

AREA OF STUDY: MATHEMATICS

INFANT I

UNIT/THEME: Coins and Bills

AREA OF STUDY OUTCOMES

Pupils should:

Use Coins and Bills

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – take part in group activities

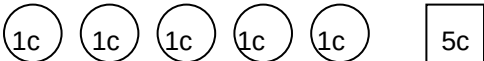
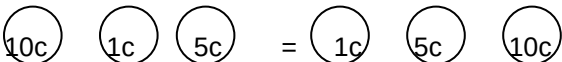
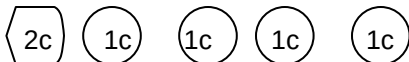
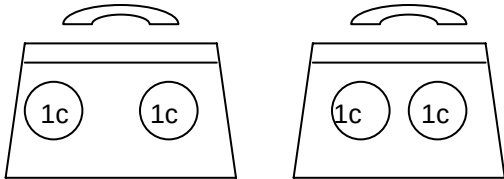
CP2b – use all senses

CP2c – handle real objects

CP2e – engage in direct experiences

CP2f – compare ideas and information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Money is made up of different denominations	Discuss money based on pupils experience e.g. going to the shop, market, ice-cream parlour, school. Have them tell what they buy at the market, shop, school. Make chart with items and prices. • What do you give in exchange for the things you buy (money)? • Distribute real coins and have children identify them up to \$1.00. 1c, 5c, 10c, 25c, 50c, \$1.00 • Make impressions of coins 1c, 5c, 10c, 25c • Compare with original coins.	Collect, observe and make rubbings and cut out of coins, bills up to \$1.00. • Identify, name and draw different coins. • Make cut outs of coins using simple circles.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Coins can be counted and combined to make a total value. Coins can be compared to show value.	Count and sort amount to show value of a set of coins, e.g.  • Identify and match a number of coins to a given amount e.g. past coins on cards and match with given coins e.g.   • Draw coins to show value of 10c or less e.g.  • Arrange coins in order of value e.g.  • Have children tell what can be bought from 1c, 5c, 10c and which coin can buy more sweets and which can buy fewer sweets.	Count and combine sets of coins e.g.   Use stoppers or markers to cover the coins to show the amount.  Count coins in each purse e.g. $5c + 1c =$ c And $1c + 1c =$ c • Arrange coins in order of value e.g. jumble the coins and have children place the coins in order of value e.g. 5c, 10c, 1c = 1c, 5c, 10c • Play money and cut out cards

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Coins can be used when buying or selling Skills Collect Observe Match Identify Discuss Manipulative Count Trace Draw Label Demonstrate Attitudes Honesty Fairness Cooperation Respect Courtesy Share Responsibility Value	Collect items for class shop. Label and price items in the shop. Purchase items using play coins e.g. Sweet 5c biscuit 5c M&mM 1c Role-play – Shopkeeper (sells) Customer (uys) Customer chooses the correct coins needed to buy an item. The shopkeeper counts the coins to make sure the amount of coins are correct.	- Draw remaining coins to make up given amounts e.g. 5c _____ = 7cents 1c 1c 1c 1c _____ = 10cents 10c 1c 1c _____ = 15 cents 1c 1c 1c _____ = 5 cents - Combine sets of coins to give a total value of 10c or less. Draw the coins, write and answer e.g. 1c 1c 1c 1c 1c 1c 3 cents + 4 cents = cents 5c 1c 1c 1c 1c 5 cents + 4 cents = Demonstrate using coins to find the answers.

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Coins and Bills**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• M5b – Diagram/charts to present data • ST5a – The physical characteristics and uses of everyday materials • H4b – Manipulative skills • EA1d – Use various materials (scissors, glue, paints, mosaics) to explore different effects • SP1a – Recognize the values associated with choices presented in a simple situation. • SP2a – Take part in group activities • CP2b – Use all parts of the references • CP2c – Handle real objects • CP2d – Observe with all senses • CP2e – Engage in direct experiences • CP2f – Compare ideas information • CP2g – Sort and classify information • CP2h – Ask questions • CP2i – Use visual including pictures, sketch maps and graphs • CP2k – Creative arts/language	• <u>Caribbean Primary Math</u> Level 1 by Ginn • <u>Nelson Primary Math for Caribbean Schools</u> Infant Aby Errol Furlonge • <u>Mathematic in Action</u> McMillan/McGraw – Hill • <u>Exploring Math</u> Scott Foresman • <u>Mathematics</u> Level 2 – Houghton Mifflin

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Quantity of Fractions****AREA OF STUDY OUTCOMES**

Pupils should:

M1e – Quantity of Fractions

M3f – Add and Subtract Simple Fractions to Solve Relevant Problems

CROSS-CURRICULAR OUTCOMES

Pupils should:

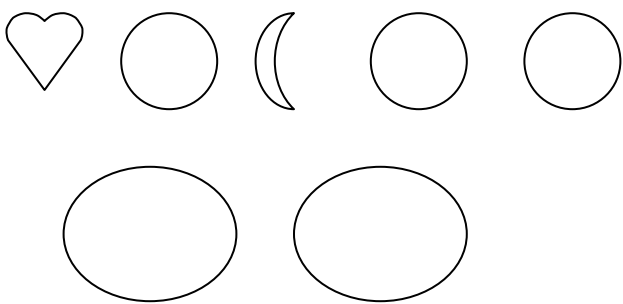
CP1b – examine information related to simple problem

CP2a – use pictures and diagrams

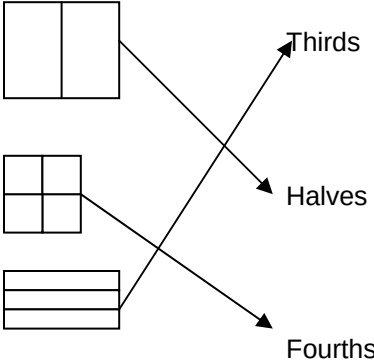
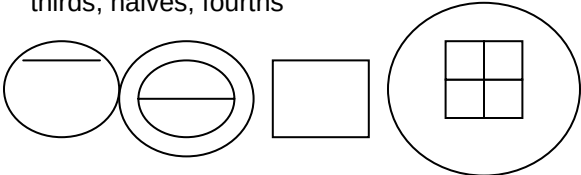
CP2c – handle real objects

CP2b – observe and analyze using all senses

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Things can come as a whole and as parts of a whole.	1. “Make up” short stories to introduce concept of whole/parts. (a story of your own relating to whole/parts of a whole) • Display collections (children’s/teacher’s) of concrete objects. E.g. fruits, foods, (whole, parts of whole) • Children form groups by means of a game. (Children get tags of same colour/shape or number to form groups) • Manipulative and classify objects as whole/parts. Children place whole objects in different boxes after sorting them as wholes/parts. • Group report on findings. • Draw pictures to show whole objects and parts of an object. Circle/underline/colour/put an “x” on pictures that show parts of a whole from a group of given pictures.	Using a checklist, listening to observe how children: <u>A.</u> <u>Manilative objects</u> (use of fine muscles) • Fold papers to show fractional parts. • Arrange objects for classification. • Colour fractional parts (How accurately?) <u>B.</u> <u>Express themselves in front of the class.</u> <u>C.</u> <u>Interact with their groups</u> (respect others, shy, talkative, good listener, participate in group activities) <u>D.</u> <u>Follow simple oral instructions given.</u> <u>E.</u> <u>Think critically:</u> • Classify objects, fruits as either whole or parts. • Identify objects, shapes that are divided into halves, thirds and fourths. • Solve simple oral problems given (share a whole or a set of objects between two). • Assemble puzzle parts together to show a whole. • Respond to different types of questions (recall, inferential etc.)

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	 Match the part with its corresponding whole. Assemble puzzle-parts to make a whole.	E. <u>Work individually on oral and written exercise:</u> • E.g. matching etc. • Do they focus on given task?how long is their attention span? • Are they able to seek assistance when needed? • Does the child produce work? • is the work neat and legible?

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>ROLE PLAY</u> • Play a situation where children will share fruits (etc. that are divided into equal/unequal parts. Have them express their feeling about the situation. • Place children in groups to explore and manipulate cut-outs of (shapes, pictures) fruits, objects and foods divided into equal parts. • Assemble equal parts of cut-out, shapes, objects, fruits (etc) to make a whole and stick them together. • Report findings. • Play a game. (Treasure Hunt) • Story of Brer Anancy (Sharing Bananas) • Picture discussion of a scene where things are being cut and shared. (Children with object cut in halves, thirds and fourths) • Game: Find Your Partners (Children will be given either halves, thirds or fourths of shapes and asked to locate their partners to make a whole).	

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
A whole can be divided into halves' each part is represented by the symbol half $\frac{1}{2}$; third $\frac{1}{3}$; fourth $\frac{1}{4}$ (each fraction should be taught as a separate concept.	2. Explain terms: halves, thirds, fourths as equal parts of a whole. Fold shapes in halves, thirds, fourths. Introduce the words: halves, thirds, fourths. • Solve puzzles matching missing equal parts of a whole. • Match diagrams of halves, thirds and fourths with corresponding names.  • Colour/circle the wholes that have equal parts of: thirds, halves, fourths  • Cross out the wholes that are not divided into equal parts.	

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
3. Some sets can be divided into halves, thirds and fourths (oral, practical work only) Skills Listening Matching Counting Labeling Writing Drawing critical thinking collecting data grouping comparing reading folding shading colouring solving problems expressing one-self.	4. Introduce symbols $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ to establish that each half equals one half; each third equals one-third; each fourth equal one-fourth. - Children form groups. Have them share parts of a whole, half, third, fourths (using cut-outs, shapes etc)and name each part: one-half, one-third, one-fourth. - Identify shaded part of a shape and write the symbol that it represents. $\frac{1}{4}$ shaded parts  4 equal parts - Question children to arrive at the concept that the number is the shared or shaded part and the bottom number represents the amount of equal parts the whole is divided into. - Match shaded parts with symbols $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$. - Circle the symbols that represent the shaded part.	

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Attitudes</u> • Show willingness to each other • Interact within their groups and with their peers • Cooperate with others • Respect for others opinion • Liking for Mathematics • Practice honest • Appreciation of things and others	<u>STORYTELLING</u> • To arouse interest also use rhythms/jingles. The Ugly Duckling (se four eggs instead of twelve). • Goldilocks and The Three Bears – Dramatize stories to bring out concepts of halves, thirds and fourths of a set. • Children form groups of 2, 3, and 4. Each group is given sets of 2, 3 or 4 things. (bjecks, fruits, cut-outs of shapes) Children discuss the quantity and content of their sets. Share the sets equally among themselves. Determine what (fractional) part of the total set each group member got. • Dramatize simple oral problems based on every-day experience to arrive or sets of objects. Find the fractional part each one gets.	

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Quantity of Fractions**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL2a – Basic sounds to recognize initial letters when writing fractional words WT1a – Investigate ways to solve simple problems EA1d – Use various materials to explore different effects/possibilities EA1e – Use colour, shapes, lines, patterns and texture to express one's idea. CP1b – Examine information related to simple problems. CP2a – Use pictures and diagrams CP2c – Handle real objects CP2b – Observe and analyze using all senses CP2j – Give oral reports CP2 - Engage in direct experiences CP2g – Sort and classify information	<u>Exploring Mathematics Book 1</u> Caribbean Primary Mathematics Year 1 <u>Nelson Primary Mathematics for the Caribbean Schools Bk. A</u> Addison Wesley Grade II Scott Foresman Book I <u>I Can Math Activity</u> Program Bk. 1

AREA OF STUDY: MATHEMATICS

INFANT I

UNIT/THEME: Place Value

AREA OF STUDY OUTCOMES

Pupils should:

Use Place Value in One, Two and Three digit Whole Numbers

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – use pictures and diagrams

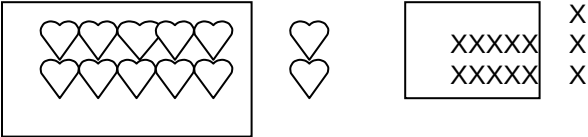
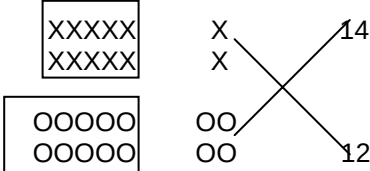
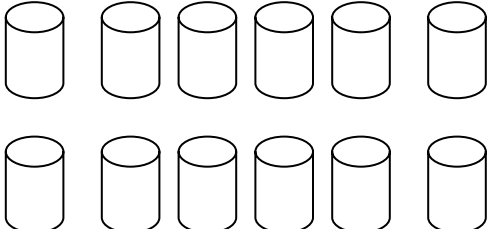
CP2c – handle real objects

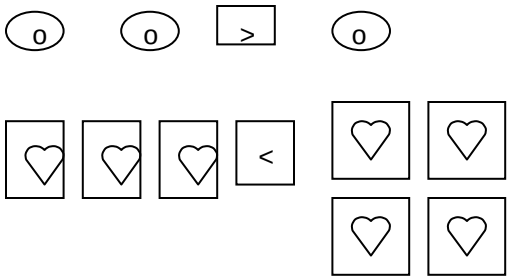
CP2g – sort and classify information

CP2h – ask questions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Numbers are orderly and predictable - Numbers can be grouped and regrouped according to a pattern or agreed upon principle <u>Skills</u> Collect Count Observe Compare Match Arrange Draw Identify Colour	- Collect and count objects up to 19.. play domino games to show grouping - Students explore the idea of regrouping by working with smaller numbers – groups of four, five, and six. - Students pick a nonsense word to name each group. E.g. In the counting game we are going to play, we can't say four. (Children choose zib. (zib) - Start counting using objects. When we get to four we make a group and say zib. One, two, three, zib – now have a group called a zib. - Continue counting now saying 1 zib one 1 zib two 1 zib three 2 zibs 2 zib one 2 zib two 2 zib three 3 zibs	- Call a number and have children display objects showing the given number e.g. 5 xxxxx - Draw pictures for written numbers to show picture value e.g. 5 - Arrange written number cards in sequence e.g. 4 10 6 3 7 2 8 5 9 1 1 2 3 4 5 6 7 8 9 10

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Attitude</u> Sharing Responsibility Respect Cooperation Interest Two digit numbers can be grouped into tens and ones Numbers can be compared for inequality and can be equal as well.	- Follow a pattern to read and write small numbers in sequential order e.g. 0, 1, --- 3, 4, ---- 6, 7, ----, ---, 10 (1 more – 1 less) e.g. - Sing rhymes, 1 little, 2 little, 3 little Indians to show sequencing of numbers - Read and write number names using flashcards, postman games etc. - Use puzzle to put number names together e.g. One 1 One 1	- Spell and match number names e.g. use flashcards, assemble puzzle pieces to show number and names – 1 one 1 One Select, group and label objects to form sets of tens and ones up to 10 e.g. e.g. _____tens_____ones

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	- Group objects in tens and ones up to e.g. 10 + 1, 10 + 2, 10 + 3 etc  - Group sets first with objects, then have children draw sets from given numerals e.g. 1 tens 2 ones  - Match groups of objects to corresponding numerals e.g. 	- Select group and label objects to form sets of tens and ones up to 10. e.g.  ____tens ____Ones - Match sets of tens and ones with corresponding numbers e.g. cut out shapes, have children paste shapes on cards to make groups of tens and ones or put numbers at the bottom e.g.  - Children will then use cut out shapes or pictures and place in correct boxes - Recognize small numbers and signs.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	• Use objects and place signs to show equality and inequality then record e.g. • $>$, $<$, $=$, signs on cards – place objects in sets on either sides and have children insert the correct sign in the middle e.g. 	

AREA OF STUDY: MATHEMATICS

INFANT I

UNIT/THEME: Place Value

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL1b - Use Phonics to assist in word recognition EL3a- Spell common words correctly M5a - Gather, record and organize data H4b - Practice manipulative skills St5a - Uses of everyday materials EH1a - sing in tune	<u>Caribbean Primary Math</u> Level I <u>By Ginn</u> New Edition Math – 1997 <u>Exploring Math</u> Scott Foresman

AREA OF STUDY: MATHEMATICS

INFANT I

UNIT/THEME: Consecutive Sequence

AREA OF STUDY OUTCOMES

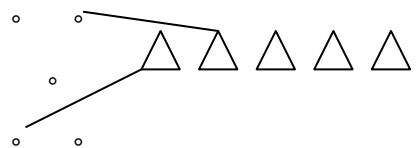
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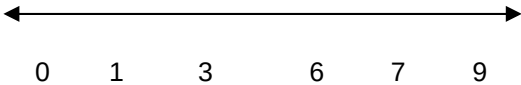
- M1b – Consecutive sequence and position of whole numbers
- M1d – Properties of odd and even numbers

CROSS-CURRICULAR OUTCOMES

Pupils should:

- CP2a – use picture and diagrams
- CP2c – handle real objects
- CP2g – sort and classify information
- CP2h – ask questions
- CP2l – Use visuals including pictures

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Our number system is orderly and predictable • Sequential order • One-to-one correspondence • Order of numbers	<u>COUNTING IN SEQUENTIAL ORDER (1-100)</u> 1. Clap or tap to rhythm while counting 2. Use abacus for counting in sequence 3. Counting using number rhythms and songs 4. Use number chart for counting by ones 5. Count objects in sequential order <u>ONE-TO-ONE CORRESPONDENCE (1-15)</u> 1. Place beans/seeds in bottle cap to show one-to-one correspondence. 2. Match pictures to show one-to-one correspondence 3. Point to objects while saying number words	<u>COUNTING IN SEQUENTIAL ORDER (-100)</u> 1. Individual counting 2. Count objects in sequential order, children count handful of objects (stoppers, beans, seeds) <u>ONE-TO-ONE CORRESPONDENCE (1-15)</u> Match objects to show one-to-one correspondence e.g. 

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>COUNTING ON (1-15) NUMBERS IN SEQUENCE</u> 1. Clap and tap to rhythm while counting 2. Fill in missing numbers on a given number line to show continuity. <u>NUMBER PATTERNS</u> 1. Use pictures to show number patterns	<u>COUNTING ON (1-15) NUMBERS IN SEQUENCE</u> Complete number line e.g.  Complete number chart 1 2 3 4 525 Use cards or objects or movement to demonstrate understanding. <u>NUMBER PATTERNS</u> 1. Use pictures to show number patterns

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>ORDER OF NUMBERS (Before, After, Between)</u> 1. Connect dots to show order of numbers. 2. Use number line to show order of numbers. 3. Arrange number cards in order of which number comes before, after between e.g. _____ 5 6 _____ 5 _____ 7 4. Arrange number puzzles in order e.g. 5 6 5 6 7 5. Number dominoes	<u>ORDER OF NUMBERS (Before, After, Between)</u> 1. Connect dots to show order of numbers to complete pictures. 2. Use number line to show order of numbers. 3. Arrange number cards in order of which number comes before, after between e.g. _____ 5 7 _____ 5 _____ 6

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills Collect, sort, write, discuss, predict, listen, classify, color, questioning, solving, connecting Attitudes - Develop an interest in numbers. - Understanding enjoyment. - Sharing - Cooperation	<u>COUNTING BY ONES, FIVE, TENS (1-100)</u> - Use hands to count by five, tens - Use numbers chart to count by ones. <u>COUNTING BOTH FORWARD AND BACKWARD</u> - Clap and count forward and backward e.g. 1, 2, 3, 4, 5.....Clap..... count 5, 4, 3, 2, 1.....Clap..... <u>ORDINALS 1ST – 10TH</u> - Arrange children in order of first, second....etc - Match ordinals with corresponding objects and numbers. - Arrange pictures in order to show position e.g. first, second, third. - Colour pictures to show given position. - Tag children with ordinals (1st – 10th). Children will arrange themselves in order.	<u>COUNTING BY ONES, FIVE, TENS (1-100)</u> - Use hands to count by five, tens <u>COUNTING BOTH FORWARD AND BACKWARD</u> - Count and tap/sing e.g. 1, 2, 3, 4, 5,...clap 5, 4, 3, 2, 1.....clap. Increase number sequence as you go along. <u>ORIGINAL 1ST – 10TH</u> Colour picture to show given position e.g. first, second, third, etc.

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Consecutive Sequence**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL4c – Ask questions and give information H4b – Practice manipulative skills SP2a – Take part in group activities WT1a – Investigate ways to solve a simple problem/to meet a need CP2a – Use pictures and diagrams CP2c – Handle real objects CP2g – Sort and classify information CP2h – Ask questions CP2i – Use visuals including pictures SL2d – Pronounce common words appropriately	<u>Mathematics Their Way</u> <u>Caribbean Primary Mathematics</u> <u>Exploring Mathematics</u> Grade II Addison Wesley <u>Mathematics</u> Grade II Scott Foresman Book I and II

AREA OF STUDY OUTCOMES

Pupils should:

M1c – Quantity in Whole Numbers (0-999)

CROSS-CURRICULAR OUTCOMES

Pupils should:

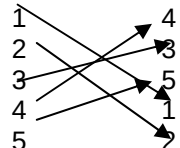
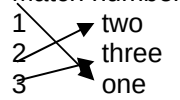
CP2a – use pictures and diagrams

CP2c – handle real objects

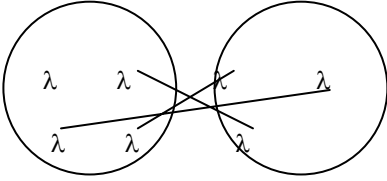
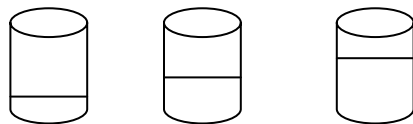
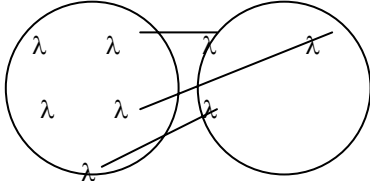
CP2g – sort and classify information

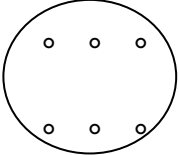
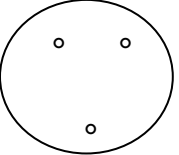
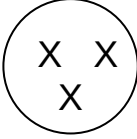
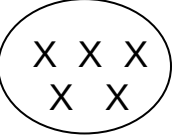
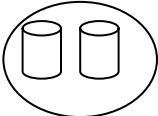
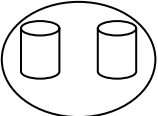
CP2h – ask questions

CP2l – use visual including pictures

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Numbers can be identified and given names.	<u>NUMBER RECOGNITION (0-20)</u> - Use flash cards, number charts, model numbers sand tray for number recognition. - Match objects with corresponding number and number names. - Write number names and number symbols. - Trace numbers in the air, on the palm, on friend's back, in a sand box.	<u>NUMBER RECOGNITION (0-20)</u> - Children will identify numbers on flash cards.\ - Match numbers with numbers.  - Match number with number name 
2. When counting, the final number reached is the whole group.	<u>INCLUSION (1-15)</u> Count variety of objects – beans, stoppers, seeds, straws, sticks, etc. The last number indicates the total number in the group.	<u>INCLUSION</u> count variety of objects

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
3. The quantity of the group of objects does not change even when it is rearranged.	<u>CONSERVATION (1-15)</u> - Make two rows of beans about ten beans in each, row plan in one-to-one correspondence. Children will conclude that there are the same numbers in each group. Spread out one row of beans to make a longer line. Children will answer questions. Are there the same number of objects in each row? ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ ✦ - Have children find out other arrangements for these same (10) objects <u>NUMBER CONCEPT (1-15)</u> - Group object to show number concept e.g. ♡ = 1 ♡ ♡ = 2 ♡ ♡ ♡ = 3 - Draw/use/colour pictures to show number concepts. e.g. 4 = 1 1 1 1 Arrange number puzzles to show concept. 2 ° ° 3 ° ° ° - Listen to number stories. Say number rhythms e.g. one, two buckle my shoe. Sing songs e.g. This old man... - Number cubes. Children will recognize numbers on cubes (1 to 6)the other (7 – 12).	<u>CONVERSATION</u> Count objects placed in various arrangements. Five is five whether spread out, grouped close or placed in groups (group of 2 and group of 3) <u>NUMBER CONCEPTS</u> Demonstrate with counters the meaning of numbers 1 – 15 with the symbols.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
5. Numbers can be compared to find the relationship between them. <u>Skills</u> Estimating Predicting Identifying Hand-eye-coordination Comparing Sequencing Writing Arranging Manipulating Matching <u>Attitudes</u> Understanding Sharing Participating Interest in numbers	<u>Comparing Numbers</u> Estimating, predicting, seeing relationship to describe quantities. - Children will estimate how many objects they think can hold in one hand. Children check by counting the objects. Children will estimate 1 handful; 2 handfuls, 3 handfuls. - Estimate amount in various size containers. E.g. jars, cups, (full or half-full, with seeds) <u>MORE, LESS, EQUAL (1-15)</u> - Use one-to-one matching to find the group that has more or less e.g.  or equal amounts - Compare handful, cups etc. of objects to determine more, less or equal e.g. 30 objects in right hand. - Introduce the symbols = > < using a story. - Compare groups of picture using the symbols: > < = ◇ ◇ ≥ ◇	<u>COMPARING NUMBERS</u> Label three identical jars containing different amount of objects. Children will estimate how many object in each jars: e.g.  Use one-to-one matching to find groups that have more, less or equal. e.g.  more less

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	$\mu \geq \mu \quad \mu \quad \mu \quad \bigcirc \text{---} = \text{---} \bigcirc$ $\mu \quad \mu$ Compare numbers using the symbols $>$, $<$ e.g. $5 \geq 4$, $2 \leq 6$, $7 \equiv 7$.	Circle greater number from given pairs and/vice versa. e.g. $\bigcirc 7$ 3 (greater) 4 $\bigcirc 1$ (less) Compare pictures and numbers using the symbols. $> < =$  $\geq$   $\leq$ $>$   $\equiv$ $=$ 

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Quantity in Whole Numbers**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• WT1a investigate ways to solve a problem (work and technology) • H4a – practice locomotor skills • H4b – practice manipulative skills • H4c – practice non-manipulative skills (health) • EA1a – sing in tune. • EA1b – identify and produce rhythms and beat. • E1g – move in time to a beat (Expressive Arts) • SP1a – recognize the value associated with choices presented in a simple situation • SP2a – take part in group activities social skills and personal qualities • EL1b – use phonics to assist in word recognition • CP2a – use pictures and diagrams • CP2c – handle real objects • CP2g – sort and classify information • CP2h – ask questions • CP2i – use visuals including pictures (Cross Curriculum) • SL2d – pronounce common words and phrases comprehensively	Mathematics Modern Curriculum Guide Mathematics Their Way Exploring Mathematics Grade 1 Invitation To Mathematics Addison Wesley Grade II Scott Foresman Gade I and II

AREA OF STUDY OUTCOMES

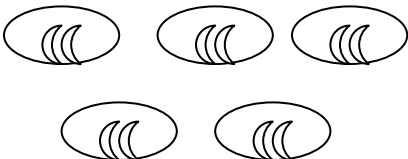
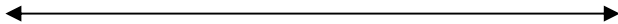
Pupils should:

Multiply and divide whole numbers (within and without remainder) within the confines of two, three, four, five and ten times table to solve relevant problems.

