



COMMONWEALTH OF THE BAHAMAS
MINISTRY OF EDUCATION & TECHNICAL & VOCATIONAL TRAINING

PRIMARY SCHOOL MATHEMATICS

CURRICULUM GUIDELINES

GRADES: 1-3

2022-2027

TABLE OF CONTENTS

	Pages
Preface.....	iv
Acknowledgements.....	v
Ministry of Education: Vision and Mission Statements.....	vii
Belief Statements.....	viii
Profile of the Ideal Graduate	ix
Rationale	x
Mathematical Expectations Grades 1-12: A Discussion	xi
Definition of Curriculum Terms	xiii
Definition of Strands	xv
Over Arching-Goal, and Sub Goals	xvii
Benchmarks: Grades 1-3.....	xviii
Benchmarks: Grades 4-6	xix
How to Use This Guide.....	xx
Theoretical Framework.....	xxi
Problem Solving.....	xxii
Best Practices in Mathematics.....	xxiv
Suggested Strategies to Improve Numeracy in the Primary Schools.....	xxv
Assessment Strategies.....	xxvi
Strategies for Teaching Students with Special Needs.....	xxix
Problems of the Day.....	xxx
Scope and Sequence.....	xxxii
Suggested Pacing Guide.....	xliv
Suggested Weekly Pacing Guide.....	lviii

SCOPE OF WORK.....1

Grade 1 Essential Questions.....2

Grade 1 Number & Operations.....3

Grade 1 Essential Questions18

Grade 1 Algebra.....19

Grade 1 Essential Questions.....21

Grade 1 Measurement.....22

Grade 1 Essential Questions31

Grade 1 Geometry & Spatial Sense.....32

Grade 1 Essential Questions.....40

Grade 1 Data Analysis & Probability.....41

Grade 2 Essential Questions.....45

Grade 2 Number & Operations.....46

Grade 2 Essential Questions.....66

Grade 2 Algebra.....67

Grade 2 Essential Questions.....71

Grade 2 Measurement.....72

Grade 2 Essential Questions.....84

Grade 2 Geometry & Spatial Sense.....85

Grade 2 Essential Questions.....94

Grade 2 Data Analysis & Probability.....95

Grade 3 Essential Questions.....100

Grade 3 Number & Operations.....101

Grade 3 Essential Questions.....138

Grade 3 Algebra.....139

Grade 3 Essential Questions.....144

Grade 3 Measurement.....	145
Grade 3 Essential Questions.....	159
Grade 3 Geometry & Spatial Sense.....	160
Grade 3 Essential Questions.....	168
Grade 3 Data Analysis & Probability.....	169
APPENDICES	
PROBLEMS OF THE DAY	
Problems of the Day: Grade 1.....	174
Problems of the Day: Grade 2.....	192
Problems of the Day: Grade 3.....	208
RUBRICS.....	226
Report Rubric.....	227
Group Discussion Scoring Guide.....	228
Cooperative Learning Rubric.....	229
Class Debate Rubric.....	230
Journal Response & Comprehension Rubric.....	231
Mathematics Related Children’s Literature.....	232
MATERIALS.....	236
Materials List for Grade 1	237
Materials List for Grade 2	238
Materials List for Grade 3	239
REFERENCES	240

PREFACE

The Bahamas Primary Mathematics Curriculum focuses on fundamental mathematics concepts and skills, as well as on making connections between related mathematics concepts, between mathematics and other disciplines, and between mathematics and everyday life. It also supports new learning about mathematical modelling and financial literacy. Additionally, this curriculum is designed to help students build confidence in approaching mathematics and acquire a positive attitude towards the same, learn from their mistakes, work collaboratively with others towards a shared goal, value deep thinking and making connections, and become capable and confident mathematics learners.

The curriculum, with varying definitions, is said to be a plan of the teaching-learning process that students of an academic programme are required to undergo. It includes objectives and learning outcomes, course contents, teaching methodologies and methods of assessment of learning. Since knowledge in all disciplines and fields is expanding at a fast pace and new disciplines are also emerging; it is imperative that curricula be developed and revised accordingly.

In an effort to remain current with the national mathematics standards, advances in technology and the needs of an ever-evolving society, a timespan of five (5) years has been allocated for this document. **The period 2022 – 2027 DOES NOT indicate the demise and or extinction of this document, but instead reflects the quinquennial rotation of continuous revision, monitoring and assessment of the same.**

The Bahamas Primary Mathematics syllabus has been revised and will be put into effect during the Academic Year (2021 – 2022). The revised syllabus is aligned with the rationale and aims of the National Curriculum Framework and is also addressing feedback received on the current syllabus. Below are some changes that are prominent in the revised version:

- Inclusion of the Ministry of Education vision, mission and belief statements;
- Addition of Profile of the Ideal Graduate;
- Moving from six mathematical strands to five strands as prescribed by the National Council of Teachers of Mathematics;
- Insertion of various topics for a better flow of teaching the subject;
- Alignment of topics in the Pacing Guide with the strands and objectives; and
- Placement of number of weeks/ periods and time allocation on the Pacing Guide.

It is hoped that this curriculum document, prepared by the Curriculum Team, will serve the purpose of meeting our national, social and economic needs, and it would also provide the level of competency specified in the Department of Education's Framework to make it compatible with international educational standards.

ACKNOWLEDGEMENTS

A national document of this magnitude required many hours of dialogue, research, evaluating, and editing. The development and production of the Primary School Mathematics Curriculum Guidelines could not have been made possible without the hard work, dedication, and commitment of Senior Education Officers, principals, teachers and clerical officers.

The Department of Education is grateful for the commitment, dedication, efficiency, and professionalism of the following persons who have made this achievement possible.

- Ms. Sharon Poitier (Deputy Director of Education, Curriculum & Instruction)
- Mrs. Vanria Jack (Acting Assistant Director, Primary Curriculum Section)
- Dr. Joan Rolle (Coordinator & Senior Education Officer, Primary School Mathematics)
- **Curriculum Development Team Members:**
 - A. Team Leader: Lower Primary -**
Ms. Deidre Cooper
Ms. Alexis Gardiner
Dr. Dyontaleë Turnquest-Rolle (Director, Busy Bees Learning & Aftercare Centre)
Primary School Mathematics Coordinator (Catholic Board of Education)
Trained Teacher (Sybil Strachan Primary School)
 - B. Team Leader: Upper Primary -**
Mrs. LeAnna Deveaux-Miller
Ms. Joelyn Stubbs
Ms. Antonia Bain (Senior Mistress, Virtual School Bahamas)
Trained Teacher (T. G. Glover Professional Development and Research School)
Senior Mistress (Eva Hilton Primary School)
- Principals of the schools of the members of the Curriculum Development Team
- **Problems of the Day Team Members:**
 - Team Leader:** Mr. Raphael Thompson
Ms. Claynell Bowles
Mrs. Delarise Strachan Russell
Numeracy Coordinator (Ministry of Education) - Retired
Trained Teacher (St. Andrew's Anglican School - Exuma)
Preservice Teacher (University of The Bahamas)
- **Vettors:**
 - Dr. Norrisa Newton
Mrs. Abigail Persaud
Assistant Professor (University of The Bahamas)
Trained Teacher (Eva Hilton Primary School)

- **Typists:**
Ms. Alexis Gardiner
Dr. Joan Rolle
Dr. Dyontaleeë Turnquest -Rolle
Trained Teacher (Sybil Strachan Primary School)
Senior Education Officer (Primary Schools Mathematics)
Director (Busy Bees Learning and Aftercare Centre)
- **Other Contributors:**
Ms. Devonia Brown
Ms. Vernita Davis
Mrs. Sharoline Deal-Pratt
Mrs. Darlene Lewis Chase
Dr. Peter McWilliam
Sandilands Primary School
Subject Secretary, Examinations and Assessment Division
Trained Teacher (Uriah McPhee Primary School)
Trained Teacher (Government High School)
Associate Professor in Mathematics Education (University of The Bahamas-North)

THE LATE MRS. JOANNE REDHEAD

During the early 1980's, Mrs. Redhead formed a team which travelled extensively and gathered information to assist in the development of the original Mathematics curricula for primary schools. The first draft of the completed document was released into schools in 1992 and was the guide that was used to aid the teaching of Mathematics from 1992 to 1998.

During this period, Mrs. Redhead worked continuously, and oversaw the development and production of the revised 1999 Primary Mathematics Curriculum Guidelines draft which replaced the original draft (1992 -1998). Thank you, Mrs. Redhead and may your soul find rest.

MINISTRY OF EDUCATION

VISION AND MISSION STATEMENTS

Vision

Our vision is for a Bahamian Education system that will foster academic excellence and equip students with multiple literacies that will enable them to make meaningful contributions as nation builders who are globally competitive.

Mission

The mission of the Ministry/Department of Education is to provide opportunities for all persons in The Bahamas to receive the education and training that will equip them with the necessary beliefs, attitudes, knowledge and skills required for work and life in an interdependent, ever changing world.

BELIEF STATEMENTS

We believe that:

1. the learning environment should be student centered;
2. at each grade level students should acquire specific skills to prepare them for the succeeding grade level;
3. all students should have equal opportunity to learn based on their needs, interests and abilities;
4. students should have opportunities to question, analyze, reason and make decisions as well as to develop self - confidence and greater freedom of expression;
5. all students should acquire essential survival skills enabling them to function well in society;
6. technology should be integrated into content and instruction;
7. content should be culturally relevant while still allowing a global perspective;
8. the methods used for assessing achievement should reflect the teaching and learning strategies employed in the curriculum;
9. student success is integrally linked to parental involvement and community support;
10. students will be able to communicate mathematically; and
11. students will become mathematical problem solvers.

PROFILE OF THE IDEAL GRADUATE

The **principal objective of the Bahamian education system is to develop productive citizens capable of caring for themselves and contributing positively to the national development process.** Based on its consultation with stakeholders, the Ministry of Education has developed a profile for the ideal graduate. Among other qualities, the ideal graduate should:

- ✓ possess relevant knowledge in core disciplines/learning areas to be functionally literate;
- ✓ think critically, be an innovative problem solver and show initiative;
- ✓ demonstrate creativity and innovation;
- ✓ communicate effectively and collaborate willingly;
- ✓ demonstrate flexibility and adaptability;
- ✓ utilize social skills effectively;
- ✓ appreciate Bahamian culture and utilize the appropriate cultural skills;
- ✓ work productively and diligently with high level competency;
- ✓ guide and inspire others to do their best;
- ✓ have an appropriate awareness of the forces that shape and influence his/her life and surroundings;
- ✓ exhibit civic responsibility and display behaviours that benefit the wider community;
- ✓ appreciate his/her role in and responsibility to the local community, The Bahamas, the Caribbean Region, the Commonwealth of Nations and the world;
- ✓ demonstrate integrity and ethical behaviour at all times;
- ✓ possess digital literacy, appreciate the role of technology and innovation in national development;
- ✓ display skills and competencies that reflect career and college readiness;
- ✓ possess ability to work effectively in teams; and
- ✓ embrace his/her role as an environmental steward.

Adapted from: the Ministry of Education's *Shared Vision for Education 2030*

RATIONALE

Mathematics is a vital component in the development of science, technology, industry, commerce, the day to day living in society/world and is essential to the quality of life of our people. Mathematics requires thinking, reasoning, and understanding of principles, thoughts, ideas, and patterns in our environment. Therefore, emphasis should be placed on the development of mathematical concepts. Its specific focus is to prepare students to explore, discuss, develop, test, and apply mathematical concepts in the further growth and development of society.

The rationale of the Mathematics Curriculum is in alignment with United Nations' Sustainable Developmental Goal Number 4, which highlights the broad area of Education. Listed below are components from the curriculum that support Goal Number 4.

- Develop critical and engaged approach towards learning;
- Make connections between their own lives and those of others throughout the world;
- Identify own learning needs for personal development;
- Impact of cognitive skills on individual earnings and on national economic growth (Hanushek and Woessmann 2008); and
- Support of technology and shared knowledge to enhance the teaching and learning of mathematics.

MATHEMATICAL EXPECTATIONS GRADES 1 – 12

A DISCUSSION

In order to understand the expectations of the mathematics curriculum more fully, the curriculum writing team offers the following mathematics processing standards to consider as you strive to reach these goals with your students/children. The mathematics processing standards incorporate the **4Cs of Learning and Innovative Skills: Critical Thinking and Problem Solving, Creativity, Collaboration and Communication**, as well as the **profile of a graduate of The Bahamas education system in the 21st century**.

1. **Students will become mathematical problem solvers.** Every Mathematics lesson should have some element of problem solving to challenge the students. There are two main types of problems: routine and non-routine. Routine problems are usually application problems and can be solved by applying an operation of a formula. We teach children to reason and think critically with these problems when we work on reading for understanding. Teaching key words such as ‘**altogether means to add,**’ **does not lead to understanding and is an inappropriate problem solving technique**. Asking students to draw a picture of what is happening in the story helps students make connections to the concept of the operations and involves reasoning. Have students apply developing problem-solving strategies as they pose and solve problems and conduct investigations, to help deepen their mathematical understanding.

Non-routine problems tend to be more open-ended, may have more than one answer or solution and usually require a strategy to solve the problem. These problems require reasoning and not simply application of operations. A teacher with a well-balanced mathematics programme uses a combination of problems with his/her students.

2. **Students will be able to communicate mathematically.** In order for students to achieve this goal, they must be encouraged daily to communicate in class through small and large group discussions and writing. Oral and written presentations, creating their own story problems and **explaining HOW they arrived at solutions** are ideal ways to achieve this goal and are methods supported through the activities in this curriculum/resource guide.
3. **Students will develop self-confidence with Mathematics.** In order to develop self-confidence, students and teachers need to have success in Mathematics. Build on your students’ previous experiences and draw on your own.
4. **Students will learn to value Mathematics.** Students will achieve this goal over time if they see the enthusiasm for the subject. School-wide projects such as Math Day or “One Hundred Day” celebrations in primary schools and “Invention Day” in the high schools or national projects like Math at the Mall that will assist in developing this goal. Speakers with jobs that use Mathematics (which is most careers) are also helpful. Finding examples of Mathematics used properly or improperly on TV, social media and in the newspapers is another worthwhile connection.

5. **Students will be able to make connections within the field of Mathematics, and with Mathematics in the real world.** Students should understand Mathematics as a necessary set of skills and concepts for the real world; therefore, teachers are encouraged to integrate Mathematics teaching with other subjects. Also when working with one strand, use skills from other strands. For example, **Data Analysis and Probability and Number and Operations blend well together.**
6. **Students will learn to work cooperatively.** Most jobs that require a mathematical background are those where people must collaborate. Therefore, the activities in the curriculum support peer tutoring, cooperative learning, pairing of students, group projects, group presentations and activities in which each student in the class participates.
7. **Students will become more proficient in the use of technology and other mathematical tools.** While calculator and computers are the primary pieces of technology used in Mathematics, students should also learn how to use the rulers, compasses, protractors and other tools. In addition, students also need to learn which tool is appropriate for a given situation. These learning tools allow students to investigate mathematical ideas and to solve problems.

DEFINITION OF CURRICULUM TERMS

Attitudes	Way a person views something or tends to behave towards it. Mathematical attitudes include showing confidence in using mathematics, perseverance in solving problems, a positive attitude, and a willingness to work. These attitudes will enable success in the teaching and learning of mathematics.
Concepts	Scheme or plan for Mathematics. Key mathematical concepts include addition, subtraction, division, multiplication, and fractions,
Content Standards	Cover what students are to learn in various subject areas, such as Mathematics and Science.
Essential Questions	Develop foundational understandings. They provide the fundamental organizing principles that bound an inquiry and guide the development of meaningful, authentic tasks. Essential questions have several key components: • Attempts to answer essential questions and allow people to explore the connection between their personal, individual, unique experience of the world and its exterior objective, held-in-common dimensions. In exploring essential questions together, people are able to find expression for their own strongest gifts and interests at the same time that they are able to establish a sense of community with others. • Essential questions allow us to explore what knowledge is, how it came to be, and how it has changed through human history. • An essential question is always posed at the boundary of the known and the unknown. While permitting fruitful exploration of what others before us have learned and discovered, attempts to answer an essential question open up mysteries that successively reveal themselves the more we come to "know". • An essential question reaches beyond itself. It is embedded in ideals of freedom, strength, and possibility that permit people to come-to-know without becoming trapped in constructs that are unfair or no longer useful. Essential questions arise from an implicit commitment to human efficacy: to a belief that individuals can make a difference, that knowledge can both be acquired and changed. • An essential question engages the imagination in significant ways. Without imagination, we could not ask the questions that drive science forward. We would have no art, no stories, no mathematics, no philosophy. Moreover, it is questions that spark the imagination that permit young and old to journey together into unknown realms. Imagination knows no bounds, no restrictions; nor do the questions we pose when we cultivate our powers of imagination. An essential question that arises from imaginative engagement is an important way to bring teacher, student, and subject matter together in ways that enrich all three.

Overarching Goal	Outlines the intended purpose of the curriculum document. It defines the overall outcome of the curriculum, in this case the Primary Mathematics Curriculum.
Pacing Guide:	The guide lays out expectations of the material to be covered in each strand at each grade level. Additionally, it provides the timeline on how long to remain on a particular skill. In fact, the pacing guide is tied to benchmark assessments further delineating what teachers must teach and when they must teach it.
Performance Standards	Specify what levels of learning are expected.
Scope and Sequence	A map outlining the objectives for each level, showing the progression and overview of the work to be accomplished.
Scope of Work	Develops each objective with suggested content, activities, assessment and resources to facilitate and enhance the teaching/learning process.
Skills	Learned capacity to carry out pre-determined results often with the minimum time. The following skills are central to Mathematics: researching, evaluation, analysis, synthesis, application, comparing and contrasting, role-playing, interpreting, and calculating.
Standards	Outline learner outcomes and expectations for each sub-goal. They indicate student progression from one attainment level to another.
Sub-goals	Indicate the main objective for the various strands of the curriculum.
World-class Standards	Content and performances that are expected of students in other industrialized countries. This term is also attached to the movement in the United States to bring U.S. students' academic achievement and knowledge on par with students' accomplishments in the other industrialized countries.

DEFINITION OF STRANDS

The National Council of Teachers of Mathematics (NCTM) proposed five strands/standards that are content oriented. For the content standards/strands, the goals are further broken down into objectives.

Number and Operations: Deals with the proficiency of numbers and understanding of how numbers operate. It involves an understanding of how different types of numbers, such as fractions, decimals, and percent are related to each other, and how each can best be used to describe a particular situation. Further, it includes the more traditional category of school mathematics curriculum called numeration (process of counting or numbering) and thus includes the important concepts of place value, number base (decimal, multiple, binary) magnitude, approximation and estimation and calculating using the four rules. Knowing how to represent numbers, recognizing 'how many' are in a group, and using numbers to compare and represent, paves the way for grasping number theory, place value and meaning of operations and how they relate to one another. Estimation is a process that is used constantly by mathematically capable adults, and one that can be easily mastered by children. It involves an educated guess about a quantity or an intelligent prediction of the outcome of a computation. The growing use of calculators makes it more important than ever that students know when a computed answer is reasonable. The best way to make that determination is through the use of strong estimation skills. Equally important, is an awareness of the many situations in which an approximate answer is as good as, or even preferable to an exact one. Students can learn to make these judgments and use mathematics more powerfully as a result.

This strand emphasizes the understanding of numbers, number patterns, counting, and estimation. Such understanding is best developed through purposeful, concrete experiences and the use of manipulatives. These are the fundamental basis of all mathematics, and teaching this critical area is the first content standard. All students must be taught to understand numbers, ways of representing numbers, relationships among numbers, and number systems; understand meanings of operations and how they relate to one another; [and] compute fluently and make reasonable estimates. The ability to perform mental calculations and to calculate answers on paper is "essential.

Algebra: Algebra is the ability to sort, order objects or numbers, and recognize and build on simple patterns. Algebra provides the language through which one communicates the patterns in mathematics. Algebra is more than a set of procedures for manipulating symbols. It provides a way to explore, analyze, and represent mathematical concepts and ideas. Additionally, it describes relationships that are purely mathematical or ones that arise in real-world phenomena and are modeled by algebraic expressions. From the earliest age, students should be encouraged to investigate the patterns that they find in numbers, shapes, and expressions, and, by doing so, make mathematical discoveries. They should have opportunities to analyze, extend, create a variety of patterns, use pattern-based thinking to understand and represent mathematical and other real-world phenomena. The function concept is one of the most fundamental unifying ideas of modern mathematics. Students begin their study of functions in the primary grades, as they observe and study patterns. As students grow and their ability to abstract matures, students form rules, display information in a table or chart, and write equations which express the relationships they have observed. In high school, they use the more formal language of algebra to describe these relationships. Learning algebra helps students make connections in varied mathematical representations, mathematics topics, and disciplines that rely on mathematical relationships.

The Algebra strand develops student ability to recognize, represent, and solve problems involving relations among quantitative variables (unknown letter). The key algebraic models in the curriculum are linear, exponential, power, polynomial, logarithmic, rational, and periodic functions. Each algebraic model is investigated in four linked representations - verbal, graphic, numeric, and symbolic - with the aid of technology. Attention is also given to modeling with systems of equations, both linear and nonlinear, and to symbolic reasoning and manipulation.

Measurement: Accentuates the investigation of concepts such as length, area, volume, capacity, mass, time, and temperature. Students begin to learn how to measure by working with non-standard units and then progress to using the basic metric and customary units. Students also become familiar with telling and computing elapsed time (the amount of time that has passed since a particular process started). Telling time and using money link to an understanding of the number system and represent an important life skill. Measurement offers an opportunity for learning and applying other mathematics skills, including number operations, geometric ideas, statistical concepts, and functions. It highlights connections within mathematics and connections between mathematics and areas outside mathematics, such as Social Studies, Religious Studies, Science, Music, Art, and Physical Education.

Geometry and Spatial Sense: Stresses the development of students' spatial awareness through active involvement in working with two- and three-dimensional shapes. The primary goal of the Geometry and Spatial Strand is to develop visual thinking and student ability to construct, reason with, interpret, and apply mathematical models of patterns in visual and physical contexts. Geometry is a natural place for the development of students' reasoning and justification skills. The focus is on describing patterns with regard to shape, size, and location; representing patterns with drawings or coordinates; predicting changes in shapes under geometric transformations; and organizing geometric facts and relationships through deductive reasoning. Geometric ideas are useful in representing and solving problems in other areas of mathematics and in real-world situations. Geometric representations can help students make sense of area and fractions. Bar graphs and scatter plots (a graph of plotted points that show the relationship between two sets of data) can give insights about data. Some geometry skills are used in many everyday tasks, such as reading a map, describing the shape of an object, arranging furniture so that it fits in a room, or determining the amount of fabric or construction materials needed for a project

Data Analysis and Probability: Emphasizes the collection, organization, and interpretation of data. The primary role of the Data Management and Probability strand is to develop students' ability to analyze data intelligently, to recognize and measure variation, and to understand the patterns that underlie probabilistic situations. The ultimate goal is for students to understand how inferences can be made about a population by looking at a sample from that population. As children collect information about the world around them, they will find it useful to display and represent their knowledge in the form of tables and graphs. Utilizing probability, students need to understand the fundamental concepts so that they can interpret weather forecasts, avoid unfair games of chance (gambling, buying raffle tickets), and make informed decisions about traveling or going on a field trip. They should regularly be engaged in predicting and determining probabilities, often based on experiments (like flipping a coin 100 times), but eventually based on systematic counting strategies. High school students should use probability models and solve problems involving compound events and sampling. Probability is also linked to other mathematical content areas such as counting techniques (number and operation), ratios of areas and volumes (geometry), and relationships between functions and the area under their graphs (algebra, data analysis).

OVERARCHING GOAL

Students will develop self-confidence and display proficiency in logical, critical and analytical reasoning as well as become proficient in the use of technology and other mathematical tools. They will also demonstrate mastery of problem solving, communicating mathematically, working cooperatively, and learning to value mathematics while incorporating classroom experiences with real life situations.

SUB - GOALS

The Mathematics programme, as outlined in the curriculum guidelines, requires that all students in The Bahamas achieve the following:

1. Demonstrate and apply knowledge and sense of numbers, including numeration, patterns, ratios and proportions. Additionally, compute fluently and making reasonable estimates.
2. Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.
3. Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.
4. Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.
5. Collect, organize, and analyze data using statistical methods: predict results; and interpret uncertainty - using concepts of probability.

To achieve these sub - goals, all students must have varied experiences, through which they read, write, discuss, make conjecture, and test solutions to complex, practical problems.

This curriculum document is intended to foster an understanding of the “whys” of Mathematics as well as appropriately meet the current and future needs of the student population in schools across The Bahamas. The use of current research in Mathematics and a working knowledge of entry requirements for programmes at The University of The Bahamas and Colleges in the United States, Canada, Great Britain and the University of the West Indies as well as adherence to our own goals, constituted the basis used by curriculum developers to formulate the objectives/content of this document.

It is our intention that teachers and parents use this document to guide their teaching of Mathematics, supplementing it with activities from texts and other resources to help our students attain the goals that are outlined within this document.

BENCHMARKS: GRADES 1 - 3

By the end of grade 3, all students should know and be able to perform the following:

- Recall the basic addition and subtraction facts (3 seconds or less per fact).
- Compare and order whole numbers using concrete materials, drawings and ordinals.
- Use addition and subtraction facts to solve problems.
- Use a calculator as a tool in problem solving.
- Explain the concept of tens and ones.
- Investigate the attributes of three-dimensional figures and two-dimensional shapes using concrete materials and drawings.
- Identify, extend and create linear and non-linear geometric patterns, number and measurement patterns and patterns in their environment.
- Explain the relationship between number of parts and the size of fractions.
- Explain basic operations involving whole numbers.
- Estimate and calculate sums and differences up to two digit numbers by applying strategies.
- Explain the inverse relationship between addition and subtraction.
- Use a metric ruler to measure to the nearest centimeter.
- Identify and draw points, lines and segments using rulers and straight edges.
- Estimate, measure and record the perimeter and the area of two dimensional shapes, and compare the perimeters and areas.
- Tell time accurately.
- Identify common shapes by listing properties.
- Collect, organize and analyze data using a simple bar graph.
- Interpret displays of data, present the information using mathematical terms (e.g. mean, median, mode and range).
- Relate meaningful experiences about probability.
- Solve non-routine problems by applying strategies.

BENCHMARKS: GRADES 4 - 6

By the end of grade 6, all students should know and be able to perform the following:

- Recall basic multiplication and division facts (3 seconds or less per fact)
- Estimate and calculate whole number and decimals products and quotients by applying strategies.
- Represent and explore relationships between decimals, mixed numbers, and fractions using concrete materials and drawings.
- Compare, order and represent decimals, percentages, and ratios using concrete materials and drawings.
- Estimate and calculate fraction sums, differences, and products by applying strategies.
- Apply patterning strategies to problem-solving situations.
- Explain the relationship among whole numbers, fractions, decimals, and percentages.
- Estimate and measure length, volume, area, mass, and temperature in metric units.
- Classify types of triangles, quadrilaterals, and angles by properties.
- Use mathematical language effectively to describe geometric concepts, reasoning and investigations, and coordinate systems.
- Justify and verify method chosen for calculations with whole numbers, fractions, decimals and percentages.
- Use a fraction-type calculator as a tool.
- Use processes for telling time, counting money, and measuring length, weight and temperature, using basic standard and non-standard units.
- Collect, organize and analyze data using several types of graphs and measures of central tendencies (mean, median, mode, and range)
- Make reasonable predications about the outcomes of an event using simple probability rules.
- Examine the concepts of possibility and probability.
- Decipher between pertinent and irrelevant information when solving problems.
- Solve routine and non-routine problems by applying strategies.
- Make reasonable predictions about the outcomes of an event using simple probability rules.

HOW TO USE THIS GUIDE

Mathematics is a highly interconnected and cumulative subject. The Mathematics curriculum introduces skills and concepts in sequence, which contribute to and serve as building blocks for each other across grade levels. The curriculum also gives focus to important mathematical strands that will prepare students for continued study, and problem solving at school, home, and even work settings. Instead of seeing mathematics as a set of disconnected topics, students should be able to view, understand, and appreciate the relationships among mathematical skills and concepts. When students build connections and skills, their understanding deepens and expands.

Students should have opportunities to learn mathematical skills and concepts as they progress through the grades and as such, should not spend a significant part of their instructional time reviewing mathematics content. Teachers at each grade level should know what mathematical concepts their students have already studied and will study in future grades to ensure that topics and skills taught at the present grade level are aligned with the past and perceived mathematical experiences.

The objectives at each grade level are divided into 5 strands: **Number & Operations, Algebra, Measurement, Geometry & Spatial Sense, and Data Analysis & Probability.**

While each of the five strands deal with a different area of mathematics at the respective grade levels, objectives from the strands should be integrated. For example, while teaching computation, it is natural to look at patterns and concepts from number sense. While teaching statistics, it is natural to ask questions that will require students to compute data presented in graph form.

