



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

PRIMARY SCHOOL CURRICULUM

CURRICULUM GUIDES

SCIENCE

INFANTS 1 – STANDARD 5

**Curriculum Planning and Development Division
2013**

Contents

Infants 1	3
Infants 2	12
Standard 1	20
Standard 2	28
Standard 3	38
Standard 4	48
Standard 5	57

Primary School Curriculum

Science

Infants 1

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>Individuals and Groups:</p> <p>1.1.1 Assess the importance of the observable parts of the body (Universal Children’s Day, Nov. 20th)</p>	<p>1.2.1 Group parts using one or more observed properties.</p>	<p>1.3.1 Display respect for themselves and each other.</p>	<p>1a. Demonstrate an understanding of the position of the observable body parts and their significance.</p> <p>1b. Appreciate that certain characteristic are common to human beings</p>	<ul style="list-style-type: none"> • Write the names of observable body parts on a drawing showing: parts of the face (eyes, ears, mouth, nose, and head), arms, elbows, hands, fingers, legs, knees, feet, toes. (1.1.1, 1.2.1, 2.2.1, 1.3.1, 2.3.1) • Explain the function of the observable body parts. (1.1.1, 2.2.1, 1.3.1, 2.3.1) • Group observable body parts according to given criteria. (1.1.1, 1.2.1, 2.2.1, 1.3.1, 2.3.1)

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
2.1.1 Understand the need for food as a source of energy for survival	2.2.1 Conveying information by means of oral or written descriptions or pictures		2a. Recognize that food is important to sustain life. 2b. Appreciate that not all food may be healthy for our bodies	<ul style="list-style-type: none"> • Explain the consequences of not eating. (2.1.1, 2.2.1, 2.3.1,1.3.1) • Choose nutritious meals from a variety of pictures displaying healthy and unhealthy options. (2.1.1, 2.2.1, 2.3.1)
3.1.1 Value the need for personal hygiene as a means of achieving/ maintaining good health.	3.2.1 Demonstrate correct procedures to maintain personal hygiene.		3. Understand the importance of personal hygiene.	<ul style="list-style-type: none"> • Explain proper procedures to keep their bodies clean: <ul style="list-style-type: none"> ○ bathe at regular intervals using soap and clean water; ○ wash all external body parts;

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
				<ul style="list-style-type: none"> ○ brush teeth; and ○ wash hands. (3.1.1, 2.2.1, 2.3.1) ● Explain why it is necessary to bathe in order to remain healthy. (3.1.1, 2.2.1, 2.3.1) ● Demonstrate the proper procedure to: <ul style="list-style-type: none"> ○ wash hands and ○ brush teeth. ([3.2.1, 1.3.1, 2.3.1)
<p>Form and Function:</p> <p>4.1.1 Examine the functions of everyday structures.</p>	<p>4.2.1 Construct information about functions of structures from what has been observed.</p>	<p>2.3.1 Consider safety when using everyday objects or devices.</p>	<p>4. Recognize that everyday structures perform various functions.</p>	<ul style="list-style-type: none"> ● Select the structures that are best suited for a given purpose: <ul style="list-style-type: none"> ○ stand on a structure that is stable and strong to support

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
5.1.1 Discriminate among objects, those that can be used as simple machines	5.2.1 Group objects as machines using one or more observed properties		5. Understand the use of some simple machines	<ul style="list-style-type: none"> ○ the intended mass; ○ the suitability of a vessel to hold its contents e.g. spoon, bowl, bird nest, etc.). (4.1.1, 4.2.1, 2.3.1) <ul style="list-style-type: none"> ● Explain that simple machines make work easier. (5.1.1, 2.2.1, 2.3.1) ● Justify their choice of which simple machine to use for a given task in terms of: <ul style="list-style-type: none"> ○ reducing effort; ○ increasing speed; or ○ changing direction of the force. (5.1.1, 5.2.1, 2.2.1, 2.3.1)

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
Systems and Interactions:				
<p>6.1.1 Categorise habitats based on their components. (World Habitat Day, October 1st)</p>	<p>6.2.1 Observe their environment using the senses – seeing, touching, hearing and smelling.</p>	<p>3.3.1 Exercise care to promote the well-being of themselves, others and environment when making observations.</p> <p>4.3.1 Understand the consequences of their actions.</p>	<p>6. Understand the difference between terrestrial and aquatic habitats.</p>	<ul style="list-style-type: none"> • Name three characteristics of a terrestrial habitat. (6.1.1, 6.2.1, 2.2.1, 1.3.1, 2.3.1) • Name three characteristics of an aquatic habitat. (6.1.1, 6.2.1, 2.2.1, 1.3.1, 2.3.1) • Compare and contrast habitats according to their characteristics. (6.1.1, 6.2.1, 2.2.1, 1.3.1, 2.3.1)
<p>7.1.1 Distinguish between types of forces as either push or pull.</p>	<p>7.2.1 Describe in advance the outcome of applying different types</p>		<p>7. Differentiate between a push and a pull.</p>	<ul style="list-style-type: none"> • Describe simple objects in terms of their <ul style="list-style-type: none"> ○ Shape, ○ Motion, ○ Position, or

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
	<p>of forces from previous experience.</p> <p>7.2.2 Via observation, describe objects in terms of their shape, motion, position or location.</p> <p>7.2.3 Design a simple investigation to demonstrate the effect of either a push or a pull.</p>			<ul style="list-style-type: none"> ○ Location. (7.1.1, 7.2.2, 4.3.1) ● Classify forces in situations as either a push or pull. (7.1.1, 7.2.1, 4.3.1) ● Devise a simple experiment to demonstrate the effects of pushes and pulls and hypothesize the effect of the forces. (7.1.1, 7.2.1, 7.2.3, 4.3.1)

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>Conservation and Sustainability:</p> <p>8.1.1 Assess the importance of energy as light, sound or heat for domestic purposes.</p>	<p>8.2.1 Group domestic household devices according to type of energy utilized.</p>	<p>5.3.1 Demonstrate conservation habits.</p>	<p>8. Understand that energy exists in various forms.</p>	<ul style="list-style-type: none"> • Distinguish amongst different forms of energy as light, sound or heat. (8.1.1, 2.2.1) • Associate common domestic appliances/devices with the type of energy they produce. (8.1.1, 8.2.1, 6.2.1, 2.2.1) • Explain the need to switch off appliances/devices that are not in use. (8.1.1, 5.3.1, 2.2.1)

SCIENCE CONTENT STANDARDS: INFANTS 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
9.1.1 Differentiate amongst types of litter as plastic, paper, cans, and glass.	9.2.1 Construct information about categories of litter from what has been observed.	6.3.1 Be accountable for disposal of litter 6.3.2 Confidently dispose litter in the appropriate bin.	9. Appreciate the need to reduce the amount of litter they contribute to the environment.	<ul style="list-style-type: none"> • Categorise litter into plastic, paper, cans or glass. (9.1.1, 9.2.1, 6.3.1) • Propose disposal methods for plastic, paper, cans and glass. (9.1.1, 1.3.1, 2.3.1, 6.3.1)

Primary School Curriculum

Science

Infants 2

SCIENCE CONTENT STANDARDS: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>Individual and Groups:</p> <p>1.1.1 Distinguish between living and non-living things.</p> <p>2.1.1 Differentiate among animals according to observable characteristics.</p>	<p>1.2.1 Construct information about differences between living and non-living things based on what has been observed.</p>	<p>1.3.1 Demonstrate a sense of responsibility when interacting with living or non-living things.</p>	<p>1. Appreciate differences between living and non-living things.</p> <p>2. Demonstrate an understanding that animals are similar and different.</p>	<ul style="list-style-type: none"> • Identify at least three attributes of living things as : <ul style="list-style-type: none"> o growing (growth), o reproducing (reproduction), o sensitive to environment, o moving (locomotion), o eating (nutrition), o producing Waste (excretion), and o breathing (respiration). (1.1.1, 1.2.1, 1.3.1, 2.2.1) • Justify why something is living or non-living. (1.1.1, 1.2.1, 1.3.1, 2.2.1)

SCIENCE CONTENT STANDARDS: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>3.1.1 Record the changes in growth of a seedling.</p>	<p>2.2.1 Communicating information by means of written descriptions or pictures in tabulated format.</p> <p>3.2.1 Chart the growth of a</p>	<p>2.3.1 Display honesty in recording information.</p>	<p>3. Understand the changes that take place when seedlings grow.</p>	<ul style="list-style-type: none"> • Classify animals according to observable characteristics: <ul style="list-style-type: none"> ○ limbs 2, 4 or 6 legs, wings; ○ head, thorax, abdomen; and ○ external covering etc. (2.1.1, 2.2.1, 1.3.1) • Measure the height of a seedling as it grows, using strips/ arbitrary measure. • Construct a chart to illustrate the growth of a seedling. (3.1.1, 3.2.1, 3.3.1) • Draw diagrams to show the development of a seedling at different

SCIENCE CONTENT STANDARDS: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>4.1.1 Distinguish healthy foods from non-healthy foods based on Caribbean Food Groups. (World Food Day - Oct.16th)</p> <p>4.1.2 Discuss consequences of eating unhealthy foods.</p>	<p>seedling using an arbitrary measure.</p> <p>4.2.1 Construct information about healthy foods from what has been surveyed.</p> <p>4.2.2 Convey information orally or by drawing about these consequences.</p>	<p>3.3.1 Exhibit confidence in making responsible eating choices.</p> <p>4.3.1 Show concern for/sensitivity to others who make unhealthy eating choices.</p>	<p>4. Recognize that not all items prepared for eating are healthy.</p>	<p>stages. (3.1.1, 3.2.1, 3.3.1)</p> <ul style="list-style-type: none"> • Justify making healthy choices of food. (4.1.1,4.2.1,4.3.1) • Group basic foods using the Caribbean Food Groups. (4.1.1, 4.2.1, 3.3.1) • Explain that a healthy meal consists of food from the six food groups. (4.1.1, 4.2.1, 3.3.1,4.3.1) • Explain some of the consequences of eating unhealthy foods. (4.1.1,4.2.1,4.3.1)

SCIENCE CONTENT STANDARDS: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
Form and Function:				
5.1.1 Distinguish among solids based on physical properties.	5.2.1 Construct an operational definition of physical properties from what has been observed.	5.3.1 Be on task during activities. 5.3.2 Construct a simple table for recording observations	5. Differentiate solids based on physical properties.	<ul style="list-style-type: none"> • Categorise solids based on physical properties. <ul style="list-style-type: none"> ○ colour ○ shape ○ size ○ texture (5.1.1, 5.2.1, 5.3.1, 5.3.2)
Systems and Interaction:				
6.1.1 Demonstrate the effects of forces that cause objects to: move, come to rest, move faster, change direction.	6.2.1 Describe procedures in a sequential order. 6.2.2 Deduce from recorded information, the effects of application of pushes or pulls.	6.3.1 Display curiosity when manipulating objects.	6. Understand the effects of forces; push and pull.	<ul style="list-style-type: none"> • Apply forces to objects to alter speed and/or direction. (6.1.1, 6.2.1, 6.3.1) • Interpret from recorded information the effects of the application of a push/pull. (6.1.1, 6.2.2, 6.3.1)

SCIENCE CONTENT STANDARDS: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
7.1.1 Compare aquatic and terrestrial habitats based on their components. (World Water Day, March 22 nd ; Earth Day, April 22 nd ; World Environment Day, June 5 th).	7.2.1 Construct a table of characteristic features of a particular habitat.	7.3.1 Be objective when collecting data.	7. Differentiate between aquatic and terrestrial habitats.	<ul style="list-style-type: none"> • Construct a table of characteristic features of aquatic and terrestrial habitats. (7.1.1, 7.2.1, 7.3.1) • Create a model or picture of an aquatic and terrestrial habitat. (7.1.1) • Classify habitats as aquatic or terrestrial from their characteristics. (7.1.1, 7.2.1, 7.3.1)
Conservation and Sustainability:				
8.1.1 Explain that energy is conserved and converted into other form(s) in devices.	8.2.1 Construct information using simple flow charts about the conversion of energy in devices.	8.3.1 Show concern for energy conservation.	8. Understand that energy is converted from one form to another for use.	<ul style="list-style-type: none"> • Identify the forms of energy before and after conversion in given devices/ appliances. (8.1.1)

SCIENCE CONTENT STANDARDS: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
9.1.1 Justify the importance of scientists. (World Science Day – early March)	9.2.1 Convey information orally or pictures about scientific	9.3.1 Demonstrate appreciation for the contribution of scientists.	9. Justify the importance of scientists.	<ul style="list-style-type: none"> • Draw flow diagrams to illustrate the energy changes that take place in household devices/appliances. (8.1.1, 8.2.1, 8.3.1) • Explain the need to switch off toys, appliances and lights when not in use. (8.1.1,8.3.1) • Articulate that energy is neither created nor destroyed; it just changes form. ([8.1.1) • Discuss the contribution of named scientists. (9.1.1, 9.2.1,9.3.1)

SCIENCE CONTENT STANDARDS: INFANTS 2

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
	advancements. 9.2.2 Participate in science popularization activities.			<ul style="list-style-type: none"> • Make/ display posters to show the work of local scientists. (9.2.2,9.3.1)

Primary School Curriculum

Science

Standard 1

SCIENCE CONTENT STANDARDS: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
Individual and Groups:				
<p>1.1.1 Distinguish between vertebrates and invertebrates.</p>	<p>1.2.1 Sort models or pictures of animals according to observed characteristics.</p>	<p>1.3.1 Handle materials carefully.</p> <p>1.3.2 Demonstrate equity in distribution of materials.</p>	<p>1. Classify animals as vertebrates or invertebrates.</p>	<ul style="list-style-type: none"> • Categorize popular farm, domestic and zoo animals as vertebrates or invertebrates. (1.1.1, 1.2.1, 1.3.1)
<p>2.1.1 Discuss the importance of the work of local scientists.</p>	<p>2.2.1 Convey information by means of oral presentations or visual display.</p>	<p>2.3.1 Value the contributions of scientists.</p>	<p>2. Appreciate the work of local scientists.</p>	<ul style="list-style-type: none"> • Explain the importance of the work of local scientists. (2.1.1,2.2.1,2.3.1) • Identify one local scientist and write the main idea of his/her work. (2.1.1,2.2.1,2.3.1)

SCIENCE CONTENT STANDARDS: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
Form and Function:				
<p>3.1.1 Investigate traditional methods such as sieving and handpicking to separate mixtures of solids.</p> <p>4.1.1 Evaluate the usefulness of objects/structures based on the materials used to make them.</p>	<p>3.2.1 Choose the appropriate apparatus for separating solids of different size.</p> <p>3.2.2 Carry out procedures systematically.</p> <p>4.2.1 Investigate the flaws in structures that result from the choice of materials.</p> <p>4.2.2 Explore possible alternatives.</p>	<p>3.3.1 Be open-minded about traditional practices.</p> <p>4.3.1 Be innovative in choice of materials.</p>	<p>3. Discriminate amongst traditional methods of separation.</p> <p>4. Illustrate the usefulness of structures/objects based on the materials used to make them.</p>	<ul style="list-style-type: none"> • Explain the procedures to separate mixtures e.g.: <ul style="list-style-type: none"> ○ Handpicking: <ul style="list-style-type: none"> ▪ rice and stone; ▪ sand and rice; and ▪ Nails and pebbles. <p>(3.1.1,3.2.1,3.3.1)</p> <ul style="list-style-type: none"> • Use appropriate materials when creating models or completing projects etc. that are suitable based on <ul style="list-style-type: none"> ○ appearance, ○ texture, ○ strength, and ○ mass. (4.1.1,4.2.1,4.3.1)

SCIENCE CONTENT STANDARDS: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
5.1.1 Differentiate among various types of simple machines as levers, pulleys, wheel and axle.	5.2.1 Use an appropriate simple machine to complete a specified task.	5.3.1 Value the usefulness of simple machines.	5. Demonstrate an understanding of the use of simple machines.	<ul style="list-style-type: none"> • Classify simple machines as: <ul style="list-style-type: none"> ○ levers, ○ pulleys, or ○ wheel and axle. (5.1.1,5.2.1, 5.3.1) • Select appropriate simple machines to solve everyday problems. (5.1.1,5.2.1, 5.3.1)
Systems and Interaction: 6.1.1 Examine the use of forces including twists and turns.	6.2.1 Carry out procedures showing the use of different forces. 6.2.2 Record observations using scientific	6.3.1 Be thorough when conducting investigations. 6.3.2 Be neat in completing tasks.	6. Evaluate the effects of forces.	<ul style="list-style-type: none"> • Explain the effects of simple twists and turns. (6.1.1,6.2.1,6.3.1) • Draw and label diagrams to illustrate the use of twists and turns.(6.1.1,6.2.2,6.3.2) • Predict the most plausible o

SCIENCE CONTENT STANDARDS: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>7.1.1 Investigate relationships that exist within ecosystems.</p> <p>8.1.1 Assess the importance of the daily cycle.</p>	<p>drawings.</p> <p>6.2.3 Predict the outcome of applying a force.</p> <p>7.2.1 Construct a graphic representation of the feeding habits of animals.</p> <p>8.2.1 Map events/activities in terms of sequence and period of time.</p>	<p>7.3.1 Exhibit sensitivity to the delicate balance that exists within ecosystems.</p> <p>8.3.1 Be aware of patterns of behaviours or habits.</p>	<p>7. Demonstrate an understanding of the relationships within ecosystems.</p> <p>8. Value the daily cycle.</p>	<p>outcome in given situations where twists and turns are applied. (6.1.1,6.2.2,6.3.2)</p> <ul style="list-style-type: none"> • Identify relationships existing in ecosystems. (7.1.1, 7.2.1, 7.3.1) • Create simple flow diagram to illustrate energy relationships amongst organisms in common ecosystem. (7.1.1, 7.2.1, 7.3.1) • Outline the negative effects of mans' actions within ecosystems. (7.1.1, 7.2.1, 7.3.1)

SCIENCE CONTENT STANDARDS: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>9.1.1 Compare the wet and dry seasons based on activities that take place in each.</p>			<p>9. Demonstrate an awareness of the differences between the wet and dry seasons.</p>	<ul style="list-style-type: none"> • Illustrate and predict the daily cycle. (8.1.1, 8.2.1, 8.3.1) • Associate common activities with day and night. (8.1.1, 8.2.1, 8.3.1) • Identify the characteristics of the two seasons. (9.1.1, 8.2.1, 8.3.1) • Explain why common activities are associated with a season. (9.1.1, 8.2.1, 8.3.1) • Associate natural events that occur in the seasons. E.g. wet: - hurricanes, flooding. (9.1.1, 8.2.1,

SCIENCE CONTENT STANDARDS: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
8.3.1)				
<p>Conservation and Sustainability:</p> <p>10.1.1 Evaluate how wind had been used as a source of energy.</p> <p>10.1.2 Create models of traditional devices that use wind.</p>	<p>10.2.1 Assemble a display conveying information on wind energy.</p> <p>10.2.2 Design and build models.</p> <p>10.2.3 Explore possible modifications of wind powered devices to improve their</p>	<p>10.3.1 Value traditional practices that incorporate the use of wind energy.</p> <p>10.3.2 Demonstrate creativity in developing designs and models.</p>	<p>10a. Explain how wind has been used as a source of energy</p> <p>10b. Create and modify models of traditional wind devices.</p>	<ul style="list-style-type: none"> • Explain that windmills have been used for grinding in some industries in the past. (10.1.1, 10.2.1, 10.3.1) • Explain some of the common uses of wind energy. (10.1.1, 10.2.1, 10.3.1) • Construct models of traditional devices that use wind. (10.1.2, 10.2.2, 10.2.3,)

SCIENCE CONTENT STANDARDS: STANDARD 1

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
	usefulness.			<ul style="list-style-type: none">• Evaluate these models and propose modifications to enhance their operation. (10.2.3, 10.3.2)

Primary School Curriculum

Science

Standard 2

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
<p>Individuals and Groups:</p> <p>1.1.1 Categorize vertebrates into classes.</p>	<p>1.2.1 Construct operational definitions of each class of vertebrate from observations recorded.</p>	<p>1.3.1 Value the commonalities shared by individual species.</p>	<p>1. Associate each class of vertebrates with at least two distinguishing characteristics.</p>	<ul style="list-style-type: none"> • Associate common animals with the five groups of vertebrates based on the identification of distinguishing characteristics: <ul style="list-style-type: none"> ○ mammals ○ birds ○ reptiles ○ fish ○ amphibians <p>(1.1.1, 1.2.1, 1.3.1, 2.3.1)</p>
<p>Form and Function:</p> <p>2.1.1 Differentiate among the three states of matter.</p>	<p>2.2.1 Convey understanding of meaning of terms from observations.</p>	<p>2.3.1 Effectively communicate information in appropriate formats.</p>	<p>2. Understand that matter exists in three basic states.</p>	<ul style="list-style-type: none"> • Categorize matter into the three basic states: <ul style="list-style-type: none"> ○ solids, ○ liquids, and ○ gases <p>(2.1.1, 2.2.1, 2.3.1, 3.3.1)</p> <ul style="list-style-type: none"> • Explain that matter can change states.

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
<p>3.1.1 Investigate the separation of solids from mixtures using filtration and magnetism.</p>	<p>3.2.1 Construct an operational definition of magnetic property from what has been observed.</p> <p>3.2.2 Report on the method used to separate mixtures into their solid components.</p>	<p>3.3.1 Share responsibility for completing assigned task.</p>	<p>3. Understand that mixtures can be separated into their components.</p>	<ul style="list-style-type: none"> ○ water ○ carbon dioxide (dry ice) (2.1.1, 2.2.1) <ul style="list-style-type: none"> ● Separate mixtures using the processes of <ul style="list-style-type: none"> ○ Filtration or ○ Magnetism. (3.1, 3.2.1, 2.3.1, 3.3.1,4.3.1)
<p>4.1.1 Investigate substances that dissolve in water.</p>	<p>4.2.1 Measure the volume of water using a beaker and a measuring</p>	<p>4.3.1 Demonstrate concern for safety of self and others when handling materials and</p>	<p>4. Recognize that some substances can be dissolved in water.</p>	<ul style="list-style-type: none"> ● Name common substances that can be dissolved in water. (4.1.1, 4.2.2, 4.3.1, 3.3.1,2.3.1)

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
<p>5.1.1 Investigate the movement of water through various soil types.</p>	<p>cylinder.</p> <p>4.2.2 Make inferences about the nature of the substances from observations.</p> <p>5.2.1 Present information in tabulated format showing the movement of water through different soil types.</p>	<p>equipment.</p> <p>5.3.1 Show concern for conservation of minerals and the environment from which they are extracted.</p>	<p>5. Distinguish between soil types based on rate of flow of water.</p>	<ul style="list-style-type: none"> • Explain the terms: solute, solvent and solution. (4.1.1, 4.2.1, 4.3.1, 3.3.1, 2.3.1) • Conduct experiments to demonstrate substances that can be dissolved in water. (4.1.1, 4.2.1, 4.3.1,3.3.1,2.3.1) • Set up and conduct experiments to illustrate the movement of water through the different soil types. (5.1.1, 5.2.1, 4.3.1, 3.3.1, 2.3.1) • Read water volumes at eye level after placing measuring cylinder/beaker on a flat surface. (5.1.1,5.2.2,4.3.1)

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
	or visual presentation about minerals. 6.2.2 Create a display of ways minerals are used.			<ul style="list-style-type: none"> ○ asphalt ○ limestone ○ coal ○ gold ○ silver ○ iron (6.1.1, 6.2.1, 5.3.1, 2.3.1) <ul style="list-style-type: none"> ● Describe ways to conserve minerals and the environment they are extracted from. (6.1.1, 6.2.2, 5.3.1, 2.3.1)
Systems and Interaction: 7.1.1 Demonstrate that plants need light and water for growth.	7.2.1 Deduce the variables that relate to an investigation of the growth of plants. 7.2.2 Carry out procedures systematically,	6.3.1 Communicate findings in a concise and logical manner.	7. Discuss some of the conditions necessary for plant growth.	<ul style="list-style-type: none"> ● Conduct experiments to demonstrate that plants need light and water to grow. (7.1.1, 7.2.1, 6.3.1, 4.3.1, 3.3.1,2.3.1) ● Represent findings in appropriate graphic organizers which:

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
<p>8.1.1 Justify the importance of the water cycle in making water available for life processes.</p>	<p>present findings and draw conclusions.</p> <p>8.2.1 Draw an annotated diagram of the water cycle.</p>	<p>6.3.1 Display conservation habits when using water.</p>	<p>8. Value the importance of the water cycle.</p>	<ul style="list-style-type: none"> ○ are easy to extract information from ○ are labelled appropriately (7.1.1, 7.2.1, 6.3.1, 4.3.1, 3.3.1,2.3.1) ● Predict what is likely to occur if plants are deprived of water (7.1.1, 7.2.2, 6.3.1, 4.3.1, 3.3.1,2.3.1) ● Explain the processes in the water cycle: <ul style="list-style-type: none"> ○ evaporation ○ condensation ○ precipitation. (8.1.1,8.2.1,6.3.1) ● Label a diagram of the water cycle using

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
				<ul style="list-style-type: none"> ○ appropriate title and ○ labels placed on right of diagram/page. (8.1.1,8.2.1, 6.3.1) ● Assess water conservation habits that incorporate reduce, reuse and recycle. (8.1.1,8.2.1,6.3.1)
<p>Conservation and Sustainability:</p> <p>9.1.1 Examine the use of fossil fuels such as petroleum and natural gas.</p>	<p>9.2.1 Extract appropriate information from various media.</p>	<p>7.3 1 Develop an appreciation for the need to conserve energy resources.</p>	<p>9. Understand the need to conserve energy.</p>	<ul style="list-style-type: none"> ● List traditional sources of energy as: <ul style="list-style-type: none"> ○ petroleum (gasoline, diesel, kerosene) and ○ natural gas. (9.1,9.2,7.3) ● Name alternative sources

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
<p>10.1.1 Justify the need to conserve potable water.</p>	<p>10.2.1 Gather and represent information on daily usage of water in various contexts.</p>	<p>8.3.1 Recognise when it is important to maintain confidentiality concerning personal information.</p>	<p>10. Understand the importance of conserving water.</p>	<p>of energy as:</p> <ul style="list-style-type: none"> ○ wind, ○ solar, and ○ hydroelectric. (9.1.1,9.2.1,7.3.1) <ul style="list-style-type: none"> ● Explain why energy needs to be conserved with reference to: <ul style="list-style-type: none"> ○ cost, ○ availability, (9.1.1,9.2.1,7.3.1) ● Represent research data on water usage in appropriate graphic organizers. (10.1.1,10.2.1,8.3.1) ● Defend why it is necessary to conserve potable water. (10.1.1,10.2.1,8.3.1) ● Discuss ways to conserve potable water including:

SCIENCE CONTENT STANDARDS: STANDARD 2

CONTENT	SKILLS	DISPOSITIONS	STANDARD	ELABORATIONS
Students will:				
				<ul style="list-style-type: none">○ fixing leaks;○ turning off taps not in use;○ reducing shower time; and○ using eco-friendly toilets. (10.1.1,10.2.1,8.3.1)

Primary School Curriculum

Science

Standard 3

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>Individuals and Groups:</p> <p>1.1.1 Discriminate among the stages in the life cycle of animals showing complete metamorphosis.</p>	<p>1.2.1 Draw annotated diagrams of the stages in the life cycle of animals.</p>	<p>1.3.1 Be objective when representing scientific information as a drawing.</p>	<p>1. Understand that some animals go through different stages in growth.</p>	<ul style="list-style-type: none"> • Explain the stages of the metamorphosis process. <ul style="list-style-type: none"> ○ egg ○ larvae ○ pupa and ○ adult (1.1.1, 1.3.1) • Classify common animals as those that undergo complete metamorphosis. <ul style="list-style-type: none"> ○ mosquito ○ house fly ○ butterfly and ○ frog. (1.1.1, 1.2.1, 1.3.1) • Draw and label diagrams to illustrate life cycles of named

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>2.1.1 Examine distinguishing features in animals and plants that allow for variation and adaptation.</p>	<p>2.2.1. Illustrate distinguishing features through scientific drawings.</p>		<p>2. Recognize that variation within a species exists as a result of adaptation.</p>	<p>organisms. Diagrams should:</p> <ul style="list-style-type: none"> ○ be clear and clean; ○ contain smooth lines; ○ be large (half page); ○ be properly labelled and ○ contain appropriate titles. <p>(1.1.1, 1.2.1, 1.3.1)</p> <ul style="list-style-type: none"> ● Differentiate among some of the distinguishing features of animals and the uses of such features as: <ul style="list-style-type: none"> ○ limbs; ○ head and ears; ○ eyes (predator,

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
				<ul style="list-style-type: none"> ○ prey); ○ camouflage; ○ fins and gills; and ○ external covering. (2.1.1, 2.2.2) ● Differentiate among some of the distinguishing features of plants e.g. <ul style="list-style-type: none"> ○ leaves –size, shape (including cacti) ○ external covering (bark, leaf, flower colour). (2.1.1, 2.2.1)

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
Form and Function:				
<p>3.1.1 Investigate the separation of soluble solids from solutions.</p>	<p>3.2.1 Measure temperature using a thermometer.</p> <p>3.2.2 Manipulate variables to identify the factors that affect the separation of soluble solids from solutions.</p> <p>3.2.3 Make inferences from data recorded.</p>	<p>2.3.1 Be efficient when using materials to avoid wastage.</p>	<p>3. Understand that the solute and solvent can be separated from solutions.</p>	<ul style="list-style-type: none"> • Design and conduct experiments to separate solutions of <ul style="list-style-type: none"> ○ Salt/sugar and water. (3.1.1, 3.2.2, 2.3.1) • Explain that temperature and surface area facilitate the separation of mixtures. • Manipulate, use and label the parts of a thermometer. (3.2.1)
<p>4.1.1 Examine the external parts of the flower.</p>	<p>4.2.1 Draw external flower parts and label each clearly.</p>	<p>3.3.1 Be careful when handling delicate materials and fragile equipment.</p>	<p>4. Differentiate amongst the external parts of the flower.</p>	<ul style="list-style-type: none"> • Draw and label the external parts of the flower showing: <ul style="list-style-type: none"> ○ Petals, Sepals

SCIENCE CONTENT STANDARDS: STANDARD 3				
CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
				<ul style="list-style-type: none"> ○ Anther, Filaments (parts of the stamen) ○ Style, Stigma (parts of the pistil). (4.1.1, 4.2.1, 3.3.1)
Systems and Interaction: 5.1.1 Justify the need to protect aquatic habitats including wetlands.	5.2.1 Construct an argument in support of initiatives to protect wetlands.	4.3.1 Be aware of their responsibility to preserve wetlands.	5. Understand the delicate nature of aquatic habitats.	<ul style="list-style-type: none"> ● Differentiate amongst aquatic habitats as: <ul style="list-style-type: none"> ○ rivers, ○ ponds, ○ swamps, and ○ marine environments. (5.1.1, 4.3.1) ● Explain how natural factors affect aquatic environments.

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
				<ul style="list-style-type: none"> ○ climate and weather ○ temperature change ○ drought and flooding ○ overpopulation ○ predator/prey relationship ○ food supply. (5.1.1, 5.2.1, 4.3.1) ● How human activities affect aquatic environments. <ul style="list-style-type: none"> ○ pollution ○ over exploitation, indiscriminate use of resources ○ introduction of non-native species.

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>6.1.1 Justify that interdependency exists among plants and animals.</p>	<p>6.2.1 Construct information about food webs using graphic representation.</p> <p>6.2.2 Predict the impact of the introduction of non-native or loss of native species.</p>		<p>6. Understand that interdependency exists among plants and animals.</p>	<p align="right">(5.1.1, 5.2.1, 4.3.1)</p> <ul style="list-style-type: none"> • Construct food webs to illustrate the feeding relationships among common animals in <ul style="list-style-type: none"> ○ terrestrial habitats and ○ aquatic habitats. (6.1.1, 6.2.1) • Predict the impact of: <ul style="list-style-type: none"> ○ introduction of non-native species ○ loss of native species. (6.1.1, 6.2.2)

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
<p>Conservation and Sustainability:</p> <p>7.1.1 Examine the uses of solar energy as an alternative to fossil fuels.</p>	<p>7.2.1 Construct an operational definition of alternative energy based on observations.</p>	<p>5.3.1 Share their views CONFIDENTLY via multiple methods.</p>	<p>7. Appreciate solar energy as an alternative to fossil fuels.</p>	<ul style="list-style-type: none"> • Differentiate between alternative forms of energy and fossil fuels. (7.1.1, 7.2.1, 5.3.1) • Explain some ways that solar energy can be used. (7.1.1, 7.2.1, 5.3.1) • Explain the benefits of solar energy as being: <ul style="list-style-type: none"> ○ Clean, ○ Renewable and ○ Available due to our tropical location. (7.1.1, 7.2.1, 5.3.1)

SCIENCE CONTENT STANDARDS: STANDARD 3

CONTENT	SKILLS	DISPOSITIONS	OUTCOMES	ELABORATIONS
Students will:				
8.1.1 Evaluate the effects of pollution: <ul style="list-style-type: none"> • on land, • in air, and • in water. 	8.2.1 Present arguments against pollution.		8. Evaluate the effects of pollution: <ul style="list-style-type: none"> • on land, • in air, and • in water. 	<ul style="list-style-type: none"> • Differentiate among land, air and water pollution. (8.1.1) • Discuss the effects of land, air and water pollution. (8.1.1, 8.2.1) • Discuss simple strategies for reducing pollution. (8.1.1) • Justify why pollution must be reduced. (8.1.1, 8.2.1)

Primary School Curriculum

Science

Standard 4

SCIENCE CONTENT STANDARDS: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
<p>Individuals and Groups:</p> <p>1.1.1 Examine the biological changes that take place in animals and plants during the growth process.</p>	<p>1.2.1 Measure lengths using instruments of varying ranges.</p> <p>1.2.2 Compose a suitable aim for investigating changes in measurable physical characteristics that vary with growth.</p> <p>1.2.3 Report procedures in logical sequence and appropriate language.</p>	<p>1.3.1 Show respect for the variations that exist among all forms of life.</p> <p>1.3.2 Demonstrate self-assurance about their uniqueness.</p>	<p>1. Understand the changes that take place in plants and animals as they mature.</p>	<ul style="list-style-type: none"> • Represent the dimensions of plants and animals using metric units. (1.1.1, 1.2.1, 1.3.1) • Explain that as plants and some animals mature, their parts grow in size. <ul style="list-style-type: none"> ○ height ○ mass ○ span ○ girth (1.1.1, 1.2.1, 1.3.1) • Differentiate between adults and their young. (1.1.1, 1.2.1, 1.3.1) • Formulate and test hypotheses. (1.1.1, 1.2.1, 1.2.2, 1.3.2)

SCIENCE CONTENT STANDARDS: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
				<ul style="list-style-type: none"> • Design and conduct experiments to investigate the physical changes which take place as plants grow. (1.1.1, 1.2.1, 1.2.2, 1.3.2) • Report findings using logical sequencing and appropriate graphic organizers using: <ul style="list-style-type: none"> ○ past tense, ○ concise language, and ○ third person. (1.1.1, 1.2.3, 1.3.2) • Interpret data on growing plants and animals. (1.1.1, 1.2.4, 1.3.2)

SCIENCE CONTENT STANDARDS: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
<p>2.1.1 Justify the need for eating healthy foods (balanced and natural).</p>	<p>1.2.4 Interpret recorded data</p> <p>2.2.1 Extract information about ingredients and methods of food preparation from varied sources.</p>	<p>2.3.1 Exhibit self-control in choosing healthy options.</p> <p>2.3.2 Be sensitive when discussing food related illnesses or challenges.</p>	<p>2a. Justify their choice of healthy foods.</p> <p>2b. Exhibit sensitivity to individuals who suffer from food related illnesses or challenges.</p>	<ul style="list-style-type: none"> • Explain that healthy foods are impacted by <ul style="list-style-type: none"> ○ ingredients used and ○ method of preparation. (2.1.1, 2.2.1) • Select healthy foods from pictures and lists. (2.1.1, 2.2.1, 2.3.1) • Defend their food choices. (2.1.1, 2.2.1, 2.3.1) • Demonstrate appropriate responses and behaviours to individuals who do not choose healthy food options. (2.3.2)

SCIENCE CONTENT STANDARDS: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
<p>Form and Function:</p> <p>3.1.1 Investigate the properties of materials such as:</p> <ul style="list-style-type: none"> • ability to transmit sound and light, • absorbency • strength, and • conduction of heat and electricity. 	<p>3.2.1 Measure temperature using a thermometer.</p> <p>3.2.2 Formulate a hypothesis and select a workable method.</p> <p>3.2.3 Interpret data to confirm or refute hypothesis.</p> <p>3.2.4 Draw appropriate conclusion.</p>	<p>3.3.1 Propose innovative recommendations.</p>	<p>3. Defend the choice of materials based on their properties.</p>	<ul style="list-style-type: none"> • Design experiments to compare the properties of materials based on: <ul style="list-style-type: none"> ○ ability to transmit: <ul style="list-style-type: none"> ▪ sound and/or ▪ light; ○ absorbency; ○ strength; ○ conduction of <ul style="list-style-type: none"> ▪ heat, and/or ▪ electricity. (3.1.1, 3.2.1) • Use a thermometer correctly by immersing the bulb into liquid to be tested. (3.1.1, 3.2.1) • Formulate and test hypotheses on the most suitable material to be used in

SCIENCE CONTENT STANDARDS: STANDARD 4

CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
4.1.1 Investigate the factors that affect the stability of simple structures	4.2.1 Explore possible modifications of simple structure to improve its stability. 4.2.2 Select the best solution.		4. Modify simple structures to improve their stability	given situations. (3.1.1, 3.2.2, 3.2.3) <ul style="list-style-type: none"> • Interpret data and draw appropriate conclusions from observations made. (3.1.1, 3.2.3, 3.2.4) • Propose innovative recommendations for improvement to apparatus/equipment. (3.1.1, 3.3.1) • Create a stable simple structure with consideration of: <ul style="list-style-type: none"> ○ choice of basic material; ○ shape; ○ width of base; ○ overall height; ○ placement of load; and ○ centre of gravity.

SCIENCE CONTENT STANDARDS: STANDARD 4				
CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
	4.2.3 Evaluate the selected solution.			(4.1.1, 4.2.1) <ul style="list-style-type: none"> Analyse simple structures and improve their stability by attempting to lower the centre of gravity.
Systems and Interaction: 5.1.1 Differentiate between weather and climate.	5.2.1 Observe weather pattern over a period of time. 5.2.2 Chart the weather pattern in various locations. 5.2.3 Interpret inferences from data gathered.	5.3.1 Be proactive in preparing for extreme weather conditions (Natural Disasters).	5. Distinguish between weather and climate.	<ul style="list-style-type: none"> Observe and record weather patterns using symbols. [5.1.1, 5.2.1] Explain the difference between weather and climate. [5.1.1, 5.2.1] Outline steps to prepare for extreme weather conditions. (5.1.1, 5.3.1)

SCIENCE CONTENT STANDARDS: STANDARD 4				
CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
<p>Conservation and Sustainability:</p> <p>6.1.1 Differentiate between renewable and non-renewable sources of energy.</p> <p>7.1.1 Investigate the Greenhouse Effect and its link to Global Warming.</p>	<p>6.2.1 Construct operational definition of terms renewable and non-renewable from activities.</p> <p>7.2.1 Conduct demonstrations of the Greenhouse Effect.</p>	<p>6.3.1 Demonstrate initiative in conserving electrical energy.</p> <p>7.3.1 Be accountable for their negative attitudes and behaviours towards the environment.</p>	<p>6. Assess uses of renewable and non-renewable energy.</p> <p>7. Differentiate between the Greenhouse Effect and the Enhanced Greenhouse Effect.</p>	<ul style="list-style-type: none"> • Understand that non-renewable energy stores are finite. (6.1.1, 6.2.1) • Explain the difference between renewable and non-renewable energy. (6.1.1, 6.2.1) • Explain how the earth becomes warm as a result of the Greenhouse Effect. (7.1.1, 7.2.1) • Draw and label diagrams to illustrate the Greenhouse Effect. (7.1.1, 7.2.1)

SCIENCE CONTENT STANDARDS: STANDARD 4				
CONTENT	SKILLS	DISPOSITIONS	STANDARDS	INDICATORS
Students will:				
				<ul style="list-style-type: none"> • Create models to illustrate the Greenhouse Effect. (7.1.1, 7.2.1) • Explain how man's actions have created the Enhanced Greenhouse Effect. (7.1.1, 7.2.1, 7.3.1)

Primary School Curriculum

Science

Standard 5

SCIENCE CONTENT STANDARDS: STANDARD 5

CONTENT	SKILLS	DISPOSITIONS	STANDARD	INDICATORS
Students will:				
<p>Form and Function:</p> <p>1.1.1 Justify the use of various technologies in everyday life.</p>	<p>1.2.1 Measure mass using a balance.</p> <p>1.2.2 Measure weight using a spring balance.</p> <p>1.2.3 Construct operational definition of forces that can be an effort or load.</p> <p>1.2.4 Investigate the use of simple machines (levers, gears and inclined planes) to reduce the effort needed.</p>	<p>1.3.1 Be responsive to new technologies.</p> <p>1.3.2 Be innovative as they adapt to technological changes.</p>	<p>1. Justify the use of various technologies in everyday life.</p>	<ul style="list-style-type: none"> • Differentiate between mass and weight (1.1.1, 1.2.1, 1.2.2) • Use appropriate devices to measure mass and weight avoiding common reading errors. <ul style="list-style-type: none"> ○ Zero error ○ Parallax ○ Using a level surface. (1.1.1, 1.2.1, 1.2.2) • Differentiate among load, effort and fulcrum in the different types of levers. • Draw and label force diagrams: <ul style="list-style-type: none"> ○ arrow begins at application of force; ○ arrow head shows

SCIENCE CONTENT STANDARDS: STANDARD 5

CONTENT	SKILLS	DISPOSITIONS	STANDARD	INDICATORS
Students will:				
				<ul style="list-style-type: none"> ○ force direction; ○ length of arrow is proportional to size of force. (1.1.1, 1.2.1, 1.2.2, 1.2.4) ● Explain using force diagrams, that some devices/ equipment reduce the effort needed to overcome the load, namely: <ul style="list-style-type: none"> ▪ levers, ▪ gears, and ▪ inclined planes. (1.1.1, 1.2.4) ● Design or modify simple machines that can make our lives easier, using the steps in the IDEATE model. <ul style="list-style-type: none"> ○ I - Identify the problem. ○ D - Define the problem. ○ E - Explore possible

SCIENCE CONTENT STANDARDS: STANDARD 5

CONTENT	SKILLS	DISPOSITIONS	STANDARD	INDICATORS
Students will:				
				solutions. ○ A - Access the various solutions. ○ T - Try-out and Test the solution. ○ E - Evaluate the solution. (1.1.1, 1.2.1, 1.3.1)
<p>Conservation and Sustainability:</p> <p>2.1.1 Justify the use of energy efficient devices and practices to conserve electrical energy.</p>	<p>2.2.1 Identify an energy saving strategy to address a particular problem.</p>	<p>2.3.1 Make responsible choices that will sustain the environment.</p>	<p>2. Justify the use of energy efficient devices and practices to conserve electrical energy.</p>	<ul style="list-style-type: none"> ● Discuss the use of energy efficient devices used in the community, including: <ul style="list-style-type: none"> ○ energy star products; ○ energy efficient lighting; <ul style="list-style-type: none"> ▪ fluorescent lighting and ▪ Light Emitting Diodes. (LEDs) <p>(2.1.1, 2.2.1, 2.3.1)</p>

SCIENCE CONTENT STANDARDS: STANDARD 5

CONTENT	SKILLS	DISPOSITIONS	STANDARD	INDICATORS
Students will:				
	2.2.2 Explore possible options and select the one that is most viable.			<ul style="list-style-type: none"> • Construct contextually relevant operational definitions of the term “energy efficient”. • Propose alternative methods of <ul style="list-style-type: none"> ○ washing and drying clothes; ○ using artificial lighting; ○ using electrical water pumps; ○ using air-conditioning. (2.1.1, 2.2.1, 2.3.1) • Design model homes that are energy efficient. (2.1.1, 2.2.1, 2.3.1) • Explain the effects of global warming.

SCIENCE CONTENT STANDARDS: STANDARD 5

CONTENT	SKILLS	DISPOSITIONS	STANDARD	INDICATORS
Students will:				
<p>3.1.1 Justify the need to reduce the effects of Global Warming</p> <p>4.1.1 Appraise strategies used for conserving and sustaining the environment.</p>	<p>3.2.1 Evaluate the effectiveness of the proposed solution.</p> <p>4.2.1 Interpret data to detect impact of Global Warming.</p> <p>4.2.2 Research initiatives of various environmental protection agencies.</p>	<p>3.3.1 Be sensitive about issues that affect our environment.</p> <p>4.3.1 Show concern about the destruction of the environment.</p>	<p>3. Understand the need to reduce Global Warming.</p> <p>4. Appreciate the need for conservation as a means of sustaining the environment.</p>	<ul style="list-style-type: none"> • Predict what will happen if earth’s temperature continues to rise. (2.1.1, 2.2.2, 2.3.1) • Devise plans to reduce the production of major Greenhouse Gases. (3.1.1, 3.2.1, 3.3.1) • Discuss strategies used in environmental conservation including: <ul style="list-style-type: none"> ○ responsible use of resources; <ul style="list-style-type: none"> ▪ reduce ▪ reuse ▪ recycle ○ using natural ways of doing things; ○ using alternative transportation; <ul style="list-style-type: none"> ▪ cycling

SCIENCE CONTENT STANDARDS: STANDARD 5

CONTENT	SKILLS	DISPOSITIONS	STANDARD	INDICATORS
Students will:				
				<ul style="list-style-type: none"> ▪ walking ▪ carpooling • Explain initiatives used by environmental protection agencies. • Interpret data which illustrates the impact of Global Warming. • Devise personal plans to demonstrate environmental conservation. (4.1.1, 4.2.1, 4.3.1)