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – use pictures and diagrams
CP2c – handle real objects
CP2g – sort and classify
CP2h – ask questions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. A set is a well defined group of objects	1. Collecting and grouping of objects/pictures e.g. straws, counters etc. e.g. How many groups? How many sticks straws etc., in each group? How many in all?  5 groups 2 in each group 10 in all	1. Observe classification of grouping (2,5,10 up to 100)
2. Skip counting is jumping across numbers on the number line by patterns *2, 5, 10 up to 100)	2. Students jump along the number line. Use crayons to show patterns e.g.  0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	2. Draw and record patterns of jumps on given number line to show skip counting by 2, 5, 10....100.

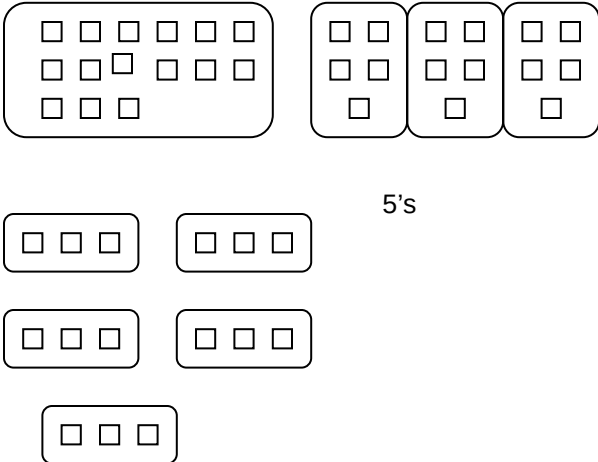
CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Number system is orderly and predictable. 3. Equal sets have the same amount of objects which can be arranged in equal groups.	3. Arranging objects into equal groups. Identify the number of objects in equal groups e.g. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ Match No Match ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ Match Match	<u>3</u> <u>Matching Card Game</u> Making equal groups and finding how many in all.

AREA OF STUDY: *MATHEMATICS*

INFANT I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
		Organize objects in equal groups. Matching equal sets/draw and colour equal groups.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
4. Sharing is dividing of a quantity of objects into a particular number of groups to determine the number of objects in each group. Skills Match, draw, group, arrange, discuss, organize, compare, colour/shade, count Attitude Follow, cooperate, identify, share, socialize, relate, confidence, appreciate, perform, communicate, assist	4. Selection and sharing of objects e.g. specific number of objects to be shared in groups of 3's, 5's, and 10's.  5's Roleplay/dramatization of division stories.	4. Share quantity of objects equally. - share quantity of objects to show equal/unequal sets - acting out division stories using objects to represent various people, animals, things

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Multiply and Divide Whole Numbers**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• EL1f – identify cause and effect relationship • EL1g – predict what will happen in a sequence of events • EL4c – question and give information • EL4e – express an opinion • SL2b – ask simple factual question • SL2c – make simple factual statement • M1b – consecutive sequence and position of whole numbers 1–999 • ST7b – some ways in which to organize living things in group • H4b – practice manipulative skills • EA1a – sing in tunes • EA1e – use colour, shapes, lines, pattern, textures to express idea • EA1g – move in time to a beat • WT1c – construct a simple device to solve a problem • NOTE: Cross curricular skills and qualities are covered throughout the unit.	<u>Exploring Mathematics</u> Grade 2 <u>Exploring Mathematics</u> Gade 2 <u>Exploring Mathematics</u> Grade 2 Scott Foresman <u>Mathematics</u>, Teachers Edition Bk. 2 <u>Exploring Mathematics</u> Grade 2

AREA OF STUDY: MATHEMATICS

INFANT I

UNIT/THEME: Add and Subtract whole numbers

AREA OF STUDY OUTCOMES

Pupils should:

M3c – Add whole numbers up to a sum of three digits (without regrouping in Units column) to solve relevant problems.

M3d – Subtract whole numbers up to three digits (with regrouping from tens to unit column) to solve relevant problems

CROSS-CURRICULAR OUTCOMES

Pupils should:

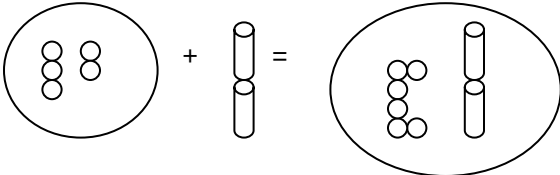
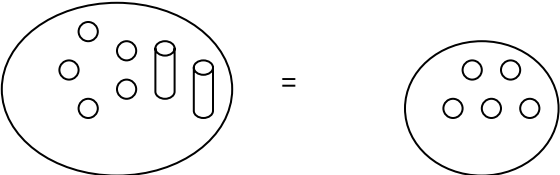
CP1a – recognize an issue or a problem

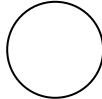
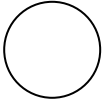
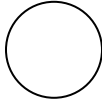
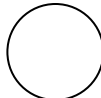
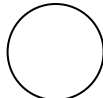
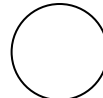
CP2a – use pictures and diagrams

CP2c – handle real objects

CP2h – ask questions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. The quantity of a group of objects does not change even when the objects are moved or rearranged in some way	1. Collect and count objects to make sets e.g. (counters, straws). There are 5 children scattered in a classroom. Teacher called them to her desk, they all came together and huddled in a small group. She sent 3 to play at the sand table and 2 to play in the block centre. After a few minutes, she told them to move quietly to their seats. How many children was she working with? At first she was working with 5 children in a group. She was still working with 5 scattered together playing in different parts of the classroom 1b. Combine and separate objects to make sets e.g. 00 + 000 = 00 000 00 000	1. Collect, combine, separate objects to make sets giving a sum/difference from 1-9. (a) match objects with numerals to complete number sentence getting a sum/difference from 1-9 (b) match pictures with numerals to make a sum/difference from 1-9

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
2. A family of number is all of the possible combinations of addends/subtrahends that will produce a sum/difference from 1-9.	1c Match sets of objects/pictures with numerals e.g. $\begin{array}{ccccccccc} 00 & 00 & 0000 & 0000 & 00 & & & & \\ 2 & + & 2 & = & 4 & & 4 & - & 2 & = \end{array}$ 2a. Construct and rearrange objects to make sets – adding and subtracting adding two objects  subtracting two objects 	2. (a) Construct and rearrange objects to make sets getting a sum/difference from 1-9.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	2b. eg. number family of 7 7+0 = 7 7-0 = 7 6+1 = 7 7-1= 6 5+2= 7 7-2= 5 4+3= 7 7-3= 4 3+4= 7 7-4= 3 2+5=7 7-5=2 1+6= 7 7-6=1 0+7= 7 7-7=0 2c. draw pictures to represent sum/difference of number value from 1-9    3 + 1 = 4    4 - 1 = 3	2. (b) draw pictures to represent sum/difference of number value from 1-9

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
3. The numeral remains constant when adding and subtracting using zero.	3a. Add and subtract using zero in oral word problems. Eg. - Jane has 5 pencils , Mary has no pencils. How many pencils do they have altogether? - Jenny has 2 books, Julia doesn't have any books. How many books do they have altogether? - John has 5 fish on his plate. Sue's plate is empty. How many fish are on the plates? - Tom has 3 apples. He didn't give Jim any. How many apples does Jim have? b. Adding and subtracting using zero vertically and horizontally $\begin{array}{r} 7 \\ + 0 \\ \hline \end{array} \quad \begin{array}{r} 7 + 0 = 7 \\ 7 - 0 \end{array}$ 4a) Use children to demonstrate sum/difference on number line. E.g. children moving forward for addition and backyard for subtraction. a) Add and subtract using number lines getting a sum/difference less than 10 vertically and horizontally. $2 + 5 = \text{ or } \begin{array}{r} 2 \\ + 5 \\ \hline \end{array}$	(a) Add and subtract using zero in oral word problems. (c) Adding and subtracting using zero vertically and horizontally. 3. Use number line to add and subtract two-one digit number vertically and horizontally getting a sum/difference less than 10.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
5. Basic properties of addition and subtracting to help solve word problems. <u>Skills</u> Combining, collecting, matching, drawing, manipulating, counting, identifying, listening, sharing, re-arranging, constructing, adding, subtracting, assembling, formulating, grouping. <u>Attitudes</u> Sharing, cooperating, respect, self confidence, satisfaction, responsibility, enjoyment, show appreciation, have good sportsmanship, sense of well being.	5. Solve the difference/sum of two-one digit numbers using word problems. - Therese has 5 books. - Cynthia has 3 books. - They have ____ books. - Troy has 6 marbles. - He gave Ted 2 marbles. - Troy has ____ marbles left. Note: Use word problem stories throughout the unit to present concepts.	

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Add and Subtract whole numbers**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
H4b – manipulating of objects WT1a – adding and subtracting simple problems M1c – quantity of numbers 10-9 CP1a – recognize an addition and subtraction problem CP1c – method used to solve problems CP2a – use pictures and diagrams CP2c – handle real objects CP2h – ask questions	<u>Today's mathematics</u> <u>Addison Wesley Mathematics</u> <u>Exploring Mathematics</u> Grade 1 <u>BRC Basic Math</u> – second year

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Basic Properties of Some Two and Three Dimensional Shapes****AREA OF STUDY OUTCOMES**

Pupils should:

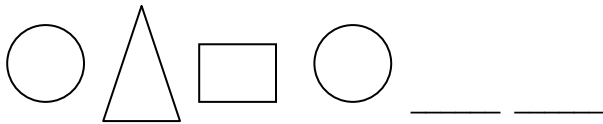
Basic Properties of some two and three dimensional shapes

CROSS-CURRICULAR OUTCOMES

Pupils should:

**CP1b – examine information related to a problem/issue
CP2a – use pictures and diagrams
CP2c – handle real objects
CP2e – engage in direct experiences
CP2f – compare ideas and information**

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. 2D and 3D geometric figures have specific attributes and properties by which they are identified, classified and named.	1. Observe and identify concrete shapes e.g. circle, square, rectangle, triangle • Relate 2D and 3D shapes to real objects in classroom and outdoors • Sort shapes by sides, corners, faces • Listen to shape words in song and poem and count number of shapes • Play games e.g. 'shape bingo' • Name, color and draw shapes • Group objects according to shapes • Compare and contrast shapes • Children will circle sets with the same colour and same shape • Tell what shapes are like or unlike and why • Display and discuss collection of 3D shapes • E.g. cone, cube, sphere, cylinder • Describe attributes e.g. point, edge, sides	1. Observe as children identify and name shapes, circle, square, rectangle, triangle • Tell similarities and differences • Tell number of sides • Get into groups and form shapes • Colour and match like shapes • Draw given shapes

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
2. Geometric shapes form patterns in the natural world and they can be used to create objects, art forms and designs <u>Skills</u> Observe, Identify, Collect, Compare/contrast, , Sort, Explore, Arrange, Discuss, Draw, Create, Match, Listen, Count, Manipulate Share, Relate <u>Skills Attitudes</u> - Willingness to share and participate - Appreciate each other's ideas - Develop an interest in shapes - Cooperation - Appreciation of shapes in the environment - Enjoy poems and songs about shapes - Willingness to investigate properties of shapes	Match the four 3D shapes to real objects e.g. ball-sphere, building-cube, ice cream cone, cone 2. Observe and complete patterns using 2D shapes:  Arrange shapes according to size and colour. Create 2D designs and record number of shapes used.	

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Basic Properties of Some Two and Three Dimensional Shapes**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• EI4C – Ask questions and information pertaining to shape • EL4e – Describe shapes • H4a – Draw and shade shapes • H4b – Manipulate objects • EA1a – Sing shape song • EA1d – Draw shapes • E – Use shapes to complete pattern and create design • G – Show and tell art forms • CP1b – Examine information related to problem/issue • CP2a – Use pictures and diagrams • CP2c – Handle real objects • CP2e – Engage in direct experiences • CP2f – Compare ideas and information • CP2g – Sort and classify information • CP2k – Use creative arts/language/music	• Nelson Primary Math for Caribbean Schools – Infant Book A • 'I Can' Math, Activity Program - Book I • Addison – Wesley Mathematics – Grade K • Exploring Math – Grade K

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Measuring Devices****AREA OF STUDY OUTCOMES****Pupils should:**

M3a – Using measuring devices to measure distance, capacity, weight and time.

M4a - Make reasonable judgements of quantity, distance and size

CROSS-CURRICULAR OUTCOMES**Pupils should:**

CP2a – use pictures and diagrams

CP2c – handle real objects

CP2e – engage in direct experience

CP2f – compare ideas/information

CP2k – use creative arts/language/music

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Make reasonable judgements of quantity, distance and size Size: some objects are small, some objects are big Distance: Distance can be long or short, or near Height: People, animals and things can be tall or short	1. collect objects of different sizes and shapes - manipulate objects collected - classify objects into groups <u>Big</u> <u>Small</u> - use comparative language (big-small) to describe objects 2. collect objects of various lengths - classify objects according to length (long-short) - identify <u>long</u> and <u>short</u> objects in the environment e.g. classroom - compare distances as <u>far</u> or <u>near</u> 3. observe and compare each others' height e.g. (in pairs) - measure height using non-standard units. Strings, strips eg. Height of table, desk, chair - identify tall/short people, animals, things in the environment	1. collect and manipulate objects 2. identify and classify objects (big-small, long-short) 3. compare distances far-near 4. identify/name tall/short 5. measure heights using non standard units 6. name/point to tall/short people, animals, things in the environment 7. describe a ruler 8. compare inches with centimeters 9. measure lengths (within 12 inches) 10. measure lengths within 30 centimeters

AREA OF STUDY: MATHEMATICS

INFANT I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
4. A ruler: A ruler is used to measure distance. A 12 inch ruler has 39cm(centimeters) 5. Capacity/quantity: containers are used to hold quantity and can be sub-divided into units so that quantity can be measured 6. Weight: can be determined using standard and non-standard units	observe and describe rulers - compare units on both sides - measure lengths within 12 inches - measure lengths within 30 centimeters collect containers of different sizes and shapes(standard and non-standard) - demonstrate full and some - compare containers and quantities of full and some using $>$ $<$ $=$ - name and describe containers used for measuring capacity - identify containers with large capacity/small capacity - select appropriate standard unit (cups, $\frac{1}{2}$ liter, gallons) for measuring capacity - measure capacity using non-standard (e.g. jars, cans, bottles) and standard units(e.g. cups, $\frac{1}{2}$ liter, gallon) collect items of different shapes and sizes - compare weight using hands and comparative language (light, heavy) - compare each others' weight using balance board e.g. see saw - experiment with weight, balance scale and objects collected. (eg. rocks, books, shoes, been bag) - identify light or heavy objects by circling or colouring - discuss and demonstrate stories about weight(e.g. Goldilocks and the Three Bears, The enormous Turnip)	- collect containers for measuring capacity/quantity(standard and non-standard) - demonstrate full and empty and partly full - use comparative language to compare quantity/capacity $>$ $<$ $=$ - name and describe measuring devices (cup, $\frac{1}{2}$ liter, gallon) - classify containers with large capacity/small capacity - select appropriate standard unit of measurement - recognize through experiment that size and shape do not determine capacity (responses to questions on time) - participation in discussion - collect devices for measuring time - describe the features of a clock (numbers, long and short hand) - show and tell time to the hour - recite and sing songs on days of the week and months of the year - compare weights using hands (light/heavy) - compare each other's weight using balance board(seesaw) - experiment using balance scale - identify light or heavy objects by circling or colouring - participation in discussion and dramatization

AREA OF STUDY: MATHEMATICS**INFANT I****UNIT/THEME: Measuring Devices**

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Time: Time is the point at which something happen and can be measured <u>Skills</u> Collect, sort and classify objects, manipulate objects, share, compare/contrast, measure, list and write, show and tell time, experiment/observe, draw, colour, select devices, demonstrate uses of devices, dramatize, memorize/recite, sequencing/organize, matching, explore, practice, language development <u>Attitudes</u> Share, cooperate, participate, pride, satisfaction, respect, appreciate, responsibility, sensitivity to other people's feeling, understanding, awareness, acceptance of self and others, punctuality.	7. discuss everyday event in relation to time - collect a variety of measuring devices (clocks and watches) - describe the features and uses of a clock(number, long,short hand) show and tell time to the hour - recite and sing songs on days of the week and months of the year (eg. Solomon Grande, What is the time Mr. Wolf	

AREA OF STUDY: MATHEMATICS

INFANT I

UNIT/THEME: Measuring Devices

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL1e Identify a sequence of events EL3f Arrange ideas in sequence to convey information and express feelings EL3g Use descriptive language to portray image, events, feelings EL4c Ask questions and give information SS1a Time periods in relation to their own growth and development WT1d Test a simple device to see if it meets a need or solves a problem H4b Practice skills EA1d Use various materials	<u>Mathematics in Action.</u> Macmillan McGraw, Hill <u>Measurement Investigation</u> <u>Tamara</u> <u>I Dream</u>, Rhandall Scott-Bk. 1 Foresman Math <u>Family Math</u> <u>Mathematics Their Way</u>, Mary Barrata Lorton <u>Mathematics K-7.</u> Integrated Resource Package <u>Working with Numbers</u> James T. Shea <u>Nelson Primary Mathematics for Caribbean Schools</u> Errol Furlonge, Belize Teachers' College Modules a) <u>Math</u>, 5/8, Education module-13 b) <u>Mathematics Education Module-14</u>

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: COINS AND BILLS

AREA OF STUDY OUTCOMES

Pupils should:

M5a - Gather, record and organize Data

M4b – Use data to assess the likely occurrence of an event or forecast a trend

M5b – Use diagrams, pictographs and charts to present data

CROSS-CURRICULAR OUTCOMES

Pupils should:

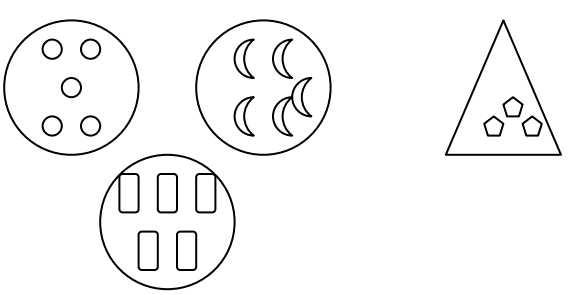
CP1a – examine information related to a problem/issue

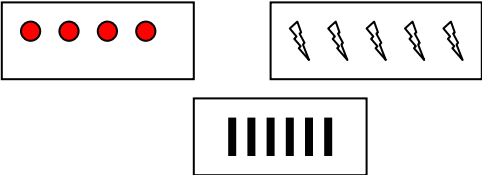
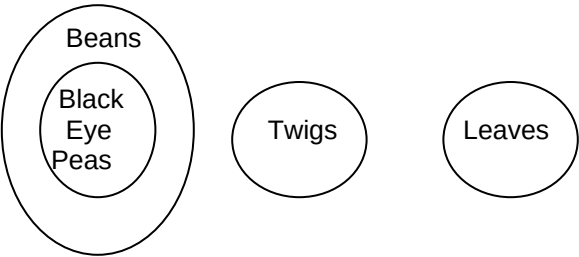
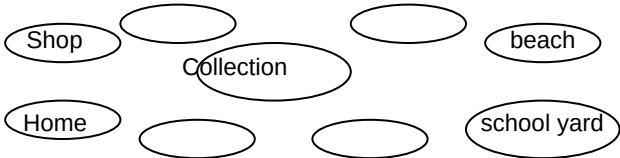
CP2a – use pictures/diagrams

CP2e – handle real objects

CP2d – observe using all senses

CP2f – compare ideas/information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Data may be collected through observation, sorting, grouping, measuring of objects which can be represented on various graphs or charts. - Gather record and organize data - Use data to assess the likely occurrence of an event or to forecast a trend - Use diagrams, pictographs and charts to present data	Collect stones, leaves, stoppers, straws, seeds etc. from field trips, nature walk, home, school yard. Sort, group according to name, shape, size, colours. Make a physical graph representation e.g. line up shoe, tennis according to sizes. Observe and discuss collections: e.g. place of origin – record on a web - size, shape, texture, etc. e.g. (a) Sorting – Same kinds together 	- Ability to follow instructions through listening e.g. (top a rhythm given) (a) teacher observes and assesses children in discussions of their observations and findings on field trips/nature walks. (b) have children make up questions in groups according to similar objects collected. Wide leaves small stones ● ● ● Big stones ● ● ● (c) Groups cross question each other about their findings:- Possible Questions.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Identifying patterns is the process of following a logical order of events to bring cohesion and predictability to seemingly unorganized Situations. - Graphs, diagrams and charts of various types are important for representing information that is gathered.	b. Grouping – Arrange objects according to – size, colours, shapes.  Bull's Eye Diagram/Disjoint Set diagram 	1. What is your collection? Record information gathered on a web.  - Compare and contrast objects to find their similarities and differences in: (a) colour – bright/dull (b) sizes (c) shapes amount of sides.  same (d) textures - rough  smooth

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: COINS AND BILLS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
Skills Collect Sort Observe Communicate Imitate Join/match Complete Assemble Measure/estimate Manipulate Create Combine Identify Recall Trace Follow directions Dramatize	How alike 1. from the sea 2. hard 3. decoration How different With regards to <table> <tr> <td>Curve</td><td>shape</td><td>flat</td></tr> <tr> <td>Big</td><td>size</td><td>small</td></tr> <tr> <td>Rough</td><td>texture</td><td>smooth</td></tr> <tr> <td>Pink</td><td>colour</td><td>cream</td></tr> </table> > < =	Curve	shape	flat	Big	size	small	Rough	texture	smooth	Pink	colour	cream	
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Big	size	small												
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Pink	colour	cream												

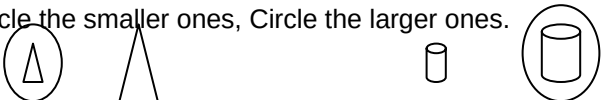
AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: COINS AND BILLS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Attitudes</u> Cooperate Confidence Respect – environment Awareness of safety measures Responsibility Willingness to share Acceptance Motivation Sense of achievement Pride/satiafaction Be challenged Enthusiasm	- Patterns – Physical Features: Chris height, size, colour, hair - Frequency → Pattern of sounds A. engine B. whistle C. fire engine D.police car E.songs - Compare patterns on:- a. picket fence/chain b. bricks laid c. seating arrangements d. hop scotch game 6 5 3 2 1 4 1 5 2 1 6 4 3 - What comes next (frequency) A series of dots (forecast a trend) • • • • • • • • • •	Observe children’s performance with the correct use of signs to compare and classify color, shape, size into sets using symbols > < = Observe and draw the physical features of children’s height, size, colors, complexion hair.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Connect the dots (forecast a trend) Body limbs to form patterns e.g. all left arms on hips. Tick Tack Toe <u>Measurement</u> Compare capacity e.g. How many cups of water will fill a bowl? a. children make a guess b. do experiment after //	<u>Patterns</u> Identify the frequency in pattern of sounds in fire engine, police car, ambulance. These have similar sounds. Follow instructions through listening to the patters of: (a) whistle (b) universal scale (c) recorder, listening to their own voices from a record player. Identify patterns of their voices – pitch-rhythm. Compare and complete the pattern on a picket and chain linked fence; and laying of bricks <u>Seating arrangements:</u> (1) Song – musical chairs (2) Children arrange chairs for story telling, music, art etc. Hop-scotch

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>Compare sizes on chart</u> Circle the smaller ones, Circle the larger ones.  Compare weight – present a collection of objects; have children circle the lighter one/heavier one Compare height – Record findings on chart (Pictograph) Ring the shorter/taller ones <u>Graphs</u> 1. All forms of measurements will be done using physical graphs, (concrete objects) pictographs (column graphs) 2. Using natural objects or persons to compare according to: - Numbers - Colours - Types - Sizes	• (Frequency) Which colour comes next? Red-green-blue-red-green complete the shape: <u>Measurement</u> 1. Observe children's measuring skills as they estimate then discover the number of cups/bottles which would fill containers. How many bottles will fill a dish? 2. Observe as children compare pictured objects, physical objects and say which is smaller, larger; smallest and largest 3. Observe as children compare height of pictured objects and circle the taller, shorter, tallest, shortest.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>Pictograph</u> <u>Animals at the Belize Zo</u> Cats Birds Snakes 1 2 3 4 5 Look at the graph. 1. How many of each animal did the children see? Cats Birds Snakes 2. Circle the animal they saw more often. Cats birds snakes	4. Observe as children compare weights to sort out objects and use the vocabulary: lighter and heavier to describe weights of objects. Tick the heavier one. <u>Graphs</u> Observe children as they complete a physical graph to compare objects according to numbers, colours, types and sizes. a. How many books? b. How many erasers? c. Which book is red, green, blue, etc? d. Which ruler is red, blue, green, etc? e. How many types of objects; books, erasers, etc? f. How many types of books; story, exercise, etc? g. How many types of erasers? h. How many short ones? i. How many long ones?