In the Scope and Sequence, there are acronyms to advise teachers when a skill is to be introduced, developed, maintained, and advanced. The letter **I = Introduce, D = Develop, M = Maintain, and A = Advance**. Proficiency is achieved if students comprehend skills and concepts with at least 56% accuracy as stipulated by the Department of Education. Following the Scope and Sequence is a suggested pacing guide for each grade level. The pacing guide is to assist teachers in planning for the year in order to include all of the content necessary for meeting the standards in teaching mathematics. Teachers are reminded that there are 10 periods of Mathematics scheduled for the lower primary grades and 8 periods for the upper primary grades on the Time Table per week. Using the scheduled time wisely, will enable teachers to complete the content at their grade level. At the beginning of each Scope of Work are essential questions that will guide the teaching and learning of the strands. At the end of the strands, students should be able to answer all of the questions.

Teachers are not expected to teach the objectives in the order presented. Instead, teachers are encouraged to take the objectives and work them into their yearly plan in a manner **that integrates the strands with one another, and with other subjects**. There are an unlimited number of combinations and each teacher should put together lessons that allow students to make sense of the material presented. If students attain the learning objectives in the time frame given, then move on. If not, move on and use other avenues in the document that will allow students to acquire the knowledge and skills.

Teachers of grades 4 - 6 could begin the academic year with another strand other than **Number and Operations** if students would have been exposed to the skills earlier. During the period of 2005 - 2010, it has been proven (by the Primary Mathematics Unit) that students in the upper grades enjoy Measurement and Geometry and Spatial Sense Strands at the beginning of the academic year. It is not feasible to list every objective in the pages of The Scope of Work of each strand in grades K-7 of the Mathematics Curriculum. Therefore, the Scope of Work for the year in which it is introduced at subsequent grade levels is reinforced and extended.

THEORETICAL FRAMEWORK

The major theoretical framework that guides the Primary Mathematics Curriculum is the constructivist theory. Constructivism emphasizes a hands-on approach to mathematics where students are more actively involved with teachers in creating new meanings. Additionally, constructivism often utilizes collaboration and peer criticism as a way of provoking students to reach a new level of understanding. During instruction, teachers focus on having students make connections between facts and developing new understanding. Further, teachers modify their teaching strategies to students' responses which encourage students to analyze, interpret, and predict information. Teachers depend on open-ended questions for discussions and encourage extensive dialogue among students. The curriculum promotes the following:

- Acceptance of student independence and initiative;
- Utilization of interactive and physical manipulatives or materials;
- Use of cognitive terminology by teachers such as "classify," "analyze," and "create" when planning;
- Responses of students to drive lessons, shift instructional strategies, and alter content;
- Inquiry concerning students' understanding of concepts before sharing their own understanding of those concepts ;
- Dialogue of students with the teacher and with one another;
- Inquiry by asking thoughtful, open-ended questions and encourage students to ask questions of each other;
- Elaboration of students' initial responses;
- Allowance for wait time after posing questions; and
- Time for students to construct relationships and create descriptions.

PROBLEM - SOLVING

FOUR PHASES IN SOLVING A PROBLEM

In solving any problem, it helps to have a working procedure. You might want to consider this four-step procedure: *Understand, Plan, Try It, and Look Back.*

- **Understand:** Before you can solve a problem you must first understand it. Read and re-read the problem carefully to find all the clues and determine what the question is asking you to find.
 - What is the unknown?
 - What are the data?
 - What is the condition?
- **Plan:** Once you understand the question and the clues, it's time to use your previous experience with similar problems to look for strategies and tools to answer the question.
 - Do you know a related problem?
 - Look at the unknown! Try to think of a familiar problem having the same or a similar unknown.
- **Try It:** After deciding on a plan, you should try it and see what answer you come up with.
 - Can you see clearly that the step is correct?
 - Can you also prove that the step is correct?
- **Look Back:** Once you've tried it and found an answer, go back to the problem and see if you've really answered the question. Sometimes it's easy to overlook something. If you missed something check your plan and try the problem again.
 - Can you check the result?
 - Can you check the argument?
 - Can you derive the result differently?
 - Can you see it at a glance?

Problem Solving Skills in Mathematics

- Estimation and approximation
- Mental calculation
- Communication
- Use of mathematical tools
- Arithmetic manipulation
- Algebraic manipulation
- Handling data
- Choose the Operation
- Draw Conclusions
- Estimate Exact Answer
- Interpret the Remainder
- Make Generalizations
- Solving Multi-Steps Problems
- Reasonable Answers
- Sequence Events
- Too Much/Too Little Information
- Use a Table/Graph
- Identifying Relationships

Problem Solving Strategies

- Draw a Picture
- Make a Table
- Look for a Pattern
- Make an Organized List
- Try, Check, Revise
- Write a Number Sentence
- Act it Out
- Use Reasoning
- Work Backward
- Solve a Simpler Problem
- Make a Graph

BEST PRACTICES IN IMPROVING STUDENT ACHIEVEMENT IN MATHEMATICS

Best practices in mathematics focus on allowing students to be actively *doing mathematics* so that they can build and enhance their understanding of mathematical ideas. The following links will provide more information on current NCTM math standards and best practices in mathematics. Programs should provide a curriculum that is based on research findings on how best to improve student achievement in mathematics. Those findings are summarized by Grouws and Cebulla in an ERIC Digest, January 2002. Programmes should be designed to offer supplemental instruction, which expands students' exposure to mathematical skills and concepts. Strong correlations between opportunity to learn (OTL) and the mean of student achievement scores is documented in several international studies cited by Grouws and Cebulla. Other best practices identified in this study include:

- Daily problem-solving inclusive of multiple steps problems;
- Opportunities to discover and invent new knowledge;
- Opportunities for student interaction and discussion;
- Whole-class discussion following individual and group work;
- Instructional focus on number sense;
- Provision of differentiated classroom instruction using a variety of instructional methods and intervention;
- Use of manipulatives and technology;
- Use of cooperative learning strategies/peer tutoring;
- Integration of mathematics strands and other subjects;
- Use of probing and questions skills;
- Lessons that are student oriented;
- Link to prior knowledge;
- Fostering active inquiry and supportive interaction;
- Emphasizing the real life relevance of Mathematics;
- Monitoring students' progress and revise their instructional plan as needed;
- Allowing students to reason mathematically and to communicate and justify their thinking; and
- Drawing on students' discovery and creativity to keep them interested.

SUGGESTED STRATEGIES TO IMPROVE NUMERACY IN THE PRIMARY SCHOOL

- Give pre and post-tests from grades 1 - 6. Pre-tests are given at the beginning of the academic year and are used to assess and group students according to their needs and direct teaching practices. Teachers of grade 4 should use the Grade Level Assessment Test (GLAT) results to identify weaknesses and strengths of their students.
- Teach to the needs of each group of students during guided mathematics activities.
- Integrate mathematics across the curriculum.
- Give tests at the end of a concept or unit. This will identify students learning and the effectiveness of teacher strategies/practices.
- Give post-test at the end of the school year to determine students' successes.
- Record results from the assessments in teachers' Mark Book, portfolios, and formal reports.
- Host Mathematics competitions to give students the opportunity to compete with their peers and solidify skills and concepts taught.
- Teacher training/upgrading in mathematics instruction.

ASSESSMENT STRATEGIES

The Assessment Principle

Assessment should support the learning of mathematics, furnish useful information to both teachers and students, and be more than merely a test at the end of instruction to gauge learning. It should be a part of instruction that guides teachers and enhances students' learning.

Teachers should continuously gather information about their students through questions, interviews, writing tasks and other means. They can make appropriate decisions about such matters as reviewing materials, reteaching a difficult concept, or providing something more or different for students who are struggling or need enrichment

Assessment is the standardized process of measuring students' performance to gather information for future developmental use. At the primary school level, National Examinations are used to assess the status of the CURRICULUM to gather qualitative information that pinpoint and diagnose strengths and weaknesses. As the examinations are diagnostic in nature, for the students to excel, they must initially be exposed to all the content areas across each strand of the Mathematics curriculum as this aspect of teaching and learning is critical to their overall success. Assessment should focus on understanding as well as procedural skills. Students learn in different ways, therefore, multiple ways of assessment should be utilized.

Secondly, students must become confident in their ability to apply the skills across all of the cognitive levels of learning. Alexander Bloom (1956), identified six levels within the cognitive domain which must be acquired if students are going to fully develop their critical thinking skills. These levels range from remembering facts, as the lowest level to the creating and judging of material that is classified as the highest level. The levels and accompanying skill structures are as follows:

Remembering: Is remembering previously learned material or information. At this level, all that is required is the recall or bringing to mind the information that was previously taught.

Understand: Is the ability to grasp the meaning of material. This skill assesses the students' ability to effectively manipulate information. Mastery of this skill is shown by the students' ability to effectively:

- translate material from one form to another (words to numbers etc.),
- interpret material (explain or summarize procedures etc.), and
- estimate future trends (predicting consequences or effects and/or draw mathematical conclusions).

Learning outcomes at the comprehension level go one step beyond the simple remembering of material, and represent the lowest level of understanding.

Apply: Is the ability to use previously learned material or information in new and or concrete situations. This includes the application of such things as:

- rules
- methods
- concepts
- principles
- laws
- theories

Learning outcomes in this area require a higher level of comprehension than those under **Understand**.

Analyze: Is the ability to break down material into its component parts so that its organizational structure may be understood. This includes:

- the identification of the individual parts of geometrical shapes, structures and units;
- the analysis of the relationships between parts and of parts to the whole structure or unit; and
- recognition of the organizational principles involved in the operation of the individual parts and the structure or unit as a whole.

Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material presented.

Evaluate: Is the ability to judge the value of material (statement, novel, poem, research report etc.) for a specific purpose. The judgments are to be based on definite criteria which the student may determine or be given.

Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns or structures.

Create: Is the ability to put parts together to form a new whole. This involves the:

- assembling or creating of a graph, table, geometric shape, patterns etc.;
- organizing or arranging of a set of objects with abstract relations (scheme for classifying information etc.);
- putting together a plan of operation (research proposal); and
- production of a speech, play, recital etc.

Learning outcomes in this area are highest in the cognitive hierarchy because they contain elements of all the other categories, plus conscious value judgments based on clearly defined criteria.

BLOOM’S TAXONOMY TYPICAL TASKS CHART

- **CREATE.....originate, predict, and design**
- **EVALUATE.....defend, revise, and measure**
- **ANALYZE.....examine, deduce, and compare**
- **APPLY.....classify, organize, and solve**
- **UNDERSTAND.....describe, paraphrase, and summarize**
- **REMEMBER.....identify, select, and state**

LEVELS OF QUESTIONING

Additionally, national assessments expose students to various types of questions. Hence, students must develop an appreciation for answering appropriately different types of questions among which could be found the following types of questions:

- **MULTIPLE CHOICE QUESTIONS:** Questions of the four-type option type that consist of a stem with one correct answer and three distracters.
- **MATCHING QUESTIONS-ONE-TO-ONE PAIRING:** Column aligned questions in which students must match options in column ‘A’ with those in column ‘B’.
- **SHORT ANSWER / COMPLETION QUESTIONS:** Questions that require the completing of a statement or question using a single word or a well-constructed sentence, or a multi-faceted mathematical process.
- **STRUCTURED QUESTIONS:** Questions in which sub-question branches follow from a common stem with the easiest question first and the difficulty level increasing with the progression of the structure. These would include such skills as the interpretation of information from graphs and follow through questions.
- **FREE RESPONSE (ESSAY) QUESTIONS:** Questions that require explanation, discussion or calculation on material for which the examiner has not provided a pattern of response. In their response to this type of question, the students are expected to demonstrate communication, planning and organizational skills.

Exposure to the various questioning types allows for an in-depth assessment of students’ knowledge on the various subject matters as well as their ability to apply critical thinking skills. Furthermore, National Assessments promote the use of timed tests. As success in this mode requires discipline on the part of the students, continual practice in working with timed tests and quizzes throughout the school year will provide students with regular practice in working within the allocated time frames for the various components of the examination. Given continued exposure to all curriculum content areas, the different levels of the assessment objectives, the various questioning techniques and timed tests/ quizzes on a continual basis, students will be equipped with the skills and practices that are necessary to prepare them mentally and physically to confidently write National Examinations.

STRATEGIES FOR TEACHING STUDENTS WITH SPECIAL NEEDS

In Accommodating Math Students with Learning Disabilities, author Rochelle Kenyon lists the following strategies for teaching students with math-related learning disabilities:

1. Avoid memory overload. Assign manageable amounts of work as skills are learned;
2. Provide supervised practice to prevent students from practicing misconceptions and ‘misrules’;
3. Make new learning meaningful by relating practice of subskills to the performance of the whole tasks;
4. Reduce processing demands by pre-teaching component skills of algorithms and strategies;
5. Use visual and auditory examples;
6. Use real-life situations that make problems functional and applicable to everyday life;
7. Use uncluttered worksheets to avoid too much visual information;
8. Challenge critical thinking about real problems with problem solving;
9. Focus instruction on building understanding, proficiency and maintenance of mathematics
10. Reduce note taking and writing;
11. Engage students in multiple ways of doing mathematics; and
12. Use manipulatives and technology.

PROBLEMS OF THE DAY (POD)

Students of all ages should be given the challenge to solve problems in mathematics class every day. It is only through solving problems that they will become proficient problem solvers. Therefore, to help teachers find appropriate grade level problems, in the appendix is a collection of about 100 problems for your grade level. **Some problems have the answers and for others you have the opportunity of working them out with your students.**

How you use these problems is up to the individual teacher. Below are a few suggestions:

1. Post a Problem of the Day (POD) in your classroom every morning and let students work on it individually or in groups throughout the day and for homework. The next day, discuss the previous day's solution and post a new POD;
2. Start each mathematics class with a POD. Let student work on it when they finish assignments. Discuss solutions at the end of the class;
3. Set aside 15 minutes per day for students to work in assigned groups on the POD;
4. Post a POD every other day and let students work on it after they complete other class assignments;
5. Assign a POD for homework and give extra credit to students who show evidence of attempting a solution;
6. Post the same POD for an entire grade level every day or every other day. Let students collect points for every problem well attempted (Which class gathers the most points?) and
7. Open every faculty meeting or department meeting with a POD just for fun!

Problems of the Day

Give students a problem daily. Instead of solving the problem, break down the task. This makes it easier to model all steps in the problem-solving process. Students can:

- tell what the question is asking them to do.
- underline key words in the question that indicate the mathematical operation to be performed.
- delete extraneous information.
- identify the parts in the question.
- find the best problem-solving strategy and explain why it is the best.
- describe two different ways a problem could have been solved.
- have students develop questions from graphic information.
- share student-generated questions.
- ask other students to solve the problem and justify their answers.

***NOTE:** No matter how you use your PODs, it is imperative that there be a class discussion of the solution(s) where students present solutions with justifications.

***NOTE:** It is fun to solve problems with the class when you do not know the solution in advance Try it!

Commonwealth of The Bahamas

Ministry of Education

Scope and Sequence

Primary School Mathematics

Grades K-7

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
NUMBER AND OPERATIONS**

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operation and make reasonable estimates.

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
1. Identify and count “how many” objects are in a set.	I	D	A	A	M	M	A	A
2. Identify, count, write, and associate numerals and number words.	I	D	A	A	A	M	A	A
3. Connect number words and numerals to the quantities they represent (using various physical models).	I	D	A	A	A	M	A	M
4. Identify, write, and count using Roman Numerals.				I	D	A	D	M
5. Develop a sense of the position and degree of whole numbers and differentiate between the various classes of numbers e.g. cardinal and ordinal numbers, odd and even numbers, prime and composite, and triangular numbers etc.	I	D	M	A	D	D	A	M
6. Identify various representations of the same number /quantity and generate them by composing, and decomposing numbers.		I	D	D	M	M	M	A
7. Identify and use number values and place values within the base-ten number system.	I	D	A	A	A	M	A	M
8. Represent and compare whole numbers, decimals, and percentages.			I	A	M	M	A	M
9. Identify and represent commonly used fractions such as $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{2}$. and use models, benchmarks, and equivalent forms to judge the size of fractions.	I	D	D	A	M	M	A	M
10. Relate/name fractions as parts of unit wholes, as parts of a collection, as locations on number lines, and as divisions of whole numbers.			I	D	A	D	M	D
11.								
12. Identify, name/write equivalent forms of commonly used fractions, and decimals, and find percentages of different amounts.				I	D	D	A	M
13. Compare and order fractions, decimals, and percentages and find their approximate locations on a number line.				I	D	D	A	M

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
NUMBER AND OPERATIONS**

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operation and make reasonable estimates. **(Continued)**

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
14. Simplify and convert fractions, decimals and percentages.				I	D	M	A	M
15. Identify, write, and convert improper fractions to mixed numbers.					I	D	A	M
16. Compare and order fractions, decimals, and percentages.				I	D	D	M	M
17. Explain the meaning of addition, subtraction, multiplication, and division and identify them with the specific vocabulary of each rule of number.	I	D	D	A	A	D	M	M
18. Use multiplication arrays to differentiate between various multiplication problems.			I	D	D	A	M	M
19. Explore positive and negative integers on a number line.						I	D	A
20. Describe integers, represent, and compare quantities with them.						I	D	A
21. Identify and differentiate between prime and composite numbers.						I	D	D
22. Find the LCM and HCF of numbers.					I	D	M	M
23. Identify and use ratios and proportions to represent quantitative relationships.					I	D	A	M
24. Use appropriately exponential notations.						I	D	D
25. Identify squares and square roots of numbers.					I	D	M	D
26. Use factors, multiples, prime factorization to solve problems.				I	D	A	M	M
27. Add and subtract whole numbers, decimals, and money, and explain their effects.	I	D	D	A	A	M	A	M
28. Estimate and round numbers and use the strategies to add, subtract, multiply, and divide whole numbers, decimals and money.				I	D	A	M	M

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
NUMBER AND OPERATIONS**

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operation and make reasonable estimates. **(Continued)**

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
30. Choose and use appropriate strategies to estimate the results of whole number computations and judge the reasonableness of each result.					I	D	M	A
31. Explain and demonstrate situations that entail multiplication and division, such as sharing equally and equal groupings of objects. .				I	D	D	M	A
32. Develop and use strategies for whole–number computations, with focus on addition and subtraction.		I	D	M	A	M	M	M
33. Select appropriate methods and tools for computing whole numbers: mental computation, estimation, use of calculators, paper and pencil regarding the context and nature of the computation.			I	D	M	A	A	M
34. Use a variety of methods and tools to compute, including: objects, mental computation, estimation, paper, pencil, and calculators.		I	D	M	A	M	M	A
35. Use the divisibility rule for division.						I	D	M
36. Explain how to multiply and divide whole numbers.			I	D	D	M	A	M
37. Describe and create relationships between operations, using division as the inverse of multiplication and addition the inverse of subtraction to solve problems.				I	D	M	A	M
38. Explain and use properties of operations, such as the distributives of multiplication over addition and addition over subtraction (BODMAS).						I	D	D

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
NUMBER AND OPERATIONS**

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operation and make reasonable estimates. **(Continued)**

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
39. Develop fluency with basic number combinations for multiplication and division, and use these combinations to compute mentally related problems such as 30×50 .				I	D	M	A	A
40. Apply fluency in algorithms using addition, subtraction, multiplication and division of whole numbers.				I	D	M	M	A
41. Apply and use strategies to estimate computations involving fractions and decimals in situations relevant to students' experience.				I	D	A	D	M
42. Use visual models, benchmarks, and equivalent forms to add and subtract commonly used fractions and decimals.				I	D	M	M	A

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
ALGEBRA**

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
1. Identify, describe, and extend various patterns such as sequences of sounds, shapes, or simple numeric patterns.	I	A	A	A	M	D	D	A
2. Describe, extend, and generalize about geometric and numeric patterns.		I	D	M	A	A	D	D
3. Analyze how both repeating and growing patterns are generated.	I	A	A	A	M	D	D	A
4. Use concrete, pictorial, and verbal representations to develop an understanding of invented and conventional symbolic notations.	I	A	D	M	A	A	M	A
5. Model situations that involve addition and subtraction of whole numbers, using objects, pictures, and symbols.		I	A	A	D	D	M	A
6. Identify and construct squared, rectangular, triangular, oblong and L-shaped numbers.					I	D	D	A
7. Describe qualitative and quantitative change using various attributes (e.g. students growing taller; students growing 2 inches taller).	I	D	D	M	A	M	M	D
8. Represent and analyze patterns and functions using words, tables, and graphs.			I	D	M	A	A	D
9. Identify and illustrate general principles and properties such as commutative, associative and distributive, and use them to compute with whole numbers.				I	D	D	M	M
10. Represent a variable as an unknown quantity using a symbol or letter.				I	D	A	A	M
11. Express Mathematical relationships using equations.				I	D	A	M	D
12. Model problem situations with objects and use representations such as graphs, tables, and algebraic equations to draw conclusions.		I	D	D	M	A	A	D

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
MEASUREMENT**

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy. **(Continued)**

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
1. Explain and model attributes of length, area, weight, volume, and size of angle and select the appropriate type of unit for measuring.	I	D	D	A	A	D	M	M
2. Identify the attributes of length, volume, weight, area, perimeter and time, and compare and order objects according to these attributes	I	D	D	A	A	D	M	M
3. Measure objects using non-standard units e.g. multiple copies of units of the same size, such as paper clips laid end to end.		I	M	A	D	M	M	A
4. Differentiate and use standard units: customary and metric.		I	M	A	D	A	M	A
5. Develop common referents (similarities) to measure and make comparisons and estimations.	I	D	D	M	M	A	A	D
6. Compare relationships among units and convert from one unit to another within the same system.				I	D	D	M	M
7. Explore what happens to measurements of a two-dimensional shape such as perimeter and area when sizes change.					I	D	D	M
8. Identify coins and bills, and make change for given amounts.		I	A	D	D	A	D	M

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
MEASUREMENT**

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy. **(Continued)**

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
9. Use strategies for estimating the perimeters, areas, and volumes of irregular shapes.				I	D	D	M	M
10. Select and apply appropriate standard units and tools to measure length, area, volume, weight, time, temperature, and size of angles.				I	D	A	M	A
11. Use formulae to find the area of rectangles and related triangles and parallelograms.				I	D	M	A	A
12. Develop strategies to determine the surface areas and volumes of rectangular solids.		I	M	D	M	A	M	D
13. Identify, select, and use units of appropriate methods for estimating measurements.				I	M	D	A	M
14. Select and apply techniques and tools that would accurately find length, area, volume, and angle (measures should be precise).					I	D	M	A
15. Use formulae to determine the circumference of circles and the area of triangle, parallelograms, trapezoids, and circles.							I	D
16. Solve simple problems related to measurement.	I	D	D	M	A	A	D	M

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
GEOMETRY AND SPATIAL SENSE**

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space. **(Continued)**

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
1. Sort, classify, and order objects by size, amount, and other properties.	I	D	A	A	M	M	M	A
2. Identify, name, build, draw, compare, and sort geometric objects and two- and three-dimensional shapes.	I	D	D	A	D	D	M	M
3. Describe attributes and parts of two-and three-dimensional shapes.		I	D	A	D	M	A	D
4. Investigate and predict the results of putting together and taking apart two-and three-dimensional shapes.		I	D	D	M	A	D	D
5. Classify two-and three-dimensional shapes according to their properties and develop definitions of classes of shapes such as triangles and pyramids.		I	D	A	D	D	A	M
6. Name, describe, interpret relative positions in space, and apply ideas to relative positions.		I	D	D	M	D	M	A
7. Find and name locations with simple relationships such as ‘near to’ in coordinate systems such as maps.	I	D	D	A	M	D	D	A
8. Identify and apply slides, flips, and turns to objects and shapes.			I	D	M	D	M	A
9. Predict and describe the results of sliding, flipping, and turning two-dimensional shapes.				I	D	D	A	A
10. Describe sizes, positions and orientation of shapes under transformation such as flips, turns and slides.					I	D	D	M
11. Identify and create shapes that have symmetry.	I	D	D	A	M	M	A	D
12. Create mental images of geometric shapes using spatial memory and spatial visualization.			I	D	D	A	D	M
13. Identify and represent shapes from different perspectives.	I	D	D	A	M	D	D	A
14. Relate ideas in geometry to ideas in number and measurement.				I	D	D	M	A
15. Identify geometric shapes and structures in the environment and specify their locations.	I	D	D	A	M	M	D	D

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
GEOMETRY AND SPATIAL SENSE**

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space. (**Continued**)

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
16. Investigate, describe, and reason about the results of subdividing, combining, and transforming shapes.				I	D	A	M	M
17. Describe location and movement using common language and geometric vocabulary.			I	D	A	D	M	M
18. Make and use coordinate systems to specify locations, to describe paths and find the distance between points along horizontal and vertical lines of a coordinate system.				I	D	D	M	M
19. Explore congruence and similarity.				I	D	D	M	D
20. Make and test conjectures about geometric properties and relationships and develop; logical arguments to justify conclusions.							I	D
21. Describe a motion or a series of motions that will show that two shapes are congruent.						I	D	D
22. Identify and describe line and rotational symmetry in two-and three-dimensional shapes and designs				I	D	D	A	A
23. Build and draw geometric objects.	I	D	D	A	A	M	D	D
24. Create and design mental images of objects, patterns, and paths.				I	D	D	M	A
25. Identify and build a three-dimensional object from two-dimensional representations of that object.			I	D	D	M	A	A
26. Describe, classify, and associate/understand relationships among types of two-and three dimensional objects using their defining properties.						I	D	D

SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
GEOMETRY AND SPATIAL SENSE

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space. **(Continued)**

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
27. Use geometric models to solve problems in other areas of mathematics, such as number, and measurement.				I	D	D	A	M
28. Identify and apply geometric ideas and relationships to other disciplines (Art, Science, Social Studies etc.) and problems that arise in the classroom or in everyday life.				I	D	D	A	M
29. Explain relationships among the angles, side lengths, perimeters, areas, and volumes of similar objects.						I	D	D
30. Use coordinated geometry to represent and examine the properties of special geometric shapes such as polygons or those with perpendicular and parallel lines.						I	D	D

**SCOPE OF SEQUENCE
MATHEMATICS CURRICULUM
DATA ANALYSIS AND PROBABILITY**

Sub-Goal 5: Collect, organize and analyze data using statistical methods: predict results; and interpret uncertainty-using concepts of probability.

