

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Planets****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST2a – The relationship in space between the earth and the other planets in the solar system.

ST2b – The relationship in space between the earth and the moon

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

CP2a – Use pictures and diagrams

CP2f – Compare ideas and information

CP2h – Ask questions

CP2h – Use creative arts/language/music

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> Earth ▪ The earth is round and its surface is made up of land and water and is surrounded by air. (mountains, hills, valley) (sea, river, lagoon) ▪ The earth completes one rotation in twenty-four hours. ▪ The earth is larger than the moon and smaller than the sun.	▪ Present the word Earth and ask children to brainstorm. ▪ Describe a globe (shape, water, land and components) ▪ With use of a model/diagram or picture, compare differences in sea, river, lagoon, in terms of shape. ▪ Identify some land and water masses. (mountains, hills, rocks, soil) (sea, river, lagoons, streams, creeks, ponds) using pictures and field trips. ▪ Spin the globe or circular object to show movement of the earth. ▪ Children observe and discuss ▪ Introduce the term rotation ▪ Use flashlight/candle and globe or circular object to show day and night. ▪ Present models of the earth, sun, moon. Observe and compare sizes. Discuss. Make models of earth, sun, and moon.	▪ Development of thinking skills ▪ Expression of ideas ▪ Ability to recall ▪ Observe and identify land and water masses and shape of the earth ▪ Gathering information from pictures and field trips ▪ Create a dance to show movement of the earth ▪ Spin the globe or circular object to show movement ▪ Oral explanation of what causes day and night ▪ Cooperation and performance within groups ▪ Ability to explain ▪ Label the moon from pictures ▪ Write the names of moon, earth, and sun ▪ Circle the smaller and the nearest

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Moon ▪ The moon has rocks, soil and mountains. ▪ No air, water or living things can be found on the moon. ▪ The moon has no light of its own but reflects light from the sun. Sun ▪ Earth is one of the nine planets. ▪ Mars is the nearest planet to earth. ▪ Mercury is the closest planet to the sun.	Moon ▪ Sing song: "Hey diddle diddle". ▪ Observe pictures of earth and moon. ▪ Discuss. ▪ Predict why moon has no living things. ▪ Compare likeness and differences between the earth and the moon. ▪ Experiment with mirror and sunlight to show light reflection. ▪ Use shiny objects to reflect light around the classroom. ▪ Brainstorm knowledge of sun. ▪ Observe stars at night and compare the sun and the stars. ▪ Play games to compare sizes of sun, earth, moon. ▪ Sing "Twinkle twinkle little Star".	▪ Insert pictures of water and land masses, animals, people and plants in correct diagrams ▪ Draw diagrams to show how light bounces from the moon to the earth ▪ Give diagram and children label moon, earth, and sun ▪ Match names of the correct pictures (earth, moon, sun, star) ▪ Circle the largest; cross out the smallest ▪ Tell how sunlight is different from moonlight ▪ Identify Earth, Mars, Mercury from among the planets ▪ Written/oral teacher made tests/quiz

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> - Collect, make models, manipulate, discuss, answer, predict, question, cut, interpret, label, investigate, recognize space, and time, relations, compare, create, dance, write, identify, describe, construct, listen, observe, record. <u>Attitudes</u> - Independence, resourcefulness, responsibility, sharing, cooperation, understanding, appreciation, enjoyment, caution	- Present mobile of the planets - Discuss the numbers and names. - Identify earth as one of the planets. - Identify Mars as the closest planets to earth. - Identify Mercury as the closest planet to the sun. - Predict what Mercury is like since it is so close to the sun.	See previous page.

AREA OF STUDY: SCIENCE

INFANT I

UNIT/THEME: Planets

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1g – predict in a sequence of events ▪ EL2b – identify main ideas and supporting details ▪ EL3a – spell common words correctly ▪ EL3e – use different forms of writing to communicate and convey information ▪ EL4e – express an opinion ▪ EL4g – use body language/gestures appropriate to speech ▪ SL2d – pronounce common words comprehensibly ▪ M2b – basic properties of some two dimensional shapes ▪ M4a – make reasonable judgment of quantity distance and size ▪ M4b – use data to forecast a friend ▪ M5a – gather, record and organize data ▪ ST8b – how changes in their environment affect various life forms ▪ WT1a – investigate ways to solve a simple problem to meet a need ▪ WT1c – construct a simple device to solve a problem ▪ SS2c – how the land and water are used to provide for the physical needs of the people in the community ▪ H4b – practice manipulative skills ▪ EA1a – sing in tune ▪ EA1h – coordinate movements in simple structured dances ▪ SP2a – take part in group activities ▪ EA1e – draw using different lines, shapes, pattern, textures to express one's own ideas ▪ EA1d – use of various materials to explore different effects ▪ CP2a – use pictures and diagrams ▪ CP2f – compare ideas and information ▪ CP2h – ask questions ▪ CP2k – use creative arts/language/music	<u>Discover Science</u> Scott Foresman Bk. 1 & 2 <u>Discover Science For Living Earth and Life Science</u> <u>Young People's Encyclopedia</u> <u>The Nine Planets</u> <u>Earth Science</u> - Scott Foresman BTTModule XV – <u>The Solar System</u> <u>Science Activities – 5</u> <u>Childcraft</u> (The Universe) <u>The Science Library</u> Vol. 5 Materials: Paper mache, balls, globe, scissors, toothpicks, pictures, flashlight, paint, glue, playdough, markers, crayons

AREA OF STUDY OUTCOMES

Pupils should understand:

ST5a – How plants and animals grow and reproduce in the environment.

ST5c – How their own growth and development differ from that of animals

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2c – Handle real objects

CP2e – Engage in direct experiences

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> - Living and non-living things are all around us. - Living things grow and make other living things like themselves. Non-living things do not. - Living things need care. - People and animals differ in various ways e.g. movement, covering.	- Observe and discuss living and non-living things in their environment (nature walk). - Collect and sort pictures of living and non-living things. - Observe and discuss growth of living things through nature walk, videos, pictures. - Draw pictures of young with adult. - Role-play mother taking care of her young. - Create a practical learning center with classroom pet/plant. - Share responsibility of caring for pet/plant. - Observe growth and needs of pet/plant. - Predict and investigate what occurs if needs are not met.	- Name living and non-living things - Identify living and non-living things on mural - Match young with adult on a chart using pointers - Observe children's ability to be responsible for the classroom pet/plant

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills - Observe, discuss, match, ask, share, draw, collect, color, create, explore, predict, organize, contrast, investigate, communicate, listen Attitudes - Demonstrate the ability to: care, cooperate, respect, appreciate, be responsible, socialize, share, have self esteem, accept, belong	- Observe and contrast movements of animals and people (dramatize, music). - Collect sample materials of animal covering e.g. scales, feathers, shells. - Match and paste coverings on drawings of animals - Play the game "Who am I" with animals and their coverings.	Observe children's creativity in numbering, pasting and matching

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EL1f – identify cause and effect relationships - EL1g – predict what will happen in a sequence of events - EL2e – interpret body languages and gestures - EA1e – use color, shape, lines, patterns, textures to express one's own idea - CP2c – handle real objects - CP2e – engage in direct experiences	- Discover Science – Bk. 1 and 2 – Scott Foresman - Science Bk 1 – Silver Burdett

AREA OF STUDY OUTCOMES

Pupils should understand:

ST3b – Some sources and uses of heat and light

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

CP2a – Use pictures and diagrams

CP2f – Compare ideas and information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> - Heat is available from various sources. The sun and fire are sources of heat. - Heat is used for many things - for cooking, boiling, laundry. - Heat can be helpful when safety rules are followed.	- Pictures will be collected depicting the heat from the sun and fire. - Identification and discussion of pictures. - Make models of the sources of heat using clay or play dough. - Display samples of cooked and uncooked food. Compare both kinds of foods. Discussion on how food is prepared. e.g. food is cooked by applying heat. - Demonstration on how water is purified-boiling. - Display two pieces of cloth-one wet/on dry. Compare both pieces of cloth and discuss what should be done to make cloth dry. - Make and sing song to the tune of Mulberry Bush.	- Draw and label pictures of source of heat. - Children will make factual statements (orally) on sources of heat. - Oral presentation of similarities and differences of the use of heat. - Association of pictures, words, using pictures showing how sources are used.

AREA OF STUDY: *SCIENCE*

INFANT I

UNIT/THEME: Heat

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills: - Collecting, discussing, observing, drawing, listening, listing, identifying, Attitudes: - Sharing, cooperating, awareness, honesty, interaction	- Drama showing the danger of playing with hot objects e.g. a child with a burnt hand. - Discussion on the dangers of playing with matches. Newspaper articles will be read by teacher about a fire that was caused by children with matches. - Emotional experiences as a result of having been burnt will be discussed. - Class will compile a list of safety rules to be observed when near hot objects.	- Sustaining of role - Oral expression of ideals - Orally made test by teacher to evaluate their understanding of rules

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EL1c - use pictures in books as clue to meaning - H4b - P.E. - Practice Manipulative Skills - SL1c - interpret gestures and body language - SL1b - identifying main ideas - SP2a – take part in group activities - CP2a – use pictures and diagrams - CP2f – compare ideas and information	<u>Discover Science</u> Scott Foreman Science Chapter 6 Newspaper articles about fires started by children

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Matter****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST3a – The physical characteristics and uses of a variety of everyday materials/substances

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

SP2b – Express opinions and feelings in an acceptable way

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> ▪ Matter is classified as solid, liquid, gas because of the distinct properties in each of these states. ▪ Living things and the environment benefit from the responsible use of materials	▪ Measure and weigh a variety of materials for different results. e.g. ▪ wet/dry sponge, inflated/deflated balloons, water in different size, shape . ▪ containers, rocks/blocks in container of water. ▪ Graph results of measuring and weighing. ▪ Discover properties of the states of matter through more experiments, e.g. block-solid (definite shape and volume) milk-liquid (definite volume, no definite shape) perfume-gas (no definite shape and volume) ▪ Manipulate simple substances to show how the principle properties applies to the three states of matter e.g. water, butter, candle. ▪ Record on charts results of experiment . ▪ Work-a-thon to clean school yard/playing field/park. ▪ Discuss the problems of pollution-improper waste disposal. ▪ Brainstorm responsible methods of waste disposal e.g. recycling, ▪ Composting	▪ Graph results of measuring and weighing e.g. wet/dry sponge. ▪ Display and explain information on graph. ▪ Examine graph for clarity and accuracy. ▪ Record on charts results of experiments. ▪ Explain information on chart to peers. ▪ Make self/group assessment. ▪ Exhibit results of individual/group projects in recycling and composting e.g. things made from recycled materials, plants/ vegetables produced with compost.

AREA OF STUDY: SCIENCE

INFANT I

UNIT/THEME: Matter

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Observation, experimenting, researching, classifying, recording, reporting, questioning, predicting, measuring, investigating, evaluating <u>Attitudes:</u> - Self-confidence, self-control, appreciating community/environment - Respect for others' property, appreciation of self/peers, - Team work, participation, responsibility, respect for others' opinion	- Discuss and encourage other methods of conservation briefly. - Build compost pile-use fertilizer from pile for growing plants. - Initiate recycling program-utilize recycled materials in home/yard. - Field trips to observe, recycle, compost, conservation in action. - Investigate improper use of other substance e.g. alcohol, tobacco, medicine, illegal drugs, fuels, detergents, pesticides. - Get information from video/audio literature sources. - Invite resource personnel (NDAAC, BAS, AA) to discuss responsible uses of material . - Create materials (dramatic/written/musical) reinforcing responsible use or abuse of substances. - Perform dramatic/written/musical material.	- Perform dramatic and musical material e.g. dramatize play created to show responsible use or abuse of substances. - Sing songs pertaining to use or abuse of substances. - Present a picture story on activities undertaken and experience gained from field trips. - Take oral/written teacher-made test/quiz.

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Matter**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1g - predict happenings in sequence of events ▪ EL4c - ask questions and give information ▪ EL4d - describe thoughts, feelings and events ▪ EL4e - express an opinion ▪ SL2d - pronounce common words and phrases comprehensibly ▪ M3a - measure capacity and weight ▪ M4a - estimate quantity ▪ M5a - gather, record, organize data ▪ M5b - use diagrams and charts to present data ▪ ST8c - how their own actions affect the environment ▪ WT1a - ways to design and solve simple problems/meet a need ▪ SS5b - use first language for communication ▪ H1b - dangers of some common substances ▪ H4b - practice manipulative skills ▪ SP2a - take part in group activities ▪ SP2b - express opinions and feelings in an acceptable way	<u>Finding Out</u> Bk. 3 Term 1 <u>Discover Science</u> Bk. 2 Chapter 4 <u>Discover Science</u> Bk. 3 Chapter 5 Scot Foreman Science Chapter 5,6 <u>Nuffield Primary Science Materials</u> Chapter 2 Practical Guide Science

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Force****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST4a – How force affects the speed, the position and the shape of a variety of objects.