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: COINS AND BILLS

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
<u>Language Arts</u> EL3f – Writing – arrange ideas in sequence EL4e – Speaking – express opinion EL1g – Reading – predict sequence of events EL2c – Identify a sequence of events EL2d – Listening and viewing – predict a sequence of events EL2e – Interpret body language and gestures <u>Math</u> M1b – Sequencing of whole numbers M4a – Estimate and make predictions <u>Science</u> ST5a – Uses of everyday materials ST8c – Actions affects the environment <u>Social Studies</u> ST8c – Physical Environment <u>Music</u> EA1a – Sing in tune EA1b – Rhythm and beat EA1c – Imitate sounds <u>Physical Education</u> H4c – Practice non-manipulative skills (e.g. thinking skills) Observe plotting of ideas on graph	1. Exploring mathematics – Scott Foresman and Co. Pgs. 7, 9, 12, 14, 18, 28, 35, 68, 75, 82, 102, 122, 132, 133, 135, 136 2. Nelson Primary Maths for Caribbean Schools – Errol Furlonge Bk A – pages 4-7, 16, 83-93 Bk B – pages 75, 99, 100, 110, 107, 118 3. Caribbean Primary Mathematics – Level 1, 2, 3 4. I Can – McMillan/McGraw-Hill Math Activity Programme Paper T50, T51, T0, 123 – 141, 50-52, 68-72 5. About Teaching Mathematics AK8 by arilyn Burns Pages: 113 – 123, 75-77, 47-53, 69 6. Mathematics Their Way By Mary Barolla – London Pages: 386, 387 7. Addison – Wesley Sets the Standard Pages: 386 – 387 8. Today's Mathematics 9. I See What You Mean – Children at work with visual Information by Steve Moline Pages: 67, 71, 108, 111 10. Organizing Thinking - Bk. 1 by Sandra Parks and Howard Black Critical Thinking Press and Software pages 9, 11, 13, 183

AREA OF STUDY OUTCOMES

Pupils should:

M3b – Use Coins and Bills up to \$5.00

CROSS-CURRICULAR OUTCOMES

Pupils should:

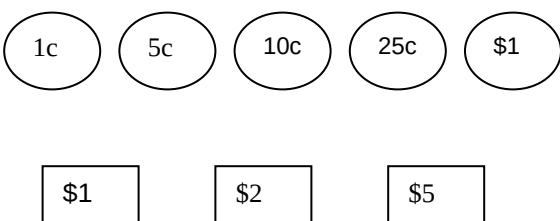
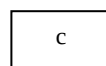
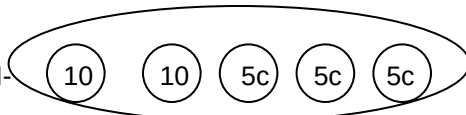
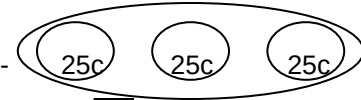
SP2a – Take part in group activities

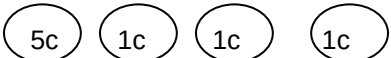
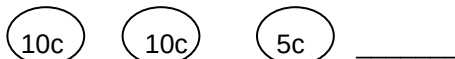
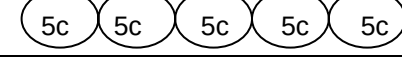
CP1a – Recognize a problem

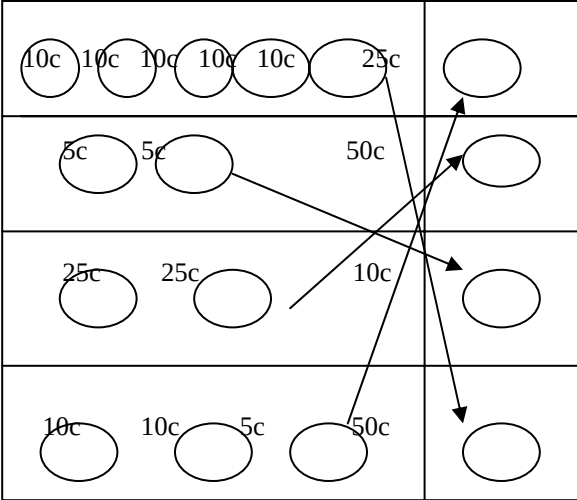
CP1b – Examine information

CP1c – Suggest ways to deal with problem/issue

CP2e – Engage in direct experiences

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Money is made up of different denominations	1. Make a collection of real coins and bills  - Display, observe, identify and name the different denomination. - Make impressions or rubbings using real coin on a paper, cut out paper coins and glue unto a cardboard. - Draw and cut out bills	- Selling peanuts: Have children work in group selling peanuts. Have them identify and count how much money they have made from selling the peanuts, e.g. - Group I –  Group I made  c - Group II-  Group II made  c - Group III-  Group III made  c

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
2. Coins can be counted and combine to make a total of a dollar	2. Ask children to use their coins to make contributions of a given amount e.g. 25c  =25c  = 25c  =25c Repeat using other amount. Count given coins and record their amounts e.g.  = 8c	Questions: 1. Which group made the most money? 2. Which group made the least money? ▪ Draw more coins to complete the given amount. E.g. 50c  _____  _____
3. Coins and bills can be compared to show value	3. Compare and combine coins in terms of their value using the signs (<, >, =) e.g.  >   <   = 	▪ Use play coins to make up \$1.00 in different ways.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	- Select and place sign cards in appropriate spaces. - Counting and matching amounts of coins to a given total.  - Children should be encouraged to use their play coins to find their answers. - Put 3 twenty-five cents in your right hand and 6 five cents in your left hand. Ask how much is in each hand. Children will say the amount in each. Children will tell which hand has the greater amount.	Practice and demonstrate buying and selling single sets of items e.g. 5c 10c 25c 15c

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: COINS AND BILLS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
4. Coins and bills can be used when buying or selling.	6. Collect items for class shop. Label and price items. Purchase items from shop using play coins with a value of \$1.00. ▪ Role-play – shopkeeper/customer. Customer will choose the amount of coins needed to purchase 1 or 2 items. Shopkeeper will count to make sure the amount of coins he/she receives is correct. ▪ Each child gets a turn to be shop keeper/customer. Have children work in groups of two's and provide each pair with 50c. Have them practice buying from each other, items such as pencils, crayons for total amounts under 50c. Have them count the cents they have left after each purchase.	5. Practice and demonstrate buying/selling and giving change.
5. Addition and subtraction can be used when solving problems with money.	5. In giving change most shopkeepers use the counting system: e.g. If a customer buys an item for 10c and pays with 25c, the shopkeeper will count out the change in the following way. $10c + 5c = 15c$; $15c + 5c = 20c$; $20c + 5c = 25c$	

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
	Change can also be found by finding the different between the money the customers pay and the cost of the item. E.g. 25c – 10c <u>Activity</u>: Quick change artist <u>Materials</u>: Play money <u>Group</u>: Work with a partner in small groups. Take turns being clerk and customer	- Following the price list children will buy from a given amount of money and give change e.g. A child buys an eraser for 15c out of 50c. Child draws picture of coins or uses play money to determine change. - Making change. Circle the coins that make up the amount of change. <table border="1"> <thead> <tr> <th>Amount Paid</th><th>Cost</th><th>Change</th></tr> </thead> <tbody> <tr> <td>50c</td><td>37c</td><td>1c 1c 1c 10c</td></tr> <tr> <td>\$1.00</td><td>84c</td><td>1c 5c 10c</td></tr> <tr> <td>25c</td><td>12c</td><td>1c 1c 1c 10c</td></tr> </tbody> </table>	Amount Paid	Cost	Change	50c	37c	1c 1c 1c 10c	\$1.00	84c	1c 5c 10c	25c	12c	1c 1c 1c 10c
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AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: COINS AND BILLS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Coins and bills are used in other countries Skills - Match - Collect - Label - Identify - Demonstrate - Share - Display - Observe - Draw - Manipulate - Solve - Discuss - Arrange Attitudes - Thrify - Value - Honesty - Respect - Fairness - Cooperation - Responsibility - Good management - Budgeting - Enjoyment - Courtesy - Appreciation	Display and name coins and bills from other countries e.g. Mexico --pesos, Guatemala – quetzales, US – US dollars	Identify and match coins and bills to corresponding countries. Place other currencies in a paper bag. Allow children to pick out one and say which country uses this coin or bill.

AREA OF STUDY: MATHEMATICS**INFANT II****UNIT/THEME: COINS AND BILLS**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EI3d – form letters correctly and write words and sentences legibly ▪ EL5d – use diagrams, pictographs and charts to present data ▪ ST5a – the physical characteristics and uses of a variety of everyday materials ▪ H4b – Practice manipulative skills ▪ EA1d – use various materials (scissors, glue, paints, mosaic) to explore different effect ▪ SP1a – recognize the value associated with choices presented in a simple situation ▪ SP2a – take part in group activities ▪ CP1a – Recognize a problem ▪ CP1b – Examine information ▪ CP1c – suggest ways to dealing with problems, issues ▪ CP2b – use all parts of the textbooks, reference materials ▪ CP2c – manipulate and analyze using all series ▪ CP2d – observe ▪ CP2e – engage in direct experiences ▪ CP2f – compare ideas and information ▪ CP2g – Sort and classify information ▪ CP2h – Ask questions ▪ CPI – Use visual including pictures, sketch maps and graphs ▪ CP2k – Use creative arts/language/music	▪ <u>Caribbean Primary Health Math Level 2</u> by Ginn ▪ <u>Nelson Primary Math for Caribbean School Infant B</u> by Errol Furlongg ▪ <u>Mathematics In Action</u> McMillan/Mcgraw – Hill ▪ <u>Exploring Math</u> – Scott Foresman ▪ <u>Mathematics Level 2</u> – Haughton Mifflin

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY OF FRACTIONS

AREA OF STUDY OUTCOMES

Pupils should:

M1e – Quantity of Fractions

M3f – Add and Subtract Simple Fractions to Solve relevant problems

CROSS-CURRICULAR OUTCOMES

Pupils should:

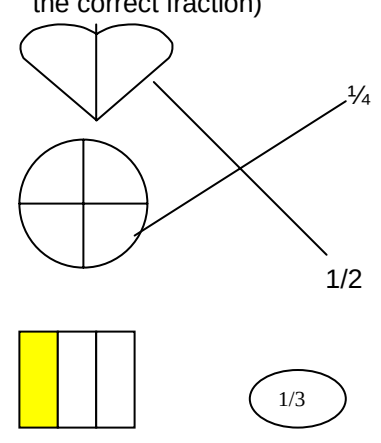
CP1b – Examine information related to problems

CP2c – Use pictures and diagrams

CP2c – Handle real objects

CP2b – Observe with all senses

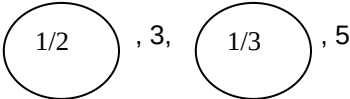
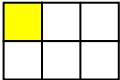
CP2j – Give oral reports

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. A fraction is an equal part of a whole.	1. Display a large picture (market or kitchen scene) showing objects (fruits, food etc) that are whole, parts of a whole, halves ($\frac{1}{2}$) thirds ($\frac{1}{3}$) fourths ($\frac{1}{4}$) for discussion. Children form groups to observe, discuss, record and report their findings: Game e.g. Grab tube – each child takes an object from the tube and is given a chance to show and describe his/her object. - Have children match objects orally with symbols $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, whole. - Riddle: use a surprise box with symbols cut in $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$. Ask children to give answers to riddles about fruits. The child with the correct answer is given a part of the fruit. Children name the part won by each child: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$ are fractions.	- Matching objects with fractions - Ability to recognize fractional parts of a whole (circle the correct fraction)  The diagrams show various shapes divided into equal parts to represent fractions. A heart is divided into two equal halves. A circle is divided into four equal quadrants. A rectangle is divided into three equal vertical strips, with the leftmost strip shaded yellow. An oval is labeled with the fraction $\frac{1}{3}$. Lines connect the heart to $\frac{1}{2}$, the circle to $\frac{1}{4}$, and the rectangle to $\frac{1}{3}$.

AREA OF STUDY: MATHEMATICS

INFANT II

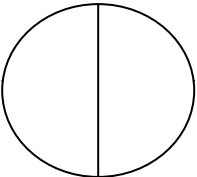
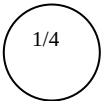
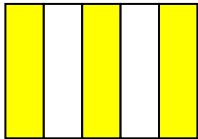
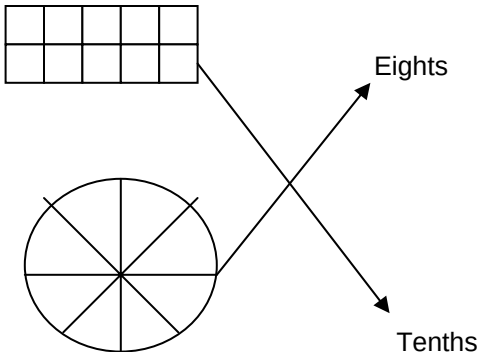
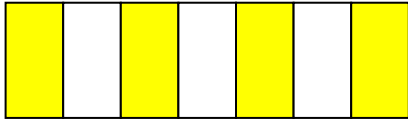
UNIT/THEME: QUANTITY OF FRACTIONS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Halves, thirds, fourths, fifths are fractional parts of a whole. Set can be divided into fractional parts.	- Game: Fraction recognition – Children choose a flash card with the symbol of either a fraction or a whole number e.g. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, 2, 5 etc. - Children with fraction form a group and children with whole numbers form another. - The children who form their group first are the winners. Children circle the numbers that are fractions e.g.  2.  - Fold shapes in halves, thirds, tenths, to show fractional parts. - Introduce the words fifths – tenths - Match diagrams of halves – tenths with corresponding name - Bring game: Children match names with diagrams of halves – tenths. Circle the numbers that are fractions e.g.	- Fold shapes to show equal fractional parts involving halves, tenths - Ability to differentiate between diagrams showing equal and unequal parts e.g.  Equal not equal - Shade diagrams to show given fractions  $\frac{1}{6}$

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY OF FRACTIONS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	II. - Discover other fractions by folding and shading strips of paper - Explore and manipulate objects, fruits, divided into equal parts to find out new fractions e.g. $\frac{2}{3}$. $\frac{3}{4}$ etc. - Name and write the new fraction - Identify shaded parts of a shape and write the symbol it represents. - Establish through questioning that the top number of a fraction is the shaded part and the bottom number represents the amount of equal parts the whole is divided into. - Match shaded parts with symbols - Circle the symbols that represent the shaded parts   $\frac{1}{4}$ $\frac{1}{2}$ $\frac{1}{3}$  $\frac{2}{5}$ $\frac{3}{5}$ $\frac{1}{5}$	- Ability to analyze and respond to oral problems involving fractions through demonstrations e.g. Match diagrams of fraction with names:  - Identify the number of shaded parts and number of equal parts  Number of shaded parts Number of equal parts

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY OF FRACTIONS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Sets can be divided into fractional parts	- Class discussion: Six volunteers stand in front of the classroom. Ask how many children are standing in all. Focus on colour of clothing, hair, boy, girl etc. Children give amount and determine the fractional parts which represents each gender. - Children form groups and are given a picture with a set of questions for them to observe and give answers e.g. (How many red balls?) - Use concrete objects to identify and write fractions of a set e.g. - Children form groups of two/fours. Share sets of objects equally among themselves e.g. Two children share ten marbles equally between themselves. - Shade/colour/circle fractional parts of a set. Build concept of $\frac{1}{2}$, $\frac{1}{4}$ of a set e.g.	- Shading, circling fractional parts of a set - Collecting and recording data from a given picture. - Ability to respond to oral and written instructions. - Using a check list, observe how children: - deal with problems - use pictures and diagrams - ask questions

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY OF FRACTIONS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT																
	- Present concrete objects of different colours e.g. pencils, books, cups etc. - Present pictures with objects of different colours e.g. blocks, stars, circles etc. - Use a table to collect data and record findings, then write fraction <table><tr><td></td><td></td><td></td><td></td></tr><tr><td>How many in All?</td><td>5</td><td>6</td><td>8</td></tr><tr><td>How many red?</td><td>2</td><td>4</td><td>3</td></tr><tr><td>Fraction of red Shapes</td><td></td><td></td><td></td></tr></table> - Present a scene (clown showing balloons, balls, buttons etc). Have children color a fraction of various objects as represented in the scene.					How many in All?	5	6	8	How many red?	2	4	3	Fraction of red Shapes				
How many in All?	5	6	8															
How many red?	2	4	3															
Fraction of red Shapes																		

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY OF FRACTIONS

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EI3s Spell common words correctly ▪ EL2a Discriminate between and identify basic sounds in the English Language ▪ M5a Gather, records and organize data ▪ M5b Use diagram, pictograph and chart to present data ▪ Wt1a Investigate ways to solve simple problems ▪ EA1d Use various materials to explore different effects/possibilities ▪ EA1e Use colour, shapes, lines, patterns, texture and express ones own idea ▪ CP1b Examine information related to problems ▪ CP2a Use pictures and diagrams ▪ CP2c Handle real objects ▪ CP2b Observe with all senses ▪ CP2j Give oral reports ▪ CP2 Engage in direct experiences ▪ CP2g Sort and classify information	Exploring Mathematics Book I <u>Caribbean Primary Mathematics Year 2</u> <u>Nelson Primary Mathematics for the Caribbean Schools Bk B</u> Addison Wesley Grade II Scott Foresman Book II <u>I Can Math Activity</u> Program Bk 2

AREA OF STUDY: MATHEMATICS**INFANT II****UNIT/THEME: PLACE VALUE – in one, two and three digit numbers****AREA OF STUDY OUTCOMES****Pupils should:****M1a – Place Value in one, two and three digit whole numbers****CROSS-CURRICULAR OUTCOMES****Pupils should:****CP2a - Use picture and diagrams****CP2c – Handle real objects****CP2h – Ask questions****SP2a – Take part in group activities**

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Numbers can be orderly and predictable - The quantity of a group does not change when objects are moved close or spread further apart or rearranged in some way. - Numbers can be written to show their place value. - Numbers can be expressed or written in different forms.	- Count, read and write numerals using the hundredth charts 1-100 and 101-999 - Use games to recognize numbers in sequential order e.g. snake and ladder, stepping stones, bingo and dog and the bone. <u>Dog and the Bone</u> - One group will have “numbers” other will have “number names.” When the number is called the child with the number and the child with the number name display their cards at the center. - Follow or guess a pattern to read and write numbers in sequential order – count by 1's, 2's, 5's, 10's.	Match and count small and large number up to 199 – use BINGO games

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: PLACE VALUE – in one, two and three digit numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Numbers can be compared to see if they are equal or not equal Skills Collect Select/choose Observe Recognize Compare/contract Demonstrate Identify Arrange Discuss Draw Share Colour/shade Match Attitude Co-operation Interest Awareness Responsibility Independence Respect Sharing Value	Complete numbers from a given series e.g. 20 __ , __ , __ , 60 Writing one more and one less e.g. 26 38 Ordering scramble numbers e.g. 25, 15, 9, 38 9, 15, 25, 38 read and write number names e.g. 20 – twenty, 30 – thirty, 46 – forty six. Use puzzles to rearrange letters in order e.g. 30 T Y R I H T T H I R T Y Group objects in various ways e.g. putting 26 objects in a jar, spread out objects in a given area to show the value of 26, group objects in tens and ones or one ten ,16 ones By counting and grouping objects pupils will arrange numbers in tens/ones using the tally board.	Arrange numbers in sequence Select objects to form group and label sets to show tens/ones Identify and record place value of numbers

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: PLACE VALUE – in one, two and three digit numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	X X X X X X X X X X X X X X X X X X X X X X X X X X Tens II Ones 111111 Tens 2 Ones 6 <u>26</u> - Arrange numbers in expanded form:- e.g. 2 tens + 6 ones (expanded form) 26 = 20 + 6 10 + 9 = 19 ▪ Use numbers and place signs to show equality or inequality 45 > 38 16 = 16 42 < 86	▪ Write and match expanded numbers to standard numbers 20 + 9 34 30 + 4 29 ▪ Use signs to show equality and inequality

AREA OF STUDY: MATHEMATICS**INFANT II****UNIT/THEME: PLACE VALUE – in one, two and three digit numbers**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• EL1b use phonics to assist in word recognition. • EL1e Identify sequence of events • EL3a Spell common words correctly • M5a Gather, record, organize data • St5a The physical characteristics and uses of a variety of everyday materials (stoppers, stones) • SS5b The use of their first language as a vehicle for communication. • SS3b The need for rules • H4b Practice manipulative skills • Sp2a Take part in group activities ▪ SL2d Pronounce common words and phrases comprehensively	▪ <u>Caribbean Primary Math's</u> Level III – Ginn ▪ <u>Exploring Mathematics</u> –Scott Foresman ▪ <u>Mathematics Their Way</u>

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: CONSECUTIVE SEQUENCE

AREA OF STUDY OUTCOMES

Pupils should:

M1B – Consecutive Sequence and Position of Whole Numbers 1 - 999

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – Use pictures and diagrams

CP2c – Handle real objects

CP2h – Ask questions

SP2a – Take part in group activities

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Our Number system is orderly and predictable - Sequential order - Counting on - Ordinals	▪ <u>COUNTING IN SEQUENTIAL ORDER (1-300)</u> Clap and tap while counting Clap and tap in rhythms in pairs ▪ <u>COUNTING ON (1-100) (Number in sequence)</u> ▪ Connect dots to dot starting at a given number ▪ Count on from a given number e.g. 7,8,9.... ▪ <u>NUMBERS PATTERNS</u> 1. Use hundred charts to identify number patterns e.g. one in ones place, 1, 11, 22, 33..... 2. Colour number patters on hundred charts 3. Complete to form number patterns e.g. 1, 11, 21, 31, ____ 2, 12, 22, 32 ____	▪ <u>COUNTING IN SEQUENTIAL ORDER (1-300)</u> Children will complete number chart from 200-300 ▪ <u>COUNTING ON (1-100) (Numbers in sequence)</u> Connect dot to dot to complete a picture starting from a given number Children will count from a given number ▪ <u>NUMBERS PATTERNS</u> Use hundred charts to identify number patterns e.g. one in ones place 1, 11, 21, 31

AREA OF STUDY: MATHEMATICS

INFANT II

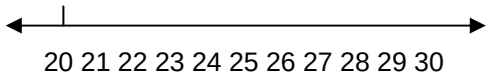
UNIT/THEME: CONSECUTIVE SEQUENCE

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: CONSECUTIVE SEQUENCE

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
ODD AND EVEN NUMBERS Numbers can be classified in different ways e.g. Odd and Even Skills Collect, sort Classify, listening Colour, writing Questioning Predicting Discussing, solving Ordering Connecting Rearranging	<u>SKIP COUNTING BOTH FORWARD AND BACKWARD</u> - Skip counting both forward and backward using number line <u>ORDINALS (1st – 31st) POSITION CALENDAR</u> - Match ordinals with corresponding objects and numbers - Use questions and answers referring to calendar e.g. In which month is your birthday? - Complete a blank calendar for a given month. <u>ODD AND EVEN NUMBERS</u> - Count odd and even numbers using number chart. - Colour/shade numbers that are odd and even - Group objects in pairs to show odd and even amounts	<u>SKIP COUNTING BOTH FORWARD AND BACKWARD</u>  20 21 22 23 24 25 26 27 28 29 30 <u>ORDINALS (1st – 31st) POSITION, CALENDAR</u> - Answer/questions based on calendar - Complete calendar for a given month <u>ODD AND EVEN NUMBERS</u> - Colour/shade numbers that are odd and even - Stand up/sit down game e.g. Children will be given number cards Children with even numbers will be asked to stand and show number cards. Same will be done for odd numbers.

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: CONSECUTIVE SEQUENCE

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Attitude</u> ▪ Develop and interest in numbers ▪ Understanding enjoyment, sharing, cooperation ▪ Willingness to interact Participation		

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL4c Ask questions and give information ▪ H4b Practice manipulative skills ▪ Sp2a Take part in group activities ▪ Wt1a Investigate ways to solve simple problems to meet a need ▪ Cp2a Use pictures and diagrams ▪ Cp2c Handle real objects ▪ Cp2h Ask questions ▪ SL2d Pronounce common words and phrases comprehensively	▪ Mathematics Their Way ▪ Caribbean Primary Maths ▪ Exploring Mathematics Grade II ▪ Addison Wesley Mathematics Grade II ▪ Scott Foresman Book I & II

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY IN WHOLE NUMBERS

AREA OF STUDY OUTCOMES

Pupils should:

M1c – Quantity in whole numbers 0 - 999

CROSS-CURRICULAR OUTCOMES

Pupils should:

SP2a – Take part in group activities

SP1a - Recognize the values associated with choices presented in simple situation

CP2a - Use pictures and diagrams

CP2h – Ask questions

CP2c – Engage in direct experiences

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Numbers can be identified and given names	<u>RECOGNITION OF NUMBERS (0-100)</u> <u>Numbers</u> - Circle the number of each name e.g. nine 0 19 <u>9</u> - circle the number names e.g. 4 five <u>4</u> fourteen - wite the number name e.g. <u>xxxxxxxx xxxx</u> thirteen	<u>RECOGNITION OF NUMBERS (0-100)</u> - Circle the number for a given number name e.g. forty-five 19 26 <u>45</u> - write the number name for number pictures Xxxxx Xxxxx Xxxxx xxxxx - identify number for given number cards thirty Forty-one

UNIT/THEME: QUANTITY IN WHOLE NUMBERS

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UNIT/THEME: QUANTITY IN WHOLE NUMBERS

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY IN WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Numbers can be compared to find the relationship between them.	<u>COMPARING NUMBERS</u> - Estimating, predicting, seeing relationship - Estimates amounts in various size containers e.g. jars, cups (full with seeds or beans) <u>MORE, LESS AND EQUAL TO</u> - Identify and arrange numbers from greatest to the least and vice-versa 72 68 59 72, 68, 59 84 71 53 53, 71, 84 - Identify and circle numbers that are greater/less than e.g. Greater than Less than 16 21 6 14 41 18 0 45 10 4 10 14	<u>MORE, LESS AND EQUAL TO</u> - Arrange number cards in order of the greatest to the least/least to the greatest. 13 19 - 51 24 24 51 19 13 - Children will answer: simple word problems by finding out which number is the greater/least. e.g. 1. Which is more 27 or 52 2. Al has 27 marbles Dave has 72 marbles Which child has less marbles? 3. What number is 2 more than 53? Comparing numbers using symbols: <, >, =

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: QUANTITY IN WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	- Given a number children will write 2/3/4 more than each given number e.g. 2 more 3 more 4 more 0 2 20 23 35 39 Given a number children will write 2/3/4 less than each given number e.g. e.g. 2 less 3 less 4 less 13 11 26 <u>23</u> 51 <u>47</u> - Use the greater than > < = less than and equal symbols to compare numbers e.g. $12 \leq 32$ $44 \geq 11$ $17 \equiv 17$	Children will be given number cards to compare two given numbers e.g. 76 > 31

AREA OF STUDY: MATHEMATICS**INFANT II****UNIT/THEME: QUANTITY IN WHOLE NUMBERS**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ WT1 A investigate ways to solve a problem ▪ H4a Practice locomotor skills ▪ Hb4 Practice manipulative skills ▪ H4c Practice non-manipulative skills ▪ Sp1a Recognize the values associated with choices presented in simple situation ▪ Sp2a Take part in group activities ▪ EL1b Use phonics to assist in word recognition ▪ SL2d Pronounce common words and phrases comprehensively ▪ Cp2a Use pictures and diagrams ▪ Cp2h Ask questions ▪ Cp2e Engage in direct experience	▪ <u>Developing Number /Concept Using Unifix cubes</u> ▪ <u>Mathematics</u> Modern Curriculum Guide ▪ <u>Mathematics Their Way</u> ▪ <u>Exploring Mathematics</u> Grade I ▪ <u>Invitation To Mathematics</u> ▪ Addison Wesley Grade 2 ▪ Scott Foresman

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MULTIPLY AND DIVIDE WHOLE NUMBERS

AREA OF STUDY OUTCOMES

Pupils should:

M3e – Multiply and divide whole numbers (with and without remainders) within the confines of the two, three, four, five and ten times tables to solve relevant problems.

CROSS-CURRICULAR OUTCOMES

Pupils should:

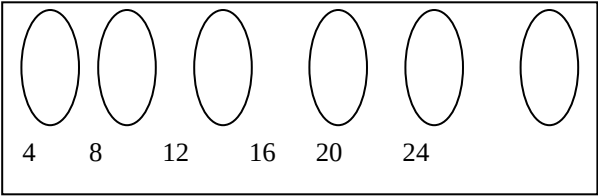
SP2a – Take part in group activities

SP1a – Recognize the values associated with choices presented in simple situations

CP2a – Use pictures and diagrams

CP2h – Ask questions

CP2e – Engage in direct experiences

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
The number system is orderly and predictable	Organize numbers in sequence (3's & 4's) e.g. <u>3</u>, 6, <u>9</u>, 12, 15, <u>18</u>, 21 etc 4, 8, 12, 16, 20, 24, 28, 32 etc. 	- Arranging numbers in sequential order using pocket chart, number cards - Arranging and placing buttons on construction paper to show number patterns for 3's & 4's - Draw and record pictures to show number pattern on picture-graph (3's & 4's) - Grouping by 3's & 4's on the abacus - Selecting specific number of items from shop to show grouping (3's & 4's)

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MULTIPLY AND DIVIDE WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT														
	▪ Draw and record groups of objects/pictures. Making graphs and grouping of objects. Eg. <table><tr><td>111</td><td>3</td></tr><tr><td>111 111</td><td>6</td></tr><tr><td>111 111 111</td><td>9</td></tr><tr><td>111 111 111 111</td><td>12</td></tr><tr><td>111 111 111 111 111</td><td>15</td></tr><tr><td>111 111 111 111 111 111</td><td>18</td></tr><tr><td>111 111 111 111 111 111 111</td><td>21</td></tr></table> Identify & select number of items in groups	111	3	111 111	6	111 111 111	9	111 111 111 111	12	111 111 111 111 111	15	111 111 111 111 111 111	18	111 111 111 111 111 111 111	21	
111	3															
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AREA OF STUDY: MATHEMATICS

INFANT II

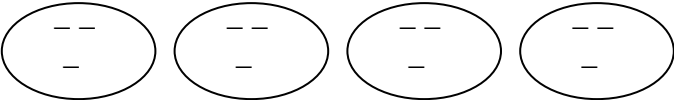
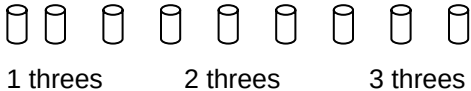
UNIT/THEME: MULTIPLY AND DIVIDE WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Multiplication is the repeated addition of a specific number of groups of equal size	- Add and multiply to find total number of objects in equal groups - Write addition and multiplication sentences for given groups of pictures/objects eg. - Read, analyze and solve e.g. 5 sets of 4 = 20 5 fours are 20 4+4+4+4+4 = 20 5 times 4 equal 20 5 groups of 4 equal 20	- Discussion of repeated addition in relation to multiplication using signs - Observation of writing addition/multiplication sentences with aid of pictures/objects - Read, analyse, interpret and solve multiplication as repeated addition - The ability to use mathematical term to write sentences

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MULTIPLY AND DIVIDE WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Division is the process of grouping and sharing which involves dividing a collection of objects into a given number	- Observe real life situation where there's grouping. - Nature walk/school environment (inside & outside) Eg. I see something on a truck that has the same number. The wheels are the same two and two and $2 \times 2 = 4$ - Collecting and grouping objects/pictures and sharing of objects in groups of 3's and 4's - Arranging objects in groups eg.  4 groups of 3's $4 \times 3 = 12$ $3 \times 4 = 12$ - Listen to story problem on cassette tape - Observation of picture/story problem - Read ,analyze and solve e.g. Jay has 9 cups. He shared the cups equally among friends. How many cups did each friend get? 	- Observation for equal groups in the real world. - Investigate groups of objects in the real world - Ask question * give information (children generating questions and giving information)

AREA OF STUDY: MATHEMATICS

INFANT II

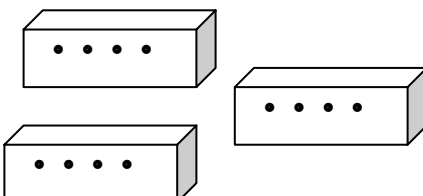
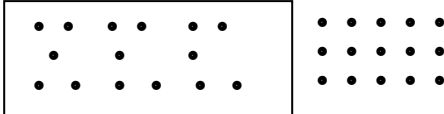
UNIT/THEME: MULTIPLY AND DIVIDE WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	<u>SUGGESTED TEACHING/LEARNING STRATEGIES</u>	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Division is the process of grouping and sharing which involves a collection of objects in a given number of equal and unequal parts	- There are 3 threes in 9, each friend got 3 cups e.g. There are 23 flowers. Share them equally among five friends. How many flowers will each child get? How many are left? Eg. - There are 23 flowers. I shared them equally among my five friends. Three flowers are left. Each friends got 4 flowers. 4 R 3	- Ability to collect and group objects and pictures - Arrange, identify the number of objects in equal groups - Read, analyze, interpret and solve multiplication/division problem - Writing multiplication/division sentences fopr given situation/story problem

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MULTIPLY AND DIVIDE WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Multiplication can be done vertically and horizontally. The change of order of the factor does not affect the product <u>Skills</u> Organizing, writing, observing, multiplying, questioning, reading, arranging, circling, problem solving, drawing, identifying, grouping, discussing, colouring	Identify related multiplication facts/commutative property to multiply numbers in any order (horizontally & vertically) with pictures e.g.// $\begin{array}{r} // \quad 3 \\ // \quad \underline{\times 2} \\ // \quad 6 \end{array}$ eg. Jerry has 3 boxes of marbles. He has 4 marbles in each box, How many marbles does Jerry have? $3 \times 4 = 12$ $\begin{array}{r} 3 \\ \underline{\times 4} \\ 12 \end{array}$  Playing games/solving riddles e.g.  15 is  sets of 3 15 is  threes	- Draw pictures and write to show multiplication, facts/sentences (horizontal & vertical) - Read, analyze, interpret and solve multiplication problems

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MULTIPLY AND DIVIDE WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Attitudes Follow instructions, cooperate, relate confidence, respect, appreciate, achievement, communicate, socialize	e.g. <u>Riddle</u> : 4 legs sleeping on four legs Ans. 2 children sleeping on a bed, 2 children = 4 legs $2 \times 4 = 8$ 1 bed = 4 legs 8 legs How many groups of fours in eight = 2 groups	

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL1e – identify a sequence of a events ▪ EL1h – read aloud from a familiar text in order to convey meaning ▪ EL1g – predict what will happen in a sequence of events ▪ EL2b – identify main ideas and supporting details ▪ EL4c – ask questions and give information ▪ EL4e – express an opinion ▪ SL2b – ask simple factual question ▪ SL2c – make simple factual statement ▪ M5a – gather, record and organize data ▪ M5b – use diagram, pictograph and charts to present data ▪ Note: Cross curricular skills and qualities are covered throughout the unit	▪ <u>About teaching Mathematics</u> ▪ AK-8 Resource Book ▪ <u>Marilyn Burns</u> ▪ <u>Nelson Primary Math for the Caribbean School</u> ▪ Scott Foresman <u>Mathematics</u> ▪ <u>Exploring Mathematics</u>

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

AREA OF STUDY OUTCOMES

Pupils should:

M3c – Add whole numbers up to a sum of three digits with regrouping in units column) to solve relevant problems.

M3d – Subtract whole numbers up to three digits (with borrowing in units column) to solve relevant problems

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP2a – Use pictures and diagrams

CP2c – Handle real objects

CP2h – Ask questions

CP2e – Engage in direct experiences

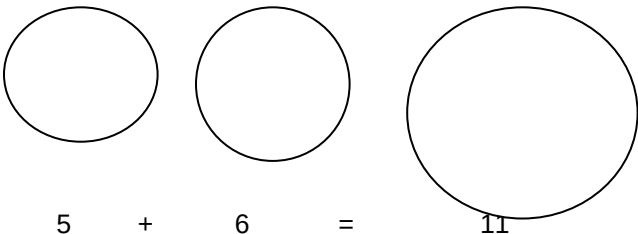
SP2a – Take part in group activities

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
The quantity of a group of objects does not change when objects are moved or rearranged in some way	- Collect, combine and separate objects to show that objects can be managed without the quantity changing. Tell story involving combination and separation of objects in making sets from 10-19. - Eg. An old man had 17 bottles scattered in a room. He gathered 10 of the 17bottles in one corner. He put the remaining 7 under a table. He then pull all 17 in a box. How many bottles was he working with? - NB. 17 is 17 no matter how they are arranged.)))))))))))))))) scattered)))))))))))))))) separated)))))))))))))))))))) together	- collect, combine, separate objects to show that rearranging them does not change the quantity - Match objects with numerals to complete number sentence getting a sum/difference from 10-19

AREA OF STUDY: MATHEMATICS

INFANT II

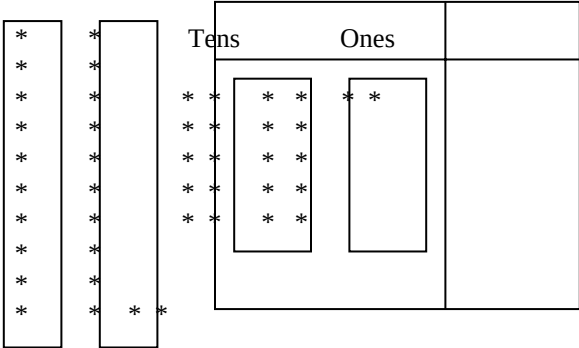
UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
The sum remains the same when adding 3/one digit numerals vertically and horizontally	1c. match objects/pictures with numerals to complete number sentences getting a sum/difference from 10-19  5 + 6 = 11 2a. Add vertically and horizontally a sum of less than 20 using concrete objects $\begin{array}{r} 3+5 +6 = 14 \\ 3 \\ 5 \\ +6 \\ \hline 14 \end{array}$ 2b. Use number line to add 3-one digit numerals vertically and horizontally getting a sum of less than 20 $2+5+6 = 13$	1c. Match pictures with numerals to make sets getting a sum/difference from 10-19 2a. Add 3-one digit numerals vertically and horizontally getting a sum of less than 20. b. Use number line to add 3-one digit numerals vertically and horizontally getting a sum of less than 20

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
3. Number system uses tens as a basic for grouping to indicate place value	3a. Group objects in tens and ones using tally box.  3b. Write the numeral using place value words 22 = 2 tens 2 ones 3c. Write the numeral in expanded notation 22 = 20+2 3d. Use tally box to group tens and ones for reinforcement	3a. Group objects in tens and ones using tally box. b. Write the numeral using place value words c. Write the numeral in expanded notation. Use tally box to group tens and ones.

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
	A <table><tr><th>Tens</th><th>Ones</th></tr><tr><td> </td><td>XXX XX</td></tr></table> B <table><tr><th>Tens</th><th>Ones</th></tr><tr><td> </td><td>XXX XX XXXX XXXX</td></tr></table> C <table><tr><th>Tens</th><th>Ones</th></tr><tr><td> </td><td>XX X</td></tr></table> Add 8 more Make another 10 25 + 8 33 and subtraction	Tens	Ones		XXX XX	Tens	Ones		XXX XX XXXX XXXX	Tens	Ones		XX X	
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	XXX XX													
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AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
	A <table><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td> </td><td> XX X </td></tr></tbody></table> - need to take 8 away - not enough ones - break apart ten B <table><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td> </td><td> XXX XXX XXX XXX X </td></tr></tbody></table> Now there is enough to take Away 8 C <table><thead><tr><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td> </td><td> XXX XX </td></tr></tbody></table> XXX XXX XX Gone away	Tens	Ones		XX X	Tens	Ones		XXX XXX XXX XXX X	Tens	Ones		XXX XX	
Tens	Ones													
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AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
4. The numeral remains constant when adding and subtracting using zero 5. Addition is the joining of sets and subtraction is the separation of sets	4a. Add and subtract 2-two digit numerals using zero $\begin{array}{r} 20 \\ +15 \\ \hline 35 \end{array}$ $\begin{array}{r} 34 \\ -10 \\ \hline 24 \end{array}$ 4b. Add and subtract 2-two digit numerals using zero in written word problems Sue has 20 marbles Mother baked 48 cupcakes Joe has 16 marbles She sold 20 cupcakes They have 36 marbles She now has 28 cupcakes 5a. Use number line to add and subtract a two-digit and a one-digit numeral vertically and horizontally getting a sum/difference of less than 20 $10 + 2 = 12$ ρ _____ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16, 17, 18, 19, 20 12 – 2 = 10	4a. Adding and subtracting 2-two digit numbers using zero b. add and subtract 2-two digit numerals using zero in written word problems 5a. Use number line to add and subtract a two digit and a one digit numeral vertically and horizontally getting a sum/difference of less than 20 b. Add and subtract a two digit and a one digit numeral in set enclosure getting a sum/difference of less than 20 c. Add and subtract a 2 digit numeral and a one digit numeral without regrouping d. Add and subtract 2-two digit numerals vertically and horizontally without regrouping

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	5b. add and subtract a two digit and a one digit numeral in set enclosure getting a sum/difference less than 20 0000000000 00 0000000000000 10 + 2 = 12 000000 000000 000000 = 0000 12 - 2 10 5c. add and subtract a 2 digit numeral and a one digit numeral without regrouping vertically and horizontally. 21 + 8 = 29 21 46 + 3 = 49 46 29 - 8 = 21 29 +8 49 +3 21 -8 29 49 21 5d. add and subtract 2 – two digit numerals vertically and horizontally without regrouping 42 42 + 13 = 55 55 55 - 42 = 13 +13 -42 55 13	

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	$\begin{array}{r} 62 = 6 \text{ tens } 2 \text{ ones} = 60 + 2 \\ - 48 = 4 \text{ tens } 8 \text{ ones} = 50 + 8 \\ \hline 14 = 1 \text{ tens } 4 \text{ ones} = 10 + 4 \end{array}$ 7b. Compute and identify sum/difference of 2-two digit numbers on number wheel 7c. Solve to find the sum/difference of 2-two digit numerals using words June has 25 pens Joan had 42 mangoes Jack has <u>13</u> pens She ate <u>11</u> mangoes They have 38 pens together She had 31 mangoes left	7b. Compute and identify sum/difference of 2-two digit numbers on number wheel 7c. Solve to find the sum/difference of 2-two digit numerals using words June has 25 pens Joan had 42 mangoes Jack has <u>13</u> pens She ate <u>11</u> mangoes They have 38 pens together She had 31 mangoes left

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: ADD AND SUBTRACT WHOLE NUMBERS

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
<u>Health</u> • H4b – Manipulation of objects • <u>Technology</u> • WT1A – Adding and subtracting to solve simple problems • <u>Math</u> • M1c – Quantity of Numbers 10-19 • <u>Cross Curricular</u> • Cp1a – Recognize an addition and subtraction problem • Cp1c – Method used to solve problems • Cp2a - Use pictures and diagrams • Cp2c - Handle real objects • Cp2h - Ask questions	• Today's Mathematics • Addison-Wesley Mathematics • Exploring Mathematics Grade I • BRC Basic Math 2nd Year • Exploring Mathematics Grade 2

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: BASIC PROPERTIES OF SOME TWO & THREE DIMENSIONAL SHAPES

AREA OF STUDY OUTCOMES

Pupils should:

M2b – Understand basic properties of some three dimensional shapes

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP1b – Examine information related to the problem issue

CP2a – Use pictures and diagrams

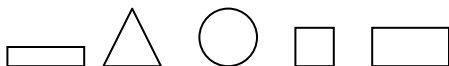
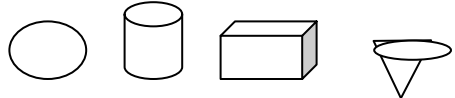
CP2c - Handle real objects

CP2e – Engage in direct experience

CP2f – Compare ideas/information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. 2D and 3D geometric figures have specific attributes and properties by which they are identified, classified and named.	- Describe attributes of some 2D and 3D shapes e.g. corners, points, sides - Observe and tell similarities, differences and relationships of shapes. eg. find all the four sided shapes - Sort shapes by attributes e.g. number of sides, faces, corners - Use shape cards to collect objects with 2D and 3D shapes - Construct models with 2D shapes - Match solid shapes with their faces e.g.  Cube  square	1. Observe children as they sort and classify shapes according to their attributes e.g. play game-child reaches into bag takes out a shape and describes it. The other children guess what shape it is. Explore and examine 3D models to find 2D shapes e.g.  cylinder  circle

AREA OF STUDY: MATHEMATICS
INFANT II
UNIT/THEME: BASIC PROPERTIES OF SOME TWO & THREE DIMENSIONAL SHAPES

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
2. Geometric shapes form patterns in the natural world and they can be used to create objects, art forms and designs	• Colour shapes and write their names e.g.  Cone • Match names to shapes 2. Create patterns using shape molds e.g. building blocks, sponge, potatoes Observe and complete patterns using 2D and 3D e.g. 	• A circle can be found in a cylinder • Match solid shapes to their names • Colour and name some solid shapes e.g. colour the sphere red. Write the name underneath  • Construct shapes on a geoboard • Compose short poems depicting shapes 2. Observe and note the processes children use to create patterns • Draw and cut out 2D shapes to create mobiles • Observe children's ability to balance mobile and work co-operatively in groups or with a partner.

AREA OF STUDY: MATHEMATICS
INFANT II
UNIT/THEME: BASIC PROPERTIES OF SOME TWO & THREE DIMENSIONAL SHAPES

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> • Observe, identify, collect, compare/contrast, sort, explore, arrange, discuss, draw, create, • Match, listen, count, manipulate, share, relate <u>Attitudes</u> • Appreciation of shapes in the environment • Co-operation • Understand and appreciate each other's ideas and opinions • Ability to investigate properties of shapes • Willingness to interact with individuals and in groups • Develop an interest in shapes	• Make mobiles using 2D shapes 	

AREA OF STUDY: MATHEMATICS**INFANT II****UNIT/THEME: BASIC PROPERTIES OF SOME TWO & THREE DIMENSIONAL SHAPES**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• EL4c – Ask questions and information • EL4e – Express an opinion • H4b – Practice manipulating skills • EA1d – Use various materials to explore different effects/possibilities • EA1e – Use colour, shapes, lines, patterns, texture to express one's own ideas • CP1b – Examine information related to the problem issue • CP2a – Use pictures and diagrams • CP2c – Handle real objects • CP2e – Engage in direct experiences • CP2f – Compare ideas and information • CP2g – Sort and classify information • CP2k – Use creative arts/language/music	• <u>I Can Math Activity Program</u> • <u>Book 2</u> • Scott Foresman <u>Mathematics</u> Book II • <u>Nelson Primary Math for Caribbean Schools Book B</u> • <u>At Home with Maths</u> Book II • <u>Caribbean Primary Mathematics</u> - Level II

AREA OF STUDY: MATHEMATICS**INFANT II****UNIT/THEME: MEASURING DEVICES****AREA OF STUDY OUTCOMES**

Pupils should:

M3a – Use measuring devices to measure distance, capacity, weight and time

CROSS-CURRICULAR OUTCOMES

Pupils should:

**CP2g – Sort and classify information
CP2k – Use creative art/language/music
CP2f – Compare ideas and information
CP2c – Handle real objects**

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Distance: is the measure of separation in space and can be measured using standard and non-standard units 2. Capacity/quantity- containers are used to hold quantity and can be sub-divided into units so that quantity can be measured 3. Weights:- is how heavy something is and can be determined using standard and non-standard units	1. collect objects for measuring - classify objects according to size using comparative language.(long/longer/longest. Short/shorter/shortest) - arrange objects according to size (eg. Longest to shortest/vice-versa) - identify and list tall and short things inside and outside the classroom (eg. Trees) - compare each others height - identify things using comparative language by circling or colouring (long/longer/longest, short/shorter/shortest) - compare distances inside and outside the classroom using comparative language (far/farther/farthest)	classify object according to size (long/longer, short/shorter/ shortest - arrange objects according to size - participation in identifying tall and short things - colour and circle things that are (long/longer/longest, Short/shorter/shortest, tall/taller/tallest) - participation in discussion on far and near distances - accuracy of measurement using non-standard measuring device - participation in measuring and comparing each others height - arrange representation of heights in descending order

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MEASURING DEVICES

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
4. Time:- is the point of which something happens moment, hour, day or year as indicated by a clock or calendar Skills ▪ Collect, sort and classify objects, manipulate objects, share, compare/contrast, measure, list and write, show and tell time, experiment/observe, draw, colour, select devices, demonstrate uses of devices, dramatize, memorize/recite, sequencing/organize, matching, explore, practice, language development ▪	- compare distance from children's home to school using comparative language (e.g. (far/farther/farthest. Near/nearer/nearest) - Collect standard and non-standard measuring devices (eg. Ruler, strings) - measure things around the classroom using non-standard measurement (eg. string) - measure body-parts using strings (eg. Arm/shoulder to wrist) leg (hip to floor) foot(heel to toe/work in pairs) - label each piece of string using child's name and body measure - compare respective body lengths - measure each other's height using strips(working in groups) - compare representation of heights from shortest to tallest - arrange representation of heights from shortest to tallest - construct 12 inch ruler (1 foot) construct 24 inch ruler (2 feet) - construct 30 cm ruler construct 60 cm ruler - measure length of objects (1 foot, 2 feet/30 cm, 60 cm)	- Construct linear and metric ruler (12 & 24 inches/30 & 60 cm.) - measure objects using non-standard units (1 ft, 2 ft/30-60 cm) - select appropriate units of measurement

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MEASURING DEVICES

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Attitudes Share, co-operate, participate, pride, satisfaction, respect, appreciate, responsibility, sensitivity to other people's feeling, understanding, awareness, acceptance of self and others, punctuality, enjoyment	1-20 select the appropriate unit of measurement (linear/metric) to measure objects/distance(eg. pencil, desk/cm.ft.) 2. collect containers of different sizes and shapes - explore process of filling containers to specified levels (full – $\frac{1}{2}$ - $\frac{1}{4}$) - develop appropriate vocabulary words like full, half, quarter - compare quantities $>$ $<$ $=$ - order the containers by capacity from smallest to largest - explore the capacity of different containers (chn's shoe, pencil case, water-bottle). Using non-standard units (e.g. pebbles, marbles, beans. Small group activity - group the capacity of the containers - collect standard measuring devices (e.g. cup. Jar) Pint-juice bottle/box. $\frac{1}{2}$ liter - decorate containers - estimate the capacity of given containers - use containers as a standard device to measure the capacity of any common containers. (eg. How many gallons of water it takes to fill up the water bucket) - select an appropriate standard unit of measurement to measure capacity	Select quantity using full, half, quarter Find capacity of containers using non-standard unit (eg. marbles, pebbles, beans) Estimate and verify capacity of containers using standard units of measurement (e.g. cup $\frac{1}{2}$ liter/litre, pint, quart, gallon) Select an appropriate standard unit of measurement to measure capacity (cup, liter, pint, quarts, gallons)

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MEASURING DEVICES

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	3. collect objects of different sizes and shapes - use hands to estimate and compare the weight of objects (light-lighter/heavy-heavier) - design and construct a simple balance scale. - Use balance scale to check weight - Experiment with each other's weight using balance board (eg. Find someone: a) lighter, b) heavier, c) same weight - Estimate, verify and record weight of objects up to 5 pounds using kitchen or shop scale or balance scale 4. name and describe devices used to tell time(clock with pendulums stop watch, digital clock/watch) - describe features of a clock with emphasis on hour and minute hand - construct clocks - review showing telling time to the hour - observe and discuss movement of hour and minute hand to show half past or 30 minutes past the hour - use own clocks to demonstrate movement of hour and minute hand to half past or 30 minutes past the hour - practice reading and writing time to the half hour - use clock to indicate time of events (eg. Lunch, 11:30, bell/buzzer 8:30, news-time 12:30)	3. use comparative language to compare weights - creativity in construction of balance scale - use balance scale to verify estimate - experiment with each other's weight using balance board - estimate, verify and record weights of objects up to 5 pounds 4. name and describe at least two types of devices e.g. digital clock, wrist watches - identify the hour and minute hand - construct a clock with the following features (hour hand, minute hand/number from 1 to 12) - indicate, read and write to the hour and half hour - arrange days of the week and months of the year in sequential order using flash cards - through conferencing give day of months of important events - organize data on classmates and family birth and months

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MEASURING DEVICES

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	- arrange days of the week and months of the year in sequential order - match days of the week and months of the year of important events (Sept/Independence Day, Dec/Christmas Day) - research on months of the year e.g. birth, months in the family - graph birth months of children in class	

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: MEASURING DEVICES

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ EL2c Identify sequence of events ▪ EL3f Arrange ideas in sequence to convey information and express feelings ▪ EL3g Use descriptive language to portray images, events and feelings ▪ EL4c Ask questions and give information. ▪ SS1a Time periods in relation to their own growth and development ▪ Wtd Test a simple device to see if it meets a need/solves a problem. ▪ WT1c Construct a simple device to meet a need/solve a problem ▪ H4b Practice skills ▪ EA1d Use various materials to explore different effects/possibilities.	▪ <u>Mathematics in Action</u> Macmillan, McGraw Hill, ▪ <u>Measurement Investigation</u> ▪ Tamara, Dream & Rhonda chap. 1,2,4,5 ▪ Scott Foresman <u>Mathematics</u> Bk. 1, ▪ Addison Wesley <u>Mathematics</u> pgs. ▪ <u>Family Math</u>, ▪ <u>Mathematics Way</u>, Baratta Lorton, ▪ <u>Mathematics K to 7</u> ▪ Integrate ▪ Resource ▪ Package ▪ <u>Working with Numbers</u> ▪ James R. Shea ▪ <u>Nelson Primary Mathematics for Caribbean School-Inf. B</u>

AREA OF STUDY: MATHEMATICS

INFANT II

UNIT/THEME: Data

AREA OF STUDY OUTCOMES

Pupils should:

M5a – Gather, record and organize data

M5b – Use diagrams, pictographs and charts to present data

CROSS-CURRICULAR OUTCOMES

Pupils should:

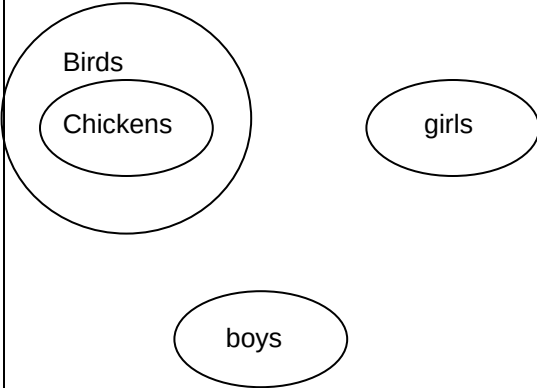
CP1b – Examine information related to problem/issue

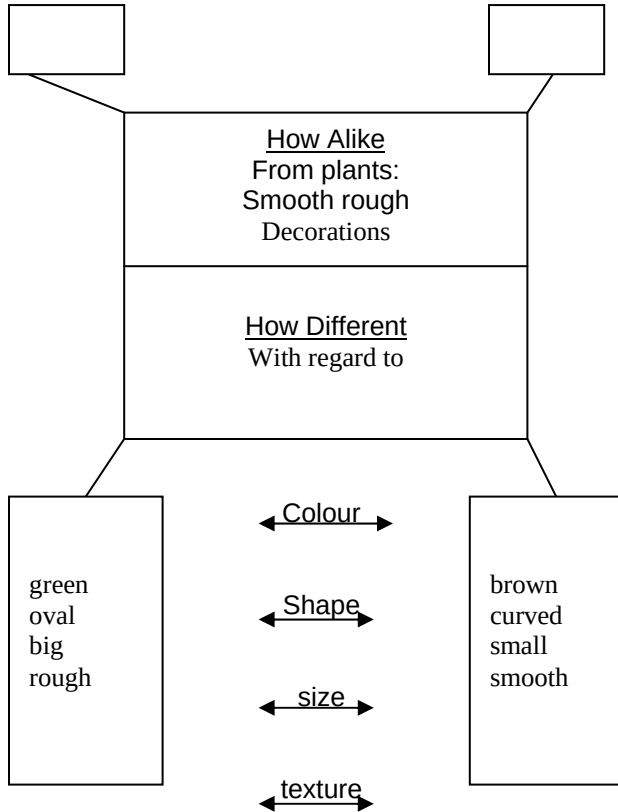
CP2c – Handle real objects

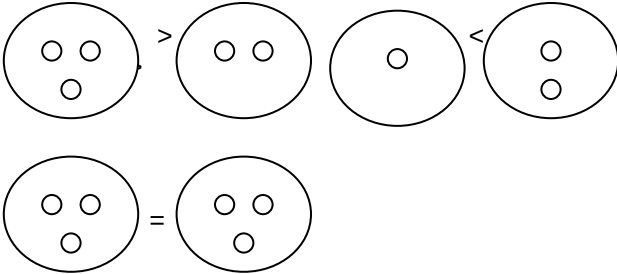
CP2f – Compare ideas and information

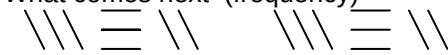
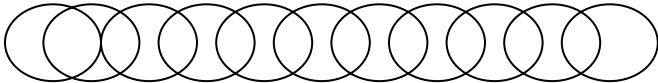
CP2i – Use visuals, including pictures, sketch maps and graphs

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Data may be collected through observation, sorting, grouping and measuring of objects which can be represented on various graphs or charts. (i) Gather, record and organize data (ii) Use data to assess the likely occurrence of an event or to forecast a trend. (iii) Use diagrams, pictographs and charts to present data	1. Collect leaves, stoppers, straws from nature walks, school environment. E.g. chickens, plants, peanuts, eggs. Observe and discuss collections, and place of origin. Make a web to illustrate. Sort group according to names, shapes, colours, sizes e.g. <u>Sorting</u> - same kinds together. Eggs oranges peanuts <u>Grouping</u> - arrange objects according to shapes, colours, sizes e.g.	1. Ability to follow instructions through attentive listening e.g. (a) 1,2 _____ 1,2,3,4,5 _____ 1,2,3,4,5 (answering phrases) Clap to rhythm pattern. 2. Teacher observes and assesses children in discussions of their observations and findings on field trips/nature walks e.g. some information gathered. (b) instruct children holding the same objects to group themselves together. e.g. All leaves go together All little coconuts together (c) groups cross-question each other about their findings.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
3. Identifying patterns is the process of following a logical order of events to bring cohesion and predictability to seemingly unorganized situations. 4. Graphs, diagrams and charts of various types are important for representing information that is gathered.	Large oranges, small eggs, middle-sized peanuts Bull's Eye Diagram/Disjoint set diagrams  Chickens are birds No girls are boys No boys are girls	Possibly - What are your collections? Where were they found? Record information gathered on a web.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Skills Collect Sort Arrange Observe Communicate Imitate Join/Match Complete Assemble Measure/estimate Create Combine Identify Recall Trace Follow instructions Dramatization	Compare and Contrast  How Alike From plants: Smooth rough Decorations How Different With regard to green oval big rough Colour Shape size texture brown curved small smooth	Compare and Contrast Objects to find their similarities and differences in: Colour: bright/dull navy blue/sky blue blue/red orange/red Sizes:- shells Shapes:- same amount of sides Texture:- Observe children's performance with the correct use of signs > < =

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Attitudes</u> Cooperate Confidence Appreciate Respect – environment Awareness of safety Measures Aesthetics Responsibility Willingness share Acceptance Motivation Sense of achievement Pride/satisfaction Be challenged Enthusiasm	Classify, compare and label sets using $>$, $<$, $=$  <u>Patterns</u> Physical features (a) children's height in feet/inches (b) size (fat/thin) (c) weight (d) hair (e) colour	Observe physical features as children measure each others weight, size and height [tape measure, yard stick, bathroom scale] <u>Patterns</u> Identify the frequency in patterns of sounds. {Salamander goat} {Toad sheep} <u>repertoire patterns</u> counting song 0 – 100

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Compare patterns on chain links  What comes next (frequency)  Connect the numerals (forecast a trend) Body limbs to form patterns (a right angle/a triangle) <u>Measurement</u> Estimate how many ½ litre bottles are in a 2 litre bottle Compare sizes on charts and worksheets. Colour the largest cup/the shortest bucket	Compare and complete the patterns on chain links  Leaf pattern (frequency) which colour comes next yellow white brown yellow _____ connect the numerals to form a pattern <u>Measurement</u> (1) Observe children's measuring skills as they estimate then discover the number of half litre bottles which would fill a one litre bottle.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT																		
	Compare weights Present a scale and a collection of objects for children to weigh. Use worksheets to record findings. <u>Graphs</u> Some forms of measurements will be done using pictorial bar graph. Compare according to (1) number (2) position (3) colour (4) types (5) sizes e.g. <table><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>First</td><td>Second</td><td>third</td><td>fourth</td><td>fifth</td><td>sixth</td></tr></table> (a) Which ball comes after the fourth? (b) Which ball comes before the third? (c) Which ball comes between the fourth and the sixth? (d) What is the next position after the sixth ball?	1	2	3	4	5	6							First	Second	third	fourth	fifth	sixth	(2) Observe as children compare physical and pictured objects and say which one is the tallest or shortest e.g. (put “x” on the shortest and “⊕” on the tallest) (3) Observe as children compare weights to sort out objects and use the words <u>lighter</u> and <u>heavier</u> to describe weights of objects Point to the <u>heavier</u> one Show the <u>lighter</u> one <u>Graphs</u> Observe children as they complete a pictorial/bar graph to compare according to numbers, position, colour, types, and sizes. [Each fruit represents a child]
1	2	3	4	5	6															
																				
First	Second	third	fourth	fifth	sixth															

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
		(a) How many children brought mangoes?] (b) How many children brought peanuts? (c) How many children brought bananas? There are ___types of fruits. How many bananas are green? How many bananas are yellow? There are ___small mangoes There are ___big mangoes.

AREA OF STUDY: MATHEMATICS**INFANT II****UNIT/THEME: Data**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
▪ Arrange ideas in sequence (EL 3f) ▪ Use recognizable pronunciation and intonation patterns (EL 4c) ▪ Ask questions and give information (EL 4c) ▪ Express an opinion (EL 4e) ▪ Use phonics to assist word recognition (EL 1b) ▪ Identify a sequence of events (EL 2d) ▪ Quantity in whole numbers (M 1c) ▪ Measure, quantity and calculate measuring devices (M 3a) ▪ Estimate and make predictions, make reasonable judgements of quantity (M 4a) ▪ Use data to assess the likely occurrence of an event or to forecast a trend (M4b) ▪ Gather, ▪ record and organize data (M 5b) ▪ Uses of everyday material (ST 5a) ▪ Ways to organize living things onto groups (ST 7b) ▪ How actions affect the environment (ST 8c) ▪ Safety practices (H 1d) ▪ How to deal with accidents, emergencies (H1e) ▪ Clean surroundings (H2a) ▪ Locomotor skills (H4a) ▪ Manipulative skills (H4b) ▪ Non-manipulative skills (H4c) ▪ Sing in tune (Ea 1a) ▪ Imitate sounds (Ea 1c) ▪ Weather and climatic patterns (SS 2a)	▪ Exploring Mathematics, Scott Foresman and Company, pages 7, 9, 12, 14, 28, 35, 68, 75, 82, 102, 122, 132, 133, 125, 136 ▪ Nelson Primary Maths for Caribbean Schools, Errol Furlonge ▪ Book A. Pages 4 – 7, 16, 83 – 93 ▪ Book B. Pages 75, 99, 100, 110, 107, 118 ▪ Book 1. Pages 103, 114, 123, 128 ▪ Caribbean Primary Mathematics Levels 1, 2, 3. ▪ I Can, McMillan / McGraw-Hill, Math Activity Programme ▪ Pages T50, T51, T70, 123 – 141, 50 – 52, 68 – 72 ▪ About Teaching Mathematics, Ak - by Marilyn Burns ▪ Pages 113 – 123, 75 – 77, 47 – 53, 69 ▪ Mathematics Their Way by Mary Barotta - London ▪ Pages 4.6, 7.1, 7.21 ▪ Addison – Wesley Sets the Standard ▪ Pages 386, 387 ▪ Todays Mathematics ▪ I see What You Mean - Children at Work with Visual Information by Steve Moline ▪ Pages 67, 71, 108, 111 ▪ Organizing Thinking - Bk1 by Sandra Parks and Howard Black, Critical Thinking Press and Software ▪ Pages 9, 11, 13, 183

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Data****AREA OF STUDY OUTCOMES**

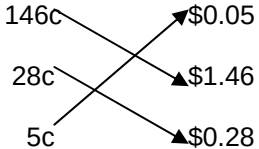
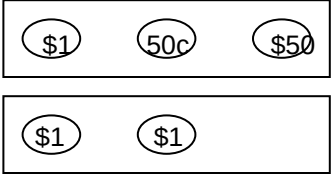
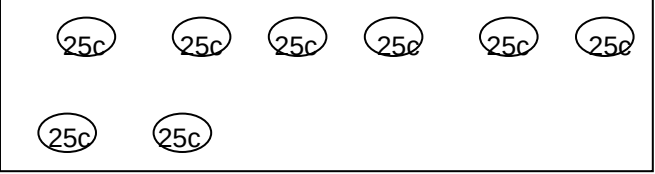
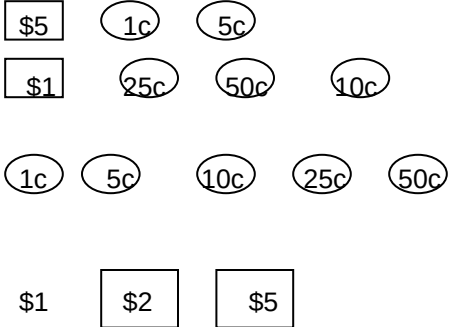
Pupils should:
Use Coins and Bills

CROSS-CURRICULAR OUTCOMES

Pupils should:
SP2a – Take part in group activities
CP1a – Recognize an issue or a problem
CP1b – Examine information related to the problem
CP1c – Suggest ways of dealing with problem/issue
CP2a – Use picture and diagrams

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Coins and bills have different features.	Collect, display and name various coins and bills up to \$5.00. • Identify and describe the features of the bills and coins e.g. \$ sign, water mark, queen's head, number/serial numbers, silver line (security thread) • Draw bills up to \$5.00. • Count a given amount of money using \$1, 50c, 25c, 10c, 5c, 1c. • Record amount of money using the dollar sign and the decimal point. Ask class to show \$2.46 using play money. Show \$2.46 written on the board using dollar sign and decimal point. Explain that the dollar sign is always placed in front of the number and the decimal point separates the dollar from the cents. Orally have student take turns showing various amount to hear the separation of dollars and cents. Then have them record amounts on board using signs. Write amount of money e.g. 246 cents, 38c and 5c. Have the students rewrite these using the dollar sign and the decimal point.	Identify, name and draw coins and bills up to \$5.00. • Record sets of coins using the dollar sign and the cent point. (decimal)

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Coins and bills can be counted and combined to make a total value.	Give special attention to rewriting 5c as \$0.05. Discuss use of the zero as the place holder in this case. Repeat using other examples. Ask pupils to show the total amount in given sets e.g. \$1.50. \$1 25 25 25 25 25 25 25 25 \$1 50 - Let pupils tell how the sets are different. Repeat with other given amounts using play coins. - Make up the following sum of money. Show the smallest number of coins you can use: e.g. 33c. 25 5 1 1 1	Count and combine sets of coins and bills. Draw the remainder of coins to make up the given amount. e.g. \$2.50 \$1.00 25c \$3.75 \$2.00 50c

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Coins and bills can be compared to show value.	Comparing sets of coins and bills in terms of their value e.g. matching. 	Let pupils use coins to show different ways of making given amount e.g. \$2.00.   Arrange jumbled coins and bills in order of value e.g. 

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Coins and Bills

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Rewrite using the \$ sign e.g. 99c = \$0.99. 155c = \$1.55 Compare coins and bills (<, >, =) signs. Arrange the jumble cards with signs e.g. \$2.00 \$1 25c 25c 25c 25c 25c \$1 \$1 \$1 \$5.00 Collect, label and price items for class shop. Purchase items from shop using play coins with a value of \$5.00. Role play – shopkeeper/customer. Customer will choose the amount of coins needed to purchase one or more items. The shopkeeper will count to make sure the amount of coins he/she receives is correct. (each child gets a turn to be shopkeeper or customer.	Use signs (<, >, =) to compare the value of coins and bills e.g. \$1.25 60c 25c 25c 25c 25c \$1 \$5 25c 25c

AREA OF STUDY: MATHEMATICS

STANDARD I

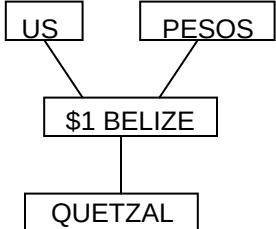
UNIT/THEME: Coins and Bills

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT									
Coins and bills can be used when buying, selling and giving change.	Compare differences in price. Observe and select items that can be bought from given money. Have pupils compare items they bought e.g. child gets \$2.00 to spend, child can buy an ice-cream, peanuts and ideals. Set up a store situation where the pupils add up two purchases and give change. Use play money. Give each pupil some money and a sales slip before store opens. Display small items or paste pictures of food and toys to a card. Price each. Make all prices less than \$5.00 and use only 0 through 4 in the ones place. The prices might be 61c, \$4.82, 34c, etc. After pupils have decided on their two purchases, have them fill in the sales slip to find the total cost and determine the change.	Tag Sale – Each group re-labels items with a price tag. Children take turns attending to each others “Tag Label”. Use play money to buy items. Compare the sale price to the original price. Find the difference and record. <table border="1"> <thead> <tr> <th>I Have</th><th>I Buy</th><th>My Change</th></tr> </thead> <tbody> <tr> <td>\$2.00</td><td>\$1.25</td><td>_____</td></tr> <tr> <td>\$1.00</td><td>50c</td><td></td></tr> </tbody> </table>	I Have	I Buy	My Change	\$2.00	\$1.25	_____	\$1.00	50c	
I Have	I Buy	My Change									
\$2.00	\$1.25	_____									
\$1.00	50c										

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Coins and Bills

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
The four operations can be used when solving problems with money. Coins and bills in other countries have different names and values.	Read and solve word problems using the 4 operations e.g. a. 1 hat cost \$1.50. How much would 3 hats cost? 1 hat = \$1.50 3 hats = $\\$1.50 \times 3$ or $\\$1.50 + \\$1.50 + \\$1.50$. Answer equals \$4.50. b. Mary had \$5.00. She bought 3 hats for \$4.50. Change from \$5.00 - \$4.50 = \$0.50 Collect and display real coins and bills of other countries e.g. Mexico – Peso, Guatemala – Quetzal, U.S. –US Currency. 1 Belize dollar – 2.85 (Quetzales) 2 Belize dollars – 1 US. Dollar NOTE: (Approximate exchanges) Discuss based on pupils experience in handling their currencies.	Give word problems, read and interpret which operation will be used. Make story problems using words such as total/product, difference, share/divide. - Share 42c between two children. How much would each get? - Using the price list, find the total cost of 2 bananas, 1 orange and 1 apple. - Using the price list, what is the difference in price between an orange and an apple? - Find the product of 3 bananas if one cost 15c. Identify and compare other currencies equivalent to ours (Belize).  <pre> graph TD US[US] --- B1[] PESOS[PESOS] --- B1 B1 --- B2[\$1 BELIZE] B2 --- QUETZAL[QUETZAL] style B1 width:0px,height:0px style B2 width:0px,height:0px </pre> Choose correct flash cards equivalent to the Belize dollar and match with respective currency.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Coins and Bills

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> Record, solve, read, share, observe, discuss, match, manipulate, identify, label, demonstrate, compare <u>Attitudes</u> Value, honesty, respect, fairness, cooperation, responsibility, courtesy, observe, share, order, saving, appreciation		

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Coins and Bills**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL3d – form letters correctly and write words and sentences legibly M3c – use measuring devices to measure distance, capacity, weight and time M3d – subtract whole numbers up to three digits (with borrowers in units column) to solve relevant problems M3e – add whole numbers up to a sum of three digits, (with regrouping in units, columns) to solve relevant problems M5b – use diagrams and charts to present data ST5a – the physical characteristics and uses of a variety of everyday materials H4b – practice manipulative skills EA1d – use various materials (scissors, glue, paints, mosaic) to explore different effects. SP1a – recognize the values associated with choices presented in a simple situation. SP2a – take part in group activities CP1a – recognize the problem CP1b – examine information related to the problem CP1c – suggest ways of dealing with problems/issues CP2a – use pictures and diagrams CP2b – use all part of the textbooks and other references materials CP2c – handle real object CP2d – observe with all senses CP2e – engage in direct experiences CP2f – comparing ideas of information CP2g – sort and classify information CP2h – ask questions CP2i – use visuals including pictures CP2k – use creative arts/language/music	<u>Caribbean Primary Mathematics</u> Level 3 by Ginn <u>Nelson Primary Mathematics for the Caribbean Schools</u> Junior Bk. 1 by Errol Furlongs Scott Foresman <u>Mathematics</u> McGaw Hill Teacher's Edition

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity of fractions

AREA OF STUDY OUTCOMES

Pupils should:

M1e – Quantity of Fractions

M3f – Add and Subtract Simple Fractions to Solve Relevant Problems

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP1b – Examine information related to the problem/issue

CP2a – Use pictures and diagram

CP2b – Observe with all senses

CP2c – Handle real objects

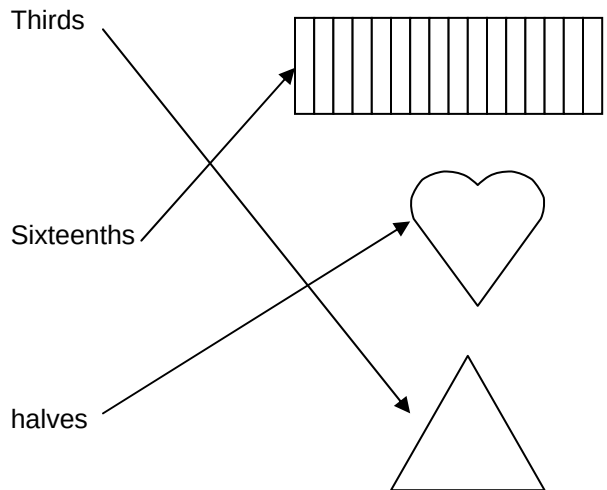
CP2e – Engage in direct experiences

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT								
1. Fractional parts are parts of a whole/set that can be represented by numbers that are made up of numerator and a denominator.	• Children get in groups to investigate halves, thirds, sixteenths and record all findings on a given table. • Each child folds a strip of paper or group a set of objects into the number of parts that they choose. • Each child discusses how many equal parts are shown in their paper or sets. • Each name their equal parts: e.g. halves, fourths, etc. • Each child colours a fraction of their choice on the folded paper or names a fraction of their choice for the set they group. • Discuss in groups what part they shaded/show. Record this information on a chart. <table><tr><td>No. of parts</td><td>Name of equal Parts</td><td>Shaded Parts</td><td>Fractional</td></tr><tr><td>16</td><td>sixteenths</td><td>1</td><td>1/16</td></tr></table>	No. of parts	Name of equal Parts	Shaded Parts	Fractional	16	sixteenths	1	1/16	a. Observe how children : explore halves – sixteenths. - identify and name new fractions - make decisions of their own. b. Collect and record data from investigation. c. Group discussion on findings - can they follow directions? - work in groups? d. Presentation of findings - communication skills e. Recognize and identify the numerator and denominator.
No. of parts	Name of equal Parts	Shaded Parts	Fractional							
16	sixteenths	1	1/16							

AREA OF STUDY: MATHEMATICS

STANDARD I

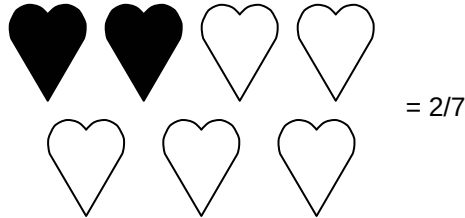
UNIT/THEME: Quantity of fractions

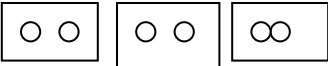
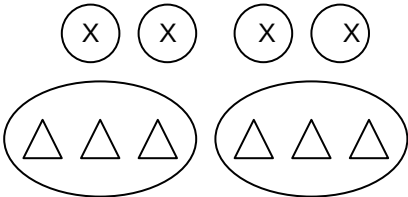
CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Each group leader will present their table of findings to the class. Review what a fraction is and have each group write in the fraction to complete their table. Each child will write his/her fractions on a new sheet of paper e.g. $\frac{3}{5}$ and indicate what each number represents $\underline{3}$ – number of parts shaded. $\underline{5}$ – total number of equal parts - Introduce the term nu-me-ra-tor and de-no-mi-na-tor and have children spell and write in the names beside the definition. - In the learning center: provide sheets of paper with a variety of shapes divided into different number of equal parts: halves – sixteenths along with instructions e.g. shade 3 parts of the No. 6 shape and write the fraction. - Match fractions with the names. - Identify and write the numerator and denominator in fractions. - Fold shapes into a given number of equal parts. - Colour and write the fractions for the number of parts shaded. - Fold shapes into given number of equal parts, cut one part from it, paste on board and write the fraction.	f. Read and match words with corresponding diagrams e.g.  g. Observe how children manipulate objects to investigate fractional parts of a set. h. Identify and share fractional parts of a set. i. Compare diagrams to indicate if they $<$, $>$, $=$

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity of fractions

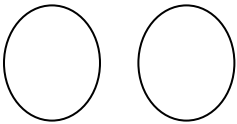
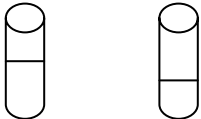
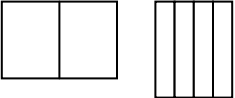
CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	- Have children identify sets of objects in the classroom or outdoors e.g. windows, pencils, trees, cows, cars, etc. Record the number of objects in groups and fractions of the group that fit certain description e.g. 5 trees, 2 are fruit trees. $\frac{2}{5}$ are fruit trees. - Discuss and demonstrate how fractions can be used to describe parts of a set. - Given various sets of objects children will write fraction that fit certain description. - Story telling e.g. Wolf and The Seven Little Kids - Shade and write fractions of a set of given objects/pictures.  - Children get in groups of different sizes, share sets of objects/fruits equally among themselves and indicate the fractional part received.	j. Ability to order fractions from smallest to largest and largest to smallest. k. Solve simple problems by adding and subtracting fraction with same denominator. l. Division of set into equal parts to determine the fraction of set.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Children group sets of objects into various equal parts to explore different fractional parts of set e.g.  $\frac{1}{3}$  $\frac{1}{4}$ $\frac{1}{2}$ To find the fraction of a number divide the number by the denominator.	

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity of fractions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
2. Fractions can be less than (<) or more than (>) or equal (=) to other fractions.	2. Compare the shaded parts of two diagrams to determine which is more or less than.   $\frac{1}{3} < \frac{2}{3}$ $\frac{1}{2} > \frac{1}{4}$ Children compare diagrams to show equal fractions.   $\frac{1}{2} = \frac{2}{4}$ $\frac{1}{2} = \frac{1}{2}$ Use blank diagrams children draw in fractions to show >, <, =  $\frac{3}{8} < \frac{5}{8}$ Children compare diagrams and circle the fraction that is >, <, =.	

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity of fractions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT																				
3. The operation of addition and subtraction can be used with fractions to solve simple problems.	Distribute strips of paper and have children produce their own fractional chart. <table border="1"><tr><td colspan="3">1 whole</td></tr><tr><td>$\frac{1}{2}$</td><td></td><td>$\frac{1}{2}$</td></tr><tr><td>$\frac{1}{3}$</td><td>$\frac{1}{3}$</td><td>$\frac{1}{3}$</td></tr></table> Use fractional charts. Children will compare fractions that are $>$, $<$, $=$. Write fractions in order from least to greatest and greatest to least using fraction charts. 3. Use shapes to cut and assemble parts together to show a whole/fraction of a whole and write the sentence statement using the operation of addition. <table border="1"><tr><td>$\frac{1}{6}$</td><td>$\frac{1}{6}$</td><td>$\frac{1}{6}$</td><td>$\frac{1}{6}$</td><td>$\frac{1}{6}$</td><td>$\frac{1}{6}$</td></tr></table> $\frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} + \frac{1}{6} = \frac{6}{6} = 1 \text{ whole}$ <table border="1"><tr><td>$\frac{1}{5}$</td><td>$\frac{1}{5}$</td><td>$\frac{1}{5}$</td><td>$\frac{1}{5}$</td><td>$\frac{1}{5}$</td></tr></table> $\frac{1}{5} + \frac{2}{5} = \frac{3}{5}$	1 whole			$\frac{1}{2}$		$\frac{1}{2}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	$\frac{1}{5}$	
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AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity of fractions

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> Listening Matching Counting Labeling Writing Drawing Critical thinking Collecting data Grouping Comparing Reading Folding Shading Colouring Solving problems Expressing one-self <u>Attitudes</u> Develop the willingness to share with others. Interaction within groups and with their peers. Cooperation Respect for others opinion Liking for Maths Practice honesty Appreciation	Use diagrams of a whole to show the operation of subtraction $8/8 - 2/8 = 6/8$ Oral and practical exercise using fractions to show the operations of addition and subtraction. Children demonstrate orally the sharing of pie and give the sentence statement. Children develop problems based on demonstration. Give simple oral and written problem involving fraction. Children illustrate and write sentences, statement using the operations of addition and subtraction.	

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Quantity of fractions**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL1b – Use phonics to assist in recognition EL3a – Spell common words correctly EL4c – Ask questions and give information M3a – Use measuring devices to measure distance, capacity, weight and time M5a – Gather, record and organize data M5b – Use diagrams, photograph and charts to present data WT1a – Investigate ways to solve a simple problem EA1d – Use various materials to explore the different effects/possibilities EA1e – Use colour, shapes, lines, patterns, texture to express ones own idea. CP1b – Examine information related to the problems/issue CP2a – Use pictures and diagrams CP2c – Handle real objects CP2b – Observe with all senses CP2c – Engage in direct experiences CP2j - Give oral reports CP2g – Sort and classify information SL1a – Discriminate and identify sounds SL1b – Identify main ideas SL2c – Make simple factual statements SL2d – Pronounce common words and phrases comprehensively	Exploring Mathematics Book 3 <u>Caribbean Primary Mathematics Year 3</u> <u>Nelson Primary Mathematics for the Caribbean Bk. I</u> Scott Foresman Book 111 <u>I Can – Math Activity Program Bk. 3</u>

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Place Value****AREA OF STUDY OUTCOMES****Pupils should:**

Place Value in one, two and three digits whole numbers

CROSS-CURRICULAR OUTCOMES**Pupils should:**

SP2 – Leadership and Teamwork

CP2a – Use pictures and diagram

CP2c – Handle real objects

CP2e – Engage in direct experiences

CP2g – Sort and classify information

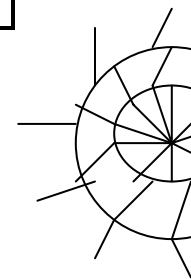
CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Numbers are orderly and predictable Numbers can be expressed or written in different forms to show place value. Numbers can have different value depending on where they are written Numbers can be compared to see if they are equal or not equal	1. Arrange numbers in sequence and patterns in a variety of ways using hundred charts to (a) show patterns in 2's, 5's, 10's. (b) connecting numbered dots to form a shape (c) grid picture task cards e.g.	1. Match number names to numerals using “Finding My Partner Game” Divide class into two groups. One group gets <u>numeral</u> cards, the other <u>number name</u> cards. Pin cards to pupils clothing. Select 3 or 4 pupils at a time to look for their partner while the class recites these words. “I am looking for my partner” (repeat) where can he or she be? If pupils find correct partner, partner says, “Yes, you are my partner”, if pupil finds the wrong partner, partner says, “No, go find your partner”.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Place Value

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> Collect Count Match Observe Compare/contrast Identify Select Chose Recognize Demonstrate Arrange Record Draw <u>Attitude</u> Cooperation Respect Patience Value Responsibility Interest Tolerance Independence Leadership	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	



AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Place Value

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	C A R D I <u>Task</u> Red 4, 13, 14, 15, 22 24, 25, 26, 31, 33 Block 64, 74, 84, 94 83, 92, 93 - Follow or have them guess a pattern to form a rule and write numerals in sequential order. E.g. counting 2's, 5's, 10's – 2, <u>4</u>, 6, <u>8</u>, <u>10</u>. - One more or less. 126 153 - Ordering number e.g. 932 719 823 <u>719</u> <u>823</u> <u>932</u> - Spell and write number names up to 999. - Match number names with corresponding numerals using flashcards e.g. 120 One hundred twenty	

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Place Value

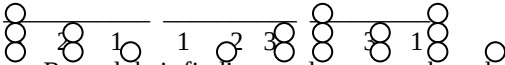
CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Puzzle to match corresponding 125 One hundred twenty five 125 one hundred twenty five 2. Make a pile of 14 straws. Have children guess how many tens they can get from it and how many ones remain. Use the place value of the number 14.	2. Select and label sets of hundreds, tens and ones. Display an amount of objects, have pupil select a given amount to show hundred, tens, and ones e.g. place 140 objects, pupils to show one hundred, two tens, five ones from a hundred and forty objects. Record their findings.

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
	<u>Place Value Board</u> <table border="1"> <tr> <th>Hund.</th><th>Tens</th><th>Ones</th></tr> <tr> <td></td><td></td><td></td></tr> </table> Repeat using other numbers e.g. 79, 105, 218, using place value board.	Hund.	Tens	Ones				<u>Dart Game:</u> Hundreds, tens, ones ones Tens Hundred <u>Tall Board Chart</u> <table border="1"> <tr> <th>H</th><th>T</th><th>O</th></tr> <tr> <td>4 8</td><td>6</td><td></td></tr> </table> e.g. 1st throw 6 tens 2nd throw 4 hundreds 3rd throw 8 hundreds 1. Pupils get 3 throws 2. Pupils will record each throw one at a time to show if they understand the value of the number the dart went on. Tally box should look like the one above. Discuss.	H	T	O	4 8	6	
Hund.	Tens	Ones												
H	T	O												
4 8	6													

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Place Value

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
	3. Use abacus and rings to show the value of a set of numbers looking at a specified digit e.g. 21, 12, 2  Record their findings and compare the value of small letter with the specific digit. Repeat using other sets of numbers Use place value boxes to write numbers using hundred, tens, and ones e.g. 135	Use place value board to arrange or rearrange number card to show the value of a given digit. <table border="1" data-bbox="1276 444 1583 732"> <tr> <td>H</td><td>T</td><td>O</td></tr> <tr> <td>5</td><td>3</td><td>2</td></tr> <tr> <td>3</td><td>5</td><td>2</td></tr> <tr> <td>2</td><td>3</td><td>5</td></tr> </table> Record findings of the value of the digit <u>5</u>, do other exercise changing the position of the other digit. 3. Recognize and compare small and large numbers with their corresponding signs $>$ $<$ $=$ <u>Game:</u> 123 45 193 65 96 141	H	T	O	5	3	2	3	5	2	2	3	5
H	T	O												
5	3	2												
3	5	2												
2	3	5												

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Place Value

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Expanded form – $100+30+5=135$ – Standard form. Repeat using other numbers Demonstrate using the dice arrangement game. Players take turns to roll the dice, use the number on one die as the “hundred place”, the number on the second die as the “tens place” and the number on the other die as the “ones place” to make a three digit number e.g. suppose the child rolls the dice  The number can be recorded as 342. Give children practice in rolling the dice and stating the three digit number each time. Children can also be asked to write the number from the dice in expanding form or as hundreds, tens, and ones. e.g. Expanded form 342 can be written as $300+40+2=342$ – Standard form. Repeat using numbers	

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Place Value

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	4. Use riddles, games, puzzles and scores from games to determine more than, less than or equal <u>Riddle:</u> A number is greater than 12 and less than 20. What could it be? (13-19) <u>Game:</u> more than less than equal to Number cards Each child chooses a card. Two pupils are chosen and they compare their number. Pupils go to the game and decide which card to choose:- (1) more than, (2) less than, (3) equal to. Pupil read their sentences two ways e.g. $25 > 19$ – twenty five is more than nineteen. $19 < 25$ – nineteen is less than twenty-five. <u>Puzzle:</u> Match numbers and signs to finish number sentence	4. Draw two lines on the floor Tape signs in the middle of two lines Place colour cards on the floor Each child get a card with numbers at random When colour is called pupils from each line go to the center and compare numbers to see what sign they will choose e.g. Red (colour called) pupil with cards standing at red go to center. Pupil compare numbers and place the card by the signs; read the sentence e.g. $123 > 69$. 123 is more than 69 $69 < 123$ 69 is less than 123. Sentences can be read both ways. Repeat these with all the colours and write both sentences.

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Place Value**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL1b – Word recognition – Language EL1c – Content clues – Language EL1e – Sequence EL3a – Correct spelling – Language M5a – Gather, record, organize – Math M5b – Present data ST5a – Using everyday materials (sticks, stones, stoppers) SS5b – Communication 3b – Rules H4b – Manipulation SP2 – Leadership and teamwork	Exploring Mathematics – Scott Foresman Co. Caribbean Math – Year 111 BRC – Basic Math About Teaching Mathematics 4 K – 8 Resource by Marilyn Burns The Teaching of Arithmetic

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Consecutive Sequence

AREA OF STUDY OUTCOMES

Pupils should:

- M1b – Consecutive sequence and position of whole numbers**
- M2d – Properties of odd and even numbers**

CROSS-CURRICULAR OUTCOMES

Pupils should:

- CP2a – Use pictures and diagrams**
- CP2c – Engage in direct experience**
- CP2g – Sort and classify information**
- CP2h – Ask questions**

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>COUNTING IN SEQUENTIAL ORDER (1-999)</u> 1. Our number systems is orderly and predictable. - sequential order - counting on - ordinals	<u>COUNTING IN SEQUENTIAL ORDER (1-999)</u> 1. Complete number chart e.g. 900 – 999 2. Sequence numbers e.g. 319, 309, 329 (309, 319, 329) 3. Fill in missing numbers when given a series of numbers e.g. 911, 912, 913, <u>Counting on to 999 – Number in sequence</u> 1. Count on from a given number e.g. Starting from 200 count on by 2's (200, 202, 204, 206...) 2. Arrange numbers in order .E.g. (350, 320, 330, 340) = (320, 330, 340, 350)	<u>COUNTING IN SEQUENTIAL ORDER (1-999)</u> 1. Complete number chart e.g. (900 – 999) 2. Write numbers in sequential order from between 600 and 900 e.g. 650 to 750.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Consecutive Sequence

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>NUMBER PATTERNS</u> 1. Arrange number cards in order from the least to the greatest and vice versa. E.g. 105 95 125 115 95 105 115 125 2. Complete number pattern e.g. 401, 411, 421_____. <u>ORDER NUMBERS</u> 1. Arrange numbers in order of before, after, between. Use number cards and arrange numbers in order, e.g. Before after 101 102 106 107 between 109 110 111	<u>NUMBER PATTERNS</u> 1. Arrange number cards in order from least to greatest and vice versa. 2. Complete number patterns e.g. 329, 339, 349, _____. <u>ORDER NUMBERS</u> Fill in missing numbers. Before <u>679</u> 680 after 639 <u>640</u> between 501 <u>502</u> 503

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Consecutive Sequence

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	3. Fill in missing numbers when given a number to identify order of numbers. e.g. <u>898</u> 899 890 <u>891</u> 898 <u>899</u> <u>COUNTING BY 2's, 3's, 4's, 5's, 10's, 100's</u> - Oral counting - Counting with a chart - Counting with a rhythm e.g. { tap leg, clap and snap then say number} - Fill in missing numbers when given a series of numbers e.g. 765, 770, 775, _____ 640, 650, 660, _____ 500, 600, 700, _____ Game – BUZZ Children count from 1, but when they reach 5 or a multiple of 5, they must say BUZZ. This method can be used for counting by 3's and 4's. <u>SKIP COUNTING BOTH FORWARD AND BACKWARD</u> - Leader begins with zero and skip count by 2's, 3's, 4's, 5's, 10's. As soon as the children identify the patterns they join the rhythmic clapping aloud. - Children can count like a laughing hyena, an old man or an opera stars. - Children count forward or backward e.g. 50, 55, 60 (forward) 90, 80, 70, 60 (backward)	<u>COUNTING BY 2's, 3's, 4's, 5's, 10's, 100's</u> - Count and write by (2's, 3's, 4's, 5's, 10's, 100's) Skip counting both forward and backward from a given number e.g. 50, 60, 70, _____ 90, 80, 70, 60 _____ - Skip count by 3's and 5's and colour boxes to show multiple of 3's/5's for a given chart with number. - Find a mystery number from given clues. E.g. (I am between 20 and 30. You say me when you skip count by 5's. Who am I? (Ans. 25). - Skip count by 2's, 3's, 5's whole connecting dots to complete picture. - Use dimes to count by 10's.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Consecutive Sequence

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT									
Skills Listening Solving Predicting Questioning Ordering Rearranging Shading Use visuals Sorting Classifying Attitude Develop an interest in numbers Understanding Enjoyment Sharing Cooperation Willingness to interact Participation	REINFORCE ORDINALS (1st – 31st) - Use ordinal numbers through 31st to identify position of objects using a chart. e.g. the fifth picture. - Children make a calendar for their birthday month. Mark an X on calendar to show their birthdate. Children put a small photograph on calendar and decorate. Display calendar. ODD AND EVEN NUMBERS - Count odd and even numbers using the number chart. - Colour and shade numbers that are odd and even. - Group numbers that are odd and even when given a cluster of numbers. Game: Odd or Even Children will be given number cards. Children will form groups (odd group and even group). Children with number cards that are odd numbers will form “odd group”. Children with even numbers will form “even group”.	ORDINALS - Match cards (with letters of the alphabet written on them) with ordinal cards. E.g A FIRST B SECOND - Decoding e.g. Children make up their own message by using ordinals for each alphabet letter. e.g. Help me!= Letter Letter Letter 8th 5th 21st 16th 13th 5th - Calendar: Children collect (yearly, calendar and answers questions based on calendar e.g. which is the fifth month? What date is the first Sunday in May? ODD AND EVEN NUMBERS - Complete row of odd and even numbers 22 24 26 28 31 33 35 37 - Children will experiment with addition of even and even numbers, odd and odd numbers, odd and even numbers. Children will record their findings. e.g. <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">EVEN</td> <td style="text-align: center;">EVEN</td> <td style="text-align: center;">ODD</td> </tr> <tr> <td style="text-align: center;">+EVEN</td> <td style="text-align: center;">+ ODD</td> <td style="text-align: center;">+ ODD</td> </tr> <tr> <td style="text-align: center;">?</td> <td style="text-align: center;">?</td> <td style="text-align: center;">?</td> </tr> </table>	EVEN	EVEN	ODD	+EVEN	+ ODD	+ ODD	?	?	?
EVEN	EVEN	ODD									
+EVEN	+ ODD	+ ODD									
?	?	?									

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Consecutive Sequence**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL4c – Ask questions and give information. SP2a – Take part in group activities. HT1a – Investigate ways to solve a simple problem to meet a need. CP2a – Use pictures and diagrams CP2c – Engage in direct experiences CP2g – Sort and classify information CP2h – Ask questions SL2d – Pronounce common words and phrases comprehensively	Mathematics Their Way <u>Caribbean Primary Maths 3</u> <u>Exploring Mathematics</u> Grade II Addison Wesley <u>Mathematics</u> Grade II Scott Foresman

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity in Whole Numbers

AREA OF STUDY OUTCOMES

Pupils should:

M1c – Quantity in whole numbers

CROSS-CURRICULAR OUTCOMES

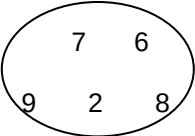
Pupils should:

CP2a – use pictures and diagrams

CP2h – ask questions

CP2e – engage in direct experience

CP2c – handle real objects

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Numbers can be identified and given names.	<u>RECOGNITION OF NUMBERS (0-999)</u> - Write a given number in words e.g. 743 – seven hundred forty three. - Write the figures for number names e.g. nine hundred three – 903. - Form as many three digit numbers using a set of single-digit number/cards e.g.  286, 726, 978, etc 9 7 2 8 0 970, 780, 279, etc.	<u>RECOGNITION OF NUMBERS (0-999)</u> - From a box containing number cards with single digits, children will pick out 3 number cards and arrange them to form a 3 digit number. - Children will read the number that was formed. - Children will also give the value of each digit in the said 3 digit number by recording answers. - Use flashcards with 3 digit numbers so children can read these 3-digit numbers. - Children will say the number for a given flash card on which number words are written. Three hundred one 301

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity in Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
2. Numbers can be used to describe quantities.	<u>NUMBER CONCEPT</u> - Children read given numbers then write in expanded form e.g. $347 = 300 + 40 + 7$. - Children say the value for each number when given a three-digit number e.g. $586 = 5 \text{ hundreds } 8 \text{ tens } 6 \text{ ones}$. - Children will write a three-digit number when given the value of each number e.g. 7 hundreds 9 tens 4 ones = 794. - Children write numbers in tally box to show value of each digit. E.g. 582. <table border="1"> <tr> <td>Hundreds</td><td>Tens</td><td>Ones</td></tr> <tr> <td>5</td><td>8</td><td>2</td></tr> </table>	Hundreds	Tens	Ones	5	8	2	<u>NUMBER CONCEPTS (1-99)</u> - Children will write numbers in standard form when given the expanded form e.g. $200 + 10 + 9 = 219$. - Children will write numbers from a given tally box in standard form. E.g. <table border="1"> <tr> <td>Hundreds</td><td>Tens</td><td>Ones</td></tr> <tr> <td>3</td><td>1</td><td>7</td></tr> </table> = 317	Hundreds	Tens	Ones	3	1	7
Hundreds	Tens	Ones												
5	8	2												
Hundreds	Tens	Ones												
3	1	7												
3. Numbers can be compared to find the relationship between them.	<u>COMPARING NUMBERS (1-999)</u> Given a number, children will write 10 more/10 less than each given number e.g. $\frac{\text{ten less}}{310}$ 320 $\frac{\text{ten more}}{330}$ Given a number children will write 100 more/100 less than each given number e.g. $\frac{\text{100 less}}{725}$ 825 $\frac{\text{100 more}}{925}$	<u>COMPARING NUMBERS</u> Use flashcards with numbers. Children will say what is 10 less and 10 more for the given number, and 100 less and 100 more for the number. 10 more 10 less $89 = \underline{99}$ $110 = \underline{100}$ 100 more 100 less $115 = \underline{215}$ $315 = \underline{215}$												

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Quantity in Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> Estimating Predicting Identifying Hand-eye coordination Comparing Solving Sequencing Writing Arranging Manipulating Matching <u>Attitudes</u> Understanding Sharing Participation Interest-in-numbers Cooperation Enjoyment	<u>GREATER THAN LESS THAN</u> - Students work in pairs; each pair is given 20 blank card to write numbers on. One child put up a number with a sign (> or <). The other child writes a number to match the sign then shows the card. The game continues until each child has used all cards. (word cards "greater than" or "less than" can be used along with symbols > <) - Circle the greater or lesser number then compare using the appropriate sign e.g. 451 <u>483 > 451</u> (483) - Arrange numbers from the greatest to the least/vice versa e.g. 793 642 530 346 Greatest to least 137 428 511 688 least to greatest Write as many three-digit numbers as you can using three numbers then write the numbers in order from least to greatest e.g. 123 312 213 132 123 321 least to greatest – 123 132 213 231 312 321	<u>GREATER THAN LESS THAN</u> - Arrange number cards from the greatest to the least e.g. 711 643 580 467 335 Children will be given pairs of numbers. Children will insert the correct symbol (>or <) between the numbers e.g. 293, 374 = <u>293 < 374</u>

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Quantity in Whole Numbers**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
WT1a – Investigate ways to solve a problem H4a – Practice locomotor skills H4b – Practice manipulative skills SP1a – Recognize the values associated with choices presented in simple situation SP2a – Take part in group activities EL1b – Use phonics to assist in word recognition SL2d – Pronounce common words and phrases comprehensively CP2a – Use pictures and diagrams CP2h – Ask questions CP2e – Engage in direct experience	Developing Number Concepts Using Unifix Cubes <u>Mathematics</u> Modern Curriculum Guide Mathematics Their Way <u>Exploring Mathematics</u> Grade I Invitation to Mathematics <u>Caribbean Primary Maths</u> Addison Wesley Grade II Scott Foresman Grade I

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

AREA OF STUDY OUTCOMES

Pupils should:

Multiply and divide whole numbers (within and without remainder) within the confines of two, three, four, five and ten times table to solve relevant problems.

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP1b – examine information related to problem/issue

CP2a – use pictures and diagrams

CP2c – handle real objects

CP2e – engage in direct experience

CP2f – compare ideas and information

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT																																																												
CONCEPTS 1. Even numbers can be grouped in pairs while odd numbers always have an extra	1. Collecting objects, counters etc. Grouping, arranging & re-arranging e.g. 000000 000000 000000000 000 000000 000000 000000000 000 Even Even Odd Odd Playing games and making charts to show even and odd numbers e.g. a. Bingo Game, b. Chart <table><tr><td>B</td><td>I</td><td>N</td><td>G</td><td>O</td></tr><tr><td>3</td><td>10</td><td>14</td><td>29</td><td>33</td></tr><tr><td>5</td><td>13</td><td>11</td><td>7</td><td>32</td></tr><tr><td>12</td><td>17</td><td>9</td><td>34</td><td>15</td></tr><tr><td>2</td><td>8</td><td>22</td><td>6</td><td>21</td></tr><tr><td>4</td><td>40</td><td>16</td><td>19</td><td>73</td></tr></table>	B	I	N	G	O	3	10	14	29	33	5	13	11	7	32	12	17	9	34	15	2	8	22	6	21	4	40	16	19	73	1. Collecting and arranging counters/objects on desk in pairs to show even and odd numbers. - making chart and writing numbers to show even and odd numbers - covering numbers called for identification of odd and even numbers on bingo cards e.g. Bingo games/making charts and writing numbers. <table><tr><td>B</td><td>I</td><td>N</td><td>G</td><td>O</td></tr><tr><td>4</td><td>23</td><td>19</td><td>14</td><td>5</td></tr><tr><td>25</td><td>3</td><td>10</td><td>2</td><td>7</td></tr><tr><td>24</td><td>6</td><td>24</td><td>13</td><td>10</td></tr><tr><td>12</td><td>9</td><td>4</td><td>20</td><td>9</td></tr><tr><td>0</td><td>12</td><td>5</td><td>7</td><td>24</td></tr></table>	B	I	N	G	O	4	23	19	14	5	25	3	10	2	7	24	6	24	13	10	12	9	4	20	9	0	12	5	7	24
B	I	N	G	O																																																										
3	10	14	29	33																																																										
5	13	11	7	32																																																										
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AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT																													
2. Multiplication is the repeated addition of a specific number of groups of equal size. 3. Multiplication can be done vertically and horizontally and changing the order of the factors does not affect the product.	Even or Odd Number 10 13 even odd even even 2. Add and multiply to find the total number of objects in equal group e.g. 1 (with one digit number). - How many toy cars/objects are there in your group (5 toy cars). - Each of you show 3 objects/cars in a group. - Tell how many are in 3 groups of 3. - Write the addition sentence – $3 + 3 = 6$, write the multiplication sentence – $2 \times 3 = 6$. - Repeat step b with 3's, 4 & 5 groups and write addition/multiplication sentence. $3+3+3+3+3 = 15$. E.g. (digit) we can add or we can multiply <table><tr><th>Tens</th><th>Ones</th><th></th></tr><tr><td>1</td><td>2</td><td rowspan="4">Method 3×12</td></tr><tr><td>1</td><td>2</td></tr><tr><td>+1</td><td>2</td></tr><tr><td></td><td></td></tr><tr><td>3</td><td>6</td><td></td></tr></table> <table><tr><th>Tens</th><th>Ones</th><th></th></tr><tr><td>1</td><td>2</td><td rowspan="4">Method $3 \times 2 = 6$ $3 \times 1 = 3$</td></tr><tr><td>x</td><td>3</td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr><tr><td>3</td><td>6</td><td></td></tr></table> 2. Discussion of repeated addition in relation to manipulation using signs - distribution of objects e.g. cars - children will group the objects to show the relationship for addition and multiplication and write the addition and multiplication sentence for each set. - Fill in boxes with numbers or signs to complete the statement.	Tens	Ones		1	2	Method 3×12	1	2	+1	2			3	6		Tens	Ones		1	2	Method $3 \times 2 = 6$ $3 \times 1 = 3$	x	3					3	6	
Tens	Ones																														
1	2	Method 3×12																													
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1	2	Method $3 \times 2 = 6$ $3 \times 1 = 3$																													
x	3																														
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UNIT/THEME: Multiply and Divide Whole Numbers

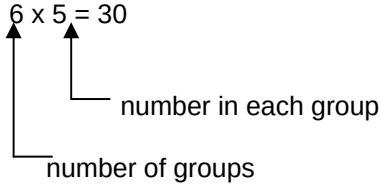
UNIT/THEME: Multiply and Divide Whole Numbers

UNIT/THEME: Multiply and Divide Whole Numbers

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	 The diagram illustrates two ways to calculate the product of 6 and 5. At the top, the equation $6 \times 5 = 30$ is shown. Below it, a horizontal line is labeled 'number of groups' with an arrow pointing to the 6. A vertical line is labeled 'number in each group' with an arrow pointing to the 5. Below this, the equation $5 \times 6 = 30$ is shown.	Formulating and interpreting arrays for multiplication to find product. - Draw and color objects/pictures for arrays - Writing multiplication sentences for given situation

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
5. Problems can be solved through multiplication for a given situation.	5. Draw, record, write, read and analyze to solve problem. E.g. There are seven children. Each child has either a bicycle or a tricycle. In all there are 17 wheels. How many bicycle and how many tricycle are there? 7 bicycles 3 tricycles	4. Choose an operation. Find a pattern for given situation. Use logical reasoning. Make a bubble and draw pictures for given situation to solve multiplication problems. A band was arranged in 4 rows with 7 people in each row. How many people are in the band? XXXXXXX XXXXXXX XXXXXXX XXXXXXX $4 \times 7 = 28$ Nature walk for observation and identification of real world. Solve and report for real life situations using multiplication e.g. 4 rows of flower 2 flowers in each row = $4 \times 2 = 8$ Practice work with 1, 2, 3 digit numbers for reinforcement.

AREA OF STUDY: MATHEMATICS

STANDARD I

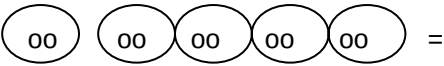
UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	e.g. There are 3 cartoons of eggs. Each cartoons has 12 eggs. Write and solve multiplication sentence to show this. $3 \times 12 = 36$. - investigate groups of objects in the real world to solve multiplication problems.	

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
6.Division is the process of grouping and sharing. Skills Organizing Writing Observing Multiplying Questioning Reading Arranging Circling Problem solving Drawing Grouping Discussing Coloring Exploring Constructing Interpreting Collecting Sorting Recording Field investigating	- Find the number of windows in a building or find the number of cars to fill a parking lot or the number of flower plants in a garden. - Multiplication with 1, 2 and 3 digits. - Practice work with 1, 2, 3 numbers. 6. Collecting objects/pictures to show signs ($\div$) or ($\times$) e.g.  10 marbles = 5 sets of 2 10 marbles divided into sets of 2 give 5 sets. And now we write $10 \div 2 = 5$ or $\begin{array}{r} 5 \\ 2 \overline{) 10} \end{array}$ e.g (with remainder) There are 7 paint brushes and 6 tubes of paint for 3 children to share equally. How many does each child get? How many are left? Since we want to find the numbers in each set, we divide:	6.Collecting and grouping objects to show that division is sharing e.g. Share 12 sweets into bags of four, how many bags? 12 sweets is sets of 4. Shared into sets of 4 gives 3. And we write $12 \div 4 = 3$ Each child gets 2 paint brushes. There is 1 brush left. Each child gets 2 tubes of paint. There are no tubes left.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

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AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Since we want to find the number in each set, we divide Knee pads cost \$32 for 4 pads. How much does each pad cost? Building families of fact & write number sentences to complete family of facts e.g. FAVORITE ANIMALS	Identify multiplication/division sentence that belong to a family of facts. Write 2 multiplication and 2 division sentences

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	e.g. $2 \times 5 = 10$ $10 \div 5 = 2$ $5 \times 2 = 10$ $10 \div 2 = 5$ or $4 \times 3 = 12$ $3 \times 5 = 15$ $12 \div 4 = 3$ $15 \div 3 = 5$ $3 \times 4 = 12$ $5 \times 3 = 15$ $12 \div 3 = 4$ $15 \div 3 = 5$ e.g. Write 4 facts for the picture. You may use addition, subtraction, multiplication and division. ● ● ● ● $2 \times 2 = 4$ $2 + 2 = 4$ $4 \div 2 = 2$ $4 - 2 = 2$ 4 sets of 5 How many sets of 5? $4 \times 5 = 20$ $20 \div \square = 5$ Choosing an operation to solve multiplication and division problems, write multiplication and division sentences for problems. e.g. There are 12 rubber bands in a bag. How many rubber bands are in 3 bags? $3 \times 12 = 36$ or 12 $\begin{array}{r} \times 3 \\ 36 \end{array}$ 3 bags = 36 rubber bands	$2 \times 3 = 6$ $3 \times 2 = 6$ $6 \div 2 = 3$ $6 \div 3 = 2$ $\begin{array}{r} 2 \\ \times 3 \\ \hline 6 \end{array}$ 7 $\begin{array}{r} 3 \\ \times 2 \\ \hline 6 \end{array}$ 6 $\begin{array}{r} 3 \\ 2 \overline{) 6} \end{array}$ $\begin{array}{r} 2 \\ 3 \overline{) 6} \end{array}$

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	There are 40 children who want to play volleyball. Each team has 5 players. How many teams can be made? e.g. $40 \div 5 = 8$ 8 8 teams 5) 40 40 0 Exploring with modern technology to solve multiplication and division problems e.g. Use to solve ENTER PRESS TOTAL 5 x 4 = 20 5+5+5+5 = 20 20 ÷ 4 = 5 Explore, demonstrate and solve the process of multiplication and division sentences using manipulative, diagrams and symbols. $3 \times 12 = 36$ 3 packages of cupcakes	Read, analyze, interpret and select the right operation to solve given word problems for multiplication & division. - a volley ball club has 14 players. The coach wants to make 2 equal teams. How many children will be on each team? There are 9 tennis courts. Players are on each court. How many players are there? Use computers/calculators to solve multiplication and division problems. Ask questions, explore and solve. (insertion). Read, analyze, interpret and solve multiplication/division problems. Act out story problem using manipulative/techniques. Write the number sentence and draw pictures to show its solution for multiplication. Mom bought 3 packages of cupcakes. Each package holds one dozen cupcakes. She repacked the cupcakes before freezing them. Each freezer bag held three cupcakes. How many freezer bags did Mom use? Act out this story problem with manipulates. Write a number sentence to match this story. Draw picture to show the story and its solution.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Multiply and Divide Whole Numbers

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL1e – sequence of events EL1f – identify cause effect relationship EL1h – read aloud to convey meaning EL1g – predict sequence of events EL2b – identify main idea EL4b – grammatical structure EL4c – question and information EL4e – express an opinion SL1b – listening-identify main ideas SL2a – speaking-structure vocabulary SL2b – factual question SL2c – factual statement M1a – place value in one, two and three digit whole numbers M1b- - consecutive sequence 1-999 M1d – properties of odd and even numbers M3c – add whole numbers with regrouping to solve problems M5a – gather, record and organize data M5b – use diagrams, pictograph and charts to present data ST5a – physical characteristics ST7b – organize living things in group SS3b – Government of Belize Rules H4a – locomotor skills H4c – non-manipulative skills EA1b – sing tune, identify and produce rhythm and beat E – Use colour, shapes, lines, patterns texture to express ideas D – exploring different effect EA1c – paint different colours E – arrange imagery G – share artistic discoveries EA1d – draw different types of lines and shapes EA1f – coordinate movement EA1g – move to beat	Exploring Mathematics Scott Foresman <u>Mathematics</u> <u>Exploring Mathematics</u> – Teacher’s Edition, Grade 3 Nelson Primary Mathematics for the Caribbean <u>Addison Wesley Mathematics</u> pgs. 296 - 302

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Multiply and Divide Whole Numbers**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
WT1a – investigate simple problem to meet a need WT1c – design device, solve a problem WT1c – construct device to solve a problem WT1d – test device to solve a problem WT3c – process resources and sell product NOTE: Cross curricular skills and qualities are covered throughout the unit.	

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Add and Subtract Whole Numbers****AREA OF STUDY OUTCOMES**

Pupils should:

CROSS-CURRICULAR OUTCOMES

Pupils should:

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Our number system uses ten as a basis for grouping to indicate place value	1a. Collect and arrange concrete objects in group of tens and ones e.g. $\begin{array}{rcll} 4 \text{ tens} & + & 4 \text{ ones} & \\ 40 & & 4 & = 44 \end{array}$ 1b. Use abacus to show grouping of tens and ones	1a. Collect and arrange concrete objects in groups (bundles) of tens and ones. 1b. Use abacus to show grouping of tens and ones

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Add and Subtract Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
2. In expanded notation the number is separated into component parts e.g. tens and ones.	2a. Write numerals using place value words 44 = 4 tens 4 ones	2a. Write numerals using place value words.
	2b. Write numerals using expanded form 44 = 40 + 4	2b. Write numerals using expanded form.
3. Addition is the joining of sets and subtraction is the separating of sets.	3. Add and subtract 2-two digit numerals without regrouping vertically and horizontally.	3. Add and subtract 2-two digit numerals without regrouping.
4. Regrouping is the process of changing a number of one place value into a number of another place value, holding the value of that number constant	4. Add and subtract 2-two digit numerals with regrouping getting a sum/difference of a two digit numeral. $\begin{array}{r} 78 \\ +13 \\ \hline 91 \end{array}$ $\begin{array}{r} 91 \\ -78 \\ \hline 13 \end{array}$	4a. Add and subtract 2-two digit numerals with regrouping getting a sum/difference of a two digit numeral.
	4b. Add 3-two digit numerals with/without regrouping in the unit column $\begin{array}{r} 12 \\ 24 \\ +38 \\ \hline 74 \end{array}$ $\begin{array}{r} 13 \\ 21 \\ +44 \\ \hline 78 \end{array}$	4b. Add 3-two digit numerals with regrouping in the unit column.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Add and Subtract Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	4c Addition of 2-three digit numerals with regrouping in the unit column getting a sum of a three digit numerals place value words and expanded notation e.g. $346 = 3 \text{ hundred } 4 \text{ tens } 6 \text{ ones} = 300 + 40 + 6$ $\underline{218} = \underline{2 \text{ hundred } 1 \text{ ten } 8 \text{ ones}} = \underline{200 + 10 + 8}$ $564 = \underline{5 \text{ hundred } 6 \text{ tens } 4 \text{ ones}} = 500 + 60 + 4$ 4d. Subtraction of 2-three digit numerals with regrouping from the tens to the units column getting a difference of a three digit numeral Using place value and expanded notation $352 = 3 \text{ hundreds } 5 \text{ tens } 12 \text{ ones} = 300 + 50 + 2$ $\underline{-148} = \underline{1 \text{ hundred } 4 \text{ tens } 8 \text{ ones}} = \underline{100 + 40 + 8}$ $- \quad 204 = 2 \text{ hundred } 0 \text{ ten } 4 \text{ ones} = 200 + 00 + 4$	4c. Addition of 2-three digit numerals with regrouping in the unit column getting a sum of a three digit numeral. 4d. Subtraction of 2-three digit numerals with regrouping from the tens to the unit column getting a difference of a three digit numeral. 4e. Play games to reinforce addition and subtraction facts.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Add and Subtract Whole Numbers

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
5. Basic properties of addition and subtraction help solve word problems Skills Collect/group, match, construct, re-arrange, draw, manipulate, count, assemble, identify, solve, formulate, regroup, listen, calculate, add/subtract, share object, estimate Attitudes Share/cooperate, confidence, appreciation, respect, good sportsmanship, participation, well-being, enjoyment, sense of responsibility, self-motivation, pride/satisfaction.	5. Solve to find sum and difference using word problems with and without regrouping e.g. (i) Jane picked 125 oranges. John picked 316 oranges. How many oranges did they pick altogether. (ii) Jason has 165 marbles. He lost 34 of them. How many marbles does Jason have left? (iii) Tom bought 225 plates for his party. He used 117 of them. How many plates were not used? (iv) Farmer Brown has 105 cows, 50 sheep and 34 pigs. How many animals were on the farm. (v) In a class of 54 children, 31 are boys. How many are girls? * Note: This problem format should be used throughout the unit to give meaning to the process of addition and subtraction and not left to the end of the unit as a separate activity.	5. Solve to find sum and difference using word problems with and without regrouping.

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Add and Subtract Whole Numbers**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
• Hb – Practice manipulation skills • WT1 – Investigate ways to solve simple problems • M1c – Quantity in whole 0-999 • CP1a – Recognize an issue or a problem • CP2a – Use pictures and diagrams • CP2c – Handle real objects • CP2h – Ask questions	<u>Today's Mathematics</u> Addison-Wesley <u>Mathematics</u> <u>Exploring Mathematics – Grade 2</u> BRC Basic <u>Math 2nd Year</u> <u>Exploring Mathematics Grade 3</u>

AREA OF STUDY: MATHEMATICS

STANDARD I

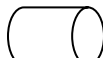
UNIT/THEME: Basic Properties of some Two and Three Dimensional Shapes

AREA OF STUDY OUTCOMES

Pupils should:

CROSS-CURRICULAR OUTCOMES

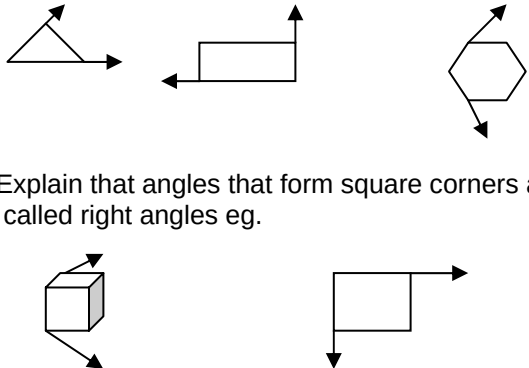
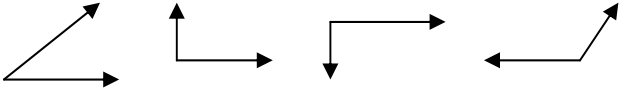
Pupils should:

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT								
- Real objects and abstract figures are two or three dimensional features and can be examined, compared and analyzed <u>Skills</u> - Observe, identify, collect, sort, construct, explore, describe, fold, discuss, draw, measure, create, match, listen, count, manipulate, examine	- Observe, analyze and show relationship between 2D and 3D shapes - Name 2D and 3D shapes - Identify faces, edges, and corners - Draw and name faces of solid shapes e.g.     Cube Square Cylinder Circle - Examine shapes – write names, number of faces and shape of faces eg. <table><tr><th>Shape</th><th>Name of Shapes</th><th>Number of faces</th><th>Shape of faces</th></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Shape	Name of Shapes	Number of faces	Shape of faces					Observe as children: - draw and name 2D and 3D shapes - use objects and pictures to match solid shapes - make charts to display solid shapes - group activity – make booklets using pictures of 2D and 3D shapes - construct and assemble solid shapes to make mobile - locate and draw right angles in given shapes - match shapes that are congruent - draw, cut and fold shapes to show lines of symmetry
Shape	Name of Shapes	Number of faces	Shape of faces							
										

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Basic Properties of some Two and Three Dimensional Shapes

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Attitudes • Appreciation of shapes in the environment • Cooperation • Willingness to interact with individuals and in groups • Willingness to share and participate • Understand and appreciate each others ideas and opinions • Develop an interest in shapes	• Relate 3D shapes to real objects and write the name of each shape. Eg. an orange-sphere A matchbox-cuboid • Build understanding that two sides of a geometric figure that met at a corner form an angle. E.g.  • Explain that angles that form square corners are called right angles eg.  • Find objects in classroom that have right angles e.g. hands on the clock, the door, the window Observe and identify right angles. 	• find perimeter of given shapes, using standard units • find area of given shapes counting the number of square units.

AREA OF STUDY: MATHEMATICS

STANDARD I

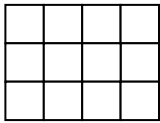
UNIT/THEME: Basic Properties of some Two and Three Dimensional Shapes

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	- Build understanding that figures that have the same size and shape are congruent e.g.   Congruent not congruent - Explain that a figure is symmetric if you can find it and make the two parts equal; eg.   identify the line of symmetry in given shapes - Draw shapes and show a line of symmetry - Build understanding that perimeter is the total distance around a figure - Use non-standard units to measure distance around classroom objects e.g. paper clips, toothpicks, string - Draw shapes and find perimeter using non-standard units - Find the perimeter of given shapes by adding lengths of sides using standard units (ruler, cardboard, strips) eg.  $3+5+3+5= 16$ cm	

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Basic Properties of some Two and Three Dimensional Shapes

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	• Build understanding that area of a shape is the number of square units needed to cover the inside of a shape • Use non-standard units such as playing cards, exercise books, rectangular and square shapes to measure area of teacher's desk, teacher's chair • Find area of given shape by counting the number of square units eg.  12 sq. units	

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Basic Properties of some Two and Three Dimensional Shapes**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
◆ EL4e - Questions and information pertaining to shapes ◆ M3a - Measure distance for perimeter and area ◆ WT1a – Add lengths of sides ◆ H4b - Manipulating objects ◆ EA1d - Draw lines and shapes ◆ D - Explore to find shapes in classroom and outdoors ◆ SP2a - Form groups to make booklet on shapes ◆ CP1b - Examine information related to the problem or issue ◆ CP2a - Use pictures and diagrams ◆ CP2c - Handle real objects ◆ CP2e - Engage in direct experiences ◆ CP2f - Compare ideas and information ◆ CP2g - Sort and classify information	<u>Addison-Wesley Mathematics</u> Bk.3 <u>‘I can’ Math Activity Program</u> Bk2 <u>Exploring Mathematics</u> Grade 3 <u>Nelson Primary Math for Caribbean</u> Schools Bk.1 <u>Caribbean Primary Mathematics</u> Level 3

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Measuring Devices****AREA OF STUDY OUTCOMES**

Pupils should:

M3a – using measuring devices to measure distance, capacity, weight and time.

M4a – make reasonable judgements of quantity, distance and size.

CROSS-CURRICULAR OUTCOMES

Pupils should:

CP1a – recognize an issue/problem

CP1b – examine information related to a problem

CP2a – use pictures and diagrams

CP2k – use creative arts/images/music

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
1. Distance is the measure of separation in space and can be measured using standard and non-standard units.	1. Use creativity to construct measuring kit by using materials from the environment e.g. shoe box, plastic bag, etc. - Collect non-standard units of measurement to measure distance e.g. different lengths of strings, tape, ribbon, etc. - Collect and make standard units of measurement e.g. 6 inch, 12 inch, 1 yard, 1 meter, rulers, etc. - Name and describe devices used for measuring distance (ard stick/meter stick)36 inches = 1 yard, 3 feet = 1 yard, 100cm = 1 meter - Estimate length of body using non-standard units (e.g. string, ribbon) - Verify estimate and record measurement.	1. Construct a measuring unit. - Collect non-standard units of measurement –e.g. strings of different length. - Collect and make standard unit of measurements – measurig 6 inch, 12 inch, 1 yard, 1 meter. - Estimate and verify length of body (display data, make a graph of body measurement) - Work in pairs to give accurate measurement of body height. - Arrange representation of body height in ascending or descending order - Estimate and verify lengths of specified objects.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	- student work in pairs to measure body height using units of their choice (linear or metric) - arrange representation of body heights (strings) in ascending or descending order. Measurement Scavenger Hunt: - estimate and measure objects of specified lengths in the classroom - compare results with teacher's secret list <u>Measurement scavenger hunt</u> <u>Secret List</u> - Find something window width - line long length of chalk N.B. Scavenger measurement hunt can be done in linear or metric units and can also be done outside of classroom.	

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
2. Perimeter – the total distance around any shape. 3. Circumference: the distance around a circle. 4. Capacity/quantity: containers are used to hold quantity and can be subdivided into units so that quantity can be measured.	2. Measure distance around shapes    and objects (books, desktops) using non-standard units then use a ruler to measure length of string. - find the distance around shapes and objects by adding measurement of each side. 3. Find distance around circular points of the body (head, arm, legs) using non-standard units, then use a ruler to measure length of string. 4. Collect non-standard units of measurement for measuring capacity e.g. containers of different shapes and sizes (bottles, cups, cans, jars, etc. - explore process of filling containers marked to specific levels.	2. Use standard and non-standard unit of measurement to find the perimeter of shapes and objects. 3. Use standard and non-standard unit of measurement to measure distance around a circle. 4. Fill marked containers to specified level.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Label and compare quantities e.g.	Compare quantities using inequality signs $> < =$
	Order the containers - capacity from smallest to largest e.g.	Order containers by capacity from smallest to largest.
	Collect standard measuring devices-customary units e.g. tea spoon, cups, pints, quarts, gallons)	Estimate and verify the capacity of a given container

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Estimate the capacity of a given container then verify using a standard unit of measurement such as cups, pint, quarts, gallons e.g. How many cups will fill a mug? How many pints will fill a basin? How many gallons will fill a bucket? Collect standard devices used for measuring capacity in metric units e.g. $\frac{1}{2}$ liter/liter/milliliter. Discuss what each unit of measurement is used to measure e.g. milliliter/small amount (medicine) liter/large amounts (milk) Construct and design measuring devices. Use their own devices to measure capacity of given containers. Record the capacity given containers on a given table. UNIT CONTAINER CAPACITY.	Collect, name, describe and display standard metric measuring devices e.g. $\frac{1}{2}$ liter, liter, milliliter Identify units used to measure large/small capacities e.g. milliliter (small), liters (large) Use creativity to construct and design a simple standard measuring device e.g. liter. Use own device to measure capacity – record capacity on table.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
5. Weight – heavy ; The weight of objects can be measured using standard and non-standard units	5. Collect objects to weigh e.g. (pencils, textbooks, can, stone, marbles, soap, ball) - Estimate weight using hands (light, lighter, lightest – heavy, heavier, heaviest) - Construct a balance scale to compare weights e.g. (light/lighter/heavy/heavier) - Arrange objects in order from lighter to heaviest. - Compare each others weight for fun using the balance board (see-saw) - Use bathroom scale to weigh each other. - Cut strips of paper to a specified length by measurig along the vertical axis and pin their strips on the graph. (Work in groups of five) e.g.	5. Estimate weight using hands and use comparative language correctly. (light-lighter-lightest) - Construct a simple usable balance scale to compare weights (light/lighter/heavy-heavier). - Arrange objects in order from lightest to heaviest. - Compare each other's weight to find: a. someone with same weight b. someone heavier c. someone lighter. - Use bathroom scale to weigh each other and graph weight. Discuss data as shown on graph.

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	NAMES - Discuss data shown on graph e.g. (compare weights) (a) who is the heaviest (b) who is tall and heavy. - Visit the market to identify other types of scales e.g. commercial and spring. - Identify and name scales used at home e.g. (kitchen scale) a. Describe the features of a scale with customary unit e.g. ounces and pounds. b. Discuss use of the unit – the ounce is used to measure the weight of light things; The pound is used to measure the weight of heavy things. c. Describe the features of a scale with metric unit. E.g. gram, kilogram. d. Discuss uses of units – grams are used to measure the weight of light things - kilograms are used to measure the weight of heavy things.	Identify different types of scale to measure weight. Describe features of scales with customary units. (ounce, pounds) and metric units (grams, kilograms) and explain the use of different units. (ounce, pounds, grams, kilograms)

AREA OF STUDY: MATHEMATICS

STANDARD I

UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT						
	- Weigh different things for their own purpose using a kitchen scale/bathroom scale/balance board. SHARE IDEAS THROUGH DISCUSSION - Which unit did you use to measure_____? - Why did you make the choice? - What are some of the things that you would measure by: ounce? grams? pounds? Kilograms? - Is a smaller object always lighter than a larger object? Give an example to explain your answer. - Choose the better unit for measurinG weight of specified object. <table border="0"> <tr> <td>a. pound</td> <td>a. ounce</td> <td>a. pound</td> </tr> <tr> <td>b. spoon</td> <td>b. pounds</td> <td>b. ounce</td> </tr> </table> Solve word problems on weight e.g Pat's father bought a 7lb chicken and a 15lb. Turkey. How much do they weigh together? (b) which weigh more? (turkey or chicken)	a. pound	a. ounce	a. pound	b. spoon	b. pounds	b. ounce	- Weighing different things for their own purpose - Assess – participation in sharing ideas through discussion. Select appropriate unit for measuring weight of specified objects. Solve word problems on weight.
a. pound	a. ounce	a. pound						
b. spoon	b. pounds	b. ounce						

AREA OF STUDY: MATHEMATICS

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UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
6. Time: is the point at which something happens: moment, hour, day or year indicated by a clock or calendar. Skills Collect Sort Classify Identify devices Estimate and measure Describe/discuss Share Record data Solve problems Compare/contrast Observations Recognize Research Explore Experiment Construct Calculate Predict Questioning Interpret	6. Observe features of two different types of clocks (digital, standard) - discuss the features of a clock e.g. standard and digital <u>Standard</u> a. a clock has a face b. the hour hand is shorter than the minute hand – <u>Digital</u> – a. digital clock has only numbers b. design and construct a standard clock. c. Use their own clocks to review telling time to the hour and half hour. d. Shade half of the clock face to reinforce concept of half past. Half past three half past ten half past twelve 3:30 10:30 12:30	6. Describe the features of a standard and digital clock e.g. (face, number). e. construct a standard clock to include – HOUR HAND, MINUTE HAND, numbers from 1 to 12. Show, read and write time to half past and quarter past the hour, using everyday events, and clocks.

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UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Organize Report Select Sequencing Practice <u>Attitudes</u> Share Cooperate Participate Sense of pride Satisfaction Respect Punctuality Appreciate Responsible Understanding Awareness Acceptance Enjoyment Sensitivity to other people's feeling	Observe movement of minute hand from 12 – 3 simultaneously counting by five. Shade face to face clock from 12 – 3 to show concept of quarter past. Do the same for a quarter to. Read and write time to the quarter hour. Quarter past 8 (8:15)	

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UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Quarter to 2 (15 min. to 2) Quarter past 11 (11:15) Show, read and write time to the quarter hour using everyday events. E.g. write the time shown. Draw hand to show time. We go to bed at _____.	

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UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Have break at 10:15 or quarter past ten (10) f. Collect calendars. g. Discuss features of a calendar days, months, year. Number of days in a week, number of weeks in a month, number of month in a year. h. Recite rhymes to help remember number of days in each month e.g. Thirty days hath September, April, June and November. All the rest has thirty-one except February alone, which has but twenty-eight days clear and twenty-nine in each leap year. i. Make a table to show number of days in each week.	List the features of a calendar. Recite the rhyme (Days in the Month) Record number of days in each month on a table.

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UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES			SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT														
	Months with 31 days	Months with 30 days	Month with 28/29 days	Record number of days in each month on a table.														
	January March May July August October December	September April June November	February															
	Research family/classmate birthdays and make a chart to display data.			Research birthdays organization and presentation of data (neatness, clarity) oral interpretation of data.														
	<table><tr><th>Month</th><th>Names</th><th>Total</th></tr><tr><td>January</td><td>John, Mary, Jean, Jim</td><td>4</td></tr><tr><td>February</td><td>-</td><td>0</td></tr><tr><td>March</td><td>Michael, Tara</td><td>2</td></tr><tr><td>April</td><td>Carol</td><td>1</td></tr></table>	Month	Names	Total	January	John, Mary, Jean, Jim	4	February	-	0	March	Michael, Tara	2	April	Carol	1	Find important dates on the calendar e.g. Christmas Day, Independence Day, Labour Day, etc.	
Month	Names	Total																
January	John, Mary, Jean, Jim	4																
February	-	0																
March	Michael, Tara	2																
April	Carol	1																
				Read and interpret calendar given data of specified events.														

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UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Design class calendar with important events. (Calendar of activities) etc.	Demonstrate participation, show interest, ask important questions or give new information, exhibit good listening behaviour, demonstrate and understand the purpose of the calendar.

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UNIT/THEME: Measuring Devices

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	Read and write dates using abbreviations. - e.g. June 6th, 1998 6th Jan, 1998 j. Estimate the best unit of time for each. k. Activity – Choose minutes, hours, days, weeks e.g. a. complete your homework _____. b. Feed a pet _____. c. Belize Festival of Arts _____. l. What unit would you use to measure the time each activity takes? m. Write minutes, hours, days, months. a. a bean seed to sprout _____. b. watch a movie _____. c. construct a house _____	Read and write dates using abbreviations. Estimate the best unit of time for given activity using – minutes, hours, days, weeks (accuracy of estimate) Select appropriate unit measuring time of given activity using minutes, hours, days.

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UNIT/THEME: Measuring Devices

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
EL1c – Identify a sequence of events EL3f – Arrange ideas in a sequence to convey information and express feelings EL3g – Use descriptive language to portray images, events, and feelings EL4c – Ask questions and give information SS1a – Time periods in relation to their growth and development WT1d – Test a simple device to see if it meets a need/solves a problem. WT1c – Construct a simple device to meet a need/solve problem H4b – Practice manipulative skills WA1d – Use various materials to explore different effects/possibilities. CP1 – Recognize an issue or a problem CP1b – Examine information related to the problem/issue CP2a – Use pictures and diagrams CP2k – Use creative arts/images/music	<u>Mathematics in Action</u> – Macmillan, McGraw-Hill <u>Measurement Investigation Tamara</u> Dream Rhandall – Scott Foresman <u>Math</u> Bk. 1. Pgs. Family Math <u>Mathematics Their Way</u>, Mary Baratta Lorton <u>Working With Numbers</u> – James T. Shea, Resources <u>Nelson Primary Math for the Caribbean Schools</u> Errol Furlonge

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UNIT/THEME: Data

AREA OF STUDY OUTCOMES

Pupils should:

M5a – gather, record and organize data

M4b – use data to assess the likely occurrence of an event or forecast a trend

M5b – use diagrams, pictographs and charts to presents data

CROSS-CURRICULAR OUTCOMES

Pupils should:

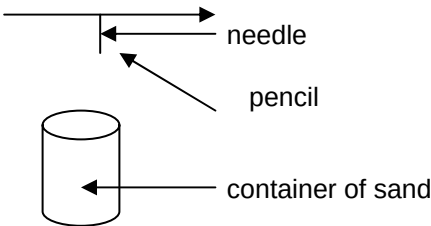
CP1 – apply critical thinking and problem solving skills

CP2 – find, interpret and use information from a variety of sources

CP2a – use pictures and diagrams

CP2c – handle real objects

CP2e – engage in direct experiences

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
- Data may be collected through observation, sorting, regrouping and measuring of objects which can be represented on various groups or charts - Graphs, diagrams and charts of various types are important for representing information that is gathered.	1. Forecast trend through observation of the weather, direction of the wind using a simple wind vane 	1. Observe children as they use hand-made instrument to forecast and record trends in the weather, based on the atmospheric conditions, direction and strength of the wind. e.g. Weather Chart

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UNIT/THEME: Data

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
<u>Skills</u> Observe Communicate Join/match Discuss Compare/contrast Record Solve Complete Group Assemble Measure/estimate Predict outcome Hypothesize Classify Combine Identify Recall Follow – directions Enthusiasm Instruction Patterns Practice Report Evaluate	2. Collection of data through observation and recording e.g colour of motor vehicles, types of motor vehicles.	Assess children in their observation and findings as they demonstrate their knowledge of graph by plotting a bar graph using the data from the tally chart. 2. Present information of important dates on individual assessment sheet.

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UNIT/THEME: Data

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
Attitudes Cooperate Confidence Appreciate Respect-opinions Environment Awareness of safety Measures Aesthetics Responsibility Value of self worth Willingness to share Acceptance Motivation Sense of achievement Pride/achievement Satisfaction Be challenged	Questions and answers; e.g. (a) Cars (c) trucks (b) Vans (d) pick-ups (a) Which vehicle do you see more? (b) Are there any two types of vehicles that you see the same number of time? 3. Important dates e.g. birth-dates and special holidays.	Color each month to match the holiday in that month based on the code given. (a) New Year's Day - yellow (b) Baron Bliss Day – blue (c) Easter Holiday – green (d) Labour Day/Commonwealth Day – brown (e) St. George's Caye/Independence Day – brown (f) Columbus Day – purple (g) Garifuna Settlement Day – orange (h) Christmas Day/Holidays – pink 3. Show graphing skills by making a bar chart to show the amount of male and female members in the family.

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UNIT/THEME: Data

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT												
	- Children brings pictures of themselves. - Same calendar will be used for special holidays using a star. 4. Population within the family and classroom using pictograph. Data can be collected from other classrooms for comparing and contrasting. Each or represents 2 boys/girls, represents 1 child. Boys Girls Questions: (a) How many children are in Std 1A? 1B? (b) What is the difference between the number of boys in Std 1A compared to the number of boys in Std 1B? (c) What is the difference between the number of girls in Std 1A compared to the number of girls in Std 1B? <u>Patterns</u> Likely occurrence through pattern to forecast a trend a. counting in 2's, 5's, 10's.	<u>Patterns</u> • Can children continue the skip counting beyond the model. (a) Supervise children as they observe the answer to determine the pattern in their addition problems (b) Continue the module 10 - 10 0 20 -10 10 30 -10 20 43 -13 30 <u>Compare and contrast</u> Through discussion and oral group report, children will compare and contrast the temperatures recorded for week 1 and week 2. <table><tr><th><u>Week 1</u></th><th><u>Week 2</u></th></tr><tr><td>Mon. 83°F</td><td>Mon. 75°F</td></tr><tr><td>Tue. 90°F</td><td>Tue. 72°F</td></tr><tr><td>Wed. 95°F</td><td>Wed. 69°F</td></tr><tr><td>Thurs. 80°F</td><td>Thurs. 77°F</td></tr><tr><td>Fri. 99°F</td><td>Fri. 70°F</td></tr></table> Week 1 was very <u>hot</u> as compared to week 2 which Was very cool.	<u>Week 1</u>	<u>Week 2</u>	Mon. 83°F	Mon. 75°F	Tue. 90°F	Tue. 72°F	Wed. 95°F	Wed. 69°F	Thurs. 80°F	Thurs. 77°F	Fri. 99°F	Fri. 70°F
<u>Week 1</u>	<u>Week 2</u>													
Mon. 83°F	Mon. 75°F													
Tue. 90°F	Tue. 72°F													
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Thurs. 80°F	Thurs. 77°F													
Fri. 99°F	Fri. 70°F													

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UNIT/THEME: Data

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	$\begin{array}{r} 2 \quad 2 \quad 4 \quad 6 \quad 8 \quad 10 \\ +0 \quad +2 \quad +2 \quad +2 \quad +2 \quad +2 \\ \hline 2 \quad 4 \quad 6 \quad 8 \quad 10 \quad 12 \end{array}$ in 2's $\begin{array}{r} 10 \quad 15 \quad 20 \quad 25 \quad 30 \quad 35 \\ -10 \quad -10 \quad -10 \quad -10 \quad -10 \quad -10 \\ \hline 0 \quad 5 \quad 10 \quad 15 \quad 20 \quad 25 \end{array}$ in 5's <u>Multiplication</u> $0 \times 10 = 0$ $1 \times 10 = 10$ $2 \times 10 = 20$ $3 \times 10 = 30$ <u>Division</u> $10 \div 10 = 1$ $20 \div 10 = 2$ $30 \div 10 = 3$ in 10's <u>Compare and contrast</u> Temperature over a period of time can be compared and contrasted through activities on charts; listening to weather forecast, record readings e.g.	5. Observe as children weigh objects and place them in class A and B. <u>Table A</u> 0 – 5 lbs. <u>Table B</u> 6 – 10 lbs. <u>Measurement</u> - Supervise children as they properly align the '0' mark on their measuring tools with one end of the object they are measuring or body parts such as limbs, length or arms, circumference of head, etc. <u>Distance and Time</u> - Using a table or data gathered on the time children take from home to school, a class discussion will evaluate reasons for the difference and similarities in time.

UNIT/THEME: DataUNIT/THEME: Data

½ cup beans.....	lb
15 rulers	lb
4 pks crayons.....	lbs

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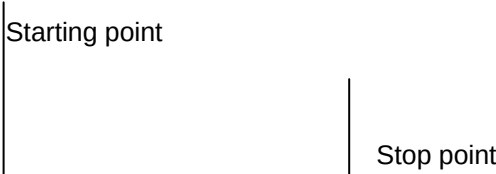
UNIT/THEME: Data

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>Classify Objects</u> Children collect objects from the environment and home e.g. old shoes, teddy bear, dolls, ball, books, cans, etc. Collect in a box. Weigh individually on a kitchen scale. Classify objects according to weight. (1 lb) (2-3 lbs) (4-5 lbs) (6-7+ lbs) Children discuss in smaller groups <u>Measurement</u> 1. Unit of measure using tape measure, ruler, measuring stick for height, string, bathroom scale. Parts of the body – using tape measure, circumference of head and waist. Length of arm, length and width of palm and foot, etc. Height of the body, weight of the body on a scale.	(d) Tim found 60c He shared it equally with Paul. How much does each boy get?

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CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	<u>Record Findings on a bar-graph</u> 2. Measure distance in relation to time through activities e.g. P. E.  Use stop-watch to time children's speed to the stop point. Record each child's speed on a graph. Discuss possible reasons why each child's speed differ, e.g. body weight, length of legs, etc.	

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UNIT/THEME: Data

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT															
	<u>Estimation</u> 3. Estimate of length and money using four operations (+ - x ÷) through activities, discussions and recording on a chart. <table border="1"> <tr> <td></td><td>My Guess</td><td>Actual Measurement</td></tr> <tr> <td>Window</td><td></td><td></td></tr> <tr> <td>Door</td><td></td><td></td></tr> <tr> <td>Blackboard</td><td></td><td></td></tr> <tr> <td>Chair</td><td></td><td></td></tr> </table> (a) length – children work with a partner using a meter ruler and pieces of string. Measure windows, doors, black-board, chairs, etc. Guess its length in meters using a string. Now place the string along a meter stick. Record and compare both measurements.		My Guess	Actual Measurement	Window			Door			Blackboard			Chair			
	My Guess	Actual Measurement															
Window																	
Door																	
Blackboard																	
Chair																	

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UNIT/THEME: Data

CONTENT ORGANIZED INTO MANAGEABLE SETS	SUGGESTED TEACHING/LEARNING STRATEGIES	SUGGESTED STRATEGIES/ACTIVITIES FOR ASSESSMENT
	(b) Money and four operations problem solving. (i) I have 20 stars Jack has 5 stars Joe has <u>+2</u> more There are.... Altogether (ii) I have 25c I spent <u>-10c</u> I have left (iii) Jill has 14 balls Mary has <u>x 2</u> times more than Jill Mary has ... balls (iv) Mark found 20 c He shared it with Mike: $20 \div 2$ How much did each get?	

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LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
<u>Cross Curricular</u> - CP1 - Apply critical thinking and problem solving skill - CP2 – Find, interpret and use information from a variety of sources <u>Critical Skills</u> - CP1b – Examine information related to the problem/issue <u>Research skills</u> - CP2a - Use pictures and diagrams - CP2c - Handle real objects - CP2d - Observe and analyse using 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, sketch, maps and graphs - CP2j – Give oral and written reports - CP2k – Use creative arts/language/music <u>Language Arts – Reading</u> - EL1d – Use pictures in books as a clue to meaning - EL1e – Identify a sequence of events - EL1f - Identify cause and effect relationship - EL1g – Predict what will happen in a sequence of events	- Exploring Mathematics Scott Foresman and Company Pages: 7, 9, 12, 14, 18, 28, 35, 68, 75, 82, 102, 122, 132, 133, 135, 136 - Nelson Primary Maths for the Caribbean Schools – Errol Furlonge BKA – pages: 4-7, 16, 83 BKB – pages: 75, 99, 100, 110, 118 BK1 - pages: 103, 114, 123, 128 - Caribbean Primary Mathematics Levels 1,2,3 - I Can – McMillan//McGraw-Hill Math Activity Program Pages: T50, T51, T70, 123-141, 50-52, 68-72 - About Teaching Mathematics AK-8 by Marilyn Burns Pages: 113-123, 75-77, 47-53, 69 - Mathematics Their Way By Mary Barotta – Lordon Pages: 4.6, 7.1, 7.21 - Addison – Wesley Sets the Standard Pages: 386, 387 - Today's Mathematics

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Data**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
<u>Writing</u> • EL3e - Use different forms of writing to communicate ideas, feelings, and convey information <u>Speaking</u> • EL4c – Ask questions and give information • EL4d – Describe thoughts, feelings and events <u>Math</u> • M1 - know the number system • M3 – skills – measure, quantify and calculate • M4 – estimate and make predictions • M5 – collect, present and interpret numerical data • M3a – use measuring devices to measure distance, capacity, weight and time <u>Science</u> • ST6 – know about time and motion, forces and simple machines <u>Work and Technology</u> • WT1c – construct a simple device to meet a need/solve a problem <u>Social Studies – Attitudes and Values</u> • SS10 – Have tolerance for others	• I see What You Mean – Children at work with Visual Information by Steve Moline Pages: 67, 71, 108, 111 • Organizing Thinking – BK. I by Sandra Parks and Howard Black Critical Thinking Press and Software Pages 9, 11, 13, 183

AREA OF STUDY: MATHEMATICS**STANDARD I****UNIT/THEME: Data**

LINKAGES/CONNECTIONS	RECOMMENDED RESOURCES: TEACHER/STUDENT
<u>Physical Environment of Belize</u> • SS2a – Weather and climate patterns and how these affect their lives and the lives of people <u>Physical Education</u> • H4b – Practice manipulative skills • H4c – Practice non-manipulative techniques <u>Expressive Arts</u> • Ea3 – Enjoy taking part in activities which involve creativity <u>Music</u> • Ea1b – Identify and produce rhythm and beat <u>Art</u> • Use colour, shape, lines, patterns, textures to express one's own ideas.	