Key: I = Introduce, D = Develop, M = Maintain, A = Advance

Objectives	Preschool	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7
1. Formulate and pose questions about themselves and their surroundings.	I	D	D	M	M	A		M
2. Collect and analyze data about themselves and their surroundings.	I	D	D	M	M	A	D	M
3. Sort and classify objectives according to their attributes and organize data about the objects.	I	D	D	M	M	A	D	M
4. Represent data using concrete objects, pictures, and graphs.	I	D	D	M	M	A	D	M
5. Represent data using tables and graphs (picture, bar, pie, line and Venn diagrams up to three circles).			I	D	A	D	M	M
6. Describe parts of the data and the set of data as a whole to determine what the data show.			I	D	D	M	M	A
7. Collect data using observations, surveys, and experiments.			I	D	D	M	M	A
8. Describe the shape and important features of a set of data and compare related data sets, with emphasis on how the data are distributed.					I	D	D	M
9. Compare different representations of the same data and evaluate how well each representation shows important aspects of the data.						I	D	D
10. Propose and justify conclusions and predictions that are based on data and design studies to further investigate the conclusions or predictions.						I	D	D
11. Describe events including students' experiences as likely or unlikely and discuss the degree of likelihood with words such as <i>certain, equally, likely, and impossible</i> .				I	D	A	M	M
12. Predict the probability of outcomes of simple experiments and test the predictions.				I	D	A	M	M
13. Formulate questions, design studies, and collect data about a characteristic shared by two populations or different characteristics within one population.							I	D

Primary School Mathematics

Suggested Topic Pacing Guide

Grades: 1-3

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 1**

KEY: N = Number and Operations

A = Algebra

M = Measurement

G = Geometry and Spatial Sense

D = Data Analysis and Probability

STRAND	TOPICS	DURATION			
		1 Day		2 Days	1 Week
		35 mins.	60 mins.		
Number and Operations	1. Positioning Vocabulary Words (N:1)				√
	2. Classifying Concrete Objects (N:2)				√
	3. Reading, Writing and Reciting Number Sequences Through 100 (N:3)				√
	4. Numbers: Before and After (N:4)				√
	5. Ordering Numbers (N:5)				√
	6. Sets Containing 0 - 20 Members (N:6; 9)				√
	7. Objects in Sets (N:7)				√
	8. Ordinal Positions Through Tenth (N:8)				√
	9. “How Many” and “How Much” in a Given Set (N:10)				√
	10. Groups of Tens and Ones (N:11)				√
	11. Place Value of Two Digit Numbers (N:12)				√
	12. Addition and Subtraction Facts to 20 (N:13)				√
	13. Solving Fact Families (N:14)				√
	14. Addition and Subtraction (N:15)				√
	15. Sum of Two Addends (N:16)				√
	16. Appropriate Strategy to Determine the Answer to Facts (N:17)				√
	17. Mental Arithmetic (N:18)				√
	18. Addition & Subtraction Word Problems with Whole Numbers (N:19, 20)				√
	19. Numerator and Denominator in Fractions (N:21)			√	
	20. Fractions ($\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{3}$) as a Whole (N:22)				√

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 1**

KEY: N = Number and Operations

A = Algebra

M = Measurement

G = Geometry and Spatial Sense

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
Algebra	1. Patterns Using Pictures, Shapes and Numbers (A:1) 2. Patterns from one Medium to Another (A:2) 3. Skip Counting by 2s, 5s, 10s (A:3, 4)	1 Day		2	1	2
		35 mins.	60 mins.	Days	Week	Weeks
					√	
					√	
					√	
Measurement	1. Comparing Lengths and Heights of Two Objects (M:1) 2. Comparing Lengths/Heights of Objects: Non-Standard Units (M:2) 3. Comparing Using Standard and Non-Standard Units to Estimate (M:2, 4) 4. Measuring Using Metric Units (metre, centimetre) (M:3) 5. Comparing Masses (M:5) 6. Hot and Cold (M:6) 7. Comparing Surfaces Objects to Determine Equality of Areas (M:7) 8. Appropriate Time of Day (M:8) 9. Days and Weeks on the Calendar (M:9) 10. Months of the Year in Order (M:10) 11. Hour and Half-hour on an Analog Clock (M:11) 12. Counting Coins up to 25 cents (M:12) 13. Equivalent of Other Coins Values in Pennies (M:13) 14. Money Value Through Exchange (M:14)				√	
					√	
					√	
					√	
					√	
				√		
					√	
				√		
				√		
					√	
					√	
					√	
					√	
					√	
					√	

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 1**

KEY: N = Number and Operations

A = Algebra

M = Measurement

G = Geometry and Spatial Sense

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
Geometry and Spatial Sense	1. Use of Venn Diagrams (G:1) 2. Triangles, Squares, Rectangles and Circles in Different Orientations (G:2, 4, 5) 3. Basic Solid Shapes (G3, 4) 4. Location of a Plane (G:6)	1 Day		2	1	2
		35 mins.	60 mins.	Days	Week	Weeks
					√	
					√	
					√	
					√	
Data Analysis and Probability	1. Graphs and Pictographs (D:1) 2. Use of Vocabulary: Less, Greater Than, and Less Than (D:2) 3. Prediction About Graphs (D:3) 4. Concept of Chance (D:4) 5. Describing Terms: Likely and Unlikely (D:5)				√	
					√	
					√	
					√	
					√	
					√	

MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 2

KEY: N = Number and Operations A = Algebra M = Measurement G = Geometry and Spatial Sense D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
		1 Day		2 Days	1 week	2 weeks
Number and Operations		35 mins.	60 mins.			
	1. Numbers from 0 to 20 on a Number Line (N:1)				√	
	2. Number Sequences (N:2)				√	
	3. Ascending and Descending Order of Numbers (N:3)				√	
	4. Positioning Numbers of Ordered Sets (N:4)				√	
	5. Two-digit Numbers in Terms of Tens and Ones (N:5)				√	
	6. Place Value of a Three-digit Number (N:6)				√	
	7. Whole Numbers Between 0 - 999 (N:7, 8)				√	
	8. Odd and Even Numbers (N:9)			√		
	9. Parts of a Whole (N:10)			√		
	10. Fractional Parts of a Whole (N:11)				√	
	11 Addition and Subtraction Facts up to Twenty (N:12)				√	
	12. Facts to Mental Math (N:13)				√	
	13. Strategies for Sums and Differences (N:14)				√	
	14. Fact Families Using Addition and Subtraction (N:15)				√	
	15. Two-Digit Numbers (N:16)				√	
	16. Addition Without Regrouping (N:17)				√	
	17. Addition With Regrouping (N:18)				√	
	18. The Difference of Two-digit Numbers (N:19)				√	
	19. Subtracting Three Digits Without Renaming (N: 20)				√	
	20. Subtracting Three Digits With Renaming (N:21)					√

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 2**

KEY: N = Number and Operations

A = Algebra

M = Measurement

G = Geometry and Spatial Sense

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
		1 Day		2	1	2
		35 mins.	60 mins.	Days	Week	Weeks
Number and Operations	21. Multiplication as Repeated Addition (N:22)				√	
	22. Division as Repeated Subtraction (N:23)				√	
	23. Objects in a Set Using 0, 10, and 100 (N:24)			√		
	24. Finding Sums and Differences (N:25)				√	
	25. Solve Problems in Addition and Subtraction Using Whole Numbers (N:26)				√	
Algebra	1. Action and Repeated/Grouping Patterns (A:1)				√	
	2. Patterns (A:2)			√		
	3. Skip Counting up to 999 (A:3)				√	
	4. Missing Numbers on a Number Line (A:4)			√		
	5. Non-Routine Problems (A:5)				√	
	6. Word Problems: Expressions and Equations (A:6)				√	
Measurement	1. Nearest Meter, Centimeter, or Decimeter (Customary) (M:1)				√	
	2. Measuring Area Using Nonstandard Units (M:2)				√	
	3. Estimate and Compare Objects Using Metric/Customary Measurements (M:3)				√	
	4. Perimeter with Non-Standard Unit (M:4)				√	
	5. Measure and Compare Temperatures (M:5)				√	
	6. Appropriate Parts of the Day (M:6)			√		
	7. Sequencing Days of the Week and Months of the Year (M:7)			√		
	8. Calendar for The Month, Year, and Date (M:8)			√		
	9. Associations Between Months, Days, and Weeks on Calendar (M:9)			√		
	10. Equivalent Relationships Between Days, Months, Years and Hours (M:10)				√	

MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 2

KEY: N = Number and Operations

A = Algebra

M = Measurement

G = Geometry and Spatial Sense

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
		1 Day		2	1	2
		35 mins.	60 mins.	Days	Week	Weeks
Measurement	11. Time, to the Hour, Half Hour and Quarter on an Analog Clock (M:11) 12. Using Coins and Bills (M:12) 13. Compare and Make Change Using a Collection of Coins (M:13) 14. Symbols: \$, ¢ and Decimal Point (M:14) 15. Solve Problems Using Whole Numbers and Money (M:15)				√	
					√	
					√	
				√		
					√	
					√	
Geometry and Spatial Sense	1. Properties of Common Plane Shapes (G:1) 2. Classifying Flat Shapes (G:1) 3. Identifying Spheres, Cones, Cubes and Cylinders (G:2) 4. Classifying Solid Shapes (G:3) 5. Differentiating Between Plane and Solid Shapes (G:4) 6. Slide, Flip and Turn (G:5) 7. Lines of Symmetry (G:6) 8. Relationships: In Coordinate System and Maps (G:7)				√	
					√	
					√	
				√		
					√	
					√	
				√		
					√	
Data Analysis and Probability	1. Interpreting Data: Concrete and Pictographs (D:1) 2. Interpret Data on Horizontal and Vertical Bar Graphs (D:2) 3. Predictions from Graphs (D:3) 4. Using Likely and Unlikely to Everyday Situations/Events (D:4)				√	
				√		
					√	
					√	

MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 3

KEY: N = Number and Operations

A = Algebra

M = Measurement

G = Geometry and Spatial Sense

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
		1 Day		2	1	2
		35 mins.	60 mins.	Days	Week	Weeks
Number and Operations	1. Ordinal Numbers to Identify Positions (N:1)			√		
	2. Places and Values of Given Digits up to 999 999 (N:2)				√	
	3. Reciting Sequences of Numbers Through 999 999 (N:3)				√	
	4. Four-digit Numbers in Standard, Expanded and Word Form (N:4)				√	
	5. Compare and Order Numbers Through 9 999 ((N:5)				√	
	6. Addition and Subtraction Facts Through 20: Three Seconds (N:6)				√	
	7. Rounding to the Nearest Tens and Hundreds (N:7)				√	
	8. Sums and Differences (N:8)				√	
	9. Addition and Subtraction of Money (N:9)				√	
	10. Computational Problems in Addition Using Whole Numbers: With and Without Regrouping (N:10)				√	
	11. Computational Problems in Subtraction Using Whole Numbers: With and Without Renaming (N:11)				√	
	12. Roman Numbers to XXV (25) (N:12)				√	
	13. Converting Combinations of Roman Numbers (N:13)				√	
	14. Using Numbers in Everyday Life (N:14)				√	
	15. Explaining the Relationship Between Odd and Even Numbers (N:15)				√	
	16. Counting to 100 by 2s, 3s, 4s, 5s, 10s and 50s (N:16)				√	
	17. Multiplication as Repeated Addition (N:17)				√	
	18. Multiplication Using Arrays (N:18)				√	
	19. Multiplication and Division Facts Through 12 x 12 (N:19)				√	
	20. Multiplication and Division Fact Families (N:20)				√	
	21. Multiplying Numbers with at Least Two Digits by One Digit (N:21)				√	
	22. Solving Multiplication Problems (N:22)				√	

MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 3

KEY: N = Number and Operations

A = Algebra

M = Measurement

G = Geometry and Spatial Sense

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
		1 Day		2 Days	1 Week	2 Weeks
		35 mins.	60 mins.			
Number and Operations	23. Multiplying Numbers Up to 9 999 by a One-Digit Number (N:23)				√	
	24. The Meaning of Division (N:24)			√		
	25. Relationship Between Multiplication and Division (N:25)			√		
	26. Division as Repeated Subtraction (N:26)				√	
	27. Dividing Numbers Up to 9 999 by a One-Digit Number (N:27)				√	
	28. Fractions Representations (N:28)			√		
	29. Relationship Between a Fractional Part and its Whole (N:29)				√	
	30. Ordering Fractions With the Same Denominator (N:30)				√	
	31. Ordering Fractions with Different Denominator (N:31)				√	
	32. Equivalent Fractions (N:32)				√	
	33. Finding the Fractional Part (N:33)				√	
	34. Simplest Form of Fractions (N:34)				√	
	35. Adding and Subtracting Fractions (N:35)				√	
	36. Representations for Tenths and Hundredths (N:36)				√	
	37. Multiplying and Dividing Tens, Hundreds, and Thousands (N:37)				√	
	38. Measurements in Compound Units (N:38)				√	
Algebra	1. Numerical and Symbolic Patterns (A:1)				√	
	2. Missing Numbers on a Number Line (A:2)				√	
	3. Patterns Identification (A:3)				√	
	4. Expressions Using =, > and < (A:4)				√	

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 3**

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
Measurement	1. Time to The Nearest Five Minutes (M:1) 2. Comparing Time: Events Taking The Same Amount of Time, More, or Less Time (M:2) 3. Vocabulary for Time (M:3) 4. Equivalent Periods of Time (M:4) 5. Calendar Identifying Specific Dates (M:5) 6. Elapsed Time (M:6) 7. Converting Between Units of Time (M:7) 8. Recording Temperatures (M:8) 9. Measuring Length Metres, Decimetres Centimetres (M:9) 10. Perimeter of Polygons: Standard and Non Standard Measurements (M:10) 11. Finding Area of Shapes: Non-Standard and Standard Measurements (M:11) 12. Measuring Capacity: Litres and Millilitres (M:12) 13. Estimating and Measuring Mass: Grams and Kilograms (M:13) 14. Converting Units Within Systems Using Multiplication (M:14) 15. Identifying and Comparing Coins, Bills and their Values (M:15) 16. Equivalent Amounts (M:16) 17. Making Change up to \$20.00 (M:17) 18. Rounding Purchase Amounts for Cash Exchange (M:18)	1 Day		2 Days	1 Week	2 Weeks
		35 mins.	60 mins.			
					√	
				√		
				√		
				√		
				√		
						√
					√	
				√		
					√	
					√	
					√	
					√	
					√	
					√	
					√	
					√	
					√	
					√	
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			
			√			

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
TOPIC PACING GUIDE
GRADE: 3**

D = Data Analysis and Probability

STRAND	TOPICS	DURATION				
Geometry and Spatial Sense	4. Slides, Flips, and Turns (G:4) 5. Points of a Plane/Grid (G:5)	1 Day		2 Days	1 Week	2 Weeks
		35 mins.	60 mins.			
					√	
					√	
Data Analysis and Probability	1. Recording and Interpreting Data (D:1) 2. Parts of a Graph (D:2) 3. Data Representation Including Range and Mode (D:3) 4. Analyzing and Drawing Conclusions From Graphs (D:4) 5. Using Terms: Possible, Impossible, Always, and Sometimes (D:5)			√		
				√		
				√		
				√		
					√	

Primary School Mathematics

Suggested Weekly Pacing Guide

Grades: 1 - 3

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 1**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 1

TERM	TEACHING SEQUENCE		
Christmas Term	WEEK	TOPIC	PAGE REFERENCE
	1	- Revisit MOE Grade 1 Placement Assessment / Routine Procedures - Review basic concepts from kindergarten - Example: colours, counting, groups, shapes etc.	✓ Textbook: pgs. 7-16
	2	- Positioning Vocabulary Words (N:1) - Hot and Cold (M:6)	✓ Textbook: pgs. 1-6; 8-9 ✓ Textbook: pgs. 136-138
	3	- Classifying Concrete objects (N:2) - Comparing Masses (M:5)	✓ Textbook: pgs. 8-11 ✓ Textbook: pgs. 133-135
	4	- Number Sequences Through 10 (N:3) - Numbers: Before and After (N:4) - Sets Containing 0-10 Members (N:6) - Tally Marks (Graphs) (D:1) - Objects in Sets (N:7)	✓ Textbook: pgs. 22-23 ✓ Textbook: pg. 35 ✓ Textbook: pgs. 33-36
	5	- Add Whole Numbers Sums to 5 (N:14) - Appropriate Strategy to Determine the Answer to Facts - Measurement: Length and Height (M:14)	✓ Textbook: pgs. 47-54 ✓ Textbook: pgs. 27-29; 30-33
	6	- Add whole Numbers Sums to 10 (N:14) - Ordinal Positions Through Tenth (N:8) - Order Property (N:13)	✓ Textbook: pgs. 47-50 ✓ Textbook: pgs. 25, 26 ✓ Textbook: pgs. 128-132
	7	- Hour on an Analog Clock (M:11) - Comparing Numbers to 10 (N:4) - Ordering Numbers from Least to Greatest; Greatest to Least (N:5) - Comparing Lengths & Heights Using Standard Units (M:3)	✓ Textbook: pgs. 123-127 ✓ Textbook: pgs. 23; 36-38 ✓ Textbook: pg. 23 ✓ Textbook: pgs. 103-108

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 1**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 1

TERM	TEACHING SEQUENCE		
	WEEK	TOPIC	PAGE REFERENCE
Christmas Term	8	- Add Whole Numbers Sums to 15 (N:14) - Number Sequences Through 19 (N:3) - Numbers: Before and After to 19 (N:4) - Objects in Sets (N:7) - Compare Numbers to 19 (N:5) - Pictographs & Tally Graphs (D:3) - Number Sequences Through 19 (N:3)	✓ Textbook: pgs. 47-50 ✓ Textbook: pgs. 18-24 ✓ Textbook: pgs. 23 ✓ Textbook: pgs. 33-36 ✓ Textbook: pg. 23 ✓ Textbook: pgs. 55-58; 150 ✓ Textbook: pgs. 18-24
	9	- Add Whole Numbers Sums to 20 (N:14) - Word Problems (N:19) - Comparing Numbers to 20 (N:5) - Appropriate Time of Day (M:8) - Days and Weeks on the Calendar (M:9) - Months of the Year in Order (M:10)	✓ Textbook: pgs. 47-50 ✓ Textbook: pgs. 23; 36-38 ✓ Textbook: pgs. 39-41 ✓ Textbook: pgs. 45, 46 ✓ Textbook: pgs. 42-44
	10	- Use mental arithmetic (10 +; Doubles) (N:18) - Addition Sums to 20 (N:14) - Graphing and Word Problems - Patterns with Tables, Graphs and Words - Twenty Family Number Pattern (N:3, 4) - Sets (N:6) - Matching Sets (N:7)	✓ Textbook: pgs. 47-50 ✓ Textbook: pg. 94 ✓ Textbook: pgs. 94-96 ✓ Textbook: pgs. 33-35 ✓ Textbook: pg. 36

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 1**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 1

TERM	TEACHING SEQUENCE		
Christmas Term	WEEK	TOPIC	PAGE REFERENCE
	11	- Add Sums to 20 (N:14) 2D Shapes: Different Orientation (G:2) - Compare Plane and Solid Shapes (G:4) - Lines of Symmetry (G:5) - Use of Venn Diagrams (G:1)	✓ Textbook: pgs. 47-50 ✓ Textbook: pgs. 59-66 ✓ Textbook: pgs. 85-89 ✓ Textbook: pg. 88 ✓ Textbook: pgs. 87, 64, 65
	12	- Add Sums to 20 (N:14) - Count(US) Pennies to \$1.00 (M:12) - Equivalent Coins (M:13) - Money Value Through Exchange (M:14) - Extended Pattern (A:1)	✓ Textbook: pgs. 47-50 ✓ Textbook: pg.12
	13	REVISION	

MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 1

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 1

TERM	TEACHING SEQUENCE		
Easter Term	WEEK	TOPIC	PAGE REFERENCE
	1	• Addition Sums to 20 (N:14) • Time to Half Hour (M:11) • Place Value: 30 and 40 Number Pattern (N:3, 11, 12) ✓ 30 and 40 Number Pattern: Before and After (N:4) ✓ 30 and 40 Number Pattern: Sets (N:6) ✓ 30 and 40 Number Pattern: Matching Sets (N:7) • Quarters to \$1.00 (M:13) • Quarters to \$1.00: Equivalent (M:14)	✓ Textbook: pgs. 47-50 ✓ Textbook: pg. 126 ✓ Textbook: pg. 24 ✓ Textbook: pgs.73; 75, 77, 78
	2	• Place Value: 50 & 60 Number Pattern (N:3, 11, 12) ✓ 50 & 60 Number Pattern: Before and After (N:4) ✓ 50 & 60 Number Pattern: Sets (N:6) ✓ 50 & 60 Number Pattern: Matching Sets (N:7) • Skip Counting by Tens (A:3) • The Ten Cent Coin (M:13) • The Ten Cent Coin: Money Value (M:14)	✓ Textbook: pgs. 18-24 ✓ Textbook: pgs. 67-72
	3	• Place Value: 50 & 60 Number Pattern (N:3, 11, 12) ✓ 50 & 60 Number Pattern: Before and After (N:4) ✓ 50 & 60 Number Pattern: Sets (N:6) ✓ 50 & 60 Number Pattern: Matching Sets (N:7) • Skip Counting by Fives (A:3) • The Ten Cent Coin (M:13) • The Ten Cent Coin: Money Value (M:14)	✓ Textbook: pgs. 18-24 ✓ Textbook: pgs. 67-72

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 1**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 1

TERM	TEACHING SEQUENCE		
Easter Term	WEEK	TOPIC	PAGE REFERENCE
	4	- Addition Sums to 20 (N:14) - Translation of Patterns (A:2) - Objects in a Plane (G:6) 3D Shapes (G: 1, 3)	✓ Textbook: pgs. 47-50 ✓ Textbook: pgs. 14-16 ✓ Textbook: pgs. 85-92
	5	- Place Value:70 Number Pattern (N:3, 11, 12) ✓ 70 Number Pattern: Before and After (N:4) ✓ 70 Number Pattern: Sets (N:6) ✓ 70 Number Pattern: Matching Sets (N:7) - Skip Counting by Fives (A:3) - The Five Cent Coin: Equivalent (M:13) - The Five Cent Coin: Money Value (M:14)	✓ Textbook: pgs. 18-24 ✓ Textbook: pgs. 67-72
	6	- Subtracting Whole Numbers (N:16) - Translation of Patterns (A:2) - Objects in a Plane (G:6) - Estimating Lengths and Heights (M:4)	✓ Textbook: pgs. 79-81 ✓ Textbook: pgs. 14-16 ✓ Textbook: pgs. 103-108
	7	- Subtracting Whole Numbers (N:16) - Place Value: Numbers 80 -100 (N:3 11, 12) ✓ Numbers 80 - 100: Before and After (N:4) ✓ Numbers 80 - 100: Sets (N:6) ✓ Numbers 80 - 100 : Match Sets (N:7)	✓ Textbook: pgs. 79-81

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 1**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 1

TERM	TEACHING SEQUENCE		
Easter Term	WEEK	TOPIC	PAGE REFERENCE
	8	- Subtracting Whole Numbers (N:16) - Place Value: Numbers 0 -100 (N:3, 11, 12) ✓ Numbers 0 - 100: Before and After (N:4) ✓ Numbers 0 - 100: Sets (N:6) ✓ Numbers 0 - 100: Match Sets (N:7) - Estimate or Count (N:10)	✓ Textbook: pgs. 79-81
	9	- Subtracting Whole Numbers (N:16) - Bar Graphs (D:3) - Interpreting, Drawing Conclusions and Making Predictions about Graphs (D:3)	✓ Textbook: pgs. 79-81 ✓ Textbook: pgs.151, 152
	10	- Addition and Subtraction of Whole Numbers (N:16) 2D and 3D Shapes (G4) - Pictographs (D:1)	✓ Textbook: pgs. 47-50 ✓ Textbook: pgs. 55-58
	11	- Symmetry (G:5) - Fractions: Numerator and Denominator (N:21) - Fractions: Part of a Whole or Group (N:22) - Addition and Subtraction (N:16)	✓ Textbook: pgs. 115-122 ✓ Textbook: pg. 49 ✓ Textbook: pgs. 47-49; 79-81
	12.	- Symmetry (G:5) - Fractions: Numerator and Denominator (N:21) - Fractions: Part of a Whole or Group (N:22) - Addition and Subtraction (N:16)	✓ Textbook: pgs. 115-122 ✓ Textbook: pg. 49 ✓ Textbook: pgs. 47-49; 79-81
	13	REVISION	

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 1**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 1

TERM	TEACHING SEQUENCE		
Summer Term	WEEK	TOPIC	PAGE REFERENCE
	1	- Time to the Half Hour (M:11) - Elapsed Time (M:11)	✓ Textbook: pgs. 126, 127
	2	- Time to the Hour and Half Hour (M:11) - Elapsed Time (M:11) - Addition and Subtraction (N:16)	✓ Textbook: pgs. 124, 126, 127 ✓ Textbook: pgs. 47-50; 79-81; 57-58
	3	- Skip Counting by Twos (A:3) - Pictographs (D:1)	✓ Textbook: pgs. 67-72 ✓ Textbook: pgs. 55-58
	4	- Graphs (D:2) - Probability (D:4, 5)	✓ Textbook: p. 93
	5	- Time to the Half Hour (M:11) - Elapsed Time (M:11)	✓ Textbook: pgs. 126, 127
	6	- Surface Area (M:7) - Fact Families (N:14)	✓ Textbook: pgs. 146-149 ✓ Textbook: pgs. 130-132
	7	- Two-Digit Addition (N:16) - Addition and Subtraction (N:16)	✓ Textbook: pgs. 47-50; 79-81
	8	- Two-Digit Addition (N:16) - Addition and Subtraction (N:16)	✓ Textbook: pgs. 47-50; 79-81

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 2**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 2

TERM	TEACHING SEQUENCE		
Christmas Term	WEEK	TOPIC	PAGE REFERENCE
	1	- Revisit MOE Grade 2 Placement Assessment / Routine Procedures - Review basic concepts from Grade 1.	✓ Textbook: pgs.1-6
	2	- Read and Write Whole Numbers 0 - 100 on a Number Line (N:1) - Read, Write and Use Whole numbers to 999 (N:2) - Locate Missing Numbers on a Number Line (A:4)	✓ Textbook: pg. 3 ✓ Textbook: pgs. 16, 17 ✓ Textbook: pg. 3
	3	- Place Value: Two Digits (N:5) - Place Value: Three Digits (N:7) - Days of the Week and Months of the Year (M:7)	✓ Textbook: pgs. 43,44 ✓ Textbook: pgs. 46-49 ✓ Textbook: pgs. 22-23
	4	- Place Value: Two Digits (N:5) - Place Value: Three Digits (N:7) - Ascending and Descending Order (N:3) - Read a Calendar (M:8)	✓ Textbook: pgs. 43, 44 ✓ Textbook: pgs. 46-49 ✓ Textbook: pg. 9 ✓ Textbook: pgs.24, 25
	5	- Model Three Digit Numbers (N:6) - Ordinal Numbers to Twentieth (N:4) - Number to 999 in Ascending and Descending Order (N:3) - Patterns (A:1)	✓ Textbook: pgs. 46-49 ✓ Textbook: pgs.52, 53 ✓ Textbook: pgs. 3, 8 ✓ Textbook: pgs. 2, 7-12
	6	- Compare Whole Numbers using <, > or = from 0 – 999 (N:8) - Model Three-Digit Numbers (N:6) - Patterns (A:1) - Ordinal Numbers to Twentieth (N:4)	✓ Textbook: pgs.109-112 ✓ Textbook: pgs. 46-49 ✓ Textbook: pgs. 2, 7-12 ✓ Textbook: pgs. 51-54
	7	- Odd and Even Numbers (N:9) - Skip counting (A:3) - Sort and Classify Plane Shapes (G:1)	✓ Textbook: pgs. 18-20 ✓ Textbook: pg. 14 ✓ Textbook: pgs. 72, 73

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 2**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 2

TERM	TEACHING SEQUENCE		
Christmas Term	WEEK	TOPIC	PAGE REFERENCE
	8	- Addition and Subtractions Facts Up to Twenty (N:12) - Basic Facts: Mental Math (N:13) - Addition and Subtraction Strategies (N:14) - Sort and Classify Plane Shapes (G:1)	✓ Textbook: pgs. 4, 5 ✓ Textbook: pgs.10, 11 ✓ Textbook: pgs. 5 ✓ Textbook: pgs. 72, 73
	9	- Fact Families - Addition and Subtraction (N:15) - Number Sentences (A:6)	✓ Textbook: pgs. 33, 34
	10	- Estimate the number of Objects in a set using 0, 10 and 100 (N:24) - Estimate to find the Sum and Difference (N:25)	✓ Textbook: pgs. 82, 83
	11	- Sum of Two and Three-Digit Numbers Without Regrouping (N:16-17) - Make associations between months and days and weeks on a calendar (M:9) - Equivalent relationships: Months, Days, Years, & Weeks (M10)	✓ Textbook: pgs. 76, 77 ✓ Textbook: pgs. 25 ✓ Textbook: pgs.26
	12	- Difference of Two and Three-Digit Numbers without Renaming ((N:19, 20) - Temperature (M:5)	✓ Textbook: pgs.78, 79 ✓ Textbook: pgs. 38, 39
	13	REVISION	

MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 2

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 2

TERM	TEACHING SEQUENCE		
Easter Term	WEEK	TOPIC	PAGE REFERENCE
	1	- Review Addition and Subtraction Without Regrouping and Renaming - Solid Shapes (G:2, 3)	✓ Textbook: pgs. 135-137
	2	- Addition with Regrouping-2 Digit Numbers (N:18) - Differentiating Between Plane and Solid Shapes (G:4)	✓ Textbook: pg. 155
	3	- Addition with Regrouping- 2-Digit Numbers (N:18) - Slide, Flip and Turn (G:5)	
	4	- Addition with Regrouping- 3-Digit Numbers (N:17) - Coins and Bills (M:12)	✓ Textbook: pgs. 60, 62
	5	- Difference of Two-Digit Numbers with Renaming (N:21) - Coins and Bills (M:12)	✓ Textbook: pgs. 78, 79 ✓ Textbook: pgs. 60, 62
	6	- Difference of Two-Digit Numbers with Renaming (N:21) - Make Change (M:13) - Use Correct Money Symbols (M:14) - Graphs: Bar Graphs. Pictographs and Tally Graphs (D:1, 2)	✓ Textbook: pgs. 93, 94 ✓ Textbook: pg. 63 ✓ Textbook: pgs. 93, 94
	7	- Word Problems: Whole Number and Money (M:15) - Fractional Parts of a Whole (N:10) - Graphs: Bar Graphs and Pictograph (D:1, 3) - Range and Mode (D:5)	✓ Textbook: pgs. 97, 98, 100, 101 ✓ Textbook: pgs. 90-96
	8	- Fractional Parts of a Whole (N:10) - Collect and Record Data for Graphs (D:1, 2)	✓ Textbook: pgs. 97, 98, 100, 101 ✓ Textbook: pgs. 91, 92
	9	- Unit Fractions (N:10) - Read Pictographs (D:1) - Word Problems: Whole Numbers, Money and Fractions (N:26)	✓ Textbook: pg. 98 ✓ Textbook: pg. 91

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 2**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 2