ST4b – How the amount of force required to make an object slide is affected.

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2d – Observe with all senses.

CP2f – Compare ideas and information.

CP2g – Sort and classify information

SP2a – Take part in group activities

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> - Force: objects can move in various ways. Push/pull. Lift/carry, squash, twist, stretch, bend etc. - Various forces can move an object: - people exert force - animals exert force - objects exert force - Some objects require greater push/pull in order to move.	- Tell the story 'The Three Billy Goats Gruff'. Identify movements in story e.g. the troll was pushed. - Dramatization of scenes to depict movements in the story. Discuss activity with students, question "How did the troll get into the water? "How can the troll out of the water?" - Play game "Simon says" in which actions/movements may be acted out. Bouncing, spinning, hopping etc. - Encourage children to bring push/pull toys to school. Have them demonstrate how they are moved and identify the forces as pulling, pushing, carrying, lifting, turning, and towing. - Have children role-play and demonstrate. Pulling a fishing line, tugging on a kite, pulling off the line. On a rainy day etc. imagine tugging at a stalled car.	- Demonstrate and recognize types of movements - Accurate presentation of movements - Interpretation of a story - To follow directions - Describe movements - Match objects to the force required to move it - Collection of data, ability to explain findings - Interpreting the story as it relates to content - Contribution to discussion - Identification of strong/weak forces - Ask and answer questions - Comparing different forces

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Force**

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
▪ Different position objects take when they move up/down, above/below ▪ Friction: Texture of materials varies—smooth, rough, flat etc. ▪ Movement is different on surface materials	▪ Display pictures/objects. Ask children to name ways in which objects can be moved and by what/whom they could be moved. E.g. a load of dirt, bulldozer, a car, peoples. ▪ Tour schoolyard in search of things that can be moved. Let children make a list of human or other organism that can exert force and change the motion of each object. ▪ Read or tell the story of “Samson” or “The Enormous Turnip”. Use questions to elicit from children how force was used in the story and compare the force needed to pull an enormous turnip. Have children identify when stronger/weaker pushes/pulls are needed. ▪ Present children with pair of pictures e.g. a puppy on a leash, a dog on a leash, opening of full drawer, opening an empty drawer. Pulling a kite in the wind. Question: which takes more force to move?	▪ Investigating and collecting data ▪ Explain findings from observation ▪ Demonstration and description of position ▪ Inferring-draw, describe a picture of how the object look inside the box-using description given ▪ Classify/sort and label objects according to texture ▪ Ability to complete a task ▪ Follow instruction ▪ Accuracy of prediction ▪ Willingness to follow through in logical sequence ▪ Teacher-made tests

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Identifying, listening, interpreting, dramatizing, expressing ideas, performing, distinguishing, demonstrating, representing, classifying /organizing, recording, comparing, differentiating, viewing, selecting, investigating, questioning, communicating, recognizing, predicting <u>Attitudes:</u> - Participate, acceptance, respect, cooperate, interest in experimenting, share interact, cooperate, awareness, enjoyment	- Use a wind-up toy to elicit from children various directions of movements like left/right, around (spin) forward/backward. - Have children make paper airplanes, throw them up and observe movements, then describe ways in which airplanes move. - Demonstrate: kicking a ball, lift a bottle/drop a ball etc. and have children tell the direction of movements. - Have children demonstrate these positions using their bodies. - Have children list objects that move in specific directions - an airplane goes up/down, a butterfly moves left/right. - Sing “Hokey Pokey” song. Demonstrate directions. FRICITION - Display a surprise box. Have children put hands inside the box and describe the feel of an object inside the box. Let them guess what the object is from description given. - Collect and classify objects according to texture. Label objects “Mystery Rubbing”. Do texture rubbing and texture painting. Have students describe the feel of their painting. - Experiment sliding/moving things on surface materials: - Rub a piece of cotton across a rough surface. What happens? - Rub cotton across glass/mirror. What happens? - Have children predict outcome before experiment is done.	See previous page.

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Force**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1f - identify cause/effect relationship ▪ EL2b - identify main ideas & supporting details ▪ EL2e - interpreting body language/gestures ▪ CP2d - observe with all sense ▪ CP2f - compare ideas and information ▪ CP2g - sort and classify information ▪ SP2a - take part in group activities ▪ H4a - practice locomotor skills ▪ H4b - practice manipulative skills ▪ EA1e - use colour, shape, lines, texture to express one's own ideas	<u>Discover Science</u> Scott Foresman Bk 1 & 2 <u>Finding Out Primary Science</u> Gr. 1 <u>Nuffield Primary Science</u> Chapter 2 <u>Modern Science for the Caribbean</u> Gr. 1 <u>Childcraft Science Art Work</u> <u>Reading About Science</u> Bk. 5 <u>Practice Guide in Science</u>

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: The Environment****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST8a – How different life forms affect other life forms and their environment.

ST8b – How changes in their environment affect various life forms.

ST8c – How their own actions affect the environment.

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

CP2a – Use pictures and diagrams

CP2f – Compare ideas and information

CP2g – Sort and classify information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> - Human beings need plants and animals for food, shelter, medicine and clothing. - Plants and animals provide human beings with their basic needs. Life forms are dependent on each other for survival. - Pollution e.g. littering, smoking. - Pollution can occur on the land, in the air and water	- Collect pictures of plants and animals. - Discussion of pictures and objects. - Classify pictures and objects according to uses – food, shelter, clothing, medicine: - Matching - Grouping - Labeling - Display pictures of life forms e.g. chickens - List and discuss foods of each - Food chain (simple) corn – chicken – human, fly – frog – snake, Human – chicken – corn, snake – frog – fly. - Sequential arrangement of pictures by small groups. Environmental walk: - Walk around school neighborhood - Identify forms of pollution e.g. trash, smoke, noise - List and discuss data collected - Discuss possible solutions e.g. clean classrooms.	- Matching uses of sources. - Labeling pictures and place under appropriate column: food, shelter, clothing, and medicine. - Individual will arrange pictures in sequential order to show food chain (simple) - Numbering - Sticks on pictures - Distinguish between clean and polluted environment using the happy/sad face symbol

AREA OF STUDY: *SCIENCE*

INFANT I

UNIT/THEME: The Environment

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ SS5e – custom and tradition ▪ EL4e – express an opinion ▪ EL2c – identify a sequence of events ▪ WT3a – how family members depend on each other to satisfy their needs and wants ▪ H2a – the need to keep their surroundings clean ▪ SP2a – take part in group activities ▪ CP2a – use pictures and diagrams ▪ CP2f – compare ideas and information ▪ CP2g – sort and classify information	Finding Out Bk. 1 <u>Primary Science For the Caribbean</u> <u>The Environment of Belize</u> <u>Concepts in Science (Red)</u>

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Natural History****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST1a – Some similarities between animals now and animals in prehistoric times

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – Use pictures and diagrams

CP2f – Compare ideas and information

CP2h – Ask questions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Knowledge Animals around us <u>Today</u> ▪ Look like ▪ Live ▪ Move ▪ Sound ▪ Eat ▪ Pets <u>Prehistoric</u> ▪ Look ▪ Live ▪ Move ▪ Sound ▪ Eat	▪ Collect and discuss pictures of animals: - Physical features - Habitat - Movement - Sounds they make - Foods they eat - Animals used as pets ▪ Singing of songs e.g. Old McDonald Had A Farm. ▪ Discuss about the animals in the past: - Physical features - Habitat - Movement - Food they eat ▪ View books and videos e.g. Jurassic Park ▪ Compare animals now and in the past e.g. look, live, move, eat, habitat.	▪ Match using pictures e.g. an animals, its habitat and food. ▪ Draw a dinosaur – follow the numbers and connect the dots. ▪ Match animals living now and prehistoric to show similarity. ▪ Each child will be given a worksheet showing pictures of animals now and past. The child will draw a line to match the animals that look similar.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- There are similarities and differences between animals now and in the past. Skills: - Collect, sort, classify, imitate, compare and contrast, match, discuss, express. Attitudes: - Identify with animals around them - Develop love and appreciation - Appreciation and care of pets	See previous page.	See previous page.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EL2e – interpret body language and gestures - CP2a – Use pictures and diagrams - CP2f – Compare ideas and information - CP2h – Ask questions	The Environment of Belize Young Peoples Science Encyclopedia Tapir Mountain Nature Reserve and Tropical Forest Conservation Education Manual Animals: Science and Its Secret Discover Science – Scott Foresman Worksheet and Puzzles.

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Force Machines****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST4c - How simple machines influence the amount of force needed to speed, the position; and the shape of a variety of objects

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – use pictures and diagrams.
CP2f – Compare ideas and information.
CP2g – Sort and classify information
CP2h – Ask questions
CP2j – Give oral report

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> ▪ Different objects can be used as levers (spoon, bar, see-saw) ▪ Levers make it easier to move objects and to lift weight. The further the load is from the applied force (spoon, bar) the easier it is to move ▪ A wheel is a simple machine. Machines that have wheels are bikes, cars and wind mills	▪ Collect objects models that represent levers. ▪ Experiment using objects as levers. ▪ Compare task with/without use of levers. ▪ Examine discuss and demonstrate how levers work. ▪ Design/construct simple levers. ▪ Visit the park to see how levers work and to experiment with weight distribution . ▪ Create a mobile to show weight distribution (using a hanger) . ▪ Listen to related story (Steadfast Tine Soldier). ▪ Identify different ways of performing a task. E.g. opening a tin by Holding the lever at different position along its length ▪ Collect toys and pictures of objects with wheels. ▪ Examine objects with wheels . ▪ Describe why wheels are useful. ▪ Sort and classify according to size and number.	▪ Individual contribution.. ▪ Ability to identify/discuss lever. ▪ Effectiveness of demonstration. ▪ Use of initiative/creativity in designing/constructing a model of a lever ▪ Visit the park to see how levers work and to experiment with weight distribution ▪ Application of skills with use of levers . ▪ Individual contribution to collection. ▪ Creation of poster. ▪ Description of usefulness of wheels. ▪ Sort/classify according to size and number. ▪ Description of the usefulness of simple machines.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Wheels and axles help to increase speed. They also push and carry objects from one location to another. <u>Skills:</u> - Classify, apply, compare, communicate, describe, explore, demonstrate, conduct, identify, investigate, recall, design, create, solve problem <u>Attitudes:</u> - Cooperation, perseverance, participation, respect	- Attempt to move a box with/without wheels. Discuss result. - Sing songs/say poems that tell about wheels e.g. 'wheels on the bus' - Look for machines at home and make a book about them.	See previous page.

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Force Machines**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1f - identify cause/effect relationship ▪ EL1g - predict what will happen in a sequence of events ▪ EL4c - ask questions and give information ▪ EL4d - describe feeling, thoughts and events ▪ EL4f - use words and phrases appropriate to audience ▪ EL2e - interpret body language and gestures ▪ M5a - gather, record and organize data ▪ SP2a - take part in group activity ▪ EA1a - sing a tune ▪ H4a - practice locomotor skills ▪ CP1a - recognize an issue on problem ▪ CP1b - examine information related to the problems/issue ▪ CP1c - suggest ways of dealing with the problems/issue ▪ CP2a - use pictures and diagrams ▪ CP2f - compare ideas and information ▪ CP2g - sort and classify information ▪ CP2h - ask questions ▪ CP2j - give oral and written report <u>Technology</u> ▪ WT1a - investigate ways to solve problems ▪ WT1b - design a device to meet a need/solve a problem ▪ WT1c - construct a simple device to meet a need ▪ WT1d - test a simple device to see if it meets a need	<u>Discover Science Scott Foresman</u> <u>Finding Out Primary Science for the Caribbean</u> <u>Nuffield Primary Science</u> <u>Childcraft. How Things Work</u> <u>Childcraft - Science at Work</u> <u>Modern Science for the Caribbean</u> <u>Discovering Science</u> <u>Practice Guide</u> <u>Science in Action</u> <u>Reading About Science</u>

AREA OF STUDY: SCIENCE**INFANT I****UNIT/THEME: Living Things (Group)****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST5b – Some ways in which to organize living things into groups

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – Use pictures

CP2c – Handle objects

CP2h – Ask questions

CP2f – Compare ideas

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Knowledge <u>Plants</u> - Plants differ in size, shape and colour. - Fruit trees produce fruits with a) one seed, e.g. mango, b) many seeds e.g. orange, watermelon. <u>Animals</u> - Some animals are found in Belize – jaguar. - Some animals are not found in Belize – polar bear. - Some animals are domesticated – cow. - Some animals are wild – peccary. - Animals move in different ways.	<u>Plants</u> - Take children outside to observe the shapes of trees. Match the overall shape of trees to simple geometry's shapes – circular, oval, triangle. - Observe trees and describe their sizes and colour. - Assemble puzzles of trees, e.g. pine trees. - Collect fruits with one seed and those with many seeds e.g. mango, orange. Examine and classify each fruit according to the number of seeds. <u>Animals</u> - Examine an assortment of animal pictures. Group pictures to show animals found in Belize and those that are not. - Visit the zoo. Name and draw animal of choice found at the zoo. - Imitate animals e.g. "Who am I"? - Name and organize pictures of animals found in Belize and those that are not.	- Distinguish the shape of trees in the environment. - Describe trees in their environment as tall or short. Draw and colour trees. - Completion of puzzles of different trees. - Selection and name fruits with one seed/many seeds. - Group pictures/drawings of fruits with one seed/many seeds. - Name and organize pictures of animals found in Belize and those that are not. - Ask questions, observe and recall what was seen at the zoo. - Creativity in initiating animals. - How will children express themselves? - Participate in discussion about wild and domesticated animals. - Sort and organize pictures of domestic and wild animals. - Ability to create and tell story in sequence.

AREA OF STUDY: SCIENCE

INFANT I

UNIT/THEME: Living Things (Group)

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills: - Observe, discuss, organize, explore, identify, draw, name, dramatize, demonstrate, question, assemble, match, collect, colour, describe. Attitudes: - Cooperation, participation, respect, appreciation, sharing, interest, pride, happiness, self-esteem, acceptance, motivation, belonging, caring, trust, satisfaction.	- Display chart with pictures of wild and domesticated animals. Identify familiar animals. Name and say why some animals are used as pets and some are not. - Place children in two groups. Use picture to make a poster of wild animals and one of domesticated animals. - Using puppets, tell a story about two animals. - Take children on a nature walk. Observe the movement of animals. Children will name the actions of animals by playing the game "Simon Says". Make shadows with their bodies to show the movement of animals. - Play "Fish Pond" game. Place pictures of animals in a container. Select the pictures of animal and imitate its movement.	- Demonstrate curiosity by asking questions. Listen and respond to direction in game. - Ability to imitate animals movements. - Group animals under their respective heading: - Carnivores - Herbivores - Omnivores - Match animals with the kind of food they eat. - Sort and classify animals according to the regions where they live. - Accurately describe the animals in its normal region. - Ability to organize the different animals into their respective regions.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EL4c – ask questions and give information - EL4e – express an opinion - M2b – basic properties of some two-dimensional shapes - CP2a – use picture - CP2c – handle objects - CP2h – ask questions - CP2f – compare ideas	<u>Discover The Wonder Module A Plants, Lesson A</u> <u>Silver Burdett and Ginn, Bk. 1</u> <u>Discover Science</u> – Teacher's Edition K Lesson 3-5

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Planets****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST2a – The relationship in space between the earth and the other planets in the solar system.

ST2b – The relationship in space between the earth and the moon

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

CP2f – Compare ideas and questions

CP2e - Engage in direct experience

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> Earth ▪ The earth is surrounded by air. ▪ The earth takes one year to go around the sun (revolution) ▪ The name of the planets in order of distance from the sun are: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto. ▪ Mercury is the closest to the sun. ▪ Pluto is farthest from the sun. ▪ Earth is the only planet known to have life on it.	Earth ▪ Present the word Earth and ask children to brainstorm what they know. ▪ Describe a globe (shape, water, land and components) with use of a model/diagram or picture. Compare differences in sea, river, lagoon, in terms of shape. ▪ Identify some land and water masses (mountains, hills, rocks, soil, sea, river, lagoons, streams, creeks, ponds) using pictures and field trips. ▪ Present models of the earth, sun, moon. Observe and compare sizes. ▪ Discuss ▪ Make a mobile of earth, sun and moon.	▪ Development of thinking skills ▪ Expression of ideas ▪ Ability to recall ▪ Observe and identify land and water masses and shape of the earth ▪ Gathering information from pictures and field trips ▪ Create a dance to show movement of the earth ▪ Spin the globe or circular object to show movement ▪ Oral explanation of what causes day and night ▪ Cooperation and performance within groups ▪ Ability to explain ▪ Label the moon from pictures ▪ Write the names of moon, earth, and sun ▪ Circle the smaller and the nearest

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Moon ▪ The moon is a natural satellite that revolves around the earth once every month or twenty eight days. ▪ As the moon revolves around the Earth, the earth blocks the sun's light resulting in a change of the amount of the moon's light we see. ▪ The position of the sun changes at different times of the day. Sun ▪ The position of the sun changes at different times of the day. ▪ The sun along with the planets make up the solar system. ▪ The sun pulls on the planets and keeps them in their orbit.	Moon ▪ Sing song:"Hey diddle diddle". ▪ Observe pictures of earth and moon. ▪ Predict why moon has no living things. ▪ Compare likeness and differences between the earth and the moon. ▪ Experiment with mirror and sunlight to show light bounces off. ▪ Use shiny objects to reflect light around the classroom. Sun ▪ Brainstorm knowledge of sun ▪ Observe stars at night and compare the sun and the stars ▪ Play games to compare sizes of sun, earth, moon ▪ Sing "Twinkle twinkle little Star"	▪ Insert pictures of water and land masses, animals, people and plants in correct diagrams. ▪ Draw diagrams to show how light bounces from the moon to the earth. ▪ Give diagrams and children label moon, earth, and sun. ▪ Match names of the correct pictures (earth, moon, sun, star). ▪ Circle the largest, cross out the smallest. ▪ Tell how sunlight is different from moonlight. ▪ Identify Earth, Mars, Mercury from among the planets. ▪ Written/oral teacher made tests/quiz.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Collect, make models, discuss, listen, answer, ask, predict, colour and draw, label, record, create, cut, interpret, recognize, calculate, measure, manipulate, question, write, observe, identify, compare, describe, define, construct, dance, investigate, recognize space and time relationship. <u>Attitudes:</u> - Independence, resourcefulness, responsibility, understanding, appreciation, sharing, respect, enjoyment, cooperation, caution	- Present mobile of the planets - Discuss the numbers and names. - Identify earth as one of the planets. - Identify Mars as the closest planets to earth. - Identify Mercury as the closest planet to the sun. - Predict what Mercury is like since it is so close to the sun.	See previous page.

AREA OF STUDY: SCIENCE

INFANT II

UNIT/THEME: Planets

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1g – predict in a sequence of events ▪ EL2b – identify main ideas and supporting details ▪ EL3a – spell common words correctly ▪ EL3b – punctuate and capitalize written work ▪ EL3e – use different forms of writing to communicate and convey information ▪ EL4e – express an opinion ▪ SL2d – pronounce common words comprehensibly ▪ M2b – basic properties of some two dimensional shapes ▪ M4a – make reasonable judgment of quantity distance and size ▪ M4b – use data to forecast a friend ▪ M5a – gather, record and organize data ▪ ST5b – some sources and uses of light and heat ▪ ST8b – how changes in their environment affect various life forms ▪ WT1a – investigate ways to solve a simple problem to meet a need ▪ WT1c – construct a simple device to solve a problem ▪ WT1d – test a simple device to meet or solve a problem ▪ SS2a – weather and climate patterns and how these affect the lives of the community ▪ SS2b – some ways in which their communities adapt to natural landscape features ▪ SS2c – how the land and water are used to provide for the physical needs of the people in the community ▪ H4b – practice manipulative skills ▪ EA1a – sing in tune ▪ EA1b – produce and imitate rhythm and beat ▪ EA1h – coordinate movements in simple structured dances ▪ SP2a – take part in group activities ▪ EA1e – draw using different lines, shapes, pattern, textures to express one's own ideas ▪ EA1d – use of various materials to explore different effects	<u>Discover Science</u> Scott Foresman Bk. 1 & 2 <u>Discover Science For Living Earth and Life Science</u> <u>Young People's Encyclopedia</u> <u>The Nine Planets</u> <u>Earth Science</u> - Scott Foresman BTTModule XV – <u>The Solar System</u> <u>Science Activities – 5</u> <u>Childcraft</u> (The Universe) <u>The Science Library</u> Vol. 5 Materials: Paper mache, balls, globe, scissors, toothpicks, pictures, flashlight, paint, glue, playdough, markers, crayons

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Living Things****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST5a – How plants and animals grow and reproduce in the environment.

ST5c – How their own growth and development differ from that of animals

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2l – Ask question

CP2f – Compare ideas and questions

CP2a – Use pictures and diagrams

CP2e – Engage in direct experience

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> Plants ▪ The parts of a plant are leaves, stem, root, branch, flower and fruit. ▪ Some plants grow from seeds. ▪ Different seeds produce different plants ▪ A plant needs air, water, soil and sunlight.	Plants ▪ Hold and examine a variety of plants brought to the classroom. ▪ Name and describe plant part. ▪ Assemble plant puzzle. ▪ Draw and label the parts of the plant. ▪ Construct the model of a plant. ▪ Collect seeds and predict what plant will grow from each. ▪ Bring and observe seedlings. Discuss. ▪ Plant a bean, corn seed. Describe and draw changes in a seed as it grows. ▪ Collect two healthy bean plants from previous activities. Deprive one of all basic needs. Observe and compare plants daily. ▪ Tell how to care for a plant through role-playing, story-telling, songs, poems, creative writing.	Plants Cooperation and respect for other's opinion ▪ Accuracy in naming the parts of the plant. ▪ Completion of puzzle ▪ Draw and label parts of the plant. Match seeds with plants. ▪ Identify the plants in the seedlings. ▪ Draw the stages of growth of the seed into a plant. Responsibility in caring for the plant. ▪ Compare and contrast a healthy plant with an unhealthy ▪ Name basic needs of the plants.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Animals - Animals need food, air, water and shelter for their growth and development. - Some animals need care from their parents and some don't. - Animals change and grow from babies to adult. - Some animals are egg layers and some are live breeders. <u>Skills</u> - Observing, discussing, matching, drawing, colouring, sequencing, labeling, recording, identifying, classifying, comparing, contrasting, listening, communicating, describing, collecting, examining, assembling, predicting, exploring, constructing, arranging, naming, composing.	Animals - Discuss animals basic needs. Create a learning center. Bring pet(s). Assign groups to the daily care of pet(s). - Invite a mother/father to tell how she/he cares for their baby. - Role-play taking care of a baby/young animals. - Collect picture of various animals caring for their young. Discuss. - Observe adult and baby animals (include animals whose babies look different e.g. tadpoles) . Discuss similarities and differences. - Display pictures of young and adult animals. Match the pair. - Collect pictures of animals. Identify the animals that hatch from eggs and those that are born. Make mural depicting egg layers and live breeders. Arrange and group pictures as egg layers and live breeders.	Animals - Responsibility for caring for pet. Cooperation in groups. - Classify pictures of animals as egg layers and live as breeders.

AREA OF STUDY: SCIENCE

INFANT II

UNIT/THEME: Living Things

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Attitudes</u> Sharing, cooperating, appreciating, respecting, being responsible, caring, socializing, self-esteem, trust, love, pride.	See previous page.	See previous page.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EL3e – use different forms of writing to communicate ideas and feelings and to convey information - EL1g – predict what will happen in a sequence of events - EL1e – identify a sequence of events - EL4c – ask questions and give information - EL4d – describe thoughts, feelings and events - EL4e – express an opinion - EA1c – use colour, shape, lines, patterns, textures to express one's own ideas - M5a – gather records, and organize data - H4b – practice manipulative skills - EL2e – interpret body language and gestures - CP2l – ask questions - CP2f – compare ideas and questions	<u>Discover Science</u> – Scott Foresman, Lessons 1,2,3 Bk. 1 <u>Discover The Wonder</u> – Module A – Lessons 2,5,6 Silver Burdett and Ginn – <u>Science</u> Bk. 1 <u>Modern Science For the Caribbean</u> Bk. 1 <u>First Steps in Science</u> Bk. 1 <u>Teacher Guide</u> , Unit 6, Lessons 1 & 2

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Sources of Light****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST3b – Some sources and uses of light and heat

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

CP2a – Use pictures and diagrams

CP2f – Compare ideas and information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> ▪ The main sources of natural light are the sun, moon, stars and lightning. ▪ All sources make their own light except the moon which reflects the light from the sun. ▪ The intensity of sunlight can affect our eyes and ability to see well.	▪ Collect pictures of different sources of natural light and display pictures on chart. ▪ Make models of the sun, moon, and stars representing the natural sources of light. ▪ Discussion on the natural sources of light. ▪ Make a list of the various lights seen in day and nighttime . ▪ This will be followed by a discussion on the natural sources of light. ▪ Nursery rhymes-recitation e.g. Twinkle Twinkle Little Star, Hello Mr. Sun. ▪ Explore to show relationship between light and darkness using a blind fold method or closing eyes. ▪ Children report findings orally, teacher records data on chalkboard. ▪ Encourage children to share their emotions and feelings when being blind folded.	▪ Oral questions and answers to determine how well children understand the concept. ▪ make a list of natural and artificial lights ▪ draw objects showing artificial sources of light ▪ sentences/construction describing artificial sources of light ▪ make simple factual statements on topic ▪ Draw objects that reflect light; show the relationship between how light travels and how it is reflected. e.g. drawing, explaining orally

AREA OF STUDY: SCIENCE

INFANT II

UNIT/THEME: Sources of Light

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Collecting, drawing, observing, listening, discussing <u>Attitude:</u> - Sharing, cooperation, honesty, respect	- Discussion on how light affects our vision: - Adequate sunlight is necessary for us to see. - Too much exposure to sunlight can damaged our eyes. - Caution on not looking at the sun with naked eyes.	- Interpret results of observation of plants with and without sunlight - collect pictures for collages - matching of words with pictures - contributing information to group in the discussion about the need for light - oral report gathered from poster

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- WT1c - construct a simple device to solve a problem - EL4c - ask questions and give information - EL1f - identify cause and effect relationship - EL4d - describe thoughts, feelings and events - SL2c - make simple factual statements - WT1c - construct a simple device to meet a need or solve a problem - SS5b - the use of their first language as a vehicle for communication - SP2a – take part in group activities - CP2a – use pictures and diagrams - CP2f – compare ideas and information	<u>Finding Out Primary Science for the Caribbean</u> Bk. 2 <u>Integrated Science for Caribbean Schools</u> Bk. 2 <u>First Aid in Reading.</u> Bk. A <u>What a Fright</u> <u>The World Book Encyclopedia</u> Vol. 12 <u>Energy and You</u> <u>Science</u> - Addison Wesley

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Heat****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST3b – Some sources and uses of light and heat

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – Use pictures and diagrams

CP2f – Compare ideas and questions

CP2e – Engage in direct experience

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> ▪ Friction and electricity are sources of heat. ▪ Heat has many uses e.g. preservation, sterilization and laundry. ▪ Heat affects plants and animals. ▪ Safety should be exercised when using electrical appliances.	▪ Friction exercise e.g. rubbing of hands quickly . ▪ Discuss their feelings to establish the fact that friction generates heat. ▪ Teacher display electrical appliances that give off heat (iron, toaster..) children will then talk about the way in which these appliances get their heat, followed by practical demonstration. Children name additional appliances that give off heat. ▪ Present pictures showing how heat is used in preservation, sterilization and laundry. ▪ Discussion on the various ways heat is used. ▪ Provide students with experiment of how sterilization can be done e.g. sterilization of a baby bottle. ▪ Draw ways how heat is used. Display work.	▪ From a collection of pictures, children will identify those that give off heat. ▪ Draw/make models of electrical appliances that give off heat. Showing by shape, colour or labeling the exact part that gives off heat. ▪ Draw pictures illustrating the methods of preservation and sterilization using heat.

AREA OF STUDY: SCIENCE

INFANT II

UNIT/THEME: Heat

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Describing feelings, discussing report, listening, questioning, observing, drawing, writing <u>Attitudes:</u> - Cooperation, appreciation, awareness, sharing, respect of others, develop healthy lifestyles	- Experiments on how heat affects plants. - Class discussion on the effects of heat on plants e.g. expose one plant to strong sunlight and the other with adequate sunlight (heat). Compare both plants. Draw conclusions. - Class discussion on the affects of heat on animals - perspiration. Provide students with experiments on how heat affects animals. e.g. children running outdoor under the sun. Draw conclusions - Display appliances that give off heat e.g. iron, hairdryer . - Encourage students to tell about safety precautions they take at home concerning the use of heat. - Students dramatize safe use of electrical appliances.	- Ability to observe and explain (orally) on the effects of heat on plants and animals. - Children will write factual sentences on the effects of heat on plants and animals. - List/draw electrical appliances that give off heat. - Write safety rules to be observed when using electrical appliances.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EA1f - using colours, shapes, lines, patterns, textures to express one's own ideas - EL4d - describe thoughts and feelings - EL3h - to express thoughts and convey information - H1c - health - the importance of proper food handling and storage	<u>The world Book Encyclopedia</u> Vol.9 pg. 151 <u>Discover Science</u> Bk 2 <u>Otto Opposite</u> Pictures showing sterilization, food, preservation, laundry

AREA OF STUDY OUTCOMES

Pupils should understand:

ST3a – The physical characteristics and uses of a variety of everyday substances and materials

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

SP2b – Express opinions and feelings in an acceptable way.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> - Materials are classified according to their physical properties as solid liquid, gas. - The use of materials for any purpose is related to the properties of the material. - Safety measures should be observed in using certain materials.	- Collect/bring/assemble a variety of everyday substances. - Group substance according to physical properties compare and contrast materials within/across group. - Identify similarities and differences through previous activities. - Classify substances as solid, liquid, gas. - Brainstorm the uses of materials for different purposes . - Discuss the uses of materials for different purpose based on the properties of the materials. - Field trip/community visit to observe uses of materials for different purposes. - Build models/make drawings and give oral reports of use of materials for different purposes.	- Group substances according to physical properties. - Classify substances according to physical properties. - Prepare and display collage/chart showing uses of materials based on their properties. - Display models/drawings of materials used depending on their properties. - Games identifying substances through description of their properties. - Perform dramatic materials illustrating safety measures. - Exhibit drawings/written materials reinforce safety measures. - Take oral/written teacher-made test/quiz.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills: - Observing, sorting, listening, classifying, collecting, drawing, questioning, describing, manipulating, role-playing Attitudes: - Sharing and cooperating, caring for materials, appreciating community/environment, respect for other's property, appreciation of self/peers, responsibility	- Brainstorm and discuss the observance of safety measures in using certain materials - Invite resource personnel (policeman, builder, butcher) to discuss careful use of certain materials. - Role-play/view video material on importance of observing safety measures in home, school, community. - Make drawings/write short statements on the Do's and Don'ts when using certain materials.	See previous page.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EL4c - ask questions and give information - EL4d - describe thoughts, feelings and events - SL2d - pronounce common words and phrases comprehensibly - M5a - gather, record, organize data - M5b - use diagrams and charts to present data - SS5b - use first language for communication - H1b - dangers of some common substances - H4b - practice manipulative skills - SP2a - take part in group activities - SP2b - express opinions and feelings in an acceptable way	<u>Nuffield Primary Science-Materials</u> Chapter 2 <u>Discover Science</u> Bk. 2 Chapter 4 <u>Discover Science</u> Bk. 3 Chapter 5 Scott Foreman Science Chapter 6 <u>Finding Out</u> Bk. 2

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Force****AREA OF STUDY OUTCOMES**

Pupils should understand:

- ST4a - How force affects the speed, the position and the shape of a variety of objects
- ST4b - How the amount of force required to make an object slide is affected

CROSS-CURRICULAR OUTCOMES

Pupils should:

- CP2d – Observe with all senses
- CP2f – Compare ideas and information.
- CP2g – Sort and classify information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> Force ▪ Pushes and pull are forces ▪ Push/pull changes the shape and position of stationary moving objects. ▪ Wind and water are forces that move water. ▪ Using elastic on rubber can increase speed of movement and power. ▪ Magnet is a type of metal that attracts certain objects.	▪ Experiment with toys (model car) and other objects (pencil, string, rope, and chalk) to show a push force and a pull force. Explain the effects of push/pull on various objects. ▪ Demonstrate push/pull using various parts of their bodies (fingers, arm, feet) through various dance movements (e.g. Punta) ▪ Compare and predict movement and direction of objects using push/pull. ▪ Explore different ways to push/pull an object (e.g. A cement block, set out variety of objects to push/pull) e.g. string, straw, pots, and paperclips. Student will explain orally how they made their objects move using diagram and print sentences, pictures. Design objects that can push/pull.	▪ Observe to detect and make connection between the types of force. ▪ Use body parts to demonstrate creative movements to show force. ▪ Willingness to predict and some sense of accuracy in predicting. ▪ Creation of design: ▪ how well they follow plan ▪ how well they follow through with plan ▪ how well the design functions ▪ Assess application of problem solving strategies: opinions/ideas/how they gather information. ▪ Explain use of diagrams. ▪ Use questions to observe how well child listened for information ▪ Construction of pin wheel: ▪ Design ▪ Function ▪ Demonstrate

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
▪ Magnet is a type of metal that attracts certain objects. ▪ Going up a slope requires more force than coming down the slope. ▪ Surface material can speed up, slow down or stop a force.	▪ Demonstrate how push/pull can change the shape of objects e.g. push/pull or turn plastic/play dough, soda can/paper etc. Observe and record how force changes shape & size. Explore how force changes the direction of a moving object –throw a ball towards a bat, roll a marble towards a ruler. ▪ Tell the story Three Little Pigs to introduce the concept of wind as a force. Construct pinwheels to explore the effect of wind. ▪ Create Styrofoam sailboat to see the dual effect of wind and use the rhyme “Incy Wincy spider” as an example how water force works. ▪ Collect and display items that have elasticity. Display a variety of objects (e.g. rubber band, string, straws, and paper plates). Have students explain how each object can be moved. Manipulate to identify the elastic characteristics e.g. stretching, twisting. Observe: - change in length - change in width - change in strength	▪ Creation of list of how elasticity can increase speed and power. ▪ Observe students: - ability to observe details - accuracy of prediction - accuracy of content and recording - generations and answering question - unexpected responses - unusual observation - curiosity that leads to investigation ▪ Responses in comparing result ▪ Identification of texture ▪ Matching objects to texture ▪ Record information on chart: - neatness - accuracy - presentation

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
See previous page.	▪ Compare distance, speed and power of an object thrown with the hands and with elastic e.g. sling shot, rubber band, etc. ▪ Collect and display various objects. Discuss how these objects can be moved. Test prediction to see which can/cannot is attracted to the magnet. Have them prepare a chart showing their predictions and what actually happened and discuss their findings questions such as: - Can magnets change the position/move an object? - What other object s might the magnet attract? - How are these objects alike? (metallic) - Why wouldn't a magnet attract objects such as paper, pencil etc.? (non metallic) - What other shape of magnets have you seen? ▪ Compare using a magnet experiment to determine whether larger magnets are stronger than smaller magnets based on how many objects it can pick up. (E.g. Paper clips, screws etc.). ▪ Recite the rhymes "Grand old Duke of Yorke and Jack & Jill and have students ask such questions as: - What took less effort - going up the hill or coming down? - Why does going up the hill require more energy?	See previous page.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
See previous page.	▪ Make suggestions on how they could go up a hill using less force. ▪ Make a prediction of the amount of force required to push a certain object up the slope. Experiment with going up and down a slope using different size objects and varied steepness. Compare the amounts of force required, and compare the time required accomplishing each activity.... (more or less) ▪ Explore going up and down a slope using a variety of motions (e.g. Pushing, pulling, rolling, and carrying). ▪ Identify different types of surface materials - categorize as rough, smooth, bumpy, spongy ▪ Match objects to the texture: - Gravel road – bumpy - grass-spongy - concrete-rough ▪ Rub objects on different surface materials. - Pushing a heavy box along floor, on grass, up a slope, sand etc. - Rubbing sandpaper on rough/smooth wood - Sliding a book across a desk - Rubbing the hand together ▪ Discuss findings ▪ Record surface materials that speed up, slow down, stop force on chart.	See previous page.

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Force**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1f - identify cause/effect relationship ▪ EL2b - identify main ideas & supporting details ▪ EL2e - interpreting body language/gestures ▪ CP2d - observe with all sense ▪ CP2f - compare ideas and information ▪ CP2g - sort and classify information ▪ H4a - practice locomotor skills ▪ H4b - practice manipulative skills ▪ EA1e - use colour, shape, lines, texture to express one's own ideas ▪ WT1a - investigate ways to solve problems ▪ WT1b - design device to meet need/solve a problem ▪ WT1d - test simple devices to see if it meets need	<u>Discover Science: Scott Foresman Bk. 2 & 3</u> <u>Finding Out Primary Science GR11</u> <u>Nuffield Primary Science</u> <u>Modern Science For The Caribbean GR11</u> <u>Childcraft Science At Work</u> <u>Reading About Science BK 5</u>

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: The Environment****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST8a – How different life forms affect other life forms and their environment.

ST8b – How changes in their environment affect various life forms.

ST8c – How their own actions affect the environment

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2d – Observe with all senses

CP2e – Engage in direct experience

CP2g – Sort and classify information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> - Human beings need plants and animals for a variety of reasons – transportation, decoration, protection, and furniture. - Food chain e.g. opossum bird, worm plant. Life forms are dependent on each other for survival. <u>Pollution</u> - Air, water, land, improper disposal of dead animals, sewage and garbage, smoke, fumes. - Activities of human beings cause pollution of the land, air and water.	- Recall humans basic needs using pictures and concrete examples e.g. food, shelter, medicine, clothing. - Collect and discuss pictures depicting uses such as: transportation, decoration, furniture and protection. - Bring concrete examples of uses of decoration: ornament, shell. - Experiment on life forms dependency on another life form e.g. caterpillar feeding on a plant. - Using two different plants, children will observe to see which plant it will feed on. - Environment walks by canal, sea, river, and factories. - List ways how the environment could be improved e.g. burying dead animals instead of throwing them in the canals	- Group pictures according to their uses e.g. decoration: straw basket, furniture: wooden trinket box. - Collect natural materials e.g. leaves, twigs, shells, and creates a collage. - Display pictures showing pollution by land, water, air. - Complete sentences using words or pictures stating what could be done to make the environment a healthy one e.g. Throw papers in covered _____.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Collect, sort, compare, experiment, express, discuss, observe/record <u>Attitudes:</u> - Develop an interest, responsibility and understanding of the interdependency of life forms. - Foster love of environment and life forms. - Become sensitive to the hazards of pollution.	See previous page.	See previous page.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- WT3c – how family members depend on each other to satisfy their wants and needs - EA1d – use various material to explore different effects/possibilities - H2a – the need to keep their surroundings clean - EL4e – express an opinion	Nuffield Primary Science <u>Living Things in their Environment Key Stage 1</u> Integrated Science for the Caribbean Bk. 2 Scott Foresman “Discover Science” Chap. 4 <u>Science: Understanding your Environment Unit 1 – Silver Burdett</u> <u>The Environment of Belize</u>

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Natural History****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST1a – Some similarities between animals now and animals in prehistoric times

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2f – Compare ideas and information

CP2g – Sort and classify information

CP2a – Use pictures and diagrams

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Knowledge Animals in our world <u>Today</u> ▪ Babies – growth ▪ Zoo ▪ farm Past ▪ types ▪ hatch ▪ hunter/hunted ▪ similarities ▪ differences	▪ Getting to know animals: Collect pictures; Browse through books ▪ Make a collage showing animals growth e.g. egg, chicken, hen. ▪ Collect pictures of dinosaurs. ▪ Discuss the physical features e.g. those with horns, those with wings, those that fly and have no teeth. ▪ Do a matching game. ▪ Make a model of a dinosaur from play dough or clay. ▪ Display pictures that have been collected. Have chart showing two collected. Have chart showing two column e.g. animals living now, animals that lived long ago. ▪ Have children place pictures under appropriate column. ▪ Discuss their similarities and differences e.g. dinosaurs/iguana – hatch from eggs.	▪ Making individual booklets using pictures or sketches of animals' growth, baby to adult showing: - Sequencing - Number of facts ▪ Using models of dinosaurs made by children: - Identify number of features - Accuracy of features - Describe features of models ▪ Sort and categorize according to given characteristics e.g. physical features.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills: - Collect, sort, use, imagine, observe, investigate, construct, describe, classify, categorize, compare and contrast, match. Attitudes: - Respect for animals - Develop awareness and appreciation of animals now and in the past. - Value of animals	See previous page.	See previous page.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- EA2a – use various materials to explore different effects - EL4c – Ask questions and give information	<u>The Environment of Belize</u> <u>Young Peoples Science Encyclopedia</u> <u>Tapir Mountain Nature Reserve & Tropical Forests – Conservation Education Manual</u> <u>Animals: Science and Its Secrets</u> <u>Discover Science: Scott Foresman</u>

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Force Machines****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST4c – How simple machines influence the amount of force needed to speed, the position; and the shape of a variety of objects

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activity.

CP1b – Examine information related to problem/issue

CP1c – Suggest ways of dealing with the problem/issue

CP2a – Use pictures and diagrams

CP2e – Engage in direct experience

CP2f – Sort and classify information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> - Tools and devices make work easy - Some examples of simple machine: - can opener - pin roll - egg beater - screw driver - Tools have many different function at home, school and work - Safety measures should be practiced when using tools	- Have children say/recite the poem 'How wonderful My Hands Are So Many Things they do' - Create a list of tasks that can be done with/without the hands - Compare things with/without the hands - Have students attempt to do work with/without their hands - Discuss the comparison made - Make analogies of how tools imitate parts of the body e.g. a closed fist is like a hammer, an ax is like an arm. A finger is like a drill - Create and categorize a list of tools found in the kitchen, school, work - Display a closed can. Explore ways to get it open. Identify tools that can make the task easier - Present students with a variety of task such as, moving a load of dirt, making a tortilla etc. - Play the game 'Mystery Machine', Match occupation with tools at home, school and work	- Ability to differentiate between work that can be done with hands and those that need tools. - Match tasks that can be done with hands/tools. - Ability to explain the usefulness of tools. - Ability to make comparison in respect to tools and the body parts. - Ability to solve a problem. - Complete the task accurately to find an answer. - Ability to ask questions. - Ability to mine the use of particular tool correctly. - Ability to describe the functions of a tool. - Ability to demonstrate safeways of handling tools.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skill: - Problem solving, manipulating, share ideas, describe effects, create, dramatize, construct, compare, ideas/information, ask questions, follow instruction, observing using all sense, investigate, collect, ideas, information Attitudes: - Responsibility, appreciation, cooperation, respect for others, communication initiative, willingness to participate, contribute	- Describe the functions of various tools, at home and school - Identify and classify tools that can cut, pinch, pierce etc. - Discuss and practice safe ways of handling tools - Collect toys/models that represent simple machines role-play through movements - Say rhymes/jingles pertinent to the topic. e.g. see-saw Majorie Daw	See previous page.

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Force Machines**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1f - identify cause/effect relationship ▪ EL1g - predict what will happen in a sequence of events ▪ EL4c - ask questions and give information ▪ EL4d - describe feeling, thoughts and events ▪ EL4f - use words and phrases appropriate to audience ▪ EL2e - interpret body language and gestures ▪ M5a - gather, record and organize data ▪ SP2a - take part in group activity ▪ EA1a - sing a tune ▪ H4a - practice locomotor skills ▪ CP1b - examine information related to the problems/issue ▪ CP1c - suggest ways of dealing with the problems/issue ▪ CP2a - use pictures and diagrams ▪ CP2e - engage in direct experience ▪ CP2f - compare ideas and information ▪ CP2g - sort and classify information ▪ CP2h - ask questions	<u>Discover Science Scott Foreman</u> <u>Finding Out Primary Science for the Caribbean</u> <u>Primary Science for the Caribbean</u> <u>Nuffield Primary Science</u> <u>Childcraft. How Things Work</u> <u>Childcraft - Science at Work</u> <u>Modern Science</u> <u>The Caribbean</u> <u>Discovering Science</u>

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Living Things (Group)****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST5b – Some ways in which to organize living things into groups

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – Use pictures and diagrams

CP2c – Handle real objects

CP2h – Ask questions

CP2f – Compare ideas and information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> <u>Plants</u> - Some plants grow in Belize e.g. banana; and some do not e.g. peach. - People use plants for food and to make things. <u>Animals</u> - Animals are useful in many ways. 2. Animals live on land and in water.	<u>Plants</u> - Visit a farm/market and identify fruits that grow in Belize and those that do not. - Make two charts of (1)fruits found in Belize and (2)fruits not grown in Belize. - Make module of familiar fruit trees. - Create a learning center with actual foods grown in Belize and those not grown in Belize. - Brainstorm uses of the plants e.g. food, clothing etc. - Name things in the classroom that are made from which they come. Make a fruit and/or vegetable salads with the foods brought. - Make a mobile on the uses of plants. - Draw and label things made from plants that children see on their way to school. <u>Animals</u> - Brainstorm ways animals are used. Discuss and categorize their uses. - Match the animal with its product/services. - Play a guessing game to show the uses of animals.	- Amount of attention and curiosity and formulation of questions during the visit. - Sort and classify plants that grow and do not grow in Belize. - Create and complete models of trees. - Sort and classify and arrange foods (fruits grown and not grown in Belize.) - Name the uses of plants. Categorize the various uses of plants. - Identify things in the classroom that are made from plants. - Name the plant from which different foods come. - Collect and arrange pictures correctly. - Identify the use of plants. - Name and categorize the uses of animals. - Match animals with the product/services they provide. - Discriminate and arrange pictures of land and water animals on a mural.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Observation, discussion, collection, matching, brainstorming, naming, demonstrating, dramatizing, categorizing, organizing, exploring, identifying, imitating, questioning, interpreting. <u>Attitudes:</u> - Sharing, interest, cooperation, participation, respect, appreciation, belonging, caring, trust, satisfaction, self-esteem, acceptance, motivation, happiness, pride	- Collect pictures of animals that live on land and in water. Discuss and categorize. - Role-play how animals move on land and in water. - Make a mural depicting animals that live on land and those that live in water. - Make mosaics of the different types of animals. - Assemble puzzles of animals. - Conduct a conversation between an imaginary land animal and a water animal. Discuss type of food eaten, animal friends and enemies, etc.	- Complete an animal mosaic. - Assemble puzzle. - Identify animals that live in water or on land and describe how they live

AREA OF STUDY: SCIENCE**INFANT II****UNIT/THEME: Living Things (Group)**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• EL1d – identify main ideas and supporting details ▪ EL2e – interpret body language and gestures ▪ AL4c – ask questions and give information ▪ EL4e – express an opinion ▪ SL2c – make simple factual statements ▪ CP2a – use pictures and diagrams ▪ CP2c – handle real objects ▪ CP2h – ask questions ▪ CP2f – compare ideas and information	Silver Burdett and Ginn Bk. 1 Lesson 6 Scott Foresman '<u>Discover Science</u>' Bk. 1

AREA OF STUDY OUTCOMES

Pupils should understand:

ST2a – The relationship in space between the earth and other planets in the solar system

ST2b – The relationship in space between the earth and the moon

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – Use pictures and diagrams

CP2f – Compare ideas and information

CP2h – Ask questions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> <u>Earth</u> - People, plants and animals live on the earth. - The earth is round. - The surface of the earth is made up of land and water. - The earth's surface has more land than water - The movement of the earth causes day and night (west to east).	<u>Earth</u> - Nature walk in the environment to identify people, plants and animals. - Discussion on nature walk; draw and colour people, plants and animals seen on walk; cut out pictures of people, plants and animals; make a collage. - Use globe/ball to demonstrate the shape of the earth. - Discussion on children's observation. - Present a model of land and water masses. - Discuss and ask questions. - Use globe to identify land and water masses. - Compare land and water masses. - Experiment with globe or any other circular objects with a light, to show day and night (etc. spins globe or circular object west to east).	<u>Earth</u> - Collect pictures of people, plants and animals and make poster. - Draw and colour things that live on earth. - Oral/written teacher-made test/quiz. - Draw and colour a picture of the earth. - Identify land and water masses on the globe or model. - Distinguish land from water on given pictures . - Colour water blue and land masses green(collect pictures for portfolio). - Spin the globe or circular object to show movement of earth . - Experiment with flashlight/candle and globe or circular object to show night and day. - Colour circle divide in half, yellow or black, on each side to show day and night. - Demonstrate movement of earth through dancing.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Sun</u> ▪ The sun is like a ball of fire which gives heat and light to the earth. ▪ The sun is larger than the Earth. <u>Moon</u> ▪ The moon is round and smaller than the earth. ▪ The moon gives light at night.	<u>Sun</u> ▪ Guess riddle on sun. ▪ Observation of pictures of the sun. ▪ Questions and answers on observation (students and teacher). ▪ Place children in groups in areas with and without shade to experience differences in temperature. ▪ Predict what the earth would be like without the sun. ▪ Observe pictures/models of the sun and the earth and compare sizes. ▪ Discuss findings. <u>Moon</u> ▪ Display and discuss pictures of the earth with the moon. ▪ Ask questions. ▪ Compare size and shape of both the moon and sun. ▪ Observe the moon during the night and draw what is seen. ▪ Discuss and explain observation of the moon. ▪ Teach a poem on the moon. ▪ Present model or picture of the earth, sun and moon for observation. ▪ Identify the sun, earth, moon. ▪ Compare distances among them (closest to earth, farthest from earth.)	<u>Sun</u> ▪ Gather information from pictures. Make portfolios. ▪ Cooperation in groups. ▪ Discussion on experience in shade and no shade. ▪ Gather information from pictures/models. ▪ Write names sun, moon and earth. ▪ Match names to sun, moon and earth. <u>Moon</u> ▪ Draw moon and earth to show comparison in size. ▪ Colour the larger of the two. ▪ Given two pictures to compare, draw the moon where it belongs (nighttime scene). ▪ Ability to discuss and explain observations. ▪ Write names of earth, sun and moon in correct diagram. ▪ Arrange earth, moon and sun in order of size (use pictures).

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Collect, listen, discuss, question, predict, answer, identify, observe, handling, create, compare <u>Attitudes:</u> - Independence, resourcefulness, responsibility, sharing, cooperation, understanding, appreciation, enjoyment, respect, cooperation, caution	See previous page.	See previous page.

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Planets**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1g – predict in a sequence of events ▪ EL2b – identify main ideas & supporting details ▪ EL3e - use different forms of writing to communicate and convey information ▪ EL4e - express an opinion ▪ EL4g - use body language/gestures appropriate to speech ▪ SL2d - pronounce common words comprehensibly ▪ M2b - basic properties of some two dimensional shapes ▪ M4a - make reasonable judgment of quantity distance & size ▪ M5a - gather, record & organize data ▪ ST8b - how changes in their environment affect various life forms ▪ WT1a - investigate ways to solve a simple problem to meet a need ▪ SS2c - how the land and water are used to provide for the physical needs of the people in the community ▪ H4b - practice manipulative skills ▪ EA1a - sing in tune ▪ EA1h - coordinate movements in simple structured dances ▪ SP2a - take part in group activities ▪ EA1e - draw using different lines, shapes, pattern, textures to express one's own ideas ▪ EA1d - use of various materials to explore different effects ▪ CP2a - use pictures and diagrams ▪ CP2f - compare ideas and information ▪ CP2h - ask questions	<u>Discover Science</u> Scott Foresman Bk 1 & 2 <u>Basic Science for Living Earth and Life Science</u> <u>Young People's Encyclopedia</u> <u>The Nine Planets</u> <u>Earth Science</u> - Scott Foresman BTTC Module XV - <u>The Solar System</u> <u>Science Activities</u> -5 <u>Childcraft</u> (The Universe) <u>The Science Library</u> Vol. 5 Materials: Paper mache models, balls, globe, scissors, toothpicks, pictures, flashlight, paint, glue, playdough for models, markers, crayons, pieces of earth with glass for models

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Living Things****AREA OF STUDY OUTCOMES**

Pupils should understand:

- ST5a – How plants and animals reproduce in their environment
- ST5b – How their own growth and development differ from that of animals

CROSS-CURRICULAR OUTCOMES

Pupils should:

- SP2b – Express opinions and feelings
- SP3a – Access needs
- CP2f – Compare ideas and information
- CP2g – Sort and classify information
- CP2h – Ask questions
- CP2i – Give oral and written report

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Plants</u> Plants are made up of different parts and each part has a specific function: ▪ The root holds the plant in the soil and takes in water. ▪ The stem supports the plant and transports water to the leaves. ▪ The leaves help the plant to breathe. ▪ The branch holds the leaves. ▪ The flower of some plants becomes the fruit.	<u>Plants</u> ▪ Place plant in a jar with water. Mark the water level. Observe if roots take in water. Discuss. ▪ Children pretend to be plants and tell how plants are supported. ▪ Place a stalk of celery in a jar of coloured water. Observe if stems transports water. Discuss. ▪ Use a jar, funnel, bottle, three coins and pond weed to demonstrate how a plant breathes. ▪ Place plant and coins at the bottom of jar. ▪ Set funnel over plant on coins. ▪ Add water. ▪ Cover funnel with another bottle filled with water. ▪ Place plants in light. ▪ Observe gas bubbles. ▪ Discuss. ▪ Bring a flowering pepper/okro, tree. Observe record change from flower to fruit. Discuss.	<u>Plants</u> ▪ Measure and record water level. Interest and curiosity in experimenting. ▪ Explain the functions of the stem and roots through dramatization. ▪ Cooperation in teamwork while conducting experiments to show how the stems transports water and how the leaves breathe. ▪ Draw and describe the change from flowers to fruit. ▪ Interpretation of graph, construction of graph.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Animals - Animals need air, water, food, shelter and protection for growth. - Life cycle of animals vary: - Egg-caterpillar (pupa – butterfly) - Egg-tadpoles-frog - Man and animals differ in lifestyles e.g. obtaining food and survival	- Plant a seed, a bulb and a cutter. Observe and measure. Make a graph to show the difference in rate of growth for each plant. - Soak various seeds overnight. Examine the parts. Record and classify seeds: those with one part and with two parts. - Brainstorm in groups various ideas or dispersal of seeds. - Collect seeds, group them according to how they are dispersed e.g. man, water, etc. - Write stories depicting seeds as they are moved. - Dramatize how seeds are dispersed. Animals - Go on nature walk. Observe how animals meet their needs e.g. ants. Report and discuss their findings. - Bring and take care of a pet (bird, hamster). Write a report on its daily needs. - Collect eggs of frogs and butterflies. Observe and discuss changes in growth and development. Compare and contrast the life of both animals. - Make models of different stages in the development of butterflies and frogs.	- Name seeds with one part and seeds with two parts. Group seeds according to how they are dispersed. - Creativity in writing and presenting correct information about seed dispersal. Animals - Ability to describe the changes in the growth of frogs and butterflies. - Ability to explain the similarities and differences in both life cycle. - Arrange stages of development of frogs and butterflies in sequences. - Creativity in movement and accurate portrayal of stages. - Ability to formulate questions and take notes - Participating during brainstorming of man and animal lifestyle. - Relevant content; arrangements, presentation of project. - Creativity in dramatizing the way man and animal obtain food.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> - Report, observe, formulate, describe, draw, collect, research, dramatize, name, compare, contrast, write, inquire, measure, classify, brainstorm, explain and interpret. <u>Attitudes</u> - Care, responsibility, respect, socialize, appreciate, cooperate, pride, share, curiosity, trust, self-esteem, love.	- Brainstorm ways in which man and animals obtain food. Use technology, putting themselves at risk. Compare/contrast the ways in which they obtain food. - Research ways in which man and animals adapt to their environment. Report on research (oral and written). - Drammatize ways man and animals obtain food.	See previous page.

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Living Things**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1g – predict what will happen in a sequence of events ▪ EL2e – interpreting body language ▪ EL3e – use different forms of writing to communicate ideas ▪ EL3h – use appropriate words and phrases to express thoughts and feelings ▪ EL4c – ask questions and give information ▪ EL4e – express an opinion ▪ EL4g – use body language and gestures appropriate to speech ▪ Ma4a – make reasonable judgement of quantity, distance and size ▪ M5a – organize data ▪ M5b – use charts to present data ▪ WT1d – test a simple device to solve a problem ▪ EA1d – use various materials to explore different effects ▪ SP2a – take part in group activities ▪ SP2b – express opinions and feelings in an acceptable way ▪ SP3a – access needs ▪ CP2a – use pictures ▪ CP2b – use reference materials ▪ CP2c – handle real objects ▪ CP2d – observe with all senses ▪ CP2e – engage in direct experiences ▪ CP2f – compare ideas and information ▪ CP2g – sort and classify information ▪ CP2h – ask questions ▪ CP2i – use visual including pictures ▪ CP2j – give oral and written reports ▪ CP2k – use creative arts	<u>Discover The Wonder Module A</u> <u>175 Amazing Nature Experiments</u> <u>Modern Science for the Caribbean - Revised Edition Bk. 3</u>

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Sources of Light****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST3b – Some sources and uses of light and heat

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

CP2f – Compare ideas and questions

CP2g – Sort and classify information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> ▪ Light sources can be classified as natural and artificial. ▪ Natural light comes from sources that people do not control. ▪ Artificial light comes from sources that people control. ▪ Light travel in a straight line. Light can be reflected from some objects. ▪ Plants and animals depend on light for growth and survival ▪ ▪ Light is used in a variety of ways - in home, school, factory	▪ Explore to show the two types of light, natural/artificial ▪ Expose children to dark room. Ask children to tell ways in which room can be lighted. From this children will establish that there are two types of light (natural/artificial). ▪ Children will play a guessing game to identify various types of artificial lights (flashlight, candle light) only using the sense of touch. ▪ Display the different types of artificial lights and demonstrate their functions. ▪ Children will make a booklet by drawing/colouring or collecting pictures of artificial sources of light. ▪ Children will write a sentence describing each picture.	▪ Making of models to identify the different sources of natural light ▪ Matching picture with word ▪ Children's generated questions ▪ Draw/displaying pictures on sources of natural light ▪ ▪ Oral questions and answers to determine how well children understand the concept ▪ Make a list of natural and artificial lights ▪ Draw objects showing artificial sources of light ▪ Sentences construction describing artificial source of light ▪ Make simple factual statements on topic

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills: - Collecting, drawing, observing, listening, discussing Attitudes: - Sharing, cooperation, honesty, respect	- Short discussion and experiment to discover how light travels - Leading questions on how light travels. - Experiment: looking through a black tube, both straight and bent, children will discover that light travels in a straight line and does not go around corners. - Discuss findings from experiment and record data. - Experiment to demonstrate that light can be reflected. - Class will be taken outdoors. Using a mirror children will explore how light is reflected. - Draw pictures of yourself and the light to show what you observe from the experiment. - Collect, classify objects that reflect or do not reflect light. - Demonstrate to show that plants need light - Display two plants. One that has adequate light and the other without adequate light. - Children will compare the two plans and conclude that plants need light in order to grow and make food.	- Interpret results of observation of plants with and without sunlight. - Collect pictures for collages. - Matching of words with pictures. - Contributing information to group in the discussion about the need for light. - Oral report gathered from poster

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
See previous page.	▪ Discuss to demonstrate that humans also need sunlight. ▪ Children will name ways in which animals/plants need light. ▪ Pupils go on nature walk to observe how plants need adequate light. ▪ Make a collage depicting the various ways living things need light. ▪ Divide children into three (3) groups - each group will sort and classify pictures according to their use in the home, school and factory. ▪ Make and display poster depicting where light is used. ▪ Compare and contrast uses in various places.	See previous page.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ WT1c - construct a simple device to solve a problem ▪ EL4c - ask questions and give information ▪ EL1f - identify cause and effect relationship ▪ EL4d - describe thoughts, feelings and events ▪ SL2c - make simple factual statements ▪ WT1c - construct a simple device to meet a need or solve a problem ▪ SS5b - the use of their first language as a vehicle for communication	Finding Out Primary Science for the Caribbean Bk. 2 Integrated Science for Caribbean Schools Bk. 2 First Aid in Reading, Bk. A What a Fright The World Book Encyclopedia Vol. 12 Energy and You Science - Addison Wesley

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Sources of Heat****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST3b – Some sources and uses of light and heat

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

CP2d – Observe with all senses

CP2g – Sort and classify information

CP2a – Use pictures and diagrams

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> - Heat comes from various sources. Earth is a source of heat. - People use heat in many ways to do work and make life more comfortable. - Heat moves from hot to cold objects. - Heat changes matter. - Safety rules should be observed when dealing with hot objects and electrical appliances.	- Have blank cards on display and elicit from children the various sources of heat. Sources of heat will be written on cards. Lead a short discussion on named sources. - Introduce the concept that earth is also a source of heat. - Video/picture on an eruption of a volcano. Children will generate questions on video/picture. Discussion. - Imaginary walk to the site of a volcano. Discuss what they see and they feel. - Write a paragraph about their trip. . - Children look through their homes and make a list on how heat is used. Children share findings in class. Discuss these implements that give off heat and make life more comfortable for us. - Through guided discussions other uses of heat will be introduced. e.g. incubators at hospitals and hatchery. - Field trip to hatchery. - Children will write a story with pictures/drawings of their visit to the hatchery.	- Children will make a list of the sources of heat, and compare list with those of their classmates. - Make clay/dough models of volcanoes and write two factual statements. - Make a booklet of the various ways how heat is used. - Children will orally interpret results of experiments done. - Children will make diagram to show the process how heat moves from hot to cold.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> ▪ Drawing, listing, comparing, listening, questioning, classifying, collecting, observing, exploring, writing, manipulating sustaining role. <u>Attitudes:</u> ▪ Interaction, sharing, honesty, cooperation, self-confidence, self-esteem, awareness that the earth is also a source of heat	▪ Provide children experiments on how heat moves e.g. a cold metal spoon out in hot water becomes hot. Class discussion following experiment. ▪ Children will draw a picture of how heat changes matter. ▪ Students will explore ways of how heat changes matter. e.g. melting (solid to liquid) ▪ Orally children will name words that describe changes caused by heat e.g. scorch, burn, melt. ▪ Children will then write a list of the words that describe the changes. ▪ Put in categories things from liquid to solid and solid to liquid, using pictures or real objects. Display children's work.	▪ Written exercise to unscramble words previously used to describe how heat changes matter. ▪ Categorize words according to their effects when they come in contact with heat. ▪ Children will develop their own safety rules and display them.

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Matter****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST3a – The physical characteristics and uses of a variety of everyday substances and materials.

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

SP2c – Lead and follow where appropriate.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge:</u> ▪ All substances are materials e.g. fabrics, paper, metallic. ▪ Materials can be identified by physical properties e.g. size, weight, shape, colour, etc. ▪ Materials are used for different purposes e.g. clothing, building, food. ▪ Some materials should be used with adult supervision. <u>Skills:</u> ▪ Collecting, sorting, observing, manipulating, listening, questioning, describing, drawing, identifying, measuring	▪ Collect substances from home, school, environment (nature walk). ▪ Explore how materials feel, taste, smell, look, and sound (use of senses). ▪ Identify materials according to properties by weighing, measuring, manipulating, testing in water and light. ▪ Discover basic similarities and differences through previous activities . ▪ Brainstorm uses of materials for different purposes . ▪ Make drawings to illustrate uses of materials. ▪ Do action songs and poems involving the use of materials. ▪ Field trip/community visit to observe uses of materials for different purposes.	▪ Identify substances from different sources. ▪ Explore materials using senses. ▪ Identify materials according to physical properties. ▪ Give oral report of simple experiments prepared and display charts/collage of findings. ▪ Exhibit drawings of use of materials. ▪ Perform simple dramas showing careful use of substances. ▪ Oral/written teacher-made test/quiz.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Attitudes: - Sharing and cooperating, responsibility, caring for materials, appreciating home/school/community - Respect for other's property, appreciation of self/peers,	- Build models/make drawings and give oral reports of use of materials for different purposes. - Invite resource personnel (nurse, firemen) to discuss careful use of materials	See previous page.

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
- H4b - practice manipulative skills - EL4c - ask questions and give information - SP2a - take part in group activities - M5b - use diagrams and charts to present data - EA1e - use colour, shape, texture to express ideas - H1b - dangers of some common substances	<u>Discover Science</u> Bk. K Chapter 4 <u>Discover Science</u> Bk.1 Chapter 6 <u>Finding Out</u> Bk. 2 Scot Foreman Science Chapter 6 <u>Nuffield Primary Science-Materials</u> Chapter 2

AREA OF STUDY: SCIENCE

STANDARD I

UNIT/THEME: Force

AREA OF STUDY OUTCOMES

Pupils should:

ST4a - How force affects the speed, the position and the shape of a variety of objects.

ST4b - How the amount of force required to make an object slide is affected.

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2d – Observe with all senses.

CP2g – Sort and classify information.

CP2f – Compare ideas and information.

WT1a – Investigate ways to solve problems.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> <u>Force</u> - A force can change the shape of an object. - The amount of force affects the speed/ position of an object. - The stronger the force the further and faster the object goes - Elastic force is involved when an object is stretched and then springs back to shape again. - Elastic force changes speed/position.	- Experiment/identify the force that makes things change shape (balloon-air pushes, inflate tube, soda cans, plastic bags, play dough, flour dough, fruits) - actions-twist, roll, smash, push, squeeze. - Pull/push; tear/rip. - Push/pull to create body shapes. - Make a heap of soil. Have children pour water using hose or bucket to show change of shape. - Work in pair using a toy car. Mark a starting position. Predict how far the car will go when given - a light push, - a heavy push - record distance - Create a barrier - what happens. Use spinning of a marble, rolling a ball, throwing a Frisbee, batting a ball as alternatives - Make and use a pinwheel observes speed using different amount of windforce. E.g. blowing using a fan.	- Ability to describe the types of forces such as pull/push. - Describe the effects of force on various objects. - Use, interpret and answer questions. - Interaction with partner - Cooperation - Learn work - Handle real objects- use and answer questions relating to task. - Completion of a task in logical order. - Use questions. - Follow directions. - Demonstrate and explain the different forces used in manipulating the machine - Explain why work is easier when a machine is used - Individual contribution toward collection - Sort/classify machines that do the same work (force) - Accurate presentation of how the select machine used force to do work. - Recall and demonstrate the type of force used by a fire engine - teacher generated test

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Most machines make easier by increasing the force people apply to the machine. - The force of magnets moves through different materials. - The shape of magnets affects speed, shape and movements of metal objects. - Magnets are useful to our daily lives.	- Display objects that have/don't have elasticity. (string, balloon, rubber bands, tire tubes, slinky toy, spring etc.) - Have students manipulate them and describe what happened when objects were stretched, blown, etc. - Suggest the usefulness of the objects. - Explore elasticity using a rubber band - hold a rubber band with finger tips, so it hangs down. Question – what makes it hang down? - Apply force or attach an object - what happens? - Remove object - what happens? What make it spring back? - Make an elastic car or twist the rubber band several times around 2 pencils to hold them together. Twist the pencils and let go. Observe the change in position. - Have children compete in car races. How far can yours go? Can yours climb a slope? - Compare distance using a rubber band or slingshot to throw an object. - Students will demonstrate a type of machine (wheel barrow/small wagon) being pushed, pulled, lifting or carrying things - they will describe the forces being used. - Explain how machines make work easier because it can act along with force to do work.	- Manipulation of objects with the use of a magnet - Differentiate between materials that allows magnetic force to pass through and those that do not - Sequence findings from strongest force - weakest - Report and explain the effectiveness of the magnet in relation to speed and level of force in getting the task done. - Creativity of design - Explain the use of magnetic device - Manipulation of magnets to create design - Knowledge of type and use of magnet - Explain why objects stay in balance - Show and interpret the result of equal/unequal force opposing forces - Predict the friction of movement based on the size of the two forces - Conduct experiment to prove prediction - handle real objects - follow instruction in logical order - team work - follow through to find answers - willingness to experiment - handle real objects - ask questions - Accuracy of data and chart - Show sequence from least, - most - Interpret result of experiment - Make accurate comparison based on findings

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
▪ When force is applied at opposite ends of an object and the object doesn't move, the forces that are acting on it are equal and in balance. ▪ More force is needed to move an object as friction between the two objects increase e.g. Incline smooth plane, water or lubricant reduces friction.	▪ Go on a machine hunt at home. Find as many different machines as you can. ▪ Help students group machines that do the same work together e.g. Bulldozer-pushes, truck-pulls, forklift-lifts. ▪ Present by groups how these machines use force to do work. ▪ Explore the forces that fire engine uses to do work - carry-spray, lift-ladder, stretcher. ▪ Explore how the force of magnet moves through different materials. Discuss findings. ▪ What do these materials have in common? ▪ Why is the force stronger through some materials? ▪ What happened when each of the materials (glass, paper) was between the object (nail, paperclip and the magnet) ▪ Why can't the force move through some materials? ▪ Have students create various designs/shapes by moving the magnet under some iron filling on a sheet of paper	▪ Willingness to predict and some sense of accuracy in predicting. ▪ Creation of design: - how well they follow plan - how well they follow through with plan - how well the design functions ▪ Assess application of problem solving strategies. ▪ Opinions/ideas/how they gather information. ▪ Explain: use of diagrams, print sentences/pictures ▪ Use questions to observe how well child listened for information. ▪ Construction of pin wheel ▪ Design, function, demonstration ▪ Describe how elasticity can increase speed and power. ▪ Note observation: ▪ see details - accuracy of prediction - accuracy of content and recording - generate and answer question - unexpected response - obvious observation - leads the investigation ▪ Responses, in comparing result ▪ Identification of texture ▪ Matching objects to texture ▪ Record information on chart neatness, accuracy, presentation

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
See previous page.	▪ Have students pick up a large number of paper clip off the floor using a) their hands, b) a piece of magnet. Discuss and compare the amount of time required doing more. ▪ Brainstorm and make a list of various types of magnets and their use. ▪ Use magnets to make creative-household decoration, door stops, refrigerator decorations. ▪ Have children work with partners using force to balance. Children can push/pull a partner. - sit back to back. ▪ Questions: What causes one object/person to move? (unequal force) What causes one of the object/person to move? (balance/equal force) ▪ Explain equal force by pushing on an eraser with one index finger. It Moves. Use both index fingers at opposite ends. No movement. ▪ Play a tug-of-war game with children - Discuss the outcome of the game. ▪ Observe how various objects move over surfaces such as: carpet, cement, tile, wood, plastic. ▪ Measure and record on a chart the amount of force to move each object over a specific surface.	See previous page.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
See previous page.	▪ Compare the amount of friction between surface and each object. (vary object, size, weight, shape) Question. On what surface did you need the most force to move the object? What caused the friction to increase? Plot a graph showing how friction increases with weight. ▪ Have children write with crayon on various surfaces (e.g. plain paper, wax paper, sandpaper etc.) What paper causes the most/least friction? List in order. Explain how friction allows/does not allow us to write on the different paper. Make and record other observations. ▪ Build or collect incline plane and lubricant (oil, grease) ▪ Make hypothesis on the effect the incline plane, water and lubricant will have on friction ▪ Test how various objects slide along: - an incline plane - an incline plane with water - an incline plane with lubricant	See previous page.

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Force**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1f - identify cause/effect relationship ▪ EL2b - identify main ideas & supporting details ▪ EL2e - interpreting body language/gestures ▪ CP2d - observe with all sense ▪ CP2f - compare ideas and information ▪ CP2g - sort and classify information ▪ H4a - practice locomotor skills ▪ H4b - practice manipulative skills ▪ EA1e - use colour, shape, lines, texture to express one's own ideas ▪ WT1a - investigate ways to solve problems ▪ WT1b - design device to meet need/solve a problem ▪ WT1d - test simple devices to see if it meets need	<u>Discover Science – Scott Foresman</u> <u>Finding Out Primary Science For The Caribbean</u> <u>Nuffield Primary Science</u> <u>Childcraft, How Things Work</u> <u>Childcraft – Science At Work</u> <u>Modern Science for the Caribbean</u> <u>Discovering Science – Practice Guide</u> <u>Building National Curriculum</u>

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: The Environment****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST8a – How different life forms affect other life forms and their environment.

ST8b – How changes in their environment affect various life forms.

ST8c – How their own actions affect the environment

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP1a – Recognize an issue or problem.

CP1b – Examine information related to problem/issue.

CP1c – Suggest ways of dealing with the problem/issue.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> - Life forms are interdependent e.g. plants – oxygen, animals – food. - Life forms are dependent on each other for survival. - Natural disasters change the environment/life forms. - Natural disasters change the environment, causes extinction, and endangerment of life forms. - Endangered animals and plants can become extinct	- Experiment with plants for three days. - One plant and animal will be placed in a favorable environment (windowsill). - One plant and animal will be placed in an unfavorable environment (a dark closet) - Pupils will observe and discuss their findings. - Create models of animals (small groups) - Show how they use their body parts to get food. Be sure that your animals have a body part for getting food. - Display pictures of natural disasters and pictures of changes that took place after the disaster (fire, hurricane, flood, erosion) e.g. area of land showing the result of a hurricane. - Resource personnel share information on one of the natural disasters - Creative Writing - Using findings from experiment with plants and animals, pupils will write a short story.	- Handle real objects - Completion of task in a logical order. - Follow directions. - Accurate presentation of information. - Creation of story. - Use and answer questions relating to task. - Interpretation of result from experiment. - To show and tell giving accurate information. - Teacher make test.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Collect, observe and record, create, discuss, experiment, express, communicates, interpret, and compare. <u>Attitudes:</u> - Awareness of the environment - Become sensitive to the dangers of natural disasters	- Group Work: Children will show and tell about their animal models – how it uses its body to get food and types of food it needs e.g. lizard uses its tongue and Toucan uses its beak. - Resource personnel share information on one of the natural disasters. - Discuss - Burning of plants - Flooding - Animals not able to survive - Animals moving from one place to another. - Choose one of these disasters and discuss which methods could be used to help prevent the loss of lives/homes. - Pictures of different scenes will be presented. Children will choose the picture which shows the best method of prevention e.g. Place a 4 in the appropriate box. - Present a picture of a food chain. Children will observe and discuss. Remove a link from the food chain and children will express their opinion as what could happen because of the missing link. - Pictures of different disasters will be placed in front of the class. Each picture will have a number. Play the game “Spin the Wheel” to determine what card the child gets. When the child spins the wheel and it stops at a number, the child will find the picture card with matching number. Using the picture the child will write a description of the disaster and the effect it will have on life forms	See previous page.

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: The Environment**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ WT3c – how people in the community process resources and sell products to satisfy there needs and wants. ▪ EA3 – arrange imagery in a way that is pleasing to oneself. ▪ EL4e – express an opinion ▪ SS1b – why life in their local community now is different from life in the past ▪ SS5a – the customs and traditions which their family follows	Nuffield Primary Science Living Things in Their Environment Key Stage 1 <u>Integrated: Science For the Caribbean – Bk. 2</u> <u>Discover Science, Scott Foresman</u> <u>Understanding your Environment</u> <u>The Environment of Belize</u>

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Natural History****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST1a – Some similarities between animals now and animals in prehistoric times

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities.

SP2h – Accept major decisions.

CP2f – Compare ideas and questions.

CP2a – Use pictures and diagrams.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> Animals of Belize <u>Today</u> ▪ Food chain ▪ Endangered <u>Past</u> ▪ Types ▪ Time line ▪ Extinction ▪ Fossils ▪ Some animals in Belize resemble some prehistoric animals e.g. turtle, iguana, lizard, crocodile, alligator.	▪ Getting to know animals: Collect pictures; browse through books – list and discuss; Nature walks & field trips – observe animals in their habitat ▪ Resource personnel (Audubon Society, Zoo) give information about animals which would be classified as endangered species. ▪ Children will be placed in groups to represent families of endangered animals e.g. alligator, crocodile, iguana, turtle. ▪ Someone comes along wanting to destroy these families. There is an appeal from each of these families giving reason why they should be shown mercy.	▪ Individual contribution towards collection ▪ Gather accurate information. ▪ Sort and classify. ▪ Demonstrate/explain information.

AREA OF STUDY: *SCIENCE*

STANDARD I

UNIT/THEME: Natural History

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Some animals in Belize do not resemble some prehistoric animals e.g tapir, manatee, toucan, deer, jabiru, stork. - Many animals have become extinct while some Belizean animals are also in danger of becoming extinct. <u>Skills:</u> - Research, discuss, compare/contrast, express, record, classify, write, group, work, sort, investigate, collect <u>Attitudes:</u> - Develop tolerance towards animals - Develop an interest in preservation - Demonstrate a willingness to cooperate	- Display pictures of animals of Belize presently along with some pictures of prehistoric animals. Brainstorm and discuss. List information. Obtain facts from discussion. - Using information from discussion children will write a short story (individual work) - Use pictures collected to make a list of animals: List 1 – pictures of animals that are extinct. List 2 – pictures of animals in danger of becoming extinct. <u>Extinct</u> Dinosaur Stegosaur Dodo Bird <u>Becoming extinct</u> Iguana Turtle	- Role-play - Presentation - Convey factual information - Group participation - Creative writing – short story - Theme - Number of facts - Sequence of events - Creativity - Group project: Make a scene showing the various animals of Belize that are endangered in their habitats

AREA OF STUDY: *SCIENCE*

STANDARD I

UNIT/THEME: Natural History

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EA1e – use color, shape, lines, patterns, textures to express one's own idea ▪ EL4e – express an opinion	<u>The Environment of Belize</u> <u>Young Peoples Science Encyclopedia</u> <u>Tapir Mountain Nature Reserve and Tropical Forests – Conservation Education Manual</u> <u>Animals: Science and Its Secrets</u> <u>Discover Science: Scott Foresman</u>

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Force Machines****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST4c - How simple machines influence the amount of force needed to speed, the position; and the shape of a variety of objects

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activity.
SP2e – Lead and follow when appropriate.
CP2f – Compare ideas and questions.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Knowledge</u> ▪ A lever has three main parts - e.g. fulcrum, pivot and load ▪ Small forces have more effect on lifting heavy loads... the further it is from the pivot point. ▪ An axle with 1 wheel is unicycle, two axles with 2 wheels is a bicycle, or two axles with 3 wheels is a tricycle. ▪ The position and number of wheels determines speed and amount of load it can carry.	▪ Group work to design a see-saw (lever) using wood strips and cement block. ▪ Identify and label the 3 main parts of a lever. Make a simple machine. ▪ Discuss and investigate the relationship among effort, pivot, and load. ▪ Explore the amount of effort required to move different loads using the lever. ▪ Demonstrate using fishing rod as a lever. ▪ Make puppets with simple lever arms. ▪ Determine where pivot point will be for effective movement. ▪ Answer riddles for which the solution is types of wheel and axle. (e.g. My axles are two, but my wheels are three. What am I?) ▪ Create a game in which children match tools, machine, to job specified (e.g. I am thinking of - . What do I need to do this job well?) ▪ Use relevant words such as, closer/further; heavier/lighter etc. in regards to position speed and force.	▪ Individual contribution/effort to/in collection of materials and completion of design ▪ ability to identify/discuss lever and how they work ▪ ability to sketch ▪ Ability to solve a problem. Effectiveness of demonstration ▪ Use of initiative/creativity is design/construct levers ▪ Ability to formulate and answer questions ▪ Application of skills (manipulate) when using levers ▪ Differentiate between wheel and a lever, effort, pivot and load ▪ Ability to create a puppet and identify pivot point on it ▪ Description of usefulness of simple machines ▪ Chart machines that increases speed/force/position ▪ Design, creation and effectiveness of model

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- A machine worked by the wind is a windmill. The amount of force indicates the movement of the windmill. The direction of the force (wind) also affects the position of the windmill. Skills: - Collect/classify, apply, compare, communicate, describe, explore, demonstrate, construct, identify/verify, investigate/test, recall, design/create, listen, solve, discover, sketch, distinguish, analyze, arrange, explain, judge Attitudes: - Share, cooperate, respect, perseverance, pride in accomplishment, responsibility, use of initiative, willingness to appreciate	- Experiment with distance and speed using a bike, roller blade etc. Compare and discuss what helps you go further and faster on a bike than on foot. - Create and test how a simple windmill works - Investigate how the amount of force increases/decreases the speed of the windmill-using (e.g. a puff of air from the mouth and strong air from a fan). - Present students with problem of hoisting a flag to the top of a flag pole without moving their feet off the ground. Ask questions: - what materials can be used? - will the job be easier then? - quicker? - how much effort (force) is required? More or less? - what other jobs can the pulley be used for? - Brainstorm uses of a pulley. - Make a collection of different types of pulleys. - Examine pulley. Look for structure of wheel. Generate, suggestions/ answer to develop ideas on pulleys and their effects on speed and power. - Make a collection of materials that can be used to make a pulley (cotton reels, string or cord, eye hook, wire or hanger, pliers). - Design and construct a pulley to lift various objects around the classroom. - Compare how speed and power is affected with/without the use of a pulley. - Present children with a list of simple machines and have them identify and classify as levers, wheel, axles and pulley. - Identify those that help to increase speed, force and position	- Chart/graph showing distance & speed - presentation - accuracy - neatness - Students ability to present ideas, supporting statements for solution of the given problem - Contribution to the collection of pulleys - Ability to identify the uses of various types of pulleys - Creation of pulley: - inventiveness of pulley (complexity of design) - ability to preserve to produce quality work - functionality of device

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Force Machines**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1f - identify cause/effect relationship ▪ EL1g - predict what will happen in a sequence of events ▪ EL4c - ask questions and give information ▪ EL4d - describe feeling, thoughts and events ▪ EL4f - use words and phrases appropriate to audience ▪ M5a - gather, record and organize data ▪ M5b - use diagram, pictograph and charts to organize data ▪ SP2a - take part in group activity ▪ WT1a - investigate ways to solve a simple problem ▪ WT1b - design a device to meet a need/solve a problem ▪ WT1c - construct a simple device to meet a need/solve a problem ▪ WT1d - test a simple device to see if it meets a need/solve a problem	<u>Discover Science Scott Foreman</u> <u>Finding Out Primary Science for the Caribbean</u> <u>Scott Foresman</u> <u>Nuffield Primary Science</u> <u>Childcraft. How Things Work</u> <u>Childcraft - Science at Work</u> <u>Modern Science for the Caribbean</u> <u>The Caribbean</u> <u>Discovering Science</u> <u>Practice Guide</u> <u>Building National Curriculum</u>

AREA OF STUDY: SCIENCE**STANDARD I****UNIT/THEME: Living Things (Group)****AREA OF STUDY OUTCOMES**

Pupils should understand:

ST7ab – How plants and animals reproduce in their environment. How their own growth and development differ from that of animals.

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities.

SP2b – Express opinions and feelings in an acceptable way.

SP3a – Access needs

CP2d – Observe with all senses

CP2e – Engage in direct experience

CP2g – Sort and classify information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Knowledge <u>Plants</u> Plants are made up of different parts and each part has a specific function. ▪ The root holds the plant in the soil and takes in water. ▪ The stem supports the plant and transports water to the leaves. ▪ The leaves help the plant to breathe. ▪ The branch holds the leaves. ▪ The flowers of some plants become the fruit.	<u>Plants</u> ▪ Place plant in a jar with water. Mark the water level. Observe roots taking in water. Discuss. ▪ Children pretend to be plants and tell how plants are supported. ▪ Place a stalk of celery in a jar of coloured water. Observe its stem transports water. Discuss. ▪ Use a jar, funnel, bottle, three coins and pond weed to demonstrate how a plant breathe. ▪ Place plant and coins at the bottom of a jar. ▪ Set funnel over plant on coins. ▪ Add water. ▪ Cover funnel with another bottle filled with water. ▪ Place plants in light. ▪ Observe gas bubbles. ▪ Discuss ▪ Bring a flowering pepper/okro tree. Observe record change from flower to fruit. Discuss.	▪ Measure and record water level. ▪ Interest and curiosity in experimenting. ▪ Explain the functions of the stem and roots through dramatization. ▪ Cooperation in teamwork while conducting experiments to show how the stems transports water and how the leaves breathe. ▪ Follow instructions for setting up and performing the experiments. ▪ Draw and describe the change from flowers to fruit. ▪ Construction of graph. ▪ Interpretation of graph. ▪ Name seeds with one part and seeds with two parts. Group seeds according to how they are dispersed. ▪ Creativity in writing and presenting correct information about seed dispersal.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Animals</u> - Animals need air, water, food, shelter and protection for growth. - Life cycle of animals vary. - Egg-caterpillar (pupa-butterfly) - Egg-tadpoles-frog - Man and animals differ in lifestyles e.g. obtaining food and survival	- Plant a seed, a bulb and a cutting. Observe and measure. Make a graph to show the different in rate of growth for each plant. - Soak various seeds overnight. Examine the parts. Record and classify seeds with one part and with two parts. - Brainstorm in groups various idea or dispersal of seeds. - Collect seeds, group them according to how they are dispersed, e.g. man, water, etc. - Write stories depicting seed as they are moved. - Dramatize how seeds rarely disperse. <u>Animals</u> - Go on nature walk. Observe how animals meet their needs e.g. ants. Report and discuss their findings. - Bring and take care of a pet (bird, hamster). Write a report on its daily needs. - Collect eggs of frogs and butterflies. Observe and discuss changes in growth and development. Compare and contrast the life of both animals. - Make models of different stages in the development of butterflies and frogs. - Make models of different stages in the development of butterflies and frogs.	- Participation during the brainstorming of man and animal lifestyles. - Research report. - relevant content - arrangement of information - presentation of report - Creativity in dramatizing the way man and animal obtain food. - Ability to describe the changes in the growth of frogs and butterflies. Ability to explain the similarities and differences in both life cycles. - Arrange stages of development of frogs and butterflies in sequences. - Creativity in movement and accurate portrayed of stages. - Ability to formulate questions and take notes.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills:</u> - Report, observe, formulate, describe, draw, collect, research, dramatize, name, compare, contrast, write, inquire, measure, classify, brainstorm, explain and interpret. <u>Attitudes:</u> - Care, responsibility, respect, socialize, appreciate, cooperate, pride, share, curiosity, trust, self-esteem, love.	- Brainstorm ways in which man and animals obtain food. Man – use of technology; animals – putting themselves at risk. Compare and contrast the ways in which they obtain food. - Dramatize ways man and animals obtain food. - Research ways in which man and animals adapt to their environment. Report on research (oral and written)	See previous page.

AREA OF STUDY: SCIENCE

STANDARD I

UNIT/THEME: Living Things (Group)

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1g – predict what will happen in a sequence of events ▪ EL2e – interpreting body language ▪ EL2e – use different forms of writing to communicate ideas ▪ EL2h – use appropriate words and phrases to express thoughts and feeling ▪ EL4c – ask questions and give information ▪ EL4e – express an opinion ▪ EL4g – use body language and gestures appropriate to speech ▪ M4a – make reasonable judgement of quantity, distance and size ▪ M5a – organize data ▪ M5b – use charts to present data ▪ WT1d – test a simple device to solve a problem ▪ EA1d – use various materials to explore different effects ▪ SP2a – take part in group activities ▪ SP2b – express opinions and feelings in an acceptable way ▪ SP3a – access needs ▪ CP2a – use pictures ▪ CP2b – use reference materials ▪ CP2c – handle real objects ▪ CP2d – observe with all senses ▪ CP2e – engage in direct experiences ▪ CP2f – compare ideas and information ▪ CP2g – sort and classify information ▪ CP2h – ask questions ▪ CP2i – use visuals including pictures ▪ CP2j – give oral and written reports ▪ CP2k – creative arts	<u>Discover The Wonder Module A</u> <u>175 Amazing Nature Experiments</u> <u>Modern Science for the Caribbean</u> Revised Edition Bk. 3