD AND TOBAGO  
MINISTRY OF EDUCATION**

**PRIMARY SCHOOL CURRICULUM**

**CURRICULUM GUIDES  
AGRICULTURAL SCIENCE  
INFANTS 1 – STANDARD 5**

**Curriculum Planning and Development Division  
2013**

DRAFT

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## Foreword of the Minister of Education



The Ministry of Education sees that education is the key to preparing our country to have a knowledge-driven economy that can be competitive in the region and across the world. It is fundamental to the development of Trinidad and Tobago. We are committed to making human development the central focus of education through the creation of mechanisms for skills-building, life-long learning and institutional strengthening.

Additionally, in this world in which innovation is essential, fostering creativity and higher-order thinking skills in our citizens is an imperative. We recognise too that Literacy and Numeracy are core skills which need to be developed, since these constitute the main areas on which the performance in education of our country is measured.

Within my tenure as Minister of Education, sixteen priority areas have been identified for significant change in the educational landscape of our nation. Our primary sector has been an area of concern, with many of our students not attaining the knowledge and skills necessary for secondary education nor for functioning as young citizens of our nation. The priority areas targeted for intervention at the primary level are: Curriculum Reform, Literacy and Numeracy, Integration of ICTs

in Education, a Continuous Assessment Programme and Improving Infrastructure in Schools. Also significant are the movement of the SEA examination, teacher training and other measures geared toward improving academic performance. All these initiatives work together to bring our primary sector to a quality that will support the requirements for a world-class education for each of our children. Within this context, the primary curriculum has been rewritten in order to prepare our children for successful living in the 21<sup>st</sup> century. The principles underlying this project were:

- The belief that curriculum reform must address the needs of 21<sup>st</sup> century development and the labour market needs of the society, as well as build the foundation for responsible citizenship and ensure the optimisation of multiple talents, including the arts and sports.
- The creation of a learning system that accommodates all types of learners, not limited to the academically gifted.
- The strengthening and enhancement of the cognitive, social and psycho-motor skills learnt at the primary level for a seamless transition to the secondary level.

The new primary curriculum has been carefully designed and developed in accordance with international best practice and in accordance with these requirements. This curriculum will meet the needs of our country's development through the achievement of the full potential of each child.

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# The National Curriculum Framework

## INTRODUCTION

This curriculum framework is intended to outline the nature and purpose of the curriculum as well as the parameters for consistent curriculum implementation throughout primary education in Trinidad and Tobago. The document sets out the principles that govern and guide teaching and learning. The term 'curriculum' is used in this document to describe the sum total of the planned experiences which occur within that environment, and which were designed to foster children's learning and development. These include activities, and events, with either direct or indirect impact upon the child.

A clear understanding of the nature, role and function of the national curriculum for Trinidad and Tobago is a critical part of the whole positive transformation of education to provide a seamless pathway for all students through the system of teaching and learning. This framework provides the basis for the new primary integrated curriculum, which includes specification of subject-areas selected to maximize twenty-first century learning in a student-centred innovative education system in Trinidad and Tobago. The components which are fundamental to transformation of primary education at this point in time form the underlying concepts which guided the development of the curriculum and give direction to teaching and learning. They are of particular importance to the development of our students and of our nation because they establish common understandings about teaching

and learning. These understandings inform how all schools are expected to focus on the achievement of the goals laid out by the Ministry of Education for a future-oriented inclusive education for all. For Trinidad and Tobago, the National Curriculum Framework becomes the basis for all education and curriculum decision-making, including the design, development and implementation strategies for a new system of teaching and learning covering those critical seven years of education. The statement of outcomes for students are a key part of this education framework and forms the basis for all subsequent decisions about teaching and learning, content, pedagogy and assessment. These must work towards fulfilling the vision for successful students and future citizens of our nation.

In order to establish common ground and ensure that the curriculum can be implemented as designed, a set of foundational principles needs to be established. This National Curriculum Framework establishes a consistent foundation for learning that is undergirded by the vision, mission and the five value outcomes for all children as detailed by the Ministry of Education. Given that this is the agency with ultimate responsibility for the education, care and well-being of every learner in the country, the National Curriculum Framework and the curriculum that devolves from it essentially provide the basis for all teaching and learning activity.

Part of that foundation is the recognition that a curriculum is both product and process, and that any new curriculum materials needs to reflect those notions in the design. Furthermore all curriculum design, development and implementation must be guided by the existing vision, mission and five value outcomes for education in the country. Finally, the foundation must ensure that all curriculum activity, including implementation at the classroom level, functions within the guiding principles of education established by the Ministry of Education. It must also be stated that the guiding principles of the Ministry of Education were developed after extensive stakeholder

dialogue and sound analysis of the current societal and national requirements.

For an effective and relevant twenty-first century process of teaching and learning, these guiding principles are an indicator that the Ministry of Education seeks to place education in Trinidad and Tobago alongside, if not ahead of international best practices. The Ministry of Education has established an *Education Sector Strategic Plan 2011-2015* to achieve the goals of quality, innovative, challenging, flexible education for all, and has begun an investment in human and material resources to achieve this outcome in a purposeful and timely fashion.

## BACKGROUND

In order to effectively administer the formal education sector, and ensure that every child has the best opportunity to learn, the Ministry of Education provides direction and guidance based upon sound educational theory and practices together with a considerations from extensive stakeholder consultations. In 2011 the Ministry of Education conducted two national consultations on the primary education curriculum, along with 7 district consultations and one in Tobago. Information received from these stakeholder consultations informed the direction and decisions of the Ministry of Education to better meet the requirements of education at the primary level. Alongside this, a detailed, critical examination of current practice, both within and outside the country was conducted to identify elements that contribute to a quality education.

A detailed and comprehensive plan to revise and update all components of the teaching learning system to new internationally accepted standards emerged. Part of this transformation involved reviewing and assessing current curriculum documentation and practices. A professional review and assessment of the previous curriculum documents was completed, and recommendations were presented to guide the development of the new curriculum framework. A new standard for teaching and learning, which is evident in international best practice, shows that at lower grade level, children learn best when presented with knowledge, skills and values that are integrated and thematically organized. The integration of subject matter and skills or cross-subject connections is an important feature of the design, development, and implementation of the new curriculum.

Integration does not mean that the subject areas disappear. In fact, the subject areas have become pillars and supports for innovative and transformative learning experiences covering these critical seven years of formal education. This new twenty-first century curriculum for Trinidad and Tobago provides every opportunity for the child to learn, master new important skills, and develop character and values that are

critical to their role as productive, caring and responsible citizens, locally, regionally and internationally. This new integrated, innovative, flexible curriculum provides learners with a journey of inquiry and discovery. This integrated thematic curriculum will place Trinidad and Tobago's education system on par with international leaders in the education arena.

## DEFINITION

The term 'curriculum' has several meanings, depending on the context and the perspective of curriculum theory that is applied to the definition. Most theories concur that there are four fundamental components within definitions of curriculum:

- Curriculum as the transmission of a body of knowledge.
- Curriculum as product - defined by the ends or achievements expected.
- Curriculum as process.
- Curriculum as praxis

There is little advantage to debating the differences embedded in these views of curriculum. It is however very useful to agree on a basic perspective that guides the process of developing an effective education system that has a well-designed and developed curriculum. It is useful, for example, to see the new curriculum as part of a clearly delineated guide for all learning which is planned and organized by the education system, whether it is carried out in groups, individually, within or outside the school.

By suggesting that a curriculum provides a detailed learning plan and guide, we are also stating that the curriculum specifies precisely what outcomes we anticipate that all learners will achieve as well as how they will achieve those outcomes. The new curriculum articulates a series of sequenced general learning outcomes which are elaborated through subject outcome statements. Abundant guidance is provided in planning units of work, individual teaching learning activities and includes samples of activities developed to ensure that a measure of fidelity in the implementation of the curriculum is maintained. In this respect, the Ministry of Education has established a body of learning outcomes which collectively define the vision of what knowledge, skills and dispositions a twenty-first century learner at the Primary level in Trinidad and Tobago should possess. These outcomes are the key guiding principles underpinning the new infant and primary curriculum and thus underpin the whole education system, ultimately guiding what happens in schools and classrooms.

## FOUNDATION OF THE NATIONAL CURRICULUM

### Vision

The Ministry is leading a quality education system that responds to the diverse needs and requirements of 21st century learners, promotes inclusivity, seamlessness, equity and equality and contributes to human capital and sustainable development.

Effective curriculum requires a very clear direction. In Trinidad and Tobago the Ministry of Education has articulated its view of education which establishes the mandate for education. In the establishment of policy and principles for education on a national level all decisions are informed by the vision and mission for the system. All curriculum development, from the design of a new set

and intended learning experiences for the classroom in the curriculum guide.

In Trinidad and Tobago, the current focus is on the design and development of primary curriculum, which, as noted above is governed by the principles established in this Curriculum Framework.

One of the key elements of this foundation is the Vision for learning which clearly articulates the commitment of the Ministry to meet the needs of learners. A forward-looking perspective on what all schools should be facilitating in terms of student achievement is guided by the national curriculum. There is equal clarity regarding a twenty-first century education system functioning to provide the highest standard of education.

Devolving from the Vision, in the Mission statement, the Ministry of

**Table 1: Vision of the Ministry of Education**

of learning guides to implementation at the classroom level is therefore guided by the principles and policies of the Ministry of Education.

The regulatory and guiding principles for education provide the overarching national framework for education. The Ministry of Education, *Education Sector Strategic Plan: 2011-2015*, and other policy documents, establish the design framework for all components of the new curriculum. Principal among these are the vision, mission and the five (5) value outcomes established at the national level for all students, which further guides the formulation of the desired

### Mission

To educate and develop children who are able to fulfill their full potential; healthy and growing normally; academically balanced; well-adjusted socially and culturally; and emotionally mature and happy.

*Government of Trinidad and Tobago, Ministry of Education, Education Sector Strategic Plan: 2011-2015*

**Table 2: Mission of the Ministry of Education**

Education establishes the mechanism for the realization of the Vision and of what the end product of the anticipated learning experiences will be. The curriculum has elaborated on the stated outcomes for all children with further outcomes both at a general level and more specifically for all subject areas.

The principles by which the Ministry administers the education system to effectively and efficiently achieve the vision, mission and outcomes have been clearly articulated. These guiding principles are essential statements that must govern curriculum design and development, teaching and learning, and the administration of schools if the goals of education are to be achieved. The critical area of focus is on student

learning and fidelity to the curriculum which seeks to transform classroom practices to the benefit of each child.

The guiding principles, listed below, are important components in the new curriculum. The principles informed the curriculum design and development process; they will guide teaching and learning at the implementation phase of the curriculum. As we evaluate the curriculum, they will provide reference points to ensure that the desired attributes of education that are important for the nation are being achieved. The new curriculum materials are not static products, but will remain a flexible roadmap designed to effect high quality, relevant learning for all young people well into the future.

<i>Principle</i>	<i>Elaboration</i>
<b>Student Centred</b>	The student is at the centre of everything we do.
<b>Engaged Communities</b>	We engage parents and families as the heart of students' lives and we support and acknowledge them as the primary guides and decision-makers for students. We engage members of local, regional and global communities as active contributors to student learning
<b>Inclusive</b>	We expect all students will learn in a welcoming environment regardless of place, culture, or learning needs.
<b>Proactive</b>	We plan for a desired future, preventing problems instead of reacting to them.
<b>Shared Responsibility</b>	We acknowledge that education is everybody's business and therefore expect teachers, the school and education leaders to collaborate with other government and community organizations to foster student learning
<b>Innovative</b>	We explore new learning opportunities through research, innovation and professional development to ensure continuous improvement of student learning.
<b>Flexible</b>	We enable meaningful and relevant learning through a range of opportunities appropriate to each student's development stage.
<b>Equitable</b>	We ensure that every student will have the benefit of high-quality learning opportunities.

<i>Principle</i>	<i>Elaboration</i>
<b>Accountable</b>	We explain to the citizens of Trinidad and Tobago the outcomes of our students and our use of funding.
<b>Transformative Leadership</b>	We believe that people with vision and passion can achieve great things. We therefore empower and inspire our staff and stakeholders to create positive and lasting changes in the education system.
<b>Quality</b>	We are committed to meeting our own quality standards that are driven by the requirements of our customers. Each of us takes charge to ensure that these standards are implemented in our individual areas of authority.
<b>Teacher Empowerment</b>	We create the environment for excellence in teaching practice that improves the learning of all students, deepens educators content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards, and prepares them to use various types of classroom assessments appropriately.

**Table 3: Guiding Principles of the Ministry of Education**

## **THE NEW PRIMARY CURRICULUM**

The new Primary curriculum envisages preparing our children with the knowledge, skills and dispositions to optimize their own development and ultimately to constitute a caring, respectful and socially conscious citizenry which will competently lead our country onto the world stage. The Curriculum focuses on nine (9) subject areas: Mathematics, English Language Arts, Science, Social Studies, Visual and Performing Arts, Physical Education, Agricultural Science, Spanish and Values, Character and Citizenship Education. Health and Family Life Education outcomes are distributed and supported by all subjects.

By crafting a new national primary curriculum and addressing the learning needs of all young people through a new approach to teaching and learning, Trinidad and Tobago has established a strong foundation for the desired educational outcomes for our students. The Vision and Mission of the Ministry of Education which seeks to recognize, value and nurture individual abilities and talents requires an integrated, appropriate and relevant twenty-first century set of learning experiences at the heart of the curriculum. This overarching vision and mission remain central to all curriculum design, development and implementation initiatives, and will guide pre-service and in-service



teacher education and training activities that are an essential part of the whole education development, innovation and transformation process.

The world is rapidly changing and knowledge, skills, and values are being demanded of citizens, even while the education struggles to catch up with yesterday's requirements. In the vision, mission and principles statements it is very clear that the Ministry of Education wants to develop an education for the twenty-first century, charting the way for education and the nation to keep pace and move to the front of the international arena. Following on this understanding, the new curriculum has been developed as a flexible tool that focuses on the development of twenty first century skills in learners. The curriculum itself, while providing abundant and detailed guidance to teachers, can be adapted and shaped to individual contexts. Curriculum adaptation is an essential aspect of curriculum implementation that is required to meet the rapidly changing and diverse needs of all learners, so enabling teaching and learning to continue to be relevant and current.

The new primary curriculum is characterised by the following:

- An integrated, thematic approach to teaching and learning in which learning from different subjects is skilfully melded into thematic units and learning/lesson plans. There is a focus on core content, building critical skills and cultivating desirable dispositions in students, rather than rote learning of content and regurgitation on paper and pencil tests. This facilitates for a smooth transition from ECCE into Infants and makes for a pleasurable learning experience for the child, and more effective delivery and retention of content.

- Literacy and Numeracy, significant foundational areas, are built in in all subject areas
- Continuous Assessment is promoted with conscious attention to Assessment for Learning which uses a wide range of classroom assessments to provide feedback and improve student performance
- Differentiated Instruction is supported to enable teachers to use a variety of teaching methods and cater to the learning needs of a range of students
- Infusion and use of Information and Communication Technologies, an indispensable twenty-first competence for students, is built in to all areas
- Focused teaching of Visual and Performing Arts and Physical Education ensures that all children's talents and sensibilities are awakened and developed.
- The introduction of foreign language awareness in a Spanish programme which follows a Foreign Language Exploratory model is present. This focuses largely on oral Spanish, its attendant cultures and exploration of other language experiences in the child's immediate environment.
- A focus on Values, Character and Citizenship is a vital component towards building a strong, tolerant and conscientious citizenry.

As noted, the designed learning experiences outlined in the new curriculum are student-centred, inclusive and capable of guiding implementation of a high quality, engaging, innovative teaching and learning process that satisfies the learning needs of all twenty-first century young citizens of Trinidad and Tobago, the Caribbean region and the globally interdependent and connected world.

A significant part of the mandate required that the curriculum capture current, relevant, interesting and fun teaching and learning experiences. The general and specific outcomes focus on the development of concepts, skills and dispositions in students, including higher-order skills suitably targeted to the developmental level of our young learners. While the design of the new curriculum is new to our education system, it is grounded in sound educational theory and principles. Inherent in the subject matter are carefully considered concepts, skill sand dispositions which are relevant to the development

of students and the needs of our society as espoused by our many stakeholders and educators.

The seven years of the primary experience have been broken down into three key levels each of which has a broad area of focus as to the general outcomes desired for the child at that level and are specified as a general level of student achievement.

### Organizational Structure of the Achievement Levels

Level	Title	Grades
Achievement Level One	Love of Learning	Infant One Infant Two
Achievement Level Two	Inquiry and Discovery	Standard One Standard Two Standard Three
Achievement Level Three	Taking Flight	Standard Four Standard Five

**Table 4: Levels of the Primary system**

The titles of each of the designated levels clearly denote the overarching goal for student learning at each stage. The subject specific outcomes for the various year levels evolve from these. The learning experiences throughout the three levels have been designed to articulate a smooth journey of growth, development, and learning, culminating in a well-rounded, independent learner, ready to embrace secondary education. There are a total of twenty six themes designed to organize all learning experiences through the three achievement levels. The curriculum begins in the Infant year levels with a very strong integrated, thematic approach to learning, and progressively introduces subject areas as discrete organizers of that learning by

Standards Four and Five. While the higher primary year levels have more subject area learning they are not without thematic organization. At those levels, the themes become broader, more complex and challenging, while the nine core subject areas emerge in prominence. This design decision was made to facilitate a smooth and seamless transition from primary into secondary education.

The targeted achievements for all students at the end of each of these three levels are succinctly summarized in Table 5. These attributes are the foundation for all learning interactions in and out of the classroom.

**Table 5: Learning Level Achievements**

<b>Level 1: Love of Learning</b> <i>Infants 1- Infant 2</i>	<b>Level 2: Enquiry &amp; Discovery</b> <i>Standard 1- Standard 3</i>	<b>Level 3: Taking Flight</b> <i>Standard 4- Standard 5</i>
At the end of this level, students will:	At the end of this level, students will:	At the end of this level, students will:
Be able to communicate needs, ideas, and emotions.	Be able to engage in reflection before communicating needs, ideas and emotions.	Apply healthy interpersonal communication skills to enhance learning, and general interaction.
Make choices to solve simple, personal problems.	To develop thoughtful solutions to problems that occur in interaction with others.	Demonstrate some capacity to pose, as well as solve problems.
Engage learning imaginatively.	Produce imaginative responses to learning problems.	Demonstrate both sequential and connective thinking when encountering problems.
Work with others co-operatively.	Create new meanings through teamwork and collaboration.	Exhibit some leadership qualities in both learning and social contexts.
Begin to consider the importance of diet, exercise and hygiene.	Practise healthy lifestyle habits	Demonstrate sufficient knowledge of the human body to make healthy lifestyle choices

<b>Level 1: Love of Learning</b> <i>Infants 1- Infant 2</i>	<b>Level 2: Enquiry &amp; Discovery</b> <i>Standard 1- Standard 3</i>	<b>Level 3: Taking Flight</b> <i>Standard 4- Standard 5</i>
At the end of this level, students will:	At the end of this level, students will:	At the end of this level, students will:
		consistently.
Demonstrate basic courtesy in relationship to others.	Observe positive social norms and behaviours.	Achieve a well-rounded sense of self and how to contribute productively to a group.
Recognise that working and playing safely protects everyone.	Demonstrate the ability to temper personal behaviour, in order to contribute to a safe environment for all.	Demonstrate some ability to foresee potentially unsafe behaviours in self and others.
Demonstrate joy in learning.	Demonstrate curiosity and a sense of adventure in conducting simple investigations.	Exhibit the satisfaction that accrues from engagement in learning.
Show sufficient self-confidence to engage in learning and social activities	Through growing self-esteem and initiative, begin to develop their own voice and demonstrate a sense of empowerment	Display self-reliance when working independently.
Behave respectfully toward the environment under supervision.	Understand that individual actions contribute to the environmental health of both local and national communities.	Recognise the symbiotic relationship between self and environment and acknowledge in behaviour that every action has a consequence.
Gather information	Gather, organise and present information	Process information.
Use technologies under supervision.	Explore technology purposefully and safely.	Find and employ technology for particular ends.
Understand the concept of past, present and future.	Explore the past and make connections with the present.	Imagine the future.
Demonstrate fair and equitable play habits.	Understand that social interaction requires giving as well as taking.	Become actively involved in issues involving social justice.

Clearly, students will experience a curriculum that engages and challenges them in a variety of ways that are particularly relevant to their social, political, and economic growth and development in the

information age of the twenty-first century. This primary curriculum seeks to expose and fulfill the potential of each child and to affirm the unique identity and character of the citizenry of Trinidad and Tobago.

## COMPONENTS OF THE PRIMARY CURRICULUM

The new primary curriculum comprises three documents that are intended to provide necessary information and support to our public.

**Curriculum Guides** in 9 subject areas are provided. These specify what is to be learnt by students in an ordered, developmentally appropriate sequence in the form of learning outcomes. Learning outcomes are further categorized as related to the acquisition of Content, or the development of Skills or Dispositions. Further guidance is provided in an Elaboration statement to specify the breadth and depth of what is to be taught and assessed, so that there is a standardized approach to teaching and assessment across the country.

For Teachers' use, a **Teacher's Guide** has been developed. This document provides an overview of the pedagogical practices embraced by the new curriculum, summary descriptions of the themes selected as the vehicle for the teaching and learning material as well as the 5 considerations that are infused throughout the curriculum- Literacy, Numeracy, Assessment for Learning, Differentiated Instruction and Infusion of Information and Communication Technologies (ICTs).

For further support of teachers, an **Instructional Toolkit** has been developed. Within this document, detailed plans of work, samples of activities and rubrics for implementation by teachers are provided. Thematic Unit plans which bring to outcomes from several subjects as well as Learning or Lesson Plans, together with sample activities and rubrics are provided. Learning plans that suggest interesting methods for teachers to address core subject-specifics concepts and skills are also included. At the initial stages of implementation of this curriculum that seeks to transform teaching and learning, abundant samples are provided for teachers. These may be implemented directly or may serve as guides for teachers' development of their own thematic units and lessons. As implementation takes place, opportunities will be provided for teachers to provide their own creative and original approaches to these themes and topics within the toolkit.

## TIMETABLE

Within the framework of the new primary curriculum, there are some important notions about the new primary timetable which ought to be specified. These are that:

- 9 subject areas are represented (Mathematics, English Language Arts, Science, Social Studies, Visual and Performing Arts; Physical Education, Agricultural Science, Values, Character and Citizenship Education and Spanish). HFLE and ICT are infused throughout the subjects.
- 50% of the time is dedicated to ELA and Mathematics, which include Literacy and Numeracy components and are considered to be priority at the lower primary. The other 50 % of the time is to be dedicated to the other 7 subjects. The curriculum documents reflect that balance, so that as outcomes specified

for each year level are covered, the balance of time for subjects is maintained.

- A combination of Thematic Units which combine several subject areas and subject specific core skills are to be taught (as in the Instructional Toolkit). Core skills may be done in preparation for a theme, during a theme or following a theme.
- The timetable is flexible and will be detailed on a weekly basis as teacher's plan for the week is developed. The teacher selects which core skill lessons and which thematic lessons are to be taught each week and presents this in the weekly forecast and evaluation plan.
- In any given week, core skills for any or all subject areas may be taught. One possible illustration of what this may look like is given below:

MON	TUE	WED	THURS	FRI
THEME	CORE SKILLS (MATH)	CORE SKILLS (SOCIAL STUDIES)	THEME	THEME
	THEME	THEME		
			CORE SKILLS (SPANISH)	CORE SKILLS (AGRI.SCI)
CORE SKILLS (SOCIAL STUDIES)	THEME	THEME	THEME	THEME
CORE SKILLS (VAPA)		CORE SKILLS (ELA)	CORE SKILLS (PHYS. ED)	

**Table 6: Sample Timetable**

## **Subject Rationale**

### **WHAT IS AGRICULTURAL SCIENCE?**

Agricultural Science teaches the principles and practices of growing plants and rearing animals for food and other valuable products.

### **WHY STUDY AGRICULTURAL SCIENCE?**

Agricultural Science develops students' understanding of the natural environment and the constantly changing cycles of nature.

The development of a love of learning is one of the major purposes of primary education, and Agricultural Science is an ideal vehicle to facilitate the attainment of this goal. Students will learn to care for plants and animals associated with agriculture, and how and why these are important to us.

This subject provides opportunities for students to develop their social, emotional, communication and technological skills, and a caring

attitude towards the environment. Furthermore, it allows students to feel a sense of accomplishment, which boosts their confidence and self-esteem.

The study of Agricultural Science also caters to the development of social and emotional intelligences, and helps to build positive character traits and values such as respect, responsibility, caring and kindness. The programme of learning affords opportunities for developing interpersonal skills, and includes cooperation and collaboration as learning outcomes.



## HOW IS AGRICULTURAL SCIENCE STRUCTURED?

The curriculum emphasizes food security and preservation of the environment, with a focus on Good Agricultural Practices (GAP). It provides the means by which our students are sensitised to the value and importance of agriculture to themselves, our communities, our country, and the world at large.

The integration of Agricultural Science with other curriculum subjects provides an excellent opportunity for linking theory to practice.

Agricultural Science contributes to student literacy and numeracy as well as their skills in observing, manipulating, comprehending, recording, analysing and reporting, through enjoyable activities.

As important as food security and our inalienable rights to food and nutrition, is a global concern about our fragile planet. The introduction of environmental awareness and the development of stewardship education becomes an important component in every child's Agricultural Science learning.

Agricultural Science is structured around a number of interconnected topics. These include:

- Agriculture as a Business
- Crop Science
- Livestock Science
- The Environment
- People in Agriculture

The topics and practical activities described in the curriculum are selected because they provide a coherent learning process and promote an understanding that places agriculture within an integrated holistic perspective of the local, regional and global community.

# **Primary School Curriculum**

## **Agricultural Science**

### **Infants 1**

## AGRICULTURAL SCIENCE: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
1.1.1 Identify plants associated with agriculture.	1.2.1 Classify plants into those that are eaten and those that are not eaten.	1.3.1 Enjoy agricultural activities. 1.3.2 Value the importance of plants in agriculture. 1.3.3 Co-operate with team members. 1.3.4 Show respect to others.	1a. Classify agricultural plants into those that are eaten and those that are not eaten.  1b. Describe the importance of plants in the lives of humans.  1c. Enjoy agricultural activities.	<ul style="list-style-type: none"> <li>• Select agricultural plants from a given collection - real or virtual (1.1.1)</li> <li>• Indicate at least two plants, real or virtual, that are eaten and two that are not eaten (1.2.1)</li> <li>• Display enthusiasm, inclusivity and courtesy while engaging in activities (1.3.1, 1.3.3, 1.3.4)</li> <li>• Describe two ways in which life would be difficult without plants (1.3.2)</li> </ul>
2.1.1 Identify animals that are associated with agriculture.	2.2.1 Classify animals into those that are eaten and those that are not eaten.  2.2.2 List three products that are obtained from farm animals.	2.3.1 Value the importance of animals in agriculture.	2a. List animals that are reared on a farm.  2b. Classify animals into those that are eaten and those that are not eaten.  2c. Recall products of farm animals.  2d. Relate the value of rearing animals.	<ul style="list-style-type: none"> <li>• Select at least three animals that are reared on a farm from a set of pictures of animals (2.1.1)</li> <li>• Group six pictures of animals into those that are eaten and those that are not eaten (2.2.1)</li> <li>• List three products obtained from farm animals (2.2.2)</li> <li>• Communicate the need for rearing</li> </ul>

## AGRICULTURAL SCIENCE: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
				animals (2.3.1)
3.1.1 Identify objects related to agriculture.	3.2.1 Classify objects into buildings, tools and equipment.  3.2.2 Draw agricultural objects.	3.3.1 Value the importance of buildings, tools and equipment used in agriculture.  3.3.2 Co-operate with team members.  3.3.3 Show respect to others.	3a. Name objects used in agriculture.  3b. Place agricultural objects into named categories.  3c. Illustrate agricultural objects.  3d. Relate reasons for the importance of farm objects.  3e. Collaborate respectfully with team members to perform activities.	<ul style="list-style-type: none"> <li>• Name at least three objects found on a farm (3.1.1)</li> <li>• Categorize six farm objects into buildings, tools and equipment, while working in groups (3.2.1)</li> <li>• Draw one example of an agricultural object from each category (3.2.2)</li> <li>• Relate one reason each for the importance of buildings, tools and equipment in agriculture (3.3.1)</li> <li>• Display enthusiasm, inclusivity and courtesy while engaging in activities (3.3.2, 3.3.3)</li> </ul>
4.1.1 Identify places where plants are grown for food.	4.2.1 Make models of various types of farms/gardens.  4.2.2 Draw different types of farms/gardens.	4.3.1 Show appreciation for places where plants are grown for food.  4.3.2 Display responsibility when making models.	4a. Identify the places where plants are cultivated for food.  4b. Construct/draw models of various farms/gardens.	<ul style="list-style-type: none"> <li>• Infer three places where plants are grown for food after observation of pictures and/or videos (4.1.1)</li> <li>• Construct two models: one of a small farm/garden and one of a large farm/garden (4.2.1)</li> </ul>

## AGRICULTURAL SCIENCE: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
	4.2.3 Classify farms/gardens into small and large.		4c. Classify farms into stated categories. 4d. Display responsible behaviours when constructing models. 4e. Respect places where plants are grown.	<ul style="list-style-type: none"> <li>• Illustrate, through drawings, a small and a large farm (4.2.2, 4.2.3)</li> <li>• Name two ways in which we can show respect for the garden (4.3.1)</li> <li>• Display responsible behaviours while engaging in activities (4.3.2)</li> </ul>
5.1.1 Identify places where animals are reared for food.	5.2.1 Collect pictures of places where animals are reared. 5.2.2 Classify farms based on the animals reared.	5.3.1 Recognize the value of animal farms. 5.3.2 Collaborate with team members in a fun and enjoyable way.	5a. Identify various types of animal farms and their products. 5b. Collect relevant pictures for activities. 5c. Describe benefits of animal farms. 5d. Collaborate with team members to execute activities with enjoyment.	<ul style="list-style-type: none"> <li>• Name two places where animals are reared for food (5.1.1)</li> <li>• Collect and classify appropriate pictures of places where animals are reared (5.2.1, 5.2.2)</li> <li>• Orally describe two benefits of having animal farms (5.3.1)</li> <li>• Participate in a positive manner with team members in group activity while gathering appropriate pictures (5.3.2)</li> </ul>
6.1.1 Provide examples of people who produce and sell food.	6.2.1 Dramatize scenarios illustrating people who produce and sell food.	6.3.1 Display teamwork in dramatization activities. 6.3.2 Enjoy dramatization	6a. Depict occupations of people who produce and sell various foods.	<ul style="list-style-type: none"> <li>• Elicit the jobs or occupations of at least three people who produce and sell food (uncooked, cooked, processed), from listening to songs,</li> </ul>

## AGRICULTURAL SCIENCE: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
		activities.	6b. Enjoy dramatization and role-playing activity while displaying teamwork.	<p>jingles or rhymes, or from viewing pictures and/or videos (6.1.1)</p> <ul style="list-style-type: none"> <li>• Play the role of at least one person who produces and/or sells food (6.2.1)</li> <li>• Display enthusiasm and enjoyment while co-operating and participating in the execution of role-playing activities (6.3.1, 6.3.2)</li> </ul>
<p>7.1.1 Describe foods eaten at different meal times.</p> <p>7.1.2 Explain activities engaged in, before eating meals.</p>	<p>7.2.1 Create main meals eaten at different times of the day using models and/or pictures.</p> <p>7.2.2 Demonstrate proper hygiene before eating meals.</p> <p>7.2.3 Recite prayers before and after eating meals.</p>	<p>7.3.1 Demonstrate courtesy to each other.</p> <p>7.3.2 Display responsibility at meal times.</p> <p>7.3.3 Practise positive behaviours at meal times.</p>	<p>7a. Explain activities done before having meals.</p> <p>7b. Assemble the main meals of the day.</p> <p>7c. Demonstrate courtesy, responsibility and other positive behaviours at meal times.</p>	<ul style="list-style-type: none"> <li>• Describe the composition of a typical breakfast, lunch and dinner (7.1.1)</li> <li>• Explain why hands are cleaned and prayers are said before meals are eaten (7.1.2)</li> <li>• Assemble at least one main meal using models, pictures, or links from web quest (7.2.1)</li> <li>• Simulate two main activities of cleaning hands while singing a related jingle, and praying before meals (7.2.2, 7.2.3)</li> </ul>

## AGRICULTURAL SCIENCE: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
				<ul style="list-style-type: none"> <li>• Demonstrate at least two courteous behaviours practised while eating with others (7.3.1)</li> <li>• Display at least one responsible action at meal time (7.3.2)</li> <li>• Illustrate, at minimum, two examples of good table etiquette (7.3.3)</li> </ul>
8.1.1 Recognize foods eaten on special occasions.	8.2.1 Display foods served on a special occasion.  8.2.2 Plan and celebrate a special occasion.	8.3.1 Co-operate with others to celebrate a special occasion.  8.3.2 Work in a safe manner when handling food.  8.3.3 Respect others' cultural and religious differences.  8.3.4 Participate in, and enjoy celebrating special occasions.	8a. Recognize foods associated with special occasions.  8b. Plan and celebrate special occasions by co-operating and respecting each other's religious and cultural differences.  8c. Handle food in a safe and hygienic manner.	<ul style="list-style-type: none"> <li>• Select, from a set of pictures of foods or real foods, at least three foods eaten on a special occasion (8.1.1)</li> <li>• Participate in planning, through discussion and co-operation, a display of foods relevant to a special occasion (8.2.1, 8.2.2, 8.3.1)</li> <li>• Display at least one safe action and two hygienic practices when handling foods (8.3.2)</li> <li>• Listen to and celebrate with each other during their cultural and religious observances (8.3.3, 8.3.4)</li> </ul>

# **Primary School Curriculum**

## **Agricultural Science**

### **Infants 2**



## AGRICULTURAL SCIENCE: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
1.1.1 Outline the main steps in growing plants.	1.2.1 Cultivate a plant from a seed or seedling, using an appropriate potting medium.	1.3.1 Work in teams to grow plants. 1.3.2 Work in a safe manner. 1.3.3 Nurture plants. 1.3.4 Work co-operatively to grow plants.	1a. Communicate the main steps taken to cultivate plants. 1b. Cultivate a plant from a seed or a seedling using an appropriate potting medium. 1c. Work co-operatively and safely in teams to grow and nurture plants.	<ul style="list-style-type: none"> <li>• Sequence at least three pictures to illustrate the main steps in growing plants (1.1.1)</li> <li>• Cultivate a plant from a seed or seedling in a chosen potting medium (1.2.1)</li> <li>• Work in groups, observing safety rules, to care for plants (1.3.1, 1.3.2, 1.3.3)</li> <li>• Display co-operation when growing plants (1.3.4)</li> </ul>
2.1.1 Outline the main steps in rearing ornamental fishes.	2.2.1 Rear ornamental fishes employing good environmental practices.	2.3.1 Work in teams to rear ornamental fishes. 2.3.2 Work in a safe manner. 2.3.3 Nurture ornamental fishes. 2.3.4 Work co-operatively to rear ornamental fishes.	2a. Communicate the main steps involved in rearing fishes. 2b. Rear fishes employing good environmental practices. 2c. Work happily and safely in teams to raise and nurture fishes.	<ul style="list-style-type: none"> <li>• Sequence the steps in rearing ornamental fishes, using pictures (2.1.1)</li> <li>• Communicate orally, two good environmental practices employed in rearing ornamental fishes (2.2.1)</li> <li>• Work co-operatively and safely in teams while nurturing ornamental fishes (2.3.1, 2.3.2, 2.3.3, 2.3.4)</li> </ul>

## AGRICULTURAL SCIENCE: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
3.1.1 Understand the handling and preparation of plant produce.	3.2.1 Simulate the handling of plant produce to maintain high quality.	3.3.1 Handle produce in a responsible manner.  3.3.2 Collaborate with team members during activities.	3a. Simulate the handling and preparation practices employed to maintain high quality produce.  3b. Collaborate with team members to perform agricultural activities in a responsible manner.	<ul style="list-style-type: none"> <li>• Describe at least two handling and two preparation practices that contribute to high quality produce (3.1.1)</li> <li>• Simulate at least two handling and preparation practices that maintain the high quality of plant produce (3.2.1, 3.3.2)</li> <li>• Point out at least two responsible behaviours in handling produce as observed in real/virtual exercises (3.3.1)</li> </ul>
4.1.1 Understand the modes of transportation of food, locally and internationally.	4.2.1 Map the journey of a local food from the farm to the home.  4.2.2 Map the journey of food produced in a foreign country to home.	4.3.1 Value the importance of the role of transportation in bringing food to the home.  4.3.2 Have fun mapping the journey of foods.	4a. Explain the various modes of transportation used in moving food locally and internationally, from the places of production to the home.  4b. Map the pathways of foods, nationally and internationally, from farms to the home.	<ul style="list-style-type: none"> <li>• Explain drawings done, models made or pictures observed, of various modes of transportation, mapping the journey of a local food from the farm to home (4.1.1)</li> <li>• Sequence pictures in a flow diagram to illustrate the journey from farm to home of: (i) a local food, and (ii) a food produced in a foreign country (4.2.1, 4.2.2, 4.3.2)</li> </ul>

**AGRICULTURAL SCIENCE: INFANTS 2**

<b>CONTENT</b>	<b>SKILLS</b>	<b>DISPOSITIONS</b>	<b>OUTCOMES</b>	<b>ELABORATIONS</b>
Students will:				
			4c. Cite reasons for the importance of transportation in moving food from farms to homes.	<ul style="list-style-type: none"> <li>• Explain at least two reasons why transportation of food is necessary (4.3.1)</li> </ul>

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# **Primary School Curriculum**

## **Agricultural Science**

### **Standard 1**

## AGRICULTURAL SCIENCE: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
1.1.1 Identify the roles of our ancestors in agriculture.	1.2.1 Role-play agricultural activities performed by our ancestors.	1.3.1 Empathize with the experiences of routine, discipline, dedication, sacrifice and commitment by our ancestors in agricultural activities through role play.	1. Demonstrate, with empathy, the positive qualities experienced by our ancestors in agriculture, using drama.	<ul style="list-style-type: none"> <li>• Listen to stories to identify the roles of our ancestors (1.1.1)</li> <li>• Re-enact the roles carried out by our ancestors, depicting with empathy, at least one positive experience (routine, discipline, sacrifice, dedication or commitment) (1.2.1, 1.3.1)</li> </ul>
2.1.1 Name categories of purposes for which plants were used by our ancestors, such as: foods, condiments and spices, beverages, medicines, building materials, craft items and religion.	<p>2.2.1 Collect pictures/specimens of various types of plants used by our ancestors.</p> <p>2.2.2 Classify plants, based on use by our ancestors, into categories such as: food, beverages, medicines, condiments, spices, building materials, craft and religious items.</p>	<p>2.3.1 Display responsibility during assigned tasks.</p> <p>2.3.2 Co-operate with team members during activities.</p> <p>2.3.3 Display responsibility in project work.</p>	<p>2a. Categorize collected pictures/specimens of plants used by our ancestors into identified groups.</p> <p>2b. Display responsibility and team spirit during assigned tasks in projects.</p>	<ul style="list-style-type: none"> <li>• Assemble pictures and/or specimens of plants used by our ancestors to give them a group name (2.1.1)</li> <li>• Group collected pictures/specimens of plants into categories such as: <i>foods, spices, beverages, medicine, building materials, craft items and religious purposes</i> (2.2.2)</li> <li>• Collect relevant pictures/specimens of plants that were used by our ancestors (2.2.1)</li> </ul>

## AGRICULTURAL SCIENCE: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
				<ul style="list-style-type: none"> <li>Co-operate with team members to complete tasks and project work (2.3.1, 2.3.2, 2.3.3)</li> </ul>
3.1.1 Identify animals used by our ancestors for: food, transportation, pets and religious purposes.	3.2.1 Collect pictures of various types of animals used by our ancestors for: food, transportation, pets and religious purposes.	3.3.1 Display responsibility during assigned tasks.  3.3.2 Co-operate with team members during activities.  3.3.3 Display responsibility in project work.	3a. Categorize pictures of animals used by our ancestors into identified groups.  3b. Recall names of animals and their associated use by our ancestors.	<ul style="list-style-type: none"> <li>Recall at least two animals and their associated uses by our ancestors (3.1.1)</li> <li>Group collected pictures of animals into categories called: <i>food, transportation, pets and religious purposes</i> (3.2.1, 3.3.1, 3.3.2, 3.3.3)</li> <li>Collect relevant pictures of animals in at least three categories that were used by our ancestors for food, transportation, pets or religious purposes (3.2.1)</li> </ul>
4.1.1 Describe the agricultural folklore practices of our ancestors.	4.2.1 Investigate the agricultural folklore practices of our ancestors.  4.2.2 Document local ancestral agricultural folklore practices	4.3.1 Authenticate the agricultural folklore practices of local ancestors through collaboration.  4.3.2 Appreciate local ancestral agricultural	4a. Analyse the authenticity of agricultural folklore practised by local ancestors.  4b. Document ancestral folk practices using one form of media.	<ul style="list-style-type: none"> <li>Explain one agricultural folklore practice and why was it carried out (4.1.1)</li> <li>Enjoy evaluating at least one agricultural folk practice of local ancestors (4.2.1, 4.3.1, 4.3.2, 4.3.3)</li> </ul>

## AGRICULTURAL SCIENCE: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
	through the use of oral presentation, storytelling, songs, poems, written works, ICT, drama, drawings and puppetry.	folklore practices. 4.3.3 Enjoy investigating our ancestral agricultural folklore practices.		<ul style="list-style-type: none"> <li>Record at least one ancestral folk practice using one form of media (4.2.2)</li> </ul>
5.1.1 Identify the components of farms from the era of our ancestors.	5.2.1 Construct a model of a farm/ farms from the era of our ancestors.	5.3.1 Display responsibility in doing project work.  5.3.2 Co-operate with team members during activities.  5.3.3 Enjoy constructing models.	5. Manipulate materials to construct learning about farms of long ago.	<ul style="list-style-type: none"> <li>Describe at least three components of a farm from the era of our ancestors (5.1.1)</li> <li>Construct a model of a farm from the era of our ancestors (5.2.1)</li> <li>Collaborate with team members to accomplish tasks in a fun-filled and responsible way (5.3.1, 5.3.2, 5.3.3)</li> </ul>

# **Primary School Curriculum**

## **Agricultural Science**

### **Standard 2**



## AGRICULTURAL SCIENCE: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
1.1.1 Explain the main steps in growing plants, employing good environmental practices.	1.2.1 Grow plants, employing good environmental practices.	1.3.1 Display teamwork when growing plants.  1.3.2 Work in a safe manner.  1.3.3 Demonstrate responsibility in the caring of plants.  1.3.4 Enjoy growing plants.	1a .Grow plants using good environmental practices.  1b. Demonstrate teamwork and safe working habits to grow plants.  1c. Display responsibility in caring for plants.  1d. Enjoy growing plants.	<ul style="list-style-type: none"> <li>• Sequence the main steps from land preparation to growing a plant (1.1.1)</li> <li>• Describe at least one good environmental practice when growing plants (1.1.1)</li> <li>• Demonstrate the use of safety practices when growing plants (1.3.2)</li> <li>• Collaborate to grow plants (1.2.1, 1.3.1)</li> <li>• Demonstrate responsibility in caring for plants (1.3.3)</li> <li>• Enjoy growing plants (1.3.4)</li> </ul>
2.1.1 Explain how to rear fishes, employing good environmental practices.	2.2.1 Rear fishes, employing good environmental practices.	2.3.1 Display teamwork when rearing fishes.  2.3.2 Work in a safe manner.  2.3.3 Demonstrate responsibility in caring for fishes and the environment.	2a. Explain the procedure and rear fish, employing good environmental practices.  2b. Display teamwork and safety practices in the rearing of fish.  2c. Demonstrate responsibility and a nurturing	<ul style="list-style-type: none"> <li>• Sequence the steps involved in rearing fishes (2.1.1)</li> <li>• State at least one good environmental practice when rearing fishes (2.1.1, 2.2.1)</li> <li>• Rear a fish, real or virtual, using good environmental practices (2.2.1)</li> </ul>

## AGRICULTURAL SCIENCE: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
		2.3.4 Develop a nurturing attitude towards fishes.	attitude when rearing fish.	<ul style="list-style-type: none"> <li>• Display collaboration, safety practices and responsible behaviour in caring for fishes and the environment (2.3.1, 2.3.2, 2.3.3, 2.3.4)</li> </ul>
3.1.1 Explain how value-added agricultural products contribute to the economy of Trinidad and Tobago.	3.2.1 Make a value-added agricultural product, for example: food, juices, punches, chow, tamarind balls, chili bibi, bene balls, amchar, red mango, jams, jellies, chutney, ice cream, snow cones, lollies, and corned fish.	3.3.1 Develop national pride through making a local agro-processed product.  3.3.2 Internalize the quality of thrift.  3.3.3 Savour local value-added agricultural products.	3a. Outline ways in which agro-based value-added products contribute to the economy of Trinidad and Tobago.  3b. Make both food and non-food value-added agro products.	<ul style="list-style-type: none"> <li>• Explain at least two ways in which value-added agro products contribute to the economy of Trinidad and Tobago, using one form of media (3.1.1)</li> <li>• Make at least one value-added agro food product and one agro non-food product from local materials (3.2.1)</li> <li>• Depict national pride regarding value-added agro products by use of bold signage such as “Made in T&amp;T”, “Buy Local”, use of national colours or use of the country’s shape (3.3.1)</li> <li>• Design and use one form of media to market value-added agricultural products (3.1.1)</li> <li>• Choose to purchase locally produced goods as opposed to expensive, imported goods (3.3.2)</li> </ul>

**AGRICULTURAL SCIENCE: STANDARD 2**

<b>CONTENT</b>	<b>SKILLS</b>	<b>DISPOSITIONS</b>	<b>OUTCOMES</b>	<b>ELABORATIONS</b>
Students will:				
				<ul style="list-style-type: none"><li>• Enjoy consumption of locally produced value-added agro products (3.3.3)</li></ul>

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# **Primary School Curriculum**

## **Agricultural Science**

### **Standard 3**

### AGRICULTURAL SCIENCE: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
1.1.1 Explore the use of appropriate agricultural technologies to rear one class of animals (for example: rabbits, poultry).	1.2.1 Demonstrate the use of appropriate agricultural technologies to rear one class of animals.	1.3.1 Appreciate the value of agricultural technologies in animal rearing.  1.3.2 Work in a safe manner.  1.3.3 Enjoy rearing animals.  1.3.4 Demonstrate responsibility in caring for animals.  1.3.5 Nurture animals.	1a. Demonstrate the use of appropriate technologies in the rearing of one class of animals.  1b. Appreciate the value of agricultural technology in animal rearing.  1c. Enjoy nurturing animals while working in a safe and responsible manner.	<ul style="list-style-type: none"> <li>• Justify the use of agricultural technologies in the rearing of a class of farm animals, by providing at least two explanations for them (1.1.1)</li> <li>• Demonstrate the use of a minimum of one agricultural technology to rear one class of farm animals (1.2.1)</li> <li>• Write one paragraph stating what life would be like without a chosen agro-technology (1.3.1)</li> <li>• Demonstrate safety, responsibility and enjoyment while nurturing an animal (1.3.2, 1.3.3.1.3.4, 1.3.5)</li> </ul>
2.1.1 Explore the use of appropriate agricultural technologies to grow plants.	2.2.1 Grow plants using an appropriate agricultural technology, for example: controlled environment/ protected agriculture, hydroponics, Self-Watering Grow Box (SWGB).	2.3.1 Appreciate the value of agricultural technologies in growing plants.  2.3.2 Enjoy growing plants.  2.3.3 Work in a safe manner.	2a. Explore plant agro-technologies and grow plants using an appropriate one.  2b. Value plant agro-technology.  2c. Enjoy nurturing plants while working safely and responsibly.	<ul style="list-style-type: none"> <li>• Research the use of a minimum of three selected agricultural technologies - controlled agriculture, SWGB technology and hydroponics – using ICT, links from Web Quest or any other media (2.1.1)</li> <li>• Illustrate evidence of having grown plants using a selected technology (2.2.1)</li> </ul>

### AGRICULTURAL SCIENCE: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
		2.3.4 Demonstrate responsibility in caring for plants.  2.3.5 Nurture plants.		<ul style="list-style-type: none"> <li>• State at least two advantages of employing a chosen agro-technology (2.3.1)</li> <li>• Display responsible behaviours, safety practices and enjoyment while nurturing plants (2.3.2, 2.3.3, 2.3.4, 2.3.5)</li> </ul>
3.1.1 Explore how local dishes from various Caribbean islands can enhance food tourism.	3.2.1 Create promotional material to market food tourism.  3.2.2 Make appropriate dishes to celebrate an island festival.  3.2.3 Sample a variety of Caribbean cuisines.	3.3.1 Appreciate Caribbean diversity through food.  3.3.2 Enjoy making Caribbean dishes.  3.3.3 Savour Caribbean cuisine.	3a. Explore how local Caribbean foods enhance tourism.  3b. Create promotional materials to market food tourism.  3c. Appreciate Caribbean diversity through the enjoyment of making and savouring food.	<ul style="list-style-type: none"> <li>• Relate how the local cuisine of Caribbean islands enhances visitor arrivals (3.1.1)</li> <li>• Create promotional material, using at least one form of media, to promote food tourism (3.2.1)</li> <li>• Make an appropriate dish to celebrate an island festival (3.2.2)</li> <li>• Comment on the aroma of a variety of Caribbean cuisines (3.2.3)</li> <li>• Create an appreciation of Caribbean diversity through food, using one form of media (3.3.1)</li> <li>• Enjoy making and describing Caribbean dishes (3.3.2, 3.3.3)</li> </ul>

# **Primary School Curriculum**

## **Agricultural Science**

### **Standard 4**

### AGRICULTURAL SCIENCE: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>1.1.1 Analyse the importance of food security as a pillar of regional development.</p>	<p>1.2.1 Research and make recommendations regarding agricultural practices that can positively impact food security in our country.</p> <p>1.2.2 Propagate plants by seeds and cuttings, using appropriate agricultural technology.</p>	<p>1.3.1 Be advocates of the use of appropriate agricultural technologies to achieve food security.</p> <p>1.3.2 Display teamwork when conducting activities.</p> <p>1.3.3 Demonstrate responsibility when conducting activities.</p> <p>1.3.4 Work in a safe manner.</p> <p>1.3.5 Enjoy using appropriate agricultural technologies to grow plants.</p>	<p>1a. Deduce ways in which food security contributes to regional development.</p> <p>1b. Research and recommend agricultural practices that positively impact food security in one's country.</p> <p>1c. Propagate plants using various methods and technologies.</p> <p>1d. Share agricultural technologies with others to achieve food security.</p> <p>1e. Display joy, teamwork, responsible conduct and safe work habits.</p>	<ul style="list-style-type: none"> <li>• Illustrate three ways of making food security a reality to develop the region, using selected texts (1.1.1)</li> <li>• Recommend at least two agricultural practices that will improve food security in Trinidad and Tobago, based on observation of information given in a variety of media (1.2.1)</li> <li>• Propagate plants from seeds and from cuttings, using at least two forms of appropriate agricultural technology (1.2.2)</li> <li>• Encourage others to use technologies in agriculture to achieve food security (1.3.1)</li> <li>• Display teamwork, responsibility, enjoyment and safe working habits (1.3.2, 1.3.3, 1.3.4, 1.3.5)</li> </ul>



## AGRICULTURAL SCIENCE: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>2.1.1 Understand how to grow plants, employing good environmental practices.</p> <p style="text-align: center;"><b><u>OR</u></b></p> <p>2.1.2 Understand how to rear one class of farm animals (for example- poultry, rabbits), employing good environmental practices.</p>	<p>2.2.1 Investigate the growth, development and yield of plants.</p> <p style="text-align: center;"><b><u>OR</u></b></p> <p>2.2.2 Investigate the growth, development and yield of one class of farm animals.</p>	<p>2.3.1 Display teamwork when conducting activities.</p> <p>2.3.2 Demonstrate responsibility when conducting activities.</p> <p>2.3.3 Work in a safe manner.</p> <p>2.3.4 Have positive enjoyable experiences.</p> <p>2.3.5 Influence others to adopt good environmental practices.</p>	<p>2a. Outline the growing of plants, employing good environmental practices</p> <p style="text-align: center;"><b><u>OR</u></b></p> <p>2b. Outline the rearing of one class of farm animals, employing good environmental practices.</p> <p>2c. Investigate the growth, development and yield of plants</p> <p style="text-align: center;"><b><u>OR</u></b></p> <p>2d. Investigate the growth, development and yield of one class of farm animals.</p> <p>2e. Communicate, employ and persuade others about good environmental practices.</p> <p>2f. Enjoy agricultural experiences.</p>	<ul style="list-style-type: none"> <li>• Sequence the steps in growing plants (2.1.1)</li> <li>• Investigate the growth, development and yield of plants (2.2.1)</li> <li>• Display teamwork, responsibility, enjoyment and safe working habits (2.3.1, 2.3.2, 2.3.3, 2.3.4)</li> <li style="text-align: center;"><b><u>OR</u></b></li> <li>• Describe the steps involved in rearing one class of farm animals (2.1.2)</li> <li>• Investigate the growth, development and yield of a farm animal (2.2.2)</li> <li>• Communicate and employ good environmental practices (2.1.2, 2.3.5)</li> <li>• Persuade others to adopt good environmental practices (2.3.5)</li> </ul>

## AGRICULTURAL SCIENCE: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
3.1.1 Understand the use of agro-processing methods to extend the shelf life of agricultural produce.	<p>3.2.1 Extend the shelf life of agricultural produce using an appropriate agro-processing method.</p> <p>3.2.2 Evaluate the agro-processing methods involved in extending the shelf life of agricultural produce.</p>	<p>3.3.1 Value the usefulness of agro-processing methods in extending shelf life.</p> <p>3.3.2 Appreciate the contribution of agro-processing to food security.</p> <p>3.3.3 Work in a safe manner.</p> <p>3.3.4 Enjoy making an agro-processed product.</p>	<p>3a. Apply agro-processing methods to extend the shelf life of agro products.</p> <p>3b. Evaluate the suitability of agro-processing methods.</p> <p>3c. Value the usefulness of agro-processing and its contribution to food security.</p> <p>3d. Enjoy agro-processing and work in a safe manner.</p>	<ul style="list-style-type: none"> <li>• Report the use of at least three agro-processing methods as they are used to extend the shelf life of agro products (3.1.1)</li> <li>• Use an agro-processing method to extend the shelf life of an agro product (3.2.1)</li> <li>• Validate the usefulness of an agro-processing method to extend the shelf life of a product (3.2.2, 3.3.1)</li> <li>• Suggest examples of agro-processed foods to collect in times of disaster (3.3.2)</li> <li>• Enjoy agro-processing activities while working in a safe manner (3.3.3, 3.3.4)</li> </ul>

# **Primary School Curriculum**

## **Agricultural Science**

### **Standard 5**

## AGRICULTURAL SCIENCE: STANDARD 5

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
1.1.1 Evaluate how local issues affect agriculture at the national and/or international level.	1.2.1 Use ICTs or other media to communicate information on local issues that affect agriculture.	<p>1.3.1 Become aware of local issues that affect agriculture.</p> <p>1.3.2 Sensitize others about the impact of local issues on agriculture.</p> <p>1.3.3 Enjoy using ICTs to communicate information on local issues that affect agriculture.</p>	<p>1a. Tell how a local issue affects agriculture at a national and/or international level using any form of media.</p> <p>1b. Converse fluently about local issues that affect agriculture at a national and/or international level.</p> <p>1c. Make others alert to issues that affect agriculture.</p> <p>1d. Enjoy use of print or electronic media to communicate information about issues affecting agriculture.</p>	<ul style="list-style-type: none"> <li>• Communicate findings on how a local issue affects agriculture at a national and/or international level (1.1.1)</li> <li>• Present findings on a local issue that affects agriculture nationally and/or internationally, using ICTs or any other form of media (1.2.1)</li> <li>• Demonstrate knowledge of issues by responding, in an unrehearsed manner, to questions about a local issue that affects agriculture (1.3.1)</li> <li>• Sensitize others about the impact of a local issue that affects agriculture (1.3.2)</li> <li>• Enjoy using ICTs and other media to communicate information on an issue that affects agriculture (1.3.3)</li> </ul>