TERM	TEACHING SEQUENCE		
Easter Term	WEEK	TOPIC	PAGE REFERENCE
	10	- Unit Fractions (N:10) - Fraction: Equally Sized (N:11) - Read Bar Graphs (D:2) - Coordinate System (G:7)	✓ Textbook: pg. 98 ✓ Textbook: pg. 99 ✓ Textbook: pg. 93 ✓ Textbook: pgs.54-57
	11	- Draw Conclusions and Make Predictions from Graphs (D:3) - Estimate and Measure Length (M:1) - Time to the Hour, Half Hour and Quarter Hour (M:11)	✓ Textbook: pgs. 90-96 ✓ Textbook: pgs. 105, 106 ✓ Textbook: pgs.120-122
	12	- Estimate and Measure Length (M:1) - Lines of Symmetry (G:6)	✓ Textbook: pgs. 105, 106 ✓ Textbook: pgs. 113-116
	13	REVISION	

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 2**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 2

TERM	TEACHING SEQUENCE		
Summer Term	WEEK	TOPIC	PAGE REFERENCE
	1	- Time to the Hour, Half Hour and Quarter Hour (M:11) - Multiplication as Repeated Addition (N:22)	✓ Textbook: pgs. 120, 122 ✓ Textbook: pgs. 123-128
	2	- Relate events to appropriate part of the Day (M:6) - Multiplication as Repeated Addition (N:22)	✓ Textbook: pgs. 118, 119 ✓ Textbook: pgs. 123-128
	3	- Estimate and Measure Mass and Weight (M:3) - Multiplication as Repeated Addition (N:22)	✓ Textbook: pgs. 37-42;129-134 ✓ Textbook: pgs. 123-128
	4	- Perimeter (M:4) - Multiplication as Repeated Addition (N:22) - Mass (M:3)	✓ Textbook: pgs. 123-128
	5	- Division as Repeated Subtraction (N:23) - Perimeter (M:4) - Solid Shapes (G:2, 3)	✓ Textbook: pgs. 145-148
	6	- Area (M:2) - Division as Repeated Subtraction (N:23)	✓ Textbook: pgs. 141-144
	7	- Division as Repeated Subtraction (N:23) - Apply Terms Likely and Unlikely (D:4)	✓ Textbook: pgs. 149-152
	8	- Area (M:2) - Apply Terms Likely and Unlikely (D:4) - Patterns in Our World (A:2) - Non-Routine Problems (A:5)	✓ Textbook: pgs. 149-152 ✓ Textbook: pg. 154 ✓ Textbook: pgs. 85-89

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 3**

NOTE: Integrate Wor Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 3

TERM	TEACHING SEQUENCE		
Christmas Term	WEEK	TOPIC	PAGE REFERENCE
	1	- Revision of Grade 2 Topics - Reciting Sequences of Numbers to 999 999 (N:3) - Missing Numbers on the Number Line (A:2) - Counting to 100 by 2s, 3s, 4s, 5s, 10s, and 50s (N:16)	✓ Textbook: pgs. 1-4 ✓ Textbook: pgs. 16-17 ✓ Textbook: pg. 9 ✓ Textbook: pgs. 66-67
	2	- Even and Odd Numbers (N:15) - Roman Numerals to XXV (25) (N:12) - Addition and Subtraction Facts to 20 (N:6) - Converting Combination of Roman Numerals (N:13)	✓ Textbook: pgs. 64- 65 ✓ Textbook: pgs.8-9 ✓ Textbook: pgs. 44-48 ✓ Textbook: pgs. 8-9
	3	- Ordinal Numbers to 50th (N:1) - Addition Without Regrouping to 999 999 (N:10)	✓ Textbook: pgs. 6, 7 ✓ Textbook: pgs. 74-78
	4	- Place and Values up to 999 999 (N:2) - Addition Without Regrouping to 999 999 (N:10)	✓ Textbook: pgs. 20-22 ✓ Textbook: pgs.74-78
	5	- Standard, Expanded and Word Form up to 9 999 (N:4) - Subtracting Without Renaming to 999 999 (N:11)	✓ Textbook: pgs. 22 ✓ Textbook: pgs. 81-85
	6	- Comparing Numbers up to 9 999 (N:5) ✓ Ascending and Descending Order - Subtracting Without Renaming to 999 999 (N:11)	✓ Textbook: pgs. 23-25 ✓ Textbook: pgs. 81-85

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 3**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 3

TERM	TEACHING SEQUENCE		
Christmas Term	WEEK	TOPIC	PAGE REFERENCE
	7	- Ordering Numbers up to 9 999 (N:5) ✓ Ascending and Descending Order - Addition with Regrouping to 9 999 (N:10)	✓ Textbook: pgs. 23-25 ✓ Textbook: pgs. 74-78
	8	- Rounding to the nearest 10 (up to 3 Digit Numbers) (N:7) - Addition with Regrouping to 9 999 (N:10) - Missing Addends and Missing Symbols (N:6)	✓ Textbook: pgs. 58-59 ✓ Textbook: pgs. 74-78 ✓ Textbook: pgs. 44-48
	9	- Rounding to the nearest 100 (up to 4 Digit Numbers) (N:7) - Subtraction with Renaming to 9 999 (N:11)	✓ Textbook: pgs. 58-59 ✓ Textbook: pgs. 81-85
	10	- Plane and Solid Shapes (G:1) - Subtraction with Renaming to 9 999 (N:11) - Points and Types of Lines (G:2)	✓ Textbook: pgs. 51-54 ✓ Textbook: pgs. 81-85 ✓ Textbook: pg. 55
	11	- Symbolic and Numerical Patterns (A:1) - Multiplication as Repeated Addition (N:17) - Recording Temperature (M:8) - The Calendar (M:5)	✓ Textbook: pgs. 7-8 ✓ Textbook: pgs. 105-107 ✓ Textbook: pgs. 28-31 ✓ Textbook: pgs. 40-41
	12	- Telling Time (5 minute intervals) (M:1) - Multiplication Without Regrouping (up to 4 by 1 Digit Numbers) (N:23) - Recording Temperature (M:8)	✓ Textbook: pgs.128-130 ✓ Textbook: pgs. 114-115 ✓ Textbook: pgs. 28-31
	13	- Addition and Subtraction Fact Family – (N:6) - Multiplication with Regrouping (up to 2 by 1 Digit Numbers) (N:21) - The Calendar (M:5)	✓ Textbook: pgs. 44 ✓ Textbook: pgs. 114-118 ✓ Textbook: pgs. 40-41

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 3**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 3

TERM	TEACHING SEQUENCE		
Easter Term	WEEK	TOPIC	PAGE REFERENCE
	1	- Coins and their Values (M:15) - Adding Coins (M:15)	✓ Textbook: pgs. 70-71
	2	- Coins and Bills (M:15) - Rounding Purchases for Cash Exchange (M:18) - Estimate Sums and Differences (N:8) - Adding Money (N:9)	✓ Textbook: pgs. 70-71
	3	- Comparing Amounts (M:15) - Making Change (M:17) - Estimate Sums and Difference (N:8)	✓ Textbook: pgs. 64-65 ✓ Textbook: pgs. 70-71
	4	- Equivalent Amounts (M:16) - Multiplication with Regrouping (up to 4 by 1 Digit Numbers) (N:23)	✓ Textbook: pgs. 114-115
	5	- Relationship between Multiplication & Division (N:25) - Multiplication and Division Facts (N:19) - Multiplication and Division Fact Family (N:20) - Bar Graph (D:1, 2, 4)	✓ Textbook: pgs. 105-110 ✓ Textbook: pgs. 111-113 ✓ Textbook: pgs. 111-113 ✓ Textbook: pgs. 88-91
	6	- Telling Time to the Minute (M:1) - Division as Repeated Subtraction (N:26) - Division of 2 by 1 Digit Numbers with and without Remainders (N:27) - Bar Graph (D:1, 2, 4)	✓ Textbook: pgs. 128-130 ✓ Textbook: pgs. 108-110 ✓ Textbook: pgs. 116-117 ✓ Textbook: pgs. 88-91
	7	- Time using A.M. and P.M. (M:3) - Division of 3 by 1 Digit Numbers with and without Remainders (N:27)	✓ Textbook: pgs. 36- 37 ✓ Textbook: pgs. 116-117

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 3**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 3

TERM	TEACHING SEQUENCE		
Easter Term	WEEK	TOPIC	TEXTBOOK PAGE
	8	- Elapsed Time (to the hour and 15 minute intervals) (M:6) - Division of 4 by 1 Digit Numbers with & without Remainders (N:27) - The Schedule (Elapsed Time) (M:6)	✓ Textbook: pgs. 131-133 ✓ Textbook: pgs. 116-117 ✓ Textbook: pgs. 131-133
	9	- Elapsed Time (to the Minute) (M:6) - Arrays: Addition, Multiplication, and Division Number Sentences (N:18) - Converting Units of Time (M:7)	✓ Textbook: pgs. 131-133 ✓ Textbook: pgs. 131-133 ✓ Textbook: pgs. 134-135
	10	- Fractions (Parts of a Whole and Group) (N:28, 29) - Arrays: Addition, Multiplication and Division Number Sentences (N:18)	✓ Textbook: pgs. 120-121
	11	- Comparing and Ordering Fractions with Like Denominators (N:30) - Adding Fractions with Like Denominators (N:35)	✓ Textbook: pg. 121
	12	- Comparing and Ordering Fractions with Unlike Denominators (N:31) - Subtracting Fractions with Like Denominators (N:35) - Tally Chart (D:1, 2, 4)	✓ Textbook: pgs. 122-123 ✓ Textbook: pgs. 88-91
	13	- Equivalent Fractions (N:32) - Simplifying Fractions (N:34) - Tally Chart (D:1, 2, 4) - Finding the Fractional Part (e.g. $\frac{1}{2}$ of 36, $\frac{1}{3}$ of \$12.00) (N:33)	✓ Textbook: pgs. 122-123 ✓ Textbook: pg. 124-126 ✓ Textbook: pgs.88-91

**MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 3**

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 3

TERM	TEACHING SEQUENCE		
Summer Term	WEEK	TOPIC	TEXTBOOK PAGE
	1	- Decimals: Tenths and Hundredths (N:36) - Multiplying and Dividing by 10s, 100s, 1000s (N:37)	✓ Textbook: pgs. 138-139 ✓ Textbook: pgs. 114-115
	2	- Measuring Length (M:9) - Perimeter of Polygons using Standard and Non-Standard Measurement (M:10) - Picture Graph (D:1, 2, 4)	✓ Textbook: pgs. 98-102 ✓ Textbook: pgs. 154-155 ✓ Textbook: pgs. 88-91
	3	- Measuring Capacity (M:12) - Area of Shapes using Standard and Non-Standard Measurement (M:1) - Picture Graph (D:1, 2, 4)	✓ Textbook: pgs. 142-143 ✓ Textbook: pgs. 128-130 ✓ Textbook: pgs. 88-91
	4	- Estimating and Measuring Mass (M:13) - Compound Units of Measurement (N:38) - Converting Units of Measurements (M:14)	✓ Textbook: pgs. 144-145 ✓ Textbook: pgs. 164-165 ✓ Textbook: pgs. 164-165
	5	- Lines of Symmetry (G:3) - Comparing Expressions using $>$, $<$, $=$ (A:4) - Converting Units of Measurements (M:14)	✓ Textbook: pgs. 148-149 ✓ Textbook: pgs. 164-165

MINISTRY OF EDUCATION
PRIMARY SCHOOL MATHEMATICS CURRICULUM
WEEKLY PACING GUIDE
GRADE: 3

NOTE: Integrate Word Problems in each topic.

Textbook: Bahamas Primary Mathematics Bk. 3

TERM	TEACHING SEQUENCE		
Summer Term	WEEK	TOPIC	TEXTBOOK PAGE
	6	- Slide, Flip, Turn (G:4) - Addition Review (N:10) - Finding the Range and Mode (D:3)	✓ Textbook: pgs. 150-151 ✓ Textbook: pgs. 74-78 ✓ Textbook: pg. 91
	7	- Points on a Grid (G:5) - Subtraction Review (N:11)	✓ Textbook: pgs. 81-85
	8	- Finding the Probability (D:5) - Likely, Unlikely, Certain, Possible, Impossible (D:5) - Multiplication Review (N:23) - Division Review (N:25)	✓ Textbook: pgs. 160-161 ✓ Textbook: pgs. 160-161 ✓ Textbook: pgs.114-115 ✓ Textbook: pgs. 105-110

Scope of Work

Primary School Mathematics

Grade 1

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

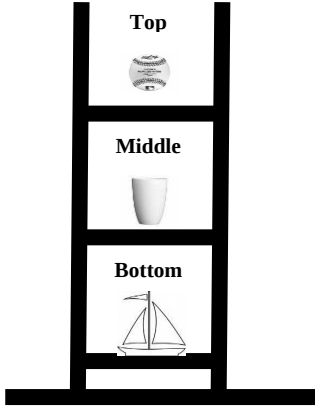
Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

Essential Questions

1. What are some different ways we can group (sort, classify) objects?
2. How can I order a set of numbers from greatest to least?
3. How do we use numbers every day?
4. How do you predict what might come next in a pattern?
5. What is a fraction?
6. How can you find the missing number in an addition equation?
7. What strategies help us solve addition and subtraction word problems?
8. How can you create a story to match an addition or subtraction equation?
9. What are fact families and how do they help us add and subtract?
10. How do fact families help us with addition and subtraction facts?

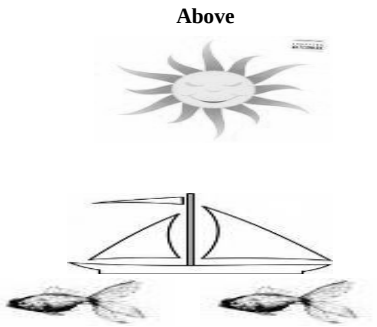
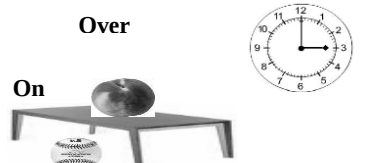
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVIES	RESOURCES	ASSESSMENT
1. (a). Use positional vocabulary words (e.g. Top, middle bottom, above, below, over, under, up, down, inside and outside) to describe the location of objects (Continued). (b). Assemble objects using positional vocabulary words (e.g. top...)	 • Top: The upper most part or point of something. • Middle: The center of something. Equal distance from the ends or outer edges of something e.g. the middle finger. • Bottom: The deepest or lowest part. For example, the bottom of a well; the bottom of the page.	• Display a large picture of a tree with the roots showing. Have students point to and identify the top, middle and bottom of a tree. • Cover a bulletin board. Draw a horizontal, squiggly line across the middle of the paper to represent the surface of the ocean. Ask students to create a class mural showing what is above the water and what is below the water.	• Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 8 & 9 ✓ Textbook: pgs. 2-5 ✓ Workbook: pg. 2-5	• Have students draw pictures on a sheet using positional words. For example, draw a dog under a chair.

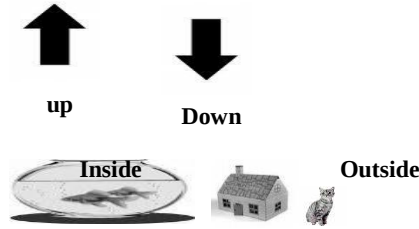
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. (a) Use positional vocabulary words (e.g. Top, middle bottom, above, below, over, under, up, down, inside and outside) to describe the location of objects (b) Assemble objects using positional vocabulary words (e.g. top...) Continued.	Above  Below • Example: The fish are under the boat and the sun is over the boat. • Above: Higher than; on or over the upper surface; over • Below: under or lower in place. • Over: In or at a position above or higher than; gliding over the sea grape tree. Over  On Under	• Take the students outside for a walk. Have student look up and down, and then describe what they see. • Let students take fruit, bird, and bird nest templates and place them in different positions on a model of a tree. They will answer the following questions: a. Where is the fruit? b. Where is the bird? c. Where is the nest? etc. • Let students use large balls to demonstrate positions as directed by teacher. a. Place your foot on top of the ball. b. Stand behind the ball etc. • Take field trips around school campus an observe animals, flowers and fruits.	• Bahamas Primary Mathematics Bk. 1 Workbook: pgs. 4 & 5 Video/Content Positional Words https://youtu.be/U7ZgfTVVZMI By: Dr. Dyontaleè Rolle Positional Words Worksheet https://www.liveworksheets.com/sa1026788gu By Dr. Dyontaleè Rolle	• Have students circle the term that describes the position of each object. • Draw pictures in specific position as directed by the teacher.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. (a) Use positional vocabulary words (e.g. Top, middle bottom, above, below, over, under, up, down, inside and outside) to describe the location of objects. (b) Assemble Objects using positional vocabulary words. (e.g. top...)	• On: The top of the surface E.g. The link cube is on the table. • Under: in a lower position or place than. Example: The roach is under the picture.  • Up: In a higher position or level. • Down: Being or moving lower in position • Inside: The part of lying within; An interior or internal part of place • Outside: In the open air rather than inside a building.	• Select three students at a time. Each student will be given an object. Teacher will give the position of each object and have the students demonstrate it.	• Manipulatives	• Complete a worksheet on positional words.

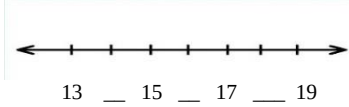
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Sort and classify concrete objects according to the attributes of size, color, texture, shape, and mass.	Items/objects can be grouped or classified according to their size, shape, colour, texture and mass.	- Give students a variety of objects in different shapes and sizes and a paper plate divided into three sections. - Have children in groups to sort snacks by colour, shape, or size onto the paper plates. Students tell how they sorted their snacks.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pg.10 ✓ Textbook: pgs. 7-16 ✓ Workbook: pg. 6-11 - Link cubes and attribute blocks Video/Content https://www.youtube.com/watch?v=O3g12WeHUp0 Online Game https://www.abcya.com/games/counting_sorting_comparing	Sort attribute blocks by color, shape, and/ or size.
3. Read, write and recite number sequences through 100.	- Introduce numerals from 0 to 100. - Introduce number words zero to twenty. Also include numbers words up to one hundred. - Have students place numbers in sequences from greatest to least and from least to greatest. Example: 15, 29, 9, 100, 89 Answer: 9, 15, 29, 89, 100	- Have students count classroom objects up to 100, such as counters or other manipulatives. - Take students on a nature walk. Have them draw small pictures of what they observe, like trees, grass, and bugs. Number the pictures for the class and display them in order. Take students on additional walks, until the class has recorded 100 observations	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 15 ✓ Textbook: pg. 24. ✓ Workbook: pg. 16 Online Game https://www.splashlearn.com/number-games	Have students put numbers in numerical order.

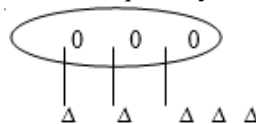
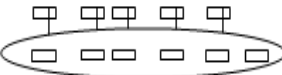
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Name the number before or after a given number and justify the response.	- The number before means the number in front of. The number before is less than the number after it. For example: 41 is before 42 - The number after: Following in time or place. The number after is greater than the number before. For example: 45 is after 44.	Physical Number Line: Teacher will lay blank number line on the ground and students are to arrange themselves correctly according to the benchmark given by the teacher. Example: 	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 13-16 ✓ Textbook: pgs. 20-23 ✓ Workbook: pg. 14-16 - Hundred Chart Online Game https://www.abcy.com/games/online_hundred_number_chart_game	Fill in missing numbers in a sequence.
5. Order numbers 0-100 from least to greatest or greatest to least.	- Numbers can be ordered in two ways: a. Least to greatest: This is ordering numbers from the smallest number to the biggest number. Example: 10, 63, 82, 95 b. Greatest to least: This is ordering numbers from the biggest number to the smallest number. Example: 95, 82, 63, 10	- Teacher will create number cards. Select a set of students and place one number card on each. Give them 10 seconds to order themselves as the teacher instructs. Individual or Group: Give students flash cards with random numbers and have them order numbers from least to greatest or greatest to least.	- Bahamas Primary Mathematics Bk. 1 ✓ Teacher's Manual: pg. 15 ✓ Textbook: pg. 22-23 ✓ Workbook: pg. 15	Worksheet asking students to order the given numbers from least to greatest or greatest to least.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
6. Identify, model and create sets containing 0 - 20 members.	- A set is a collection of objects. - When students count, they name each number and must point to one and only one object. - The last number named tells how many are in the counted group. 	- Have students make number books showing sets of zero to twenty objects. - Distribute up to twenty beads and yarn or string to each student. Have students select a favorite number 10 to 20 and make a necklace. Have students count the beads on each other's necklaces. - Have students build dominoes to depict a number set. - Have students sort objects and create sets	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 20 -22 ✓ Textbook: pgs. 33-38 ✓ Workbook: pgs. 20-22 Online Games https://www.education.com/game/building-city-skyline/ https://www.mathbrix.com/kindergarten/count-to-5-with-objects-random-arrangement	Match numeral cards with its corresponding set cards 0 to 20.
7. Match sets of objects (one-to-one) and explain whether one set is more than, less than or equal to the other.	Less: smaller in quantity or amount  More: greater in quantity or amount  Equal to: alike/same in quantity or amount. 	- Have students draw a flower with up to five petals. Teacher will randomly call 2 students to the front of the class and have them say whether they have more, less or an equal number of petals. - Have students find, cut, and paste pictures that show groups of objects. Ask them to draw another set of objects next to the pasted picture that can either show more than, less than, or equal to the pasted picture. (Use more than, less than and/or equal to).	Video/Content https://www.youtube.com/watch?v=DWTEvb94mPo Online Game https://www.education.com/game/ski-racer-compare-numbers-10-20/	Match objects in two groups using one-to-one correspondence to determine if one group has more, less or an equal amount to the other.

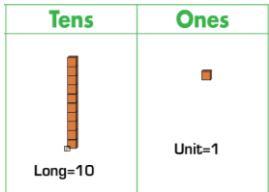
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
8. Identify and explain ordinal positions first through tenth.	Ordinals: Numbers used to show the relative position of somebody or something in a sequence, e.g. "first," "sixth," or "10th"	- Use ordinals as a part of daily class routines such the first child in the line may open the door." - Label beanbags with ordinals first through tenth. Arrange them on the playground. Give students directions using ordinal words and actions, such as "Run to third base". When all bases are filled, allow students to say the ordinals in sequence.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 13 & 15 ✓ Textbook: pg. 17 ✓ Workbook: pg. 25 Video/Content https://www.youtube.com/watch?v=BaO1E21SpkI https://youtu.be/f3Pk4uvIEIw By: Dr. Dyontalee Rolle Online Game https://www.turtlediary.com/game/ordinal-numbers.html	Have students complete a worksheet which asks to colour the pictures in the named position. Example: Colour the picture in the sixth position.
9. Estimate "how many" and "how much" in a given set up to 20.	Estimation: Finding a value that is close enough to the right answer, usually with some thought or calculation involved. - The term "how many" is used with things that can be counted. Example: people, oranges - The term "how much" is used with things that cannot be counted. Example: sand on a beach, water	Select a fruit with many seeds. Some examples are: pumpkin, watermelon, and cantaloupe. Have students discuss in groups and provide an estimate of how many seeds are inside. Teacher will cut open the fruit and have students count the seeds. The group with the closest estimate wins	Video/Content https://www.youtube.com/watch?v=k04910AQTco	Give students a worksheet where they will have to identify (estimate) whether an amount is closer to one bench mark (10) or another (20). Example: Is the picture showing about 10 or about 20?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
10. Identify and justify whether estimation or counting is appropriate.	- Estimating is appropriate when: - an exact value is impossible or impractical to obtain (Example: the number of stars in our galaxy). - an approximate value is adequate (Example: the number of people who will attend a party).	Lead students into a discussion about various scenarios (see examples in content). Students will then state whether they will use counting or estimation to get the answer, and explain why.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 62 & 63 ✓ Textbook: pgs. 139-145 ✓ Workbook: pgs. 69 & 70 Online Game https://www.abcya.com/games/how_many_marbles_estimation	Present students with scenarios where they have to tell whether to estimate or count, then explain why.
11. Represent and explain 2-digit numbers as groups of tens and ones.	Ten: one more than 9 Digits: These are symbols 0-9. Ones: A single unit. Tens: A group of ten ones (units).  10 ones = 1 ten - The positions of digits in numbers determine their value. - The values 10, 20, 30, 40,.....90 refer to digits placed in the tens column.	- Use link cubes to regroup single ones into groups of ten. - Provide each group of students linking or unifix cubes or base ten blocks. Call out a number to the class and have students model it using the cubes or base ten blocks. Example: What number am I? I have 2 tens and 3 ones. Answer=23	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pg. 46 ✓ Textbook: pgs. 98 & 99 ✓ Workbook: pg. 52 Video/Content https://www.youtube.com/watch?v=GQC3Nu02fIE Online Games https://www.splashlearn.com/place-value-games-for-1st-graders https://www.abcya.com/games/base_ten_fun	Draw or model numbers using connecting cubes or place value models.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT				
12. Identify the place value of each digit in a two digit number.	- The position of the digits in a number determine their values. For example, $27 = 2 \text{ tens} + 7 \text{ ones}$. <table><tr><th>Tens</th><th>Ones</th></tr><tr><td>2</td><td>7</td></tr></table> - In place value, each position has a value ten times greater than the position to its right. $27 = 2 \text{ tens} + 7 \text{ ones}$ or 7 ones is first place on the right. Introduce expanded form. Expanded form is a number written as the sum of the place values of its digits. Example: $20 + 7$	Tens	Ones	2	7	- Distribute place value mat cards to students. Have them use digit cards from 0-9 by placing one card in the ones column and another in the tens column. Then have students write the value of each digit. Write the values in expanded form. - Let students string beads on an abacus to identify numbers in standard form and expanded form. 	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pg. 46 ✓ Textbook: pgs. 100 &101 ✓ Workbook: pg. 53 Video/Content https://www.youtube.com/watch?v=1F3AycEDksY Online Game: https://www.splashlearn.com/place-value-games-for-1st-graders - Connecting cubes - Base ten blocks	- Have students work in pairs. Have them flip to a page in the middle of their reading textbooks. Children record the page number as tens and ones on a place value mat and use base ten blocks. - Present worksheet to students where they have to provide the place value of the digits in a number.
Tens	Ones							
2	7							
13. Recall addition and subtraction facts up to 20.	Order property: Numbers can be added in any order. The order of the addends does not affect the sum. Example: $2 + 3 = 5$ $3 + 2 = 5$ - Subtraction Facts $7 - 1 = 6$ $4 - 3 = 1$ - Addition and subtraction facts up to 20	Fact Feud Divide the class into teams. Randomly select an addition/subtraction fact card. Read the fact card aloud to one team at a time (rotate from team to team). If a player from that team answers correctly, award 10 points. The team with the most points, wins.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 57 & 58 ✓ Textbook: pgs. 128-132 ✓ Workbook: pgs. 65-66 Online Game (Addition): https://www.mathplayground.com/puzzle_pics_addition_facts_to_20.html Online Game (Subtraction): https://www.mathplayground.com/puzzle_pics_subtraction_facts_to_20.html	Quiz on addition and subtract facts up to 20.				

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
14. Identify and solve fact families.	a. A fact family is group of numbers that can be added or subtracted to get another number in the fact family. b. There are only three numbers in each family. Each family can have two addition facts and two subtraction facts. e.g. 5, 8, 13 (Use the order property) $\begin{array}{ccc} 8 + 5 = 13 & 5 + 8 = 13 \\ 13 - 8 = 5 & 13 - 5 = 8 \end{array}$	Fact Family Mobile Have small groups make fact family mobiles by writing the facts on index cards and taping them to the hanger. Each hanger will represent a different fact family.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 49-51 ✓ Textbook: pgs. 109-114 ✓ Workbook: pgs. 57-59 Online Game https://www.splashlearn.com/math-skills/first-grade/mixed-operations/fact-families	Interviews: Students ask classmates questions on fact family. e.g. How many addition sentences make up a fact family? - Create a fact family using 3 given numbers.
15. Explain the concepts of addition and subtraction with words, pictures, or concrete objects.	Addition is joining two or more objects/elements to obtain a total/result. The numbers we add are called addends. The total after we add is called the sum. Example: $4 + 3 = 7$ Addend plus addend equals sum Subtraction is taking away one or more objects from a group of objects. The whole group is called the subtrahend. The number that is being taken away is called the minuend. The number that is left is called the difference. Example: $8 - 3 = 5$ subtrahend minus minuend equals difference Zero Property: When we add zero to another number, the number doesn't change.	- Demonstrate addition and subtraction story problems using flannel boards or concrete objects. Online worksheet https://www.worksheetsplus.com/1stGradeAddSubPicWordProbsWkshtAdap.html - Use concrete materials and addition table to memorize facts. - Examine addition table and find patterns. - Examine facts and make generalization Examples: a. 0 added to any number is the number. b. 0 subtracted from any number is the number.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 26-28 ✓ Textbook: pgs. 47-54 ✓ Workbook: pgs. 27-30 - Counters Online Game https://www.abcya.com/games/addition Online Game https://www.abcya.com/games/subtraction_game	Have students write and solve their own story problems using pictures.

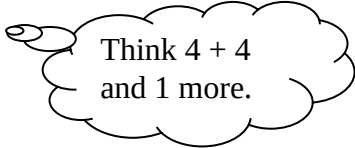
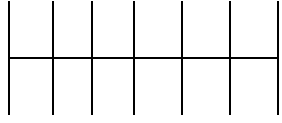
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
16. Represent and explain a number as the sum of 2 addends.	Expressions must be understood as single quantities. For example, $4 + 2$ is another way of writing 6. Other ways of writing 6: $\begin{array}{rcl} 1 + 5 = 6 & 4 + 2 = 6 \\ 3 + 3 = 6 & 5 + 1 = 6 \\ 2 + 4 = 6 & 0 + 6 = 6 \\ 6 + 0 = 6 \end{array}$	- Give each student an expression card. Have them depict the expression given using crayons. - Give each group a recording sheet with a set of picture counters (black and white) along with 2 crayons (different colors). - On the recording sheet the total number can vary. Each student is to color the counters to represent a different expression for the number.	Online Games https://www.mathbrix.com/kindergarten/addition-combinations-up-to-10-using-brix https://www.mathbrix.com/kindergarten/basic-addition-up-to-10-using-brix	Have students write at least two expressions for any given sum.
17. Determine the answer to a given fact using an appropriate strategy (Continued).	In all: total quantity or amount. Sum: the answer to an addition problem. Plus (+): a symbol that shows addition. Equal (=) has the same value. Addition sentence: A number sentence used to show addition.	On a drum or tambourine make a series of identical sounds, such as 5 beats. Ask students to listen carefully and produce the double of the set of sounds heard by clapping.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 39 & 40 ✓ Textbook: pgs. 79-84 ✓ Workbook: pgs. 43-45	Have students solve problems in their Mathematics notebook using addition and subtraction strategies.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
17. Determine the answer to a given fact using an appropriate strategy.	• Addends: the numbers to be added. E.g. $1 + 4 = 5$ • Addition: the process of joining two groups. • Addition Strategies a. Count on: Mental strategy used when an addend is 1, 2, or 3. $6 + 2 = 8$ Say 6. Count on 2 6 7 8 b. Doubles: Two addends that are the same. $2 + 2 = 4$ • Doubles Plus One: An addition fact in which one addend is one greater than the other. $4 + 4 = 8$  $4 + 5 = 9$	• Distribute counters to pairs of students. Have each pair line up and place 2 to 6 counters on a table. Have one child in the pair say the number of counters in the set and then count on to add 1 or 2. Direct the second student to check the sum. Repeat the activity several times, while students exchange roles. • Place a number line across the classroom floor. Give students short story problem such as: Tom has 5 toys cars. Dad gives him 1 more. How many toy cars does he have in all? e.g.  0 1 2 3 4 5 6 • Have student say the greater addend and stand on that number using addition facts. He/she should count on aloud, take 1, 2 or 3 steps on the number line, and give the sum. For example $4 + 2 = \underline{\quad}$ (Sum = 6)	Online Games https://www.education.com/game/tr easure-diving-adding-two-digit-numbers-and-multiples-of-10/ • connecting cubes	• Have students show in their Mathematics Journals, the ways to find the sum of two numbers.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
18. Use mental arithmetic	- Use mental mathematics strategies like: - Using doubles - Making ten - One more, one less	Have pairs of students write addition or subtraction expressions/sentences on index cards. Partners exchange cards and write the answer to the number sentence on the back of each card.	Videos/Content https://www.youtube.com/watch?v=fFxm5YcHif4&t=57s Doubles Song https://youtu.be/M9YQ4phTB0E	Timed quiz on mental arithmetic.
19. Justify solutions to a story problem using problem solving strategies.	Justify: Prove that the answer is right. - Problem solving strategies. - Make a model - solve problems with concrete objects. - Draw a picture creating their own representations that can help them find answers. - Act it out – dramatize situations	Have students work in small groups to solve story problems using problem solving strategies.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs. 62 & 63 ✓ Textbook: pgs. 139-144 ✓ Workbook: pgs. 69 & 70 Online Games https://www.education.com/game/manipulatives-asteroids/ https://www.education.com/game/fish-bowl-addition/	Complete activity sheet with story problems.

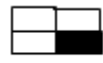
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
20. Create and solve addition and subtraction problems using whole numbers and estimation.	- The words in all and altogether are associated with addition. - The words “in all” and “altogether” in word problems do not always mean you have to add. The context in which the words are used determine the operation. This holds true for words used in subtraction. - Addition is required when the answer should be more. - The words ‘left’, ‘how many more’, and ‘how many fewer’ are associated with subtraction. Subtraction is required if the answer should be less. - Problem Solving Strategies - Act it out - Write a number sentence - Make a model - Draw a picture.	- Have children act out addition or subtraction stories as you read them aloud. Then have volunteers write number sentences that describe what happened. - Give small groups 10 counters. Have students create original stories using the coins. Children model each other’s stories.	Online Games https://www.abcya.com/games/first_grade_word_problems_add_subtract https://www.ixl.com/math/grade-1/addition-word-problems-sums-up-to-10 https://www.ixl.com/math/grade-1/subtraction-word-problems-up-to-10	- Create and solve addition problems in portfolios. - Complete a worksheet with mixed operation story problems.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 1

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
21. Explain the role of the numerator and denominator in fractions.	Numerator: the number above the bar of a fraction. It is the number that is to be taken, given, left, or closed. Example $\frac{1}{4}$ - 1 is the numerator. It means 1 equal part out of four equal parts of the whole. Denominator: the number below the bar in a fraction. Example $\frac{1}{4}$: 4 is the denominator. It tells how many equal parts the whole was shared into.	Have students play a card game in which they have to match the written fraction with its correct pictorial representation.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 52-54 ✓ Textbook: pgs. 115-122 ✓ Workbook: pgs. 60-62 - Fraction bars Video/Content https://www.youtube.com/watch?v=p33BYf1NDAE Online Game https://www.mathgames.com/skill/1.11-what-fraction-does-this-shape-show	- Distinguish between $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{1}{3}$ - Identify the numerator and denominator in given fractions. Examples. $\frac{1}{4}$; $\frac{1}{2}$; and $\frac{1}{3}$.
22. Identify, explain, and write the fractions $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{3}$ as part of a whole or group.	 $\frac{1}{2}$ is shaded One half ($\frac{1}{2}$). One out of two equal parts of a whole or group.  $\frac{1}{4}$ is shaded One fourth, ($\frac{1}{4}$). One of four equal parts of a whole or group.  $\frac{1}{3}$ is shaded One third ($\frac{1}{3}$). One of three equal parts of a whole or group is shaded	- Give students paper shapes. In pairs have students divide and cut shapes into halves fourth and thirds. - Find a basic recipe for making paste, punch, and cookies etc. that use $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$ cup, teaspoon or tablespoons. Use measuring cups and spoons. - Allow student to prepare the recipe. During the measuring, discuss the units being used as part of a whole cup/spoon.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 52-54 ✓ Textbook: pgs. 115-122 ✓ Workbook: pgs. 60-62 Video/Content https://www.youtube.com/watch?v=Yw8azUV_vW8 Instructional Game https://www.turtlediary.com/game/learning-fractions.html	- Name fractional parts ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$) of a whole. - Distinguish between $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{2}$. - Shade models and groups to represent $\frac{1}{4}$, $\frac{1}{3}$, and $\frac{1}{2}$.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 1

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

Essential Questions

1. What patterns do you see every day?
2. How do you predict what might come next in a pattern?
3. How is skip counting related to patterns?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 1

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Identify, produce, describe and extend patterns using pictures, shapes and numbers.	Patterns are an ordered set of numbers, shapes or other mathematical objects, arranged according to a rule. This rule helps to predict what comes next. a. Example of Shape Pattern  b. Examples of Number Patterns *Even Numbers: 2, 4, 6... Rule: Add 2 *Odd Numbers: 1, 3, 5, Rule: Add 2 *1, 2, 3... Rule: Add 1	- Provide small groups with nature magazines. Have students find examples of patterns in nature. For example patterns on the fur of animals (zebra). - Have students go on a nature walk to identify patterns in nature. - Have students form patterns involving actions i.e. clap, clap, stomp... - Allow students to create their own patterns using manipulatives, pictures or drawings.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 10-12 ✓ Textbook: pgs. 7-16 ✓ Workbook: pgs. 6-11 - link cubes - Cut out shapes Video/Content https://www.youtube.com/watch?v=IRII-MFsPk	- Have students create patterns. - Have students continue a given pattern by determining what comes next.
2. Translate patterns from one medium to another.	Translate: Representing the same pattern in a different way. For example, colors to numbers and shapes to rhythms. For example: Pictures to Numbers 	Display patterns and have students translate it into a different representation.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pg. 12 ✓ Textbook: pgs. 14-16 ✓ Workbook: pg. 11 - Link cubes	Have students create patterns where they translate from one medium to another.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 1

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Skip count to 100 by 2s, 5s and 10s, and explain the patterns (Continued).	- When you skip count, you get to a total faster by passing over numbers. Counting by 2s: 2, 4, 6, 8, 10, 12... - Every other number is counted when counting by twos. Counting by 5s: 5, 10, 15, 20, 25... - When counting by 5s it is important to note that the numbers end with 0 or 5. Counting by 10s: 10, 20, 30, 40, 50... - When counting by 10s, the numbers end with 0	- Make a number line to 50 on the floor. Students stand on the line at intervals of 2 and skip count by twos. Repeat with intervals of 5 and 10. - Give each student a one hundred chart. Skip count by 2s (or 5s or 10s) aloud. - Create and share several counting rhymes with the class. Encourage students to create their own skip counting rhymes. For example: 2, 4, 6, 8. What do we appreciate? 0, 12, 14, 16. All that's fair and good and clean."	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 35 & 36 ✓ Textbook: pgs. 67-72 ✓ Workbook: pgs. 38-39	Have students color patterns (Counting by 2s, 5s or 10s) on a hundred charts.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

Essential Questions

1. What is measurement?
2. How do we use measurement every day?
3. Why do we measure things?
4. Can everything be measured?
5. How did people measure things before there were rulers?
6. How would you know when to come to school if there were no clocks?
7. What are some non-standard units you could use to measure something?
8. How do we measure time?
9. How many minutes are in an hour?
10. How many hours are in a day?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Compare the lengths and heights of two objects by matching, using the words as long as, tall as, longer than, and shorter than.	- To compare the length or height of objects, their ends must be aligned. As long as: Means the objects are the same length and their ends start and stop at the same place. As tall as: Having the same height. Longer than: Having a greater length or distance. Example:  Shorter than: Having a lesser length or distance.	- Have students compare the lengths/ heights of objects. - Take students outside at different times of the day to observe their shadows. Put them to work in groups of threes to cut strings the same length as each of their shadows. Discuss how shadows change during the day and have students discuss the comparisons.	- Bahamas Primary Mathematics Bk. 1 ✓ Teacher's Manual: pgs. 17-19 ✓ Textbook: pgs. 27-32 ✓ Workbook: pgs. 18 & 19 Online Game https://www.splashlearn.com/measurement-games-for-kindergarteners	Have students determine which of two objects are longer, shorter or the same length.
2. Compare the lengths and or heights of objects with non- standard units (Continued).	Measurement is the determining of the size, amount or degree of something. Non-standard units are units of measurement that are not used regularly. Examples: paperclips, pencils, crayons	Have students make cube trains or paperclip chains to measure their feet, the length of their arms from wrist to elbow, and the length of their legs from knee to ankle. Then have students work in groups to compare their trains or chains to see who has the largest foot, longest leg and so on.	- Bahamas Primary Mathematics Bk. 1 ✓ Textbook: pgs. 30 – 32 ✓ Workbook: pg. 19 Worksheet Non Standard Units: Comparing Lengths & Heights https://www.liveworksheets.com/fp318280fo	Have students use non-standard units and compare the lengths and heights of objects.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Compare the lengths and or heights of objects with non- standard units	In order to measure using non-standard units, lay them end to end until you arrive to the end of the object. Then count them to determine the measurement. <i>Example:</i> The shoe is 3 paperclips long. 	In cooperative groups, create a song on how to measure lengths using non-standard units.	Worksheet Flat and Solid Shapes https://www.liveworksheets.com/zb931460xj By. Dr. Dyontalee Rolle Online Game https://www.iknowit.com/lessons/k-measurement-non-standard-units.html	Complete a worksheet comparing lengths.
3. Measure the lengths and heights using standard units (Continued).	Standard units of measurement are those used regularly. - Length and height can be measured using standard metric or customary units. - The metre and centimetre are standard units of measure. A centimeter is smaller than the metre.	Have students measure objects found in the classroom using the ruler.	- Bahamas Primary Mathematics Bk. 1 ✓ Teacher's Manual pgs. 47-48 ✓ Student Textbook: pgs. 103 – 108 ✓ Student Workbook: pgs. 54 – 56 Videos/Content (Metre and centimetre): https://www.youtube.com/watch?v=-0p2RD0VnR0 (Feet and Inches): https://www.youtube.com/watch?v=QdA_ZcngoJI	Have students measure specified objects in either metre or centimetres or inches.

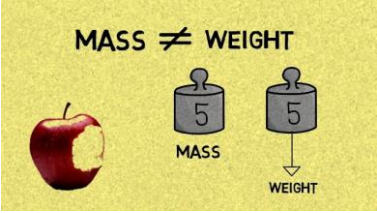
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Measure the lengths and heights using standard units.	- Feet and inches are standard customary units. Inches are smaller than feet. - When measuring with the ruler, ensure that the ending of the object is on the first line on the ruler marked 0. The total length of the object is determined by which line it stops to on the ruler.	Have students measure the length of items in the classroom using feet or inches.	Online Game https://www.splashlearn.com/measurement-games	Complete an activity sheet
4. Estimate the length of given objects using standard and non-standard units.	Estimate: A rough calculation of the number of units to be used without measuring. About is used in estimation as the measurement is not exact.  Example: This crayon is about 3 inches	Guess the Culprit - Have students identify the culprit from a group of stuffed animals (dolls, puppets etc.) using standard and/or non-standard units of measurements as descriptive clues. - Give a clue such as “The candy eater is about four snap cubes long.” Have students eliminate certain suspects based on the clue and have them guess who ate the candy.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs. 47 & 48 ✓ Textbook: pgs. 103-108 ✓ Workbook: pgs. 54-56	Guess and measure the lengths of objects.

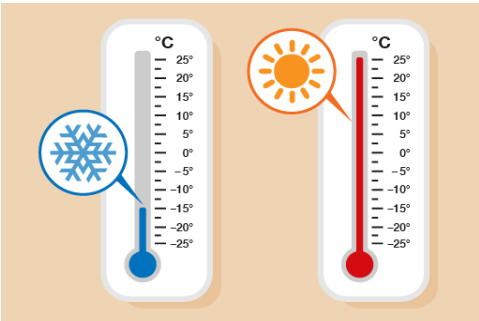
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
5. Compare the mass of two objects using terms such as heavy or light as; heavier as or lighter than; more or less than; and same as other objects.	Mass is how heavy or light something is. Heavier than: having more weight. Lighter than: having less weight. 	- Have students compare a variety of objects and have them tell which of two objects is heavier or lighter. - Have students weigh themselves on a bathroom scale in the class and decide who weigh more or less.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 59-61 ✓ Textbook: pgs. 133-138 ✓ Workbook: pgs. 67 & 68	Have students provide an object that is lighter than or heavier than a given object; then justify their selection
6. Identify whether the temperature of an object is hot or cold and justify their responses (Continued).	Temperature is how hot or cold something is. Hot: having a high temperature. Cold: having a low temperature	Balloon Pop - Pictures of different outdoor or indoor scenes, foods, drinks, and items of clothing will be placed on different balloons. - Using a pencil, students will have to pop a balloon of their choice, and guess the temperature illustrated on the picture. They will have to justify their responses.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pg. 60 ✓ Textbook: pgs. 136 & 137 ✓ Workbook: pg. 68	Have students classify pictures on a T-shirt based on their temperature.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT				
6. Identify whether the temperature of an object is hot or cold and justify their responses.		- Read stories to students and ask them if the temperature in the story is hot or cold depending on the clothes, the people are wearing. - Have students create a class bar graph or pictograph of their favorite hot /cold foods	Reading a thermometer in degrees Celsius Quiz (kidsmathtv.com)	Students Sort appliances into two groups – hot and cold. Example: <table><tr><th>Hot</th><th>Cold</th></tr><tr><td>Stove microwave</td><td>Refrigerator Air conditioner</td></tr></table>	Hot	Cold	Stove microwave	Refrigerator Air conditioner
Hot	Cold							
Stove microwave	Refrigerator Air conditioner							
7. Compare surface using common objects to determine equality of areas.	Area is the space or surface occupied by an object. It can be measured by square units.	- Have students cover surface with similar shapes of the same size. For example, students' measure to find out how many matchboxes will cover a desktop. - Have students trace their hands and cover the outline with beans. Have students compare the beans in the hand prints to find out which has more, less or equal.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 64 & 65 ✓ Textbook: pgs. 146-149 ✓ Workbook: pgs. 71-73 - Tiles	Have students find areas of shapes by using tiles.				

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
8. Relate events to the appropriate time of the day in which they occur.	• Morning: The early part of the day. For example: When the sun rises. • Evening: When the sun sets. It is dark. • Mid-day: The middle of the day.	• Have students act out an activity they do in the morning, afternoon, or at night. The rest of the group will guess the time of day. • Have students sing familiar day or night rhymes and songs such as: “Twinkle, twinkle little star!”	• Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs. 23-25 ✓ Textbook: pgs. 39-44 ✓ Workbook: pgs. 23	• Have students create a booklet of pictures showing day and night activities.
9. Make associations among months, days, and weeks on the calendar.	• Day: a period of time that is equal to 24 hours. • Week: a period of time that is equal to 7 days. • Month: a period of time that is equal to 28, 29, 30, or 31 days.	• Have students make weekly charts by writing the days of the week on a sheet of construction paper. Then have them write or draw a picture under each day telling or showing what they did or plan to do for that week.	• Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs. 45 & 46 ✓ Textbook: pg. 26 ✓ Workbook: pgs. Nil • Poem: 30 days in September, April, June & November. All the rest have 31 except February with 28 & 29 in a leap year.	• Create a graphic organizer showing relationship among days, weeks, and months of the year.
10. Name the months of the year in order.	• There are twelve months in a year. • January is the first month of the year. • December is the last month of the year. • The months of the year are January, February, March, April, May, June, July, August, September, October, November, and December.	• Sing songs and rhymes that order the months of the year. • Make a set of cards with the months of the year. Let students work in pairs to arrange them in order	• Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs. Nil ✓ Textbook: pgs. 42-44 ✓ Workbook: pg. 25	• Recite the months of the year in the correct order.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
11. Tell time to the hour and half-hour on a standard (analog) and/or digital clock (Continued).	• Minute hand: the longer hand on an analog clock indicating minutes. • Hour hand: the shorter hand on an analog clock indicating the hour. • O'clock: according to the clock. • Minute: a unit of time that is equal to sixty seconds. • Hour: a unit of time equal to sixty minutes. • Half hour: a unit of time that is equal to thirty minutes. • When telling time to the hour the minute hand is on 12 (saying o'clock), while the hour hand points directly to the number indicating the hour. • When telling time to the half-hour, the minute hand is on 6 and the hour hand is half past the hour.	• Have students make clocks out of milk cartons, gift boxes, paper plates or construction paper.	• Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs.55 & 56 ✓ Textbook: pgs.: 123-127 ✓ Workbook: pgs. 63 & 64	• Have student tell the times, on the hour or the half, that are on a standard clock.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
11. Tell time to the hour and half-hour on a standard (analog) and/or digital clock.	- On the digital clock: - the number to the left of the colon tells the hour - the numbers to the right of the colon tells the minutes.	Have students recite nursery rhymes that tell about time such as ‘Hickory Dickory Dock’, ‘Wee Willie Winkie, and “A Dillard, A Dollar”’.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs.55 & 56 ✓ Textbook: pgs.: 123-127 ✓ Workbook: pgs. 63 & 64	Complete a worksheet on time.
12. Identify and count coins up to 25 cents in both Bahamian and US currencies.	Bahamian coins  Count 5¢ coins by fives Count 10¢ coins by tens American coins Count 1¢ coins by ones Count 5¢ coins by fives Count 10¢ coins by tens	Come to the Shop Set up a shop in the classroom of food containers, with price tags up to 25¢. Let a few volunteers act as storekeepers. Have other students purchase items.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs. 37 & 38 ✓ Textbook: pgs. 73-78 ✓ Workbook: pgs. 40-42	Have students name both Bahamian and U.S. coins.
13. Find the equivalent of other coins values in pennies.	- Five 1¢ or pennies are equivalent to 5¢ or a nickel.  - Ten 1¢ or pennies are equivalent to 10¢ or a dime 	Have partners take turns rolling the amount of number cubes and taking those 1¢ coin/pennies. When a partner accumulates five 1¢ coins, he/she places the pennies in a paper cup bank and exchanges the 1¢ coins for a 5¢ coin. Children can exchange 1¢ coins for 5¢ coins only during their turn. After 5 rolls, each student counts to see who has more five cents.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pg. 38 ✓ Textbook: pg. 76 ✓ Workbook: pg. 42	Exchange the correct number of 1¢ coins for a 5¢, 10¢ or 25¢ coin.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 1

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
14. Identify money value through exchange.	• Exchange means to provide and receive goods of approximately equal value in return. • Skip count to determine the value of a group of coins. • Skip count by tens when counting 10¢. • Skip count by fives when counting 5¢ • Count 1¢ by ones in American currency.	• Obtain several seed packets and put a few seeds in a plastic sandwich bags. Attach price tags to the seeds bags. Let students purchase the seeds with 1¢, 5¢, 10¢ and 25¢ coins. Have students plant the seeds in plastic cups.	• Bahamas Primary Mathematics Bk 1 ✓ Textbook: pg. 74	• Have students give the correct value of coins to purchase items from the class shop.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

Essential Questions

1. Where can geometric shapes be found in our surroundings?
2. What is the difference between a square and a triangle?
3. Why are attributes important in identifying geometric shapes and figures?

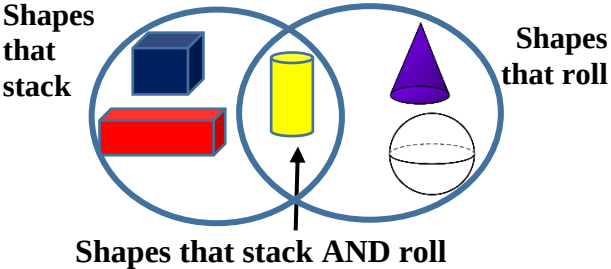
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Sort and classify solid shapes according to attributes with and without the use of a Venn diagram (Continued).	• Classify: To categorize things that are similar into groups. • A Venn diagram is a diagram that shows what is alike and/or different between 2 or more sets of things. • Shapes can stack. This means that because of their flat surfaces at the top and bottom, other shapes are able to be placed on top of them without falling or rolling Examples:  • Shapes can roll. This means that because of their curved sides, when laying down they can move around on the floor as a ball. Examples:  • Shapes can slide. This means that because of their flat surfaces, they can move forward, back, left or right without rolling or falling. Examples: 	• Give each group a solid shape. Have each group identify the attributes the shape has such as rolling, stacking and / or sliding. Game: What am I? - Divide students into groups. Have one member call out the attributes of the shape for others to guess the name of the shape. Example: It rolls, slides, and stacks. What am I? Answer: cylinder	• Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 31-34 ✓ Textbook: pgs. 59-66 ✓ Workbook: pgs. 34-37 Videos/Content Song https://www.youtube.com/watch?v=AcsUQIXKjY https://1drv.ms/v/s!Ah8UYdMvwU-CvwFaTGnSRhHlxuzs	• Use sorting mats and shape cut- outs. Have students arrange the shapes into their correct columns.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Sort and classify solid shapes according to attributes with and without the use of a Venn diagram.	Objects that stack and roll. Example of Venn Diagram 	- Have students in small groups sort a collection of shapes. - Have students sort a variety of shapes and place them in their correct box (labeled boxes can roll, can slide and can roll and slide) Shape Hunt Game Students will use clues to find specific shapes.	Online Game https://www.to14.com/game.php?id=4d486a31eabff	Complete worksheet containing pictures of solid shapes where students classify them (by colour) according to their attributes.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Identify, draw and describe, triangles squares, rectangles and circles in different orientations (Continued).	- Triangles, squares, rectangles and circles are called plane shapes. This means that they are flat shapes. Triangles have three sides and three corners.  Squares have four equal sides and four corners.  Rectangles: Squares and rectangles have four sides and four corners. There are 2 long sides and 2 short sides.  Circles are round and do not have sides and corners. 	GUESS MY SHAPE a. Gather and display flat shapes and pictures of several national flags. b. Ask students to identify the shape of each flag as well as the shapes on the flags.    - In small groups, have students use flat shapes to design their own flags. - Have students create riddles about shapes. For example, “I have no sides and no corner. What am I” (a circle). Collages: Have students make collages using geometric shapes cut from construction paper. - Have each child create a rectangle book by cutting out pictures of rectangular shapes from old magazines and gluing them in the book. Repeat for other shapes.	Video/Content https://www.youtube.com/watch?v=4tkRwMHu9NQ&t=8s Online Game http://www.softschools.com/math/geometry/shapes/solids/games/ - Solid shapes - Boxes	Complete activity sheet matching shapes that are alike in different orientations.

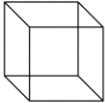
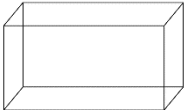
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2 Identify, draw and describe, triangles, squares, rectangles and circles in different orientations.	Triangles, squares, rectangles and circles are called plane shapes. This means that they are flat shapes.	Shape Hunt: Take students on a shape hunt around the classroom or school to point out the shapes. Compound Figures: Give each group a picture of a compound figure (figure comprising of various shapes – Example. house or robot). Students will be asked to identify the plane shapes used to make up the compound figure. Afterwards, students will be given a blank sheet of paper to create their own, then swap with a classmate who will name the plane shapes used in the figure. - Give students toothpicks and clay to form flat shapes.	Online Game https://www.turtlediary.com/game/identifying-shapes.html	Quiz on identifying triangles, squares, rectangles and circles in different orientations.

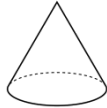
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Identify and describe basic solid shapes such as cones, cubes, rectangular prism, spheres, and cylinders (Continued).	- Solid shapes are 3D shapes. They have faces, sides and corners. Faces are the flat parts of the shape. Sides are the edges of the shape. Corners are the points where the sides meet. - A cube is a regular solid with 6 equal faces. It also has 12 straight sides and 8 corners.  A cube - A rectangular prism is a three dimensional shape which has 6 faces. 4 faces are long (rectangle shaped) and 2 faces are short (square shaped). It also has 12 straight sides and 8 corners. 	- Have students match the flat shapes with its name card. - Have students use small boxes, Styrofoam balls, cones, paper rolls, drinking straws, pipe cleaners, crayons and glue to make solid shape creatures. Have students create stories about their creatures. - Have students create patterns with solid shapes. - Play shapes in action. Distribute solid shapes to students and discuss their properties. Have students familiarize themselves with the solid shapes through song and dance. Song: Dance Around to “London Bridge” Shapes, shapes, dance around, dance around, dance around. Shapes, shapes, dance around, now settle down. All cylinders dance around, dance around, dance around (repeat) Now settle down. (Use all shapes)	- Bahamas Primary Mathematics Bk 1 ✓ Teacher’s Manual: pgs. 41 & 42 ✓ Textbook: pgs. 85-92 ✓ Workbook: pgs. 46-49 Video/ Content https://www.youtube.com/watch?v=CkMcboPCg7A	Create a scrap book of shapes identifying and describing them.

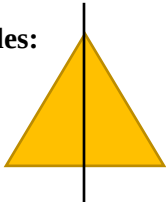
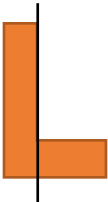
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Identify and describe basic solid shapes such as cones, cubes, rectangular prism, spheres, and cylinders.	- A cone is solid (3 dimensional) shape that has a circular base and one vertex (a point where two or more straight lines meet; corner)  - A cylinder is a solid shape with two identical flat circular ends (2 faces) and two curved sides.  - A pyramid is a solid shape where the sides are triangular which meet at the top and the base is a polygon.  - A sphere is a solid bounded by a surface consisting of all points at a given distance from a point in its centre. E.g. globe, ball 	Nature walk: Take students into the environment and have them find and draw solid shapes - Make models of solid shapes using clay and toothpicks. “It is in a Bag”: Have students work in small groups. Give each group a box with all of the solid shapes. Have students reach into the box, feel a shape, describe it, and match the shape with its name. Solid Shape Scrapbook: Students can create a solid shape scrapbook which includes a picture of the shape, its name and an item that has its exact shape.	Online Game https://www.turtlediary.com/game/exploring-shapes.html (level 2)	Complete worksheet where students will colour the correct shape using the instructed colour. Examples: Colour the sphere green. Colour the pyramid blue

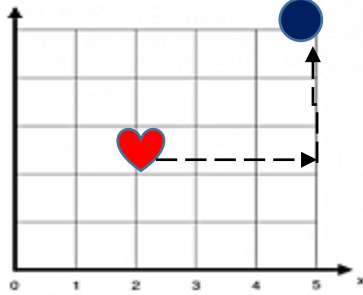
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Analyze and compare plane and solid shapes.	- A plane shape is a flat shape. It cannot be stacked or rolled. Plane shapes include: circle, square, rectangle, triangle, oval, heart, diamond, and crescent. - A solid shape is a 3D shape. This means that they can slide, stack or roll. Solid shapes include: sphere, cube, rectangular prism, triangular	Picture Walk: Have students walk around the classroom/home locating items that match the picture card they select from a stack.	- Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 31-34 ✓ Textbook: pg. 87 ✓ Workbook: pg. 34	Complete a worksheet where students identify plane shapes by colouring named shapes based on the given colour (e.g. Colour all triangles red)
5. Identify lines of symmetry on plane shapes.	- A line of symmetry is an imaginary line which divides a figure into equal parts. - Lines of symmetry can be drawn from left to right or top to bottom on a shape. - If you fold the picture of a figure along the line of symmetry, both sides of the line should be the same. Examples:  One line of symmetry. The same on both sides.  No line of symmetry. Not the same on both sides.	Shape Play: Teacher will provide students with 2 different shapes. They will fold the shapes in half and then determine whether the shapes have a line of symmetry or not. Shape Slice: Teacher will give each student a shape. Students will be asked to draw a line down the middle or across the middle. They will then have to determine whether one side is like the other.	Video/Content https://www.youtube.com/watch?v=YFzktJNmnPU	- Complete a worksheet where students to indicate whether a line of symmetry is in its correct place by writing yes or no. - Complete a worksheet requiring students to draw at least one line of symmetry for each shape given.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY & SPATIAL SENSE
GRADE: 1

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
6. Name and find the location of an object on a plane.	A plane is a flat surface. When moving on a plane, movement should be horizontal (left and right) then vertical (up and down). Example:  How would you get to the heart from the circle? Steps: Move 3 spaces to the right, then move 3 spaces up. You can also give the location of an object on a plane, using positional words. Example: The circle is to the right of the heart.	On the Plane - Teacher will set up classroom floor as a grid using floor tiles. - Teacher will place different objects on the grid. Students will have to find the objects using the directions given by the teacher.	Online Activity https://www.liveworksheets.com/ie551538xq	Performance-Based Teacher will give directional clues and students will have to find the correct object on the plane. (See content example.)

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS & PROBABILITY
GRADE: 1

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

Essential Questions

1. How does a graph give information without many words?
2. Why is it important to know when there is more, less, and equal to in situations?
3. In what real world contexts do we need to find probability?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS & PROBABILITY
GRADE: 1

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Collect, record, and display information on concrete graphs and pictographs.	• Graphs are used to display data that has been collected. • Data is the information collected about people or things on a particular topic and placed on the graph. • All graphs should be titled. The title is the heading of the graph which tells its purpose. • Pictograph is a way to represent data using pictures or symbols • Bar Graph is another way to display data. It uses rectangular bars to show information. The bars in a bar graph do not touch. • Tally Graph use tally marks to display numerical data.	• Have students conduct survey of their classmates to find their favorite pet. Children make a Bar graph of their findings and display it. • Use pictures of the modes of transportation by students to create a pictograph. • Have teacher display a pictograph, bar, or tally graph on the board. Students will be asked to determine how much for each group represented.	• Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 29 & 30; 43 & 44; 66 & 67 ✓ Textbook: pgs. 55-58; 93 & 96; 150-153 ✓ Workbook: pgs. 31-33; 50 & 51; 74 & 75 Game Tally Graph https://www.mathgames.com/skill/1.24-interpret-tally-chart-picture-graphs-and-tables	• Have student complete concrete and pictographs.
2. Interpret information displayed in a graph using the vocabulary more, less, fewer, greater than and less than.	• Amounts are calculated on bar graphs by counting the shaded boxes or using the numbers along the bottom of the graph if it is horizontal. Amounts can easily be compared by lengths of the bars. • Information on pictographs is compared by reviewing the pictures as well as the key. • More/greater than: Having a greater quantity. • Less/fewer/less than: Having a smaller quantity and justify responses.	• Have teacher display a pictograph, bar, or tally graph on the board. Students will be asked to determine which groups have more or less quantities • Have students use the graph to answer the questions. For example, How many children like dolls? Do more children like cars or video games?	• Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 29 & 30; 43 & 44; 66 & 67 ✓ Textbook: pg. 95 ✓ Workbook: pgs. 32 & 33 Games https://www.mathgames.com/skill/1.25-interpret-bar-graphs https://www.mathgames.com/skill/1.26-which-bar-graph-is-correct	• Have students use graphs to answer questions.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS & PROBABILITY
GRADE: 1

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Draw conclusions and make predictions, about graphs.	• Drawing conclusions mean to use using prior knowledge and/or prerequisite skills to come to a decision regarding what the outcome will be based on the information given. • Prediction is a claim that a particular event will occur in the future in more certain terms.	• Have students make a Bar graph of their favorite ice-cream flavor and have them make predictions. Questions asked: a. Which ice-cream flavor was most popular? b. Which ice-cream flavor would the tuck shop sell most to our class, why? c. What flavor would the tuck shop sell least to students in our class? • Teacher will then engage students in a discussion about the graph to determine possible predictions and to discuss conclusions that they have drawn from the graph.	• Bahamas Primary Mathematics Bk 1 ✓ Textbook: pgs. 94-96	• Lead a discussion which requires the demonstration of the use of logical reasoning when drawing conclusions or making predictions.
4. Investigate and describe the results of dropping a two coloured counter or using a multi-coloured spinner (Concept of chance).	• Chance is the likelihood/probability/possibility of something happening	• In groups, have students drop multi-coloured spinner or counters. Ask questions related to probability such as: a. How many sections are blue? b. How many sections are red? c. How many sections are green? d. How many sections does the spinner have altogether?	• Bahamas Primary Mathematics Bk 1 ✓ Teacher's Manual: pgs. 68 & 69 ✓ Textbook: pgs. 154-158 ✓ Workbook: pgs. 76 & 77 • www.thefreedictionary.com	Discussion: • Students discuss results of spinning multi-coloured spinner or dropping a two coloured counter. • Write assessment

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS & PROBABILITY
GRADE: 1

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
5. Define, use and describe terms such as likely , unlikely and impossible to describe events/situations.	• Chance is the likelihood of something happening. It can also be called possibility or probability. • Likely means that something will happen. Example: I will go to grade two next year. • Unlikely means that something will NOT happen. Example: I will travel to the moon. • Impossible means the event can never happen under any circumstance Example: I will flap my arms and fly to school	• Provide examples of daily activities or stories and have students make predictions regarding the probability of the event. • Ensure that students use the mathematics vocabulary likely, unlikely and impossible and justify responses.	• Bahamas Primary Mathematics Bk 1 ✓ Textbook: pgs. 157-158 ✓ Workbook: pg. 77	• Complete a worksheet indicating whether events/situations are likely, unlikely or impossible to happen.

Scope of Work

Primary School Mathematics

Grade 2

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

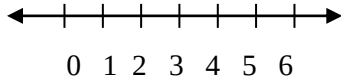
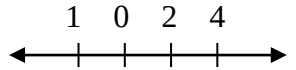
Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

Essential Questions

1. Why are numbers important and how can you use them to solve problems?
2. How do we order two-digit numbers from greatest to least and from least to greatest?
3. How do numbers show parts of a whole or parts of a set?
4. How does the place of a digit in a number determine how much it is worth?
5. How can you use addition and subtraction to solve problems?
6. What strategies do I use to find the sum or difference of two whole numbers up to two digits?
7. What are fact families and how do they help us add and subtract?
8. How will understanding the relationship between addition and subtraction help me solve my problems and check my work?
9. How would estimation help in finding sums and differences?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Read and write the numbers 0 to 100 on a number line.	Number Line A line that has equally spaced points named by numbers. Example: 	- Arrange number cards on a number line in ascending order i.e. 0,1, 2, 3, ... 20 - Have students identify numbers on the number line which matches their age, the number of cookies in their lunch box, the number of windows in the classroom, etc. - Use Velcro to attach numbers to the number line. Have some students close their eyes while you remove a number. Point out the secret number to the children whose eyes are opened. Have the children whose eyes were closed tell what number is missing. Do this for several numbers.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg.9 ✓ Textbook: pg. 3 ✓ Workbook: pg. 3 Online Games https://www.splashlearn.com/comm-on-core-math/first-grade/number-and-operations-in-base-ten/1 https://www.abcy.com/games/number_bubble_counting	- Fill in missing numbers to complete a number line. - Identify points that are incorrectly labeled on the number line? Example: 
2. Read, write, recite and use number sequences to 999 (forward and backward).	Number Sequence: The order in which numbers are said, or placed when counting. Forward Counting in ascending order. e.g. 0, 1, 2, 3,...100 Backward Counting in a descending order e.g. 100, 99, 98...	- Call and write numbers to 999, using a hundred chart initially, then subsequently by memorization. - Designate a number of the day by randomly selecting a number card from a box, and using the number in a variety of ways. e.g. locating it in text/workbooks. - Arrange a series of numbers in designated order to demonstrate sequence. Example: 741, 739, 743, 740, 742. -Forward: 139, 140, 141, 142, -Backward: 343, 342, 341, 340, 339.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 15 & 19 ✓ Textbook: pgs. 16 & 17 ✓ Workbook: pgs. 10-12 Videos/Content https://www.youtube.com/watch?v=EmyArAqDEbs https://www.youtube.com/watch?v=fPxp-h5N6J0	- Complete a hundred chart by writing the missing numbers. - Name numbers which come before, after, or between other numbers.

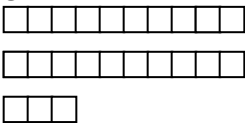
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Arrange numbers in ascending and descending order.	- Numbers are said to be in ascending order when they are arranged from the smallest to the largest number. For example: 5, 9, 13, 17 and 21 are arranged in ascending order. - Numbers are said to be in descending order when they are arranged from the largest to the smallest number. For example 25, 21, 17, 13 and 9 are arranged in descending order.	- Use number cards to tell where come numbers in relation to the position of other numbers. i.e. - before: in front of (27, 28) - after: following in place (632, 633) - between: the number between two numbers (541, 542, 543) - Place numbers in ascending and descending orders.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. None ✓ Textbook: pg.30 ✓ Workbook: pgs. 3 & 8 Online Games https://www.abcy.com/games/numerical_order	Complete worksheet where students will arrange numbers in ascending or descending order.
4. Identify the positions first through twentieth using an ordered set of objects (Continued).	Ordinal Numbers - Numbers which describe the position of objects as they are related to others in an ordered group. Examples: - 1 = first 1st - 2 = second 2nd - 3 = third 3rd - 4 = fourth 4th - 20 = twentieth 20th	- Identify objects on a line and use ordinal numbers to identify the positions. E.g. This butterfly is fourth on the line  - Match ordinal number words to their symbolic representatives. E.g. seventh – 7th	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 26 ✓ Textbook: pgs. 52 & 53 ✓ Workbook: pg. 24	- Circle to show the position of objects. Example: Circle the second object.  - Use ordinal numbers to describe the positions of objects. Example: Where is the hat?  The hat is second.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Identify the positions first through twentieth using an ordered set of objects.	Position is dependent upon the direction of the first object. Example: 	- Identify an object that comes first, and use it as a benchmark in locating other objects. e.g.  - Take students to the playground and have them run races in groups. Have them tell who came first, second, third, etc. Designate students to pin different colour ribbons on students according to the position they came in the race (i.e. first – red ribbon, second, green ribbon, etc.).	Videos/Content: https://www.youtube.com/watch?v=hi1Go4pyf0M https://www.youtube.com/watch?v=S7Wkt7AdfI	Identify the first person/object on a line when they are turned indifferent directions. Example: facing – left, right, top, or bottom.
5. Describe a two-digit number in terms of tens and ones (Revision).	- Two-digit number: A number that is made up of two digits e.g. 27. - The place value of digits is read from right to left. - The first digit to the right is in the ones place. - The second digit to the left is in the tens place.	- Model tens and ones for given numbers, using base-ten blocks or cubes. e.g. 23  - Identify/name digits that represent tens and/or ones in numbers. e.g. 64 6 = 6 tens 4 = 4 ones	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 24 ✓ Textbook: pgs. 43 & 44 ✓ Workbook: pgs. 21-23	- Tell/write numbers that represent a set number of tens and ones e.g. this number is 4 tens and 5 ones. What is it? 45 - Identify numbers which are either in the tens or ones place e.g. 38. <u>3</u> is in the tens place.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT						
6. Read, write, spell and model up to 3-digit numbers.	• Standard form is a number written using digits. Example: 462 • Expanded form is a number written as an addition expression of the values of its digits. Example: 400 + 60 + 2 • Introduce word form. This is a number written as you would say it using words (spell it out). Example: Four hundred sixty-two.	• Have students select two digit cards and place them on their place value mat. Have them write the number that they created, then state how many tens and ones there are in the number, and the value of each digit.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pgs. 24 & 25 ✓ Textbook: pgs. 46 - 49 ✓ Workbook: pg. 8 Online Game https://www.splashlearn.com/place-value-games	• Complete a worksheet on standard and expanded forms.						
7. Identify the place value of each of a 3-digit number.	• The position of the digit determines its value in a number. For example 256<table border="1"><tr><td>Hundreds</td><td>Tens</td><td>Ones</td></tr><tr><td>2</td><td>4</td><td>6</td></tr></table> • The digit 2 is in the hundreds place. The value of the 2 is 200.	Hundreds	Tens	Ones	2	4	6	• Read/write Three – digit numbers Example: 840 • Identify numbers with specific place values e.g. 431 Example Which number is in the hundreds place? 4 a. the tens place? 3 b. the ones place? 1 • Divide the class into three groups, labeling each group as hundreds, tens, and ones. Teacher will display a number (as a numeral or using base ten blocks). Allow students to write on white board the value represented by their underlined digit.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pgs. 24 & 25 ✓ Textbook: pgs. 46 - 49 ✓ Workbook: pg. 8 Online Game https://www.splashlearn.com/common-core-math/second-grade/number-and-operations-in-base-ten/1	• Complete a worksheet by writing the place and the value of digits. For example: 381 Value = 80 Place: = Tens
Hundreds	Tens	Ones								
2	4	6								

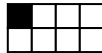
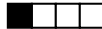
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
8. Compare whole numbers between 0-999 using the symbols $<$, $>$, $=$.	• Greater Than $>$: A number that is more than in quantity or amount. e.g. $126 > 124$ • Less than $<$: A number that is less than or fewer in quantity or amount. E.g. $412 < 528$ • Equal to $=$: Numbers that are the same in quantity or amount. e.g. $52 = 52$	• Select the number which is greater or less, in a given pair by using a fly swat. Example: greater 314 <u>412</u> less <u>296</u> 298 • Write/give numbers which are greater or less than, or equal to given numbers. Example: 145 - greater 216, 728 - less 100, 109 - equal 145 • Divide the class into three groups to represent each sign. Three students will be selected at a time (one from each group). The teacher will then display two numbers and students are to come up to the board if their sign is applicable. • Use mathematics symbol cards to compare number pairs. Example: $714 > 322$ 714 is greater than 322 $811 < 951$ 811 is less than 951 $203 = 203$ • 203 is equal to 203 and understand the relationship of the numbers to each other.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 44 & 45 ✓ Textbook: pgs. 109 - 112 ✓ Workbook: pgs. 52-54 • Online Games https://www.splashlearn.com/math-games-for-2nd-graders https://www.abcya.com/games/comparing_number_values	• Demonstrate their knowledge of the meaning of each symbol when given a comparative number sentence. Example: $133 < 175$ Students are expected to say, “<i>one hundred thirty-three is less than one hundred seventy-five</i>” • Identify and distinguish which numbers are greater, less than, or equal to other numbers. • Circle the larger, largest or smaller, smallest number.

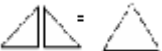
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
9. Identify odd and even numbers.	• Even Number: A number which represents an amount of objects that can be grouped into pairs (groups of 2) with none left over. E.g. 2, 4, 6, 8 • Odd Number: A number that represents an amount of objects that when grouped into pairs one is left over. Example: 1, 3, 5, 9	• Using connecting cubes, make groups of two for given numbers and observe if one block is left over to distinguish the numbers as either even or odd. Example: $20 = \begin{array}{cccccccc} 0 & 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{array}$ 0000000000 20 is even $13 = \begin{array}{ccccccc} 0 & 0 & 0 & 0 & 0 & 0 & 0 \end{array}$ 0000000 13 is odd • Use hundreds chart to shade odd and even numbers and let students discover the pattern.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 15 ✓ Textbook: pgs. 18 -20 ✓ Workbook: pg. 12 • Mathematics in Motion: A Resource Book for Primary Teachers, pg. 42, 44	• Demonstrate or explain steps to find out whether a number is even or odd. • Show if a number is even or odd by using varied objects. • Journal writing: Odd and even numbers • Write odd or even numbers next to given numbers. Example 25 <u>odd</u>
10. Read, write, and shade in examples of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{8}$ and $\frac{1}{10}$, $\frac{1}{12}$ as part of a whole (Continued).	• Identify the symbolic representations of fractional parts a. $\frac{1}{2}$: One out of two equal parts – half b. $\frac{1}{3}$: One out of three equal parts– third c. $\frac{1}{4}$: One out of four equal parts– fourth d. $\frac{1}{8}$: One out of eight equal parts– eighth e. $\frac{1}{10}$: One out of ten equal parts– tenth	• Divide plane shapes into equal parts then color one part to represent the fraction. Example: $\frac{1}{8}$ one eighth  • Shade in parts to represent a fraction Example $\frac{1}{4}$ one fourth 	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 40 & 41 ✓ Textbook: pgs. 97 & 98: 100 & 101 ✓ Workbook: pgs. 46 & 47	• Label fractional parts of figures using numbers.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
10. Read, write, and shade in examples of $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{8}$ and $\frac{1}{10}$, $\frac{1}{12}$ as part of a whole.	In each instance, denominator (the bottom) number represents the total number of pieces to make a whole. The numerator (top number) represents only one part of the whole.	- Write a fraction to describe figures. Example: $\frac{1}{2}$  - Fold sheets of paper to make equal parts. Example: $\frac{1}{3}$  - Create fraction book	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 40 & 41 ✓ Textbook: pgs. 97 & 98: 100 & 101 ✓ Workbook: pgs. 46 & 47	Shade figure(s) for given fraction(s) Example: $\frac{1}{2}$ 
11. Explain that fractional parts of a whole are equally sized pieces.	Fractional Parts - A number of equally sized pieces or parts that when put together make one whole or a complete group. a. one half $\frac{1}{2}$ - one out of two equal parts b. one third $\frac{1}{3}$ - one out of three equal parts c. one fourth $\frac{1}{4}$ - one out of four equal parts	- Identify objects that have fair shares, or equally sized pieces. - Cut play dough 'pizza' into fair shares or equal parts to divide among other group members. Example: 4 members in a group, each member will be given one out of the four equal parts. - Find the missing fractional part to complete an object or shape. e.g.  - Describe fractional parts of groups. Example  $\frac{1}{3}$ of the marbles is black.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 40 ✓ Textbook: pg. 99 ✓ Workbook: pg. 48	- Divide objects into equal parts for fractions. - Paste pre-cut fractional parts to make a whole 

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
12. Recall addition and subtraction facts up to twenty ($10 + 10 = 20$).	Addition Facts: The addition of two single-digit addends producing sums to 18. For example: $7 + 9 = 16$s Addend: a number to be added to another. - When zero is added to a second number, the answer is the second number. For example, $0 + 20 = 20$. - Adding one is just like counting by one. - Subtraction facts are facts you should know just by thinking, not counting. Once you know these facts, you can subtract any number easily. - Show the relationship between the addition and subtractions facts. - For example: $15 - 8 = 7$. Ask students to think about what goes with 8 to make 15. The students use a known addition fact $8 + 7 = 15$ to solve the subtraction fact.	- Use flash cards and allow students to identify addition facts in less than 3 seconds. This indicates mastery of the fact. - Place these cards in the “I know” stack. Review with students the facts that are easily retrieved. The cards that are left become the “I want to know” stack. As cards from this stack are learned they become the “I learned” stack. - Make labels for the stack so the student can see a visual model of “K-W-L” chart of his subtraction facts. - Perform the above for subtraction facts.	- Bahamas Primary Mathematics Bk 2 - Teacher’s Manual: pg. 9 - Textbook: pgs. 4 & 5 - Workbook: pgs. 4 & 5 - Flash cards - Number line	- Speed drill of the basic addition and subtraction facts. - Time students and record their scores. The objective is for all students to gain mastery on the facts. This activity may take several attempts.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
13. Apply basic facts to mental math.	- Mental math strategies for subtraction facts should be developed separately. Doing addition and subtraction concurrently is not pedagogically wise. - Strategies for Mental math i. Doubles: E.g., for $4 + 6$, think $5 + 5$ ii. Doubles Plus One: E.g., for $4 + 5$, think $4 + 4 + 1$ iii. Doubles Take Away One: E.g., for $4 + 5$, think $5 + 5 - 1$ iv. Doubles Plus Two: E.g., for $4 + 6$, think $4 + 4 + 2$ v. Doubles Take Away Two: E.g., for $4 + 6$, think $6 + 6 - 2$ vi. Making 10: E.g., for $7 + 5$, think $7 + 3 + 2$ vii. Building on a Known Double: E.g., $6 + 6 = 12$, so $6 + 7 = 12 + 1 = 13$ viii. Addition to Subtraction: e.g., for $7 - 3$, think $3 + ? = 7$.	- Perform mental math drills Example: $2 + 8 =$ $7 + 1 =$ $9 - 3 =$	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg.13 ✓ Textbook: pgs. 10 & 11 ✓ Workbook: pg. 9	Written or oral quiz

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
14. Explain strategies used to arrive at sums and differences.	Strategies • Adding 10 to a number: Adding 10 to a number does not require any counting. For example, $10 + 2 =$ $8 + 10 =$ $10 + 5 =$ $7 + 10 =$ $10 + 9 =$ $3 + 10 =$ • Think Addition Strategy: This strategy demonstrates how students can use their knowledge of adding facts to find the answers to subtraction equations. For example Example: For 10-6, students should look at the number and think “6 plus what equals 10?” and determine the missing addend. • The Count Back Strategy: If students have to subtract 1, 2, or even 3 from a number, they could employ a counting back strategy with or without visualizing jumping back on a number line.	• Use file folder games where students match the sums to the equations. • Provide one group of students with addition and subtraction problems. Write them on greeting card size construction paper and hang them around the students’ neck. Give another group the answers to the addition and subtraction facts. Write them on greeting card size construction paper and hang them around their necks. After giving a signal have students ‘find their partners’.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 9 ✓ Textbook: pg. 5 ✓ Workbook: pgs. 6 & 17	• Teacher flashes subtraction and addition fact cards to students. All fact cards should be random addition and subtraction of 1, 2, and 3 (adding 10 to a number, think addition, count back) i. Students look at cards and verbally count back, add 10, or think addition to determine the solution. ii. Evaluate students’ answers to determine whether they used the correct strategy. iii. Evaluate students’ answers to the sum and differences and keep track of right and wrong answers by sorting them as you flash.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
15. Create and explain fact families using addition and subtraction skills to show the relationship between addition and subtraction.	• Fact families: A fact family is a group of related facts using the same numbers. Example $4 + 3 = 7$ $7 - 3 = 4$, $3 + 4 = 7$ $7 - 4 = 3$. • Fact families are a very powerful tool for mastering facts; once you know one fact in a family, you can work out the other facts in the same family. • Fact families are also useful for solving problems with missing addends, such as $4 + \underline{\quad} = 7$	Make a Triangle: • On the points of the triangle write the digits in the fact family: For example: 2, 3, 5. • On the triangle, have the child write the 2 addition and 2 subtraction facts for that family. You could duplicate many triangles, with lines for the facts. Then you can "customize" each triangle!	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 20 ✓ Textbook: pgs. 33 & 34 ✓ Workbook: pg. 18 Video/Content https://youtu.be/_2ma8v1GFV0	• Students search for related addition and subtraction facts for a given number and investigate fact families when one addend or the difference is 0
16. Find the sums of 2 two-digit numbers using a variety of methods (Continued).	• Addition of two-digit numbers is developed sequentially, beginning by finding the sums of numbers that are multiples of 10. For example: To add 40 plus 50, a child may think of the basic addition fact, $4 + 5 = 9$, and then affix a zero to the five to get the sum, 90. When children do this, the important point to emphasize is that they are not really adding 4 and 5, but rather 4 tens and 5 tens.	Hundred Board Sums • Have students in cooperative groups cut numbers from the hundred board to create addition problems. Students then find the sums of the problems.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 32 ✓ Textbook: pg. 76 ✓ Workbook: pg. 34	• Complete a worksheet on finding sums of two digit numbers using different methods.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
16. Find the sums of 2 two-digit numbers using a variety of methods.	- Addition algorithm is based on the base-ten positional numeration system, and so when adding two-digit numbers, place value must be acknowledged. For example, $34 + 52$. - The first digit from the left is in the tens place, and the second digit from the left is in the ones place. $34 + 52$ can be written in the following way: $\begin{array}{r} 34 \quad 30 \quad + 4 \\ +52 \quad + 50 \quad + 2 \\ \hline 86 \quad 80 \quad + 6 = 86 \end{array}$ - Adding 34 and 52 is equivalent to finding the sum of 3 tens (30) and 5 tens (50), and then adding to this result the sum of 4 ones and 2 ones.	Give students copies of the local newspaper. In pairs they will locate ads and create problems (using two-digit numbers) for their classmates to solve.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 32 & 33 ✓ Textbook: pgs. 76 -77 ✓ Workbook: pgs. 34 & 35	- Create two problems using different methods. - Complete page 36 of Bahamas Primary Mathematics Bk 2 Workbook.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
17. Add up to three-digit numbers without regrouping.	• Adding using the Place Value Chart: When adding three-digit numbers, begin with the ones place. Next, move to the tens place. Last, end with the hundreds place. • The first digit from the right is the ones place. The second digit from the right is the tens place. The third digit from the right is the hundreds place. Example: $123 + 41 = \underline{\quad}$ can be written in the following way: $\begin{array}{r} \text{H T O} \\ 123 \\ + 41 \\ \hline 164 \end{array}$	• Beat the clock: The teacher will set the clock for 3 minutes. Students will be asked to work in groups to complete 4 addition problems before the time runs out.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 32 & 33 ✓ Textbook: pgs. 76 -77 ✓ Workbook: pgs. 34 & 35 • Place Value Modules	• . Complete worksheet to find the sum of three-digit numbers
18. Add two-digit numbers with regrouping.	• When adding two-digit numbers, begin with the ones place. If the sum is a two-digit number, regroup and continue adding until all the places have been completed. Example: $56 + 84 = \underline{\quad}$	• Equation Builder a. Have four students each take a number card. For example, the students take the numbers 5, 2, 3 and 7. b. Students build an equation e.g. $52 + 37$ c. The seated students solve the problem before the timer sounds.	• Bahamas Primary Mathematics Bk 2 ✓ Workbook: pgs. 37 & 38	• Divide a set of 2-digit number cards into 2 separate boxes. Volunteers will be asked to select one card from each box, and find the sum of them. Students will then present the sum to their teacher.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
19. Find the difference of 2 two digit numbers without renaming.	- Subtract the ones place first. - Subtract the tens. Example: $\begin{array}{r} 56 \\ -23 \\ \hline 33 \end{array}$	Subtraction Train In groups, subtraction problems are placed on a train. If group members calculate the correct answer, they say “Cho, Cho”.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 33 ✓ Textbook: pg. 78 ✓ Workbook: pg. 36 - Place Value Modules	Use interactive assessment, which is found at www.aaamath.com Students are challenged to subtract problems. Teachers can check students’ scores and times of completion at the bottom of the web page.
20. Subtract three-digit numbers without renaming.	- When subtracting three-digit numbers, begin with the ones place. Next, move to the tens place. Last, end with the hundreds place. - The first digit from the right is the ones place. The second digit from the right is the tens place. The third digit from the right is the hundreds place. Example: $568 - 120 = \underline{\quad}$ can be written in the following way: $\begin{array}{r} 568 \\ -120 \\ \hline 448 \end{array}$	Math Relay: Teacher will place 6 subtraction problems on a paper, and provide a copy of that paper to each group. Then teacher will set the clock to 5 minutes. One student will be asked to start with the first problem. After completing it, the student is to pass it on to the classmate beside them. This process will continue until all problems are completed, or until the 5 minute time frame has expired. Each child in the group must solve a problem. The group that finishes first with all sums correct, or with the most sums correct wins.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 34 ✓ Textbook: pg. 79 ✓ Workbook: pgs. 39 & 40 Quizzizz https://quizizz.com/admin/quiz/5fd37c22a80eab001b3ee469/three-digit-subtraction-with-regrouping Worksheet https://www.k5learning.com/free-math-worksheets/second-grade-2/subtraction/subtract-3-digit-numbers-no-regrouping	Complete worksheet where students find the difference of three-digit numbers.

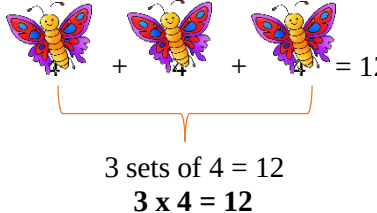
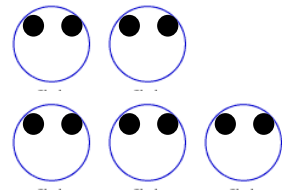
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
21. Subtract two-digit numbers with renaming.	- When subtracting two-digit numbers, begin with the ones place. If the minuend is smaller than the subtrahend, first rename in the tens place. To rename means to change 1 ten into ten ones. Next, add the ten ones to the minuend in the ones place. This will rename the tens digit and the ones digit. Then, subtract (from ones column, first). Example: $82 - 29 = ?$	<i>Come to the Shop!</i> In cooperative learning groups, students purchase items from their “mini grocery stores”. Each group member takes turns being the cashier. The cashier must determine how much change each person will receive (using subtraction with renaming) and the group members must also calculate the “bills” to confirm that the cashier is correct.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg.32 ✓ Textbook: pgs.78 & 79 ✓ Workbook: pg. 35	Worksheet: Solve to find the difference of two-digit numbers with renaming.
22. Explore multiplication as repeated addition (Continued).	- Multiplication is a fast way of adding a series of numbers. - Remember that multiplication is repeated addition. Example: $3 + 3 + 3 + 3 + 3 = 15$ 5 groups of 3 = 15 $5 \times 3 = 15$  This means that there are 5 groups of 3, which total 15 Example: 1 bird has 2 legs 5 birds	In groups using manipulatives, students explore multiplication as repeated addition. Example: Solving Problems around the School Using Repeated Addition Take students on a tour around the school. Have them solve problems like counting the number of desks and chairs in a classroom, computers in the computer lab, number of juice in a box sold by the lunch vendor, etc. Explain to them that if the desks and chairs are set up in rows and columns it is easier to multiply to find the total number, instead of counting each item separately.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pgs. 50 & 51 ✓ Textbook: pgs. 123 -128 ✓ Workbook: pgs. 61-63	Students match prepared repeated addition sentences with multiplication sentences. They walk around to find a partner with coordinating product.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
22. Explore multiplication as repeated addition.	Example: How many wings?  • Writing the multiplication as a repeated sentence. • Division is repeated subtraction.	• In groups using manipulatives, students explore division as repeated subtraction. Example: 10 legs - How many birds?	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 58 & 59 ✓ Textbook: pgs. 145 - 148 ✓ Workbook: pgs. 72-74	• Students create and solve problems with division as repeated subtraction.
23. Explore and demonstrate division as repeated subtraction (Continued). Note: Objectives 22 and 23 are introductory. Students do not learn multiplication and division facts at this time.	• Division is sharing or splitting into equal parts. It is the process of calculating the number of times one number is contained in another one. It can be shown or demonstrated by repeated subtraction. • When using repeated subtraction begin with the largest number and take away the smaller number until you arrive to zero.	$10 - 2 = 8$ $8 - 2 = 6$ $6 - 2 = 4$ $4 - 2 = 2$ $2 - 2 = 0$ = 5 birds 	Video/Content https://www.youtube.com/watch?v=auqhVhaX_Zo&t=29s	• Solve division problems using repeated subtraction.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
23. Explore and demonstrate division as repeated subtraction (Continued). Note: Objectives 22 and 23 are introductory. Students do not learn multiplication and division facts at this time	Example: How many groups of 3 can be found out of a set of 12 marbles? $12 - 3 = 9 \checkmark$ $9 - 3 = 6 \checkmark$ $6 - 3 = 3 \checkmark$ $3 - 3 = 0 \checkmark$ 4 groups can be found. This means that 3 is contained in 12 four times.	Divide and Counter Divide students into small groups and give each group a set of counters. Then have each group divide the counters equally among them. Be sure each group comes up with a division sentence, solves the problem, and checks over their work for accuracy. Then groups can swap counters and repeat the activity. Make sure that every group gets a set that can be divided equally among the members. Number Line Hopscotch. Students hop along a life-size number line to show repeated subtraction as the teacher displays various word problems.	- Manipulatives (e.g., marbles) - Subtraction Flash Cards	- Complete online worksheet: https://www.liveworksheets.com/je1777974mz

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
24. Estimate the amount of objects in a set using 0, 10, and 100 as benchmarks and then determine if estimation was reasonable.	- To estimate is to find a number that is close to the exact answer. Addition Terms: In addition to sum, the following terms are associated with addition: in all, altogether, more, and total. Subtraction Terms: In addition to difference, the following terms are associated with subtraction: are left, how many more (much more), less, take away, and subtract.	How Many? - Fill a jar with beans or other objects and have students estimate how many beans are in the jar. - Have students fill in given containers to verify their answers. - In the classroom spread several things on the floor (e.g. books, toys, pencils, etc.). Have students estimate the number of items on the floor (1, 100 or 1000). Then have them count as they pick up the items. Guesstimation Time - Activity can be done individually, in peers or in groups. - Teacher gives a list of questions, which would require students to estimate then find the real answer.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 34 ✓ Textbook: pgs.82 & 83 ✓ Workbook: pgs. 37-39 - Jar - Manipulatives (Beans, macaroni)	- Explain why estimation is important. - Use number line to estimate numbers or objects in a set.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
25. Estimate to find sums and differences.	- Use the number line to assist students with estimation. - Given a number, find the two numbers that come before and after (counting in tens) that number. Example: The number is 34. Between which two numbers (counting in tens) does this number fall? Answer: 30 and 40. 34 is closest to which number, 30 or 40? It is closer to 30. Then, 34 is estimated to 30. - Add the numbers. Example: $\begin{array}{r} 45 \qquad 50 \\ + 72 \qquad + 70 \\ \hline 120 \end{array}$ a. 45 is between the numbers 40 and 50. 45 is closer to 50. Therefore, 45 is estimated to 50. a. 72 is between the numbers 70 and 80. 72 is closer to 70. Therefore, 72 is estimated to 70. The estimated sum is 120 For subtraction, the rule remains the same. After estimation, you subtract instead of add.	- Use flash card and allow student to estimate sums and differences using a variety of methods. Estimation Hangman a. Students estimate sums and differences to the nearest ten. If the addends or minuends are incorrect, you draw the parts of the hangman. The group or student who completes the hangman first loses the game.	Video/Content https://youtu.be/kfKjjoNlkfA Liveworksheets https://www.liveworksheets.com/jh1660636uu - Manipulatives (Beans, macaroni) - Flashcards	Students create and solve problems estimating sums and differences.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 2

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
26. Create and solve problems in addition and subtraction using whole numbers, money, and fractions.	- The words “in all” and “altogether” are associated with addition. - The words “left” and “many more” than are associated with subtraction.	- In groups, students solve various problems and justify their answers. a. Using the Miami Herald or the local newspaper, collect food store advertisements for items (milk, bread, etc.). b. Create various problems for the students to solve where they are given a certain amount of money to purchase some lunch for school. Example: Rachael was given \$5.00 to purchase some food for her lunch. She went to Super Value and brought 2 apples at 50 cents each, 1 potato chip at 75 cents and an apple juice at 85 cents. How much money did she spend? How much change does she have left?	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 36 ✓ Textbook: pg.88 ✓ Workbook: pg.41	Students complete activity sheets where they solve problems in addition and subtraction using whole numbers, money, and fractions.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 2

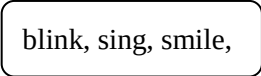
Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

Essential Questions

1. What is the role of patterns in everyday life?
2. Why is skip counting important in everyday life?
3. How do I find missing values in a number sentence?
4. Why is knowing how to count important?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 2

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Identify, continue, and create pictorial, action and repeated/grouping patterns within 999 (Continued).	Pattern: A repeated sequence or design E.g.  5, 10, 15, 20, 25, 30... Pattern Unit: Part of a pattern that repeats. E.g.  Pictorial Pattern: A pattern made using pictures E.g.  Action Pattern: Made by performing a specific set of actions. E.g. clap, jump, dance, clap, jump, dance clap, jump, dance	- Identify and continue the pattern in a row of pictures then draw or tell what should come next. Example:  Identify the pattern unit in a given pattern. E.g. ABABAB E.g.   - Demonstrate/tell which action should be next in an action pattern. E.g. raise arms up, put arms down, raise arms up, put arms down. - Use pictures in a pattern to make a new pattern. Example:  	Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg.12 ✓ Textbook: pgs. 2, 7-12 ✓ Workbook: pg. 2	- Correctly draw or tell what should come next to continue a given pattern. Use numbers and symbols - Create a pattern using a given set of pictures, or actions - Create new patterns using the same objects, shapes, or numbers given.

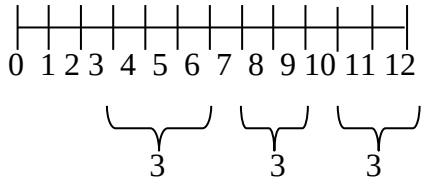
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 2

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Identify, continue, and create pictorial, action and repeated/grouping patterns within 999.	- A number pattern is a pattern or sequence in a series of numbers. This pattern generally establishes a common relationship between all numbers. Example: 1, 3, 5, 7, 9, 11, ____ - To create this pattern, the number 2 is always added to the previous number to get the next one. The next number is 13. Growing Pattern is a pattern that grows or increases according to a certain rule	- Tell which number should come next in a pattern. E.g. 2, 4, 4, 2, 4, 4, 2, 4, 4, or 10, 20, 30, 40, 50... - Compose numerical patterns. Example 1 2 3 4 1 2 3 4	Liveworksheets https://www.liveworksheets.com/ab1169818mb - Connecting Cubes - Cut-out shapes	- Correctly tell what comes next in the number pattern. - Complete worksheet where students are required to complete any given pattern.
2. Identify patterns in their world.	- Recognize that there are patterns all-around us and be able to identify different kinds. Examples: Nature- - butterfly wings, honeycombs, buildings, leaves, flowers, etc. Construction - buildings, tiles, brick walls Art - paintings, pictures Music - beat Clothing - Stripes - Plaids - Polka dots	- Observe things which have a variety of designs on them, that create patterns, (e.g. animal skins (stripes, spots), clothing (stripes, polka dots, plaids) titles, windows, etc.) then discuss observation. Nature Walk Observe and discuss the types of patterns seen. _____ lines or leaves _____ lines on tree trunks _____ petals on flowers _____ branches etc.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg.62 ✓ Textbook: pg.154 ✓ Workbook: pg. 77 Video/Content https://www.youtube.com/watch?v=1O8rjsG0lGM	- Name types of patterns (designs) as seen in pictures or on items. - Create own patterns.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 2

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Skip count by 2s, 3s, 5s, 10s, 25s, 50s up to 999.	- Count forwards or backwards by a number other than one. - Use number patterns to count by 2s, 3s, 5s, 10s, 25s, 50s.	- Count using a 100 counting chart. - Use 40 counters and arrange them in groups of 2s, 5s, 10's, and 50s.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 14 & 15 ✓ Textbook: pg. 14 ✓ Workbook: pg. 10 - Cuisenaire rods.	Have students explain why skip counting is necessary in everyday life.
4. Identify and locate missing numbers on a number line.	Number lines and skip-counting can be used to help you determine the missing number in a series or sequence of numbers. Example: Skip count by 3s: 3, 6, 9 	In cooperative groups, students explain, complete, and share how they arrived at answers on the number line. Groups are not assigned the same problems.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 8 ✓ Textbook: pg.3 ✓ Workbook: pg. 3	Provide students with an activity sheet where they have to identify the missing numbers on a number line.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 2

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
5. Solve non-routine problems where finding pattern is an appropriate strategy.	• Routine Problem: A problem for which a number sentence can be written. There is an immediate answer for this type of problem. • Non-Routine Problem: It does not have a specific path to the answer. It is a problem that requires insights and knowledge of Mathematical principles such as patterning • Problem strategies used to solve Non-Routine Problems a. Guess and test (trial and error) b. Working backwards c. Drawing a picture d. Make a chart or table e. Looking for patterns	• Students solve problems where using a pattern is a strategy. • Competition: Girls against Boys Competition with Math Brain Teasers or puzzles.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 36 ✓ Textbook: pgs. 85-89 ✓ Workbook: pgs. 40 & 41 • Video/Content https://www.youtube.com/watch?v=ZVNN1I6cuuo • Virtual Math Puzzles https://www.math-salamanders.com/2nd-grade-math-puzzles.html	• Use the KWL strategy • Math Brain Teaser puzzles.
6. Translate word problems into expressions and equations.	• An expression is a number sentence that has numbers and operations signs but no equal sign. Example: $2 + 3$ • An equation is a number sentence that has numbers, operations signs and an equal sign. • Number sentences help us to solve word problems. Example Joe has 5 markers. Jan has 4 markers. How many markers do they have in all? Write a number sentence to solve. Answer: $5 + 4 = 9$ markers	Number Sentence Charades • Have students act out problem situations and write the number sentences based on the scene they acted out.	• Video/Content https://www.youtube.com/watch?v=-iAQI5k-8cQ	• Complete worksheet requiring students to translate a word problem into a number sentence.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

Essential Questions

1. What are the three basic units of measurements?
2. How does what you measure influence how you measure?
3. How does experience help you relate time to when an event actually happens?
4. What information is necessary to solve everyday problems?

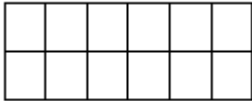
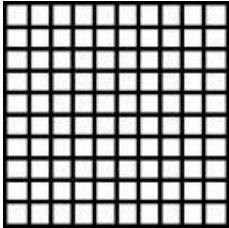
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Estimate and measure objects to the nearest metre, centimetre, or decimeter, feet, inches, yards and miles.	- To estimate measurement, give a guess that comes as close as possible to the actual measurement of an object. To check the accuracy of the guess, we use a ruler to get the exact measurement. Metre (m)- basic unit of measuring length in the metric system. Centimetre (c) – a smaller unit of measuring length in the metric system. It takes 100 centimetres to make 1 metre Decimetre - 1/10 of a metre or 10 decimetre = 1 metre. Customary Units of Length 12 inches = 1 foot 3 feet = 1 yard 1760 yards = 1 mile	- Give each child/group an object and allow them to make reasonable estimates as to the length of each object based on the unit being used. Have them measure it, and write the length as closely as possible to its actual measurement e.g. which string is about 3cm? (check estimates by measuring) - How many centimetres long is the eraser?  (other objects that could be books, desk, chalkboard, window sill, paper clips, etc)	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 43 ✓ Textbook: pgs. 105 & 106 ✓ Workbook: pgs. 50 & 51 Online Game https://www.splashlearn.com/measurement-games - Various objects	Give reasonable guesses then measure and tell accurate lengths of a specific object.

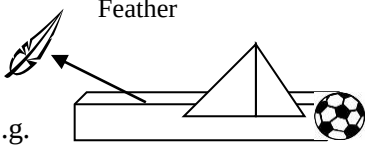
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Demonstrate the concept of area using nonstandard units.	Area is the surface occupied by an object. Area is measured in square units. - To find the area of an irregular shape, count the squares in the shape. The answer will be in square units. Example 1:  The area is 11 square units. Example 2:  The area is 12 square units	- Use grid paper to draw/outlines figures that have a given number of square units. Then shade in the area, e.g. 5 units.  - Draw figures for given areas and shade them in.  - Using floor tiles and tape, the teacher will outline different irregular figures and have students determine the area of each figure.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 56 & 57 ✓ Textbook: pgs. 141-144 ✓ Workbook: pgs. 69 -71 Video/Content https://www.youtube.com/watch?v=wW-fcQledCE Online Game https://www.splashlearn.com/area-and-perimeter-games • grids	- Write the area of objects using square units (by counting squares). - Correctly draw any figure for a given area and shade it in. - Complete a worksheet on area using nonstandard units.

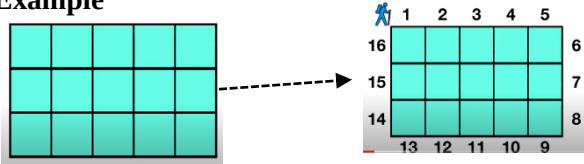
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Estimate, measure and then compare the mass or weight of objects using standard units.	Mass is how much space an object takes up. Weight tells how heavy or light something is. - In the metric system, grams (g) and kilograms (kg) are used to measure mass. 1000 grams equals 1 kilogram. - In the customary system, ounces (oz.) and pounds (lbs.) are used to measure weight. 16 oz. equals 1 pound. Heavier means having more weight than another object. On a balance scale, the heavier object will lower the pan. Light means having less weight than another object. On a balance scale, the lighter object will be on the higher pan. - To be balanced means to have the same weight as another. On a balance scale, both pans will be at the same level. - On a standard scale, you read the weight of an object by looking at the number where the marker stops.	- Place an object on either side of a balance in the pans, then observe to see which is heavier (lower pan) or lighter (higher pan)  Feather E.g. Ball Draw objects on a sheet of paper under the headings. ‘Heavier or lighter’ Heavier  (ball) Example: Lighter  - Have students estimate the mass/weight of items, place them on the scale one at a time and read the scale. They will then compare the mass/weight of items (feather). - Play a game called “We balance” where students try to choose objects that are the same weight and place them on a scale to see if they balance or not.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pgs. 52 & 53 ✓ Textbook: pgs. 37-42; 129-134 ✓ Workbook: pgs. 64 & 65 Video/Content https://www.youtube.com/watch?v=A0DdQe66_aY - balance scale	- Circle objects that are heavier or lighter and justify the responses. Worksheet: - Have students read scales to determine the weight of objects. Performance Based - Have students estimate then measure objects to compare their mass.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Find the perimeter of a figure with non-standard units.	Perimeter is the distance around a figure. Perimeter is measured in units. - To calculate the perimeter of a figure, count each square as you move around (as seen below). Example  Count as you move around the shape. Perimeter = 16 units	Using floor tiles and tape, the teacher will outline different irregular figures and have students determine the perimeter of each figure.	Video /Content https://www.youtube.com/watch?v=e00pcxkcnA8 Online Game https://toytheater.com/perimeter-climber/	Worksheet: Have students determine the perimeter of figures given.
5. Estimate, measure and compare temperatures (Continued).	Temperature tells how hot or cold something is. We measure temperature using a thermometer. The unit of measurement is called degrees.	Place frozen or cold potatoes in bags (1 per bag) also place hot/warm potatoes in other bags. First child chooses a bag and tries to guess; by touch, whether the potato is hot or cold. After guessing, other members of the group decide if the potato is hot or cold. If the guess is correct, the first child gets a counter, and the bag is returned to the group and mixed with the other bags.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 21 ✓ Textbook: pgs. 38 & 39 ✓ Workbook: pgs. 19 & 20	Read and compare temperatures from a thermometer and chart in terms of hotter, colder, warmer, or cooler.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
5. Find the perimeter of a figure with non-standard units.	The higher the line (or mark) is on the thermometer, the hotter it is. The lower the line (or mark) is on the thermometer, the colder it is.	- The other children take turns for an allotted time. The child with the most counters wins - Use an outdoor Fahrenheit thermometer to measure the temperature outside; record the morning and afternoon measurements, then compare those on specific days or times with others.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 21 ✓ Textbook: pgs. 38 & 39 ✓ Workbook: pgs. 19 & 20	Complete an activity sheet where students find the perimeter of a figure.
6. Relate an event to the appropriate part of the day	- Different events take place at different times of the day. The different times of the day are: morning, noon, afternoon and night. - A.M. means in the morning and P.M. means in the afternoon on a twelve-hour clock. Examples Morning events: get ready for school, eat breakfast Noon: lunch time Afternoon: get picked up from school, family picnic Night: eat dinner, go to bed	- Draw pictures of 3 activities they do each day, and then write when each one occurs. E.g. eating breakfast playing outside, going to bed (morning, afternoon, night) or e.g. coming to school, eating lunch, leaving school (9 o' clock, 12 o'clock, 3 o'clock). Afterwards arrange activities in order of first, next, last. - Work cooperatively using a flannel board to sort pictures of activities to correlate with the times of day when they would happen.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 48 & 49 ✓ Textbook: pgs. 118 & 119 ✓ Workbook: pg. 58	- Give appropriate examples of activities for times of day. - Sort pictures correctly using the different times of the day.

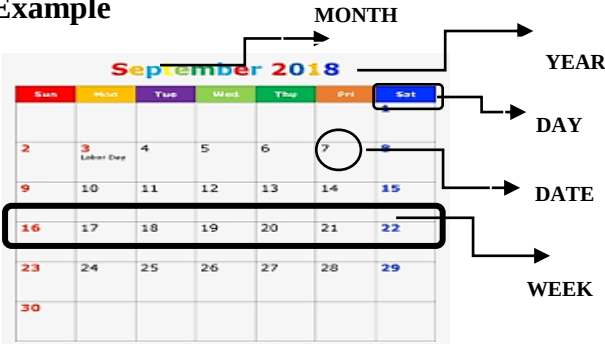
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
7. Name the days of the week and months of the year in sequence.	- The days of the week are Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. - The months of the year are January February, March... December. - Connecting Months and days to ordinal numbers. 1st month – January 1st day - Sunday 2nd month – February 2nd day - Monday 3rd month – March 3rd day - Tuesday and so on. and so on.	- Use index cards or a calendar to identify the days of the week and months of the year. - While standing in a circle, students say the names of days or months, in their correct order - First child says Sunday, the next say Monday, and the like. The child who says the incorrect day must face the outside of the circle. The game continues until everyone has had a turn and they have come to Saturday.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 17 ✓ Textbook: pgs. 22 & 23 ✓ Workbook: pg.13 - Mathematics in Motion: A Resource Book for Primary Teachers, pg. 98	Arrange in order the days of the week and months of the year.
8. Read a calendar for the month, year, and date (Continue).	- A calendar is a system of determining the beginning, length, and divisions of a year and for arranging the year into days, weeks, and months - Weeks are read from (left to right). The numbers on the calendar are called dates	Give each child a copy of the same calendar page and have them point out the month and say its name, along, with the year. Ask them to find a particular date- E.g. September 1st and have them tell which day was that(Monday	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 18 ✓ Textbook: pgs. 24 & 25 ✓ Workbook: pgs. 14 & 15	Correctly identify and tell the month, year, or date when asked.

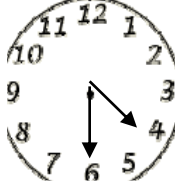
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
8. Read a calendar for the month, year, and date.	Example 	- Have students draw and label a calendar month (each group may be given a specific month to create). - Have groups answer questions about the calendar. Example: what is the date of the second Thursday in March? Suppose you have ball practice on Saturdays. How many practice days do you have in March?	Video/ Content https://www.youtube.com/watch?v=HrYdAfeqmDM	Students fill in a calendar month with symbols according to events given by the teacher. For example: <i>Julie's birthday is on March 7th. On which day is Julie's birthday?</i> The students will draw a birthday cake or other related picture in the correct box on the calendar.
9. Make associations between months, days, and weeks on calendar.	- Association is the relationship between two data. For examples days and months. Example of Associations Christmas Day: December 25th Independence Day: July 10th Opening of school- September Valentine's Day: February 14th	- Using a calendar, children find and name the month for their birthdays. - At the start of each month, discuss holidays, special occasions, or school events that will occur. Highlight these events on a class calendar using cut-outs, Stickers, etc. E.g. Valentine's Day – Hearts, Thanksgiving- Cornucopia, Birthday- Cake, Candles, Balloons.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 18 ✓ Textbook: pg. 25 ✓ Workbook: pg. 15	Use a calendar to make associations between months, days, and weeks

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
10. Identify equivalent relationships between days, months, years, and hours.	24 hours = 1 day 7 days = 1 week 12 months = 1 year 365 days = 1 year 366 days = 1 leap year	- In cooperative groups students complete the following: a. How many <i>days</i> and/or <i>weeks</i> <i>between</i> two dates Year - Month - Day Counter	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 18 ✓ Textbook: pg. 26 ✓ Workbook: pg. Nil	Students write their own problems dealing with equivalency of days, months, years, and hours. Students also supply the answers for the problems.
11. Tell and model time to the hour, half hour, and quarter hour on an analog clock (Continued).	- On an analog clock time is determined by observing the position of the 2 hands. The short hand (tells the hour) and the long hand (tells the minute). - Numbers 1 – 12 are also seen on an analog clock. The analog clock shows 60 minutes, which is one hour. Half of an hour is 30 minutes. A quarter-hour is every 15 minutes. a.  4:00 four o'clock 4 o'clock hour	Display a flashcard for a specific time. Students fix the minute and hour hands to correspond with the time E.g. 4:30  The long hand is on 6 the short hand is between 4 and 5.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 49 ✓ Textbook: pgs. 120-122 ✓ Workbook: pgs. 59 & 60	Arrange a clock's hands to display given times to the hour, half hour, and quarter hour.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
11. Tell and model time to the hour, half hour, and quarter hour on an analog clock	When the long hand is on 12, it is read as o'clock (time to the hour). The short hand will be on the hour number. b.  7:30 seven thirty half past seven When the long hand is on 6, it is read as thirty (half-past the hour). The short hand will be between 2 numbers. c.  10:15 ten fifteen quarter past ten When the long hand is on 3, it is read as fifteen (quarter to the hour). The short hand will be slightly past the hour.	- Using paper- plate clocks, students position the long and short hands as directed, and then read the time shown. Example  - The clock shows 8 o'clock or 8:00. *Students can model times for $\frac{1}{2}$ hours, quarter past, or quarter to, as well.	Online Game https://www.education.com/game/s-top-the-clock/ - Paper clocks (for students) - Large clock (teacher)	Review sheet where students write and show times on both digital and analogue clocks.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
12. Identify and use coins and bills in both Bahamian and U.S. currencies.	• Bahamian Coins (all have Coat of Arms on one side) a. five cent coin: pineapple on one side = 5¢ value b. ten cent coin: two bone fish on one side, wavy edges = 10¢ value c. fifteen cent coin: hibiscus on one side = 15¢ value d. twenty-five cent coin: native sloop on one side = 25¢ value • American Coins (varying images, provide model for students) b. penny = 1¢ value c. nickel = 5¢ value d. dime = 10¢ value e. quarter = 25¢ value f. half dollar = 50¢ value • Bahamian and American Bills are \$1.00, \$5.00, \$10.00, \$20.00, \$50.00, and \$100.00. Bahamian bills are printed in colored. American bills are printed in black and white.	• Using laminated, plastic, or real coins (or bills) students explore, name, discuss the characteristics and value of each. • Sort coins into groups to distinguish Bahamian or American by looking for common images. For example, Bahamian (coat of arms) or American (president's heads)	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 28 ✓ Textbook: pgs. 60 & 62 ✓ Workbook: pgs. 28-30 • www.centralbankbahamas.com • Bahamian play money	• Tell the name and value of a particular coin (or bill) • Group coins correctly as either Bahamian or American and give their values. • Identify the value (s) of coins and pair them correctly.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
13. Count, compare, and make change using a collection of coins (Bahamian and US) of amounts to \$10.00 or less.	- Count groups of coins which are either of the same value or mixed values to a total of \$10.00, or less For example, all pennies or pennies and dimes - Decide whether one group of coins is worth more or less than another. e.g. 1¢ less 1¢ less 1¢ less 5¢ more - Use appropriate strategies to deduce how much money is left when some has been spent and create change. E.g. 14¢ 25¢ Δ 25¢ - 14¢ = 11¢ 10¢ 1¢	- Play a ‘shopping’ game using tagged items to sell. Give customers (students) a specific amount of money. E.g. 50¢. Cashier (student) must give the customer the correct change once he or she has made a ‘purchase’. Example: costs 26¢ Δ Change = 24¢. - Count a group of coins correctly based upon their value to \$10.00 American pennies - 1¢, 2¢, 3¢... nickels - 5¢, 10¢, 15¢, ... dimes - 10¢, 20¢, 30¢... quarters - 25¢, 50¢...* use like or mixed coins - Distinguish the value of coins to make trades. Example: 1 dime can be traded for 10 pennies or 2 nickels. - Create groups of coins that have a greater, lesser, or equal amount as another	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 28 ✓ Textbook: pg. 63 ✓ Workbook: pgs. 28-30	- Tell how much change should be given back and show that amount using coins - Choose the appropriate counting styles when counting out coins and give the correct amount. Example: 5¢ 5¢ 1¢ 6¢ 1¢ 7¢ 1¢ 8¢ = 8¢ - Count to find the amount in one group, and then find an amount equal in value so as to trade. - Choose/use coins to make higher, lower, or equal values. Example 25¢ 10 10 10 30¢ (more) 5 5¢ 10 10 5 25¢ (equal)

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 2

Sub-Goal 3: Make and use measurements of objects, quantities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
14. Use the symbols \$, ¢, and · (decimal point) correctly.	- Read and use math symbols that relate to money. \$ = dollar sign ¢ = cent sign = decimal point that separates dollar and cents values/amounts. E.g. \$5.26 is read as five dollars and twenty-six cents.	- Orally tell the value of written amounts. Example: \$2.14 = two dollars and fourteen cents. - Write or place symbol cards where they belong to show correct values E.g. 6 0 4 is supposed to be six dollars and four cents △ it should be shown as \$ 6 • 04	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 28 ✓ Textbook: pg. 64 ✓ Workbook: pg. 30	- Tell amounts by reading the written forms. - Put symbols in their appropriate positions.
15. Create and solve story problems using whole numbers and money.	- Steps for solving word problems - Read/Understand - Plan: Choose a strategy (Draw a picture) - Try it/Solve - Look Back/Check	In cooperative groups, students create, solve problems, and report findings to the class.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 36 & 37 ✓ Textbook: pgs. Nil ✓ Workbook: pg. 41	Create verbal or written story problems and the answers that involve adding or spending money.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

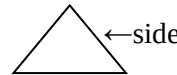
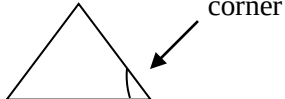
Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

Essential Questions

1. How can I identify and describe solid figures by describing the faces, edges, and sides?
2. In what ways can I match solid geometric figures to real-life objects?
3. How can I put shapes together and take them apart to form other shapes?

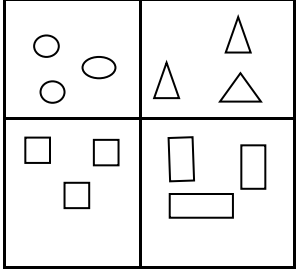
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Identify, describe, sort and classify common plane shapes (Continued).	• Plane shapes are 2 dimensional figures. They are also called flat shapes because they have length and width, but no thickness. • Properties of a plane shape include the number straight sides and the number of corners. a. Sides are the edges of the shape. Corners are where two sides meet. • Types of plane shapes a. Circle: A round shape with 0 straight sides and 0 corners. b. Rectangle: A plane shape with 4 sides and 4 corners but 2 sides are longer. The opposite sides are the same length.	• Who am I? Teacher will describe properties of a plane shape to students. Students will have to name the plane shape. • Card Matching a. Teacher will create shape cards. Some cards will have the shape drawn on the front. Others will have the definition of the properties on the front. b. Cards are to be laid face down on the desk. Students will have to flip the cards over (in pairs) until a correct match (shape and properties) is found. • Find my home a. Teacher will write the description of each shape on a card and place them in different parts of the room on a bin. b. A set of shapes are placed in the middle of the classroom. Students are given 20 seconds to select 2 shapes that fit any particular description, and place it in the bin next to it.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 30 & 31 ✓ Textbook: pgs. 69-74 ✓ Workbook: pgs. 31 & 32	• Outline sides and circle corners on drawings of plane shapes. e.g.   • Complete worksheet requiring students to colour shapes based on their property description. Example: Colour all the shapes blue that have 2 long sides and 2 short sides. • Who am I? In Math journals, students will create plane shapes riddles and draw (and write the name of) the plane shape that solves each riddle. <i>E.g. I have three sides and three corners. Who am I? (triangle)</i> 

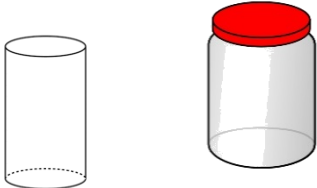
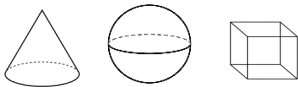
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Identify, describe, sort and classify common plane shapes	c. Square: A type of rectangle with 4 equal sides and 4 equal angles. d. Triangle: A shape that has 3 sides and 3 angles/corners.	- Following oral instructions, students use a Ziploc bag of shapes to make groups of different specifications. For example, sort by number of sides and corners, large small (medium) - Sort by shapes.  - Sort by corners/sides.  0 3 4	Video/Content https://www.youtube.com/watch?v=K5Uwcag7QaE Online Games https://www.splashlearn.com/geometry-games - Helping Children Learn Mathematics, pgs. 222- 230 - Geometric shapes (plane shapes)	Correctly paste plane shapes into appropriate groups according to their attributes. Example 
2. Identify and describe solid shapes -cone, cube, sphere and cylinder, and relate them to objects used in everyday life (Continued).	- Solid shapes are 3D shapes. They have faces, sides and corners. Faces are the flat parts of the shape. Sides are the edges of the shape. Corners are the points where the sides meet.	Matching Activity Students will match solid shapes with everyday items that resemble them. Who am I? Teacher will place 10 pictures on the board of everyday items. Students will have to find the item that is described by the teacher. Description should tell solid shape attributes and the use of the item or where it can be found.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 54 ✓ Textbook: pgs. 135-137 ✓ Workbook: pg. 66 - Solid Shapes	Match solid figures to like objects. Example  sphere  basketball

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Identify and describe solid shapes -cone, cube, sphere and cylinder, and relate them to objects used in everyday life.	- Solid shapes can be seen in everyday life. - A cube has 6 faces that are all equal. It also has 12 straight sides and 8 corners. Everyday items – box, ice cube  - A cone has 1 face that is circular at the base. It has one curved side and one corner. Everyday items – traffic cone, party hat  - A cylinder has 2 faces and 2 curved sides. Everyday items – jars, soda cans, pole 	- Select/point to solid figures as their names are given. E.g. Find the sphere  - Look for examples of given solid figures in the immediate environment e.g. Find something that is a cube (block, gift box)	Video/Content https://www.youtube.com/watch?v=CkMcboPCg7A	Identify solid shapes. Example: point to an object that is a sphere. (ball, marble etc.)

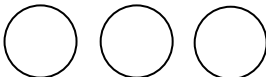
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Identify and describe solid shapes -cone, cube, sphere and cylinder, and relate them to objects used in everyday life.	A sphere is a solid bounded by a surface consisting of all points at a given distance from a point in its centre. E.g. globe, ball, Planet Earth, 	Play a game, “What am I?” where one partner describes attributes of a solid figure and the other partner guesses the shape. If it is correct, students get a point. E.g. I have 6 faces. What am I?	Online Games https://www.splashlearn.com/geometry-games Solid figures	- Select solid figures by clues given about their attributes. - Display a solid figure, and have children draw the plane shapes they could trace from the faces of that solid figure. Students then write the properties of the shapes.
3. Sort and classify solid shapes according to attributes (Continued).	- Sort and classify mean to separate and group. Three-dimensional figures may be classified by comparing similarities and differences in their attributes. - Physical attributes are visible characteristics that readily distinguish one figure from another e.g. shape, size, or colour. Types of Movements c. Roll: move by turning over d. Stack: arrange objects one on top of the other e. Slide: move to a new position without turning or flipping.	- Work in teams to put a bag of shapes into groups, according to their attributes. The team that finishes first wins. - Explore properties of solid figures to compare their movements and then put them into groups according to their similarities. E.g. spheres, cones and cylinders can roll. - Trace the flat surface of solid shapes to see which are similar e.g. cylinders and cones have circular faces.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 55 ✓ Textbook: pgs. 138 &139 ✓ Workbook: pgs. 67 & 68 - Solid Shapes Video/Song https://www.youtube.com/watch?v=AcsUQIxJKjY	Create a solid shape booklet by cutting and pasting pictures of objects like spheres, cones, cylinders, and cubes from magazines e.g.

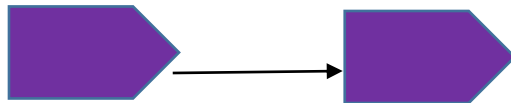
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Sort and classify solid shapes according to attributes.	- Flat surfaces- smooth, flat parts of solid figures, also called a face. i. Sphere 0 faces ii. Cone 1 face iii. Cube 6 faces iv. Cylinder 2 faces	- Identify solid figures that have the same color, shape, or size, then put them into groups e.g. sizes. a. Large spheres  b. Medium spheres - Students use spheres to make various shapes. Example: animals.  c. Small spheres 	Video/Content https://1drv.ms/v/s!Ah8UYdMv wU-CvwFaTGnSRhHlxuzs	- Discuss movements various solid figures are able to make. - Complete an online worksheet at: https://www.liveworksheets.com/xs1768633qd
4. Differentiate between plane and solid shapes using words, pictures, or objects (Continued).	Plane shapes are two- dimensional or flat shapes. For example: circles, triangles, rectangles, squares. Solid shapes are three dimensional shapes. For example: spheres, cones, cylinders, and cubes.	- Explore two- and three-dimensional shapes to understand their differences using common objects. Examples: a. Circle – face of round clock. b. Square – tiles on floor. c. Triangle – (musical instrument) triangle d. Rectangle – sheet of paper (legal size) e. Sphere - basketball f. Cone - party hat g. Cylinder- soup can h. Cube – block	- Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 62 ✓ Textbook: pg.155 ✓ Workbook: pg. 78	Match plane/solid shapes to appropriate objects with like shape.

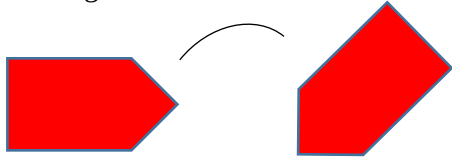
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Differentiate between plane and solid shapes using words, pictures, or objects.	Flat surface on solid shapes are plane shapes.	Construct plane and / or solid shapes using a variety of materials - E.g. play dough, toothpicks, blocks, pipe-cleaners, etc., and then compare them.	Online Games https://www.turtlediary.com/games/shapes.html Materials for constructing plane shapes and solid figures	- Pair plane shapes with solid shapes which have like flat surfaces. Example  - Create a model of their community using plane and solid shapes (it is recommended to use recycled materials.)
5. Identify and apply slide, flip, and turn to plane figures (Continued).	Plane figures can slide, flip, and turn. a. Slide is a movement of a figure to a new position without turning or flipping. A shape can slide right, left, up, down or diagonally and won't change. 	Geometric Slide: Students will do a geometric slide dance. They will start with one hand out to the left to imitate a shape. They will then use their bodies to show slide, flip, and turn.	Video/Content https://www.youtube.com/watch?v=A_H4VsH8mIgs	Have students complete worksheet requiring them to say how a shape moved. They will also have to draw the shape to depict the movement

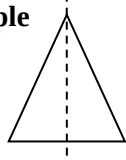
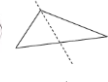
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
5. Identify and apply slide, flip, and turn to plane figures	b. Flip is a movement that involves going over an imaginary line. A shape can flip from left to right as well as from up to down. When it flips, it faces the opposite direction.  c. Turn is a movement that involves rotating in a circular motion around a point. When a shape turns it changes direction. 	Cut and Paste: Students will glue shapes to show slide, flip and turn.	Online Game https://www.ixl.com/math/grade-2/flip-turn-and-slide	- Write in journal how to identify slide, flip and turn of plane figures. Discuss and Write - What does it mean to flip, turn, and slide an object? - Have students use pattern blocks or other simple objects to demonstrate slide, flip and turn.

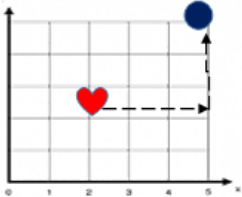
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
6. Identify and draw lines of symmetry.	- A line of symmetry is an imaginary line that divides a shape into 2 equal parts that are the same shape and size. - Lines of symmetry can be drawn from left to right or top to bottom on a shape. Example  line of symmetry - If you fold the picture of a figure along the line of symmetry, both sides of the line should be the same. - Some shapes have one line of symmetry. Some shapes have more than one. Examples:  Two lines of symmetry  No line of symmetry. Not the same on both sides.	- Fold pre-cut plane shapes or objects to create 2 equal congruent parts, then trace or draw the line of symmetry.  - Trace common objects and state whether the objects have one, more than one or no lines of symmetry. Examples    0 1 4	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pgs. 46 & 47 ✓ Textbook: pgs. 113-116 ✓ Workbook: pgs. 56 & 57 Online Game https://pbskids.org/peg/games/symmetry-painter	- Given a set of objects or shapes students identify lines of symmetry. - Draw lines of symmetry on shapes or objects

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 2

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusions about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
7. Find and name locations with relationships like near to and far away in a co-ordinate system such as maps.	- Co-ordinate System is an organized method used to locate positions and, or places, on a map. - Identify specific places and or objects by following given directions. Example: 3 spaces above. Above: in a higher place Below: in a lower place Behind: at the back of In front of: further forward of someone or something. Near to: a short distance away from someone or something Up: into higher position Left: on the west of your body when facing north. Right: on the east of your body when facing north Down: into lower position.	Move through a grid by following directions to get to a specific location/ identify the location. Floor tiles can be used to create a grid. <i>Example:</i>  How would you get to the heart from the circle? Steps: Move 3 spaces to the right, then move 3 spaces up.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 27 ✓ Textbook: pgs. 54-57 ✓ Workbook: pgs. 25-27	- Act out position terms on a grid. e.g. up - point up-ward, raise arms - Follow oral/written directions to get to a particular spot on a grided map. - Given a set of objects or shapes, students identify lines of symmetry. - Draw lines of symmetry on shapes or objects

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 2

Sub-Goal 5: Collect, organize; and analyze data using statistical methods, predict results; and interpret uncertainty using concepts of probability.

Essential Questions

1. How does a graph give information without using many words?
2. How is predicting better than a wild guess?
3. How can we use range and mode in everyday life?

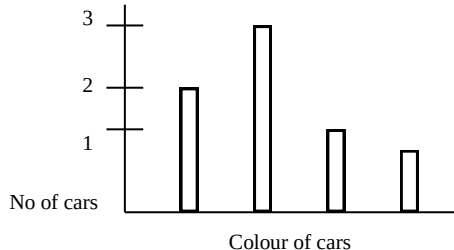
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 2

Sub-Goal 5: Collect, organize; and analyze data using statistical methods, predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Collect, record, and interpret data on concrete and pictographs.	- Gather information for a particular subject or topic, then sort the data and represent it on a particular type of chart so that it is easily read and understood. Concrete Graph: a graph which displays data using actual objects. Pictograph or pictures graph: a graph that uses pictures or symbols to show data.	- Participate in an in- class survey that uses 10-15 students e.g. choose a favorite fruit from a given group (bananas, apples, oranges, grapes, pears) a. Another variation could be a Bahamian list if children have been exposed (plums, mangoes, sapodillas, tamarinds, guineps). Once the data is gathered, record it onto a mounted graph. - Respond logically to questions about the data shown. For example, which fruit did the students love best? How many children's favourite fruit is pear? Name the fruit that was the least favourite of the class.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 38 ✓ Textbook: pgs. 91 & 92 ✓ Workbook: pg. 42 Math Online Game https://www.mathgames.com/skill/2.14-create-pictographs	- Record data on one or more kind of graph. - Use a graph to respond to questions relating to the information displayed. - Gather information via family members, neighbors, etc. To create a graph.
2. Collect, record, and interpret data on horizontal and vertical bar graphs (Continued).	Bar Graph: a graph that uses rectangular bars to show data in two ways a. Vertical Bar Graphs go up from bottom to top. b. Horizontal Bar Graphs are built from left to right.	- Cooperatively or independently, conduct surveys on a variety of topics to create graphs. Examples: a. pets b. favorite colors c. things we like to do d. favourite foods.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 39 ✓ Textbook: pgs. 93 & 94 ✓ Workbook: pgs. 43 & 44 - Bar Graph	Students construct a Bar graph of their favourite television shows

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 2

Sub-Goal 5: Collect, organize; and analyze data using statistical methods, predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Collect, record, and interpret data on horizontal and vertical bar groups.	Properties of a Bar Graph a. 2 axis with labels: –2 reference lines drawn on a graph, horizontally (X axis) and vertically (Y axis) b. Scale: a set of numbers to help measure or quantify (read the number) objects. c. Title: Heading of the graph telling its purpose. 	Create Bar Graphs using tables of data.	Online Game https://www.mathgames.com/skill/2.15-create-bar-graphs-using-tables	Have students complete a worksheet analyzing a bar graph to determine quantities.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 2

Sub-Goal 5: Collect, organize; and analyze data using statistical methods, predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Draw conclusions and make predictions from graphs, both concrete and pictographs.	Draw Conclusions: using prior knowledge and/or prerequisite skills to come to a decision regarding the outcome will be based on the information given.	- Students try to deduce from a group of toys, which will have the largest and smallest group on a concrete graph. Use an outlined area (tape) on the floor. Each child places his toy into the appropriate area to check outcomes. - Use coloured paper squares where children observe the pattern being formed to predict what will happen next. Example: 1- red, 2 - yellows, 3- blues, 4 -greens, 5- pinks. - By coloring in the bars, students will note that each new bar/line is one box more than the previous one. *This activity can also be done using a picture graph.	- Bahamas Primary Mathematics Bk 2 ✓ Teacher's Manual: pg. 38 ✓ Textbook: pgs. 90- 96 ✓ Workbook: pgs. 43 & 44	- Demonstrate the use of logical reasoning when drawing conclusions or making predictions. - Predict and explain what will be and is happening on the graph.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 2

Sub-Goal 5: Collect, organize; and analyze data using statistical methods, predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Apply terms like “likely”, “unlikely” and “impossible” to everyday situations/events.	• Likely means that an event will happen Example: I will go to grade three next year • Unlikely means that an event will NOT happen. Example: The same principal will be at the school for 35 years. • Impossible means that the event can never happen under any circumstance. Example: The probability of rolling a 7 on an ordinary dice would be impossible.	• Spin for a Colour a. Students work in pairs. Each pair is given a coloured spinner (red, green, blue, yellow, and purple). b. Students read from cards different scenarios. For example, Is it likely to get a green? Is it likely to get a purple? Is it likely to get orange? Is it likely to get pink? c. Students justify their responses.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pgs.60 & 61 ✓ Textbook: pgs. 149-152 ✓ Workbook: pgs. 75 & 76	• Students write in their journals events that are likely, unlikely and impossible.
5. Solve questions related to data representation, including the range and mode.	• The range of a set of data is the difference between the highest and lowest values in the set. Example: {8, 9, 10, 22, 25} Range 25- 8 = 17 • The mode is number that occur most often in the set. Example: {0, 1, 2, 2, 2, 3, 4} Mode: 2	• Use graphs to find the range and mode of activities/events.	• Bahamas Primary Mathematics Bk 2 ✓ Teacher’s Manual: pg. 39 ✓ Textbook: pg. 95 ✓ Workbook: pg. 45	• Create graphs and identify the range and mode.

Scope of Work

Primary School Mathematics

Grade 3

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

Essential Questions

1. What influence does the placement of a digit have on the digit's value?
2. What are the most effective ways for estimating sums and differences using larger numbers?
3. How do I add and subtract numbers including fractions with like and unlike denominators?
4. How are Roman numerals used in everyday life?
5. What is the difference between the numerator and the denominator?
6. What steps are involved in finding equivalent fractions?
7. What strategies can I use to solve addition and subtraction problems?
8. How can I show how to solve a multiplication problem using different methods?
9. How can I use multiplication to help me with division?
10. How can I use division to help me with multiplication?
11. Why is it important to know how to add and subtract compound units?
12. Why do mental models help me remember?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Use ordinal numbers to identify positions from first to fiftieth.	Ordinal numbers tell the position of an object or a person. Example of ordinals 1st first 2nd second 3rd third 4th fourth 5th fifth 21st twenty first - The ordinal numbers from 5th to 20th end with th. - The following pattern then continues throughout each number family (grouped by tens). Pattern: First – st (e.g. 21st, 31st, 41st) Second – nd (e.g. 22nd, 32nd) Third – rd (e.g. 23rd, 33rd) Fourth through tenth – th (e.g. 24th, 35th, 46th)	- Have students form a line according to height (i.e. tallest or shortest). Then have students count their place on the line (i.e. 1st, 32nd, 3rd, 4th, ...) - Ask the following questions - Who is first on the line? - Who is third, tenth...? - What place is Lisa? - Put students in groups. Have each group run a race on the playing field. Choose some students observing the race to pin ribbons on the competing students according to the order in which they finished the race.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 11 &12 ✓ Textbook: pgs. 6 &7 ✓ Workbook: pgs. 3 & 4 Online Game https://www.softschools.com/math/ordinal_numbers/games/	- Place five different objects in a row. Have students name or tell the position of each item. - Provide ordinal numbers for highlighted positions. Example: Sue is 40th in line. Ben is 8 places behind Sue. Write the ordinal number that tells Ben’s position in line.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT																																				
2. Identify the place and value of a given digit in a number up to 999 999 (Continued).	- A digit is a symbol used to write numbers. They are 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9. - Numbers are made up of periods. Each period consists of three places – ones, tens, and hundreds. - The first period is called the ones period. It is made up of ones, tens, and hundreds. <table><tr><th colspan="6">ONES PERIOD</th></tr><tr><th colspan="2">H</th><th colspan="2">T</th><th colspan="2">O</th></tr><tr><td colspan="2">1</td><td colspan="2">2</td><td colspan="2">4</td></tr></table> This will be read as one hundred twenty-four. - The next period is called the thousands period. It is made up of thousands, ten thousands and hundred thousands. <table><tr><th colspan="3">THOUSANDS</th><th colspan="3">ONES</th></tr><tr><td>H. Th</td><td>T. Th.</td><td>Th.</td><td>H</td><td>T</td><td>O</td></tr><tr><td>2</td><td>5</td><td>6</td><td>3</td><td>1</td><td>2</td></tr></table> This will be read as two hundred fifty-six thousand, three hundred twelve.	ONES PERIOD						H		T		O		1		2		4		THOUSANDS			ONES			H. Th	T. Th.	Th.	H	T	O	2	5	6	3	1	2	- Play “Greatest Number Card Game”. Students work in pairs and put 4 blank lines on a piece of paper. _____ - Teacher shuffles a deck of 10 single digit cards. Teacher randomly selects one card. Students place that digit in one of their 4 blanks keeping in mind they want to create the largest number. This continues 4 times. Teacher asks class for the numbers they wrote. - Have students stand in a house (ones, tens, hundreds and thousands) of their choice. Tell students to switch houses so that they can create the greatest four digit number. Student with the greatest number takes the biggest house and continue to the smallest number. Teacher allows class read the numbers that were created. Memory Game - Numbers can be written on separate cards and written in each form. Students take turns matching each form.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 15 -18 ✓ Textbook: pgs. 20-22 ✓ Workbook: pgs. 10 & 11	- Use the digits 5, 8, and 4 to create the largest number and explain how you know it is the largest number. - Do similar exercises for lowest numbers. Students create 4 digit numbers where they identify the place and the value of specified digits
ONES PERIOD																																								
H		T		O																																				
1		2		4																																				
THOUSANDS			ONES																																					
H. Th	T. Th.	Th.	H	T	O																																			
2	5	6	3	1	2																																			

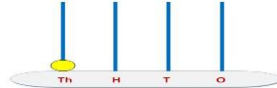
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT																		
2. Identify the place and value of a given digit in a number up to 999 999 (Continued).	- The place of a digit tells its position in a number. - The value of a digit tells how much it is worth in a number. A digit's value is determined by its place in a number. Examples: <table><tr><th colspan="3">THOUSANDS</th><th colspan="3">ONES</th></tr><tr><td>H. Th.</td><td>T. Th.</td><td>Th.</td><td>H.</td><td>T.</td><td>O.</td></tr><tr><td></td><td></td><td>6</td><td>3</td><td>1</td><td>2</td></tr></table> ↑ The digit 6 is in the <u>thousands</u> place. Its value is 6 000 (6 thousands).	THOUSANDS			ONES			H. Th.	T. Th.	Th.	H.	T.	O.			6	3	1	2	- Teacher will give students a set of digit cards and have them create the largest or smallest number possible. They will then be asked to read the number. Note: Largest digit should be in the first column and the smallest digit should be in the last column when making the largest number possible. The reverse is required when making the smallest number possible. Game - Numbers are written in different forms. Students must listen carefully to the clues. Read and figure out what number they have. I have 32, who has 6 tens and 7 ones etc.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 15 - 18 ✓ Textbook: pgs. 20-22 ✓ Workbook: pgs. 10 & 11	Write given numbers into words e.g. 572. (five hundred, seventy-two)
THOUSANDS			ONES																			
H. Th.	T. Th.	Th.	H.	T.	O.																	
		6	3	1	2																	

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT																		
2. Identify the place and value of a given digit in a number up to 999 999.	<table><tr><th colspan="3">THOUSANDS</th><th colspan="3">ONES</th></tr><tr><th>H. Th.</th><th>T. Th.</th><th>Th.</th><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td>8</td><td>6</td><td>3</td><td>1</td><td>2</td></tr></table> The digit 8 is in the <u>ten thousands</u> place. Its value is 80 000 (8 ten thousands).	THOUSANDS			ONES			H. Th.	T. Th.	Th.	H	T	O		8	6	3	1	2	Write the Number. - Let one student place 5 beads on the thousand string and no beads on the other strings. Tells students to write the number that is represented on the abacus. - Explain that since there are no numbers on the other 3 strings (ones, tens and hundreds) 0 will be used to represent them. - Have students read the number. Note: Read from left to right.	Worksheet https://worksheetgenius.com/place_value.php	Write the place and value of the underlined digits in the number 1743.  Write the number that is represented on the abacus. Answer: <u>1000</u>
THOUSANDS			ONES																			
H. Th.	T. Th.	Th.	H	T	O																	
	8	6	3	1	2																	
3. Read, write, and recite sequences of numbers through 999 999 forward and backward.	- Sequence numbers from greatest to least or least to greatest. - Sequence numbers up to 999 999 using odd, even, multiples of fives and the like.	- Teacher divides class into two groups. One group will be given number cards. The other group will have the corresponding numbers written on cards in word form. Students will then be allowed to find their matching partner. Students freeze when they have found their partner. - Give students a set of numbers. Have them rearrange each number to make the largest number possible: E.g. 5 903; 2 980;1600 (rearranged: 9503, 9 820, 6 100). Then have students place the numbers in order from least to greatest: 6 100; 9 503; 9 820.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 15 &16 ✓ Textbook: pgs. 16 &17 ✓ Workbook: pgs. 10 & 11	Teacher checks cards to see if partners match.																		

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT																											
4. Express a four-digit number in standard, expanded and word form.	 Standard form is a number written using digits. Example: 2 311 <table><tr><th colspan="3">THOUSANDS</th><th colspan="3">ONES</th></tr><tr><th>H. Th.</th><th>T. Th.</th><th>Th.</th><th>H</th><th>T</th><th>O</th></tr><tr><td></td><td></td><td>2</td><td>3</td><td>1</td><td>1</td></tr></table> Expanded form is a number written as an addition expression of the values of its digits. Example: 2 000 + 300 + 10 + 1 Word form is when a number written as you would say it using words (spell it out). Example: two thousand three hundred eleven	THOUSANDS			ONES			H. Th.	T. Th.	Th.	H	T	O			2	3	1	1	- Teacher will place a set of base ten blocks in each group. Each group will have to write the number represented in standard, expanded and word form. Race: One person per group will select a number card from the teacher. Students will write the number in expanded and word form. Once completed, the teacher will check the answers. If all are correct, the group will pick another number and repeat the same process. The group with the most numbers completed wins. (Game should be timed to 10 minutes) Name that Number: Teacher will write the expanded form of a number on the board. Students have to compete to provide the standard and word form before their peers.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 15 -18 ✓ Textbook: pg. 22 ✓ Workbook: pg. 10 Online Game https://www.splashlearn.com/place-value-games	- In journals, create problems related to expanded form. - Complete a number form table instructing them to fill in the missing forms. <table><tr><th>Stan.</th><th>Expan.</th><th>Word</th></tr><tr><td>_____</td><td>10 + 5</td><td>_____</td></tr><tr><td>352</td><td>_____</td><td>_____</td></tr></table>	Stan.	Expan.	Word	_____	10 + 5	_____	352	_____	_____
THOUSANDS			ONES																												
H. Th.	T. Th.	Th.	H	T	O																										
		2	3	1	1																										
Stan.	Expan.	Word																													
_____	10 + 5	_____																													
352	_____	_____																													

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT												
5. Represent, compare, and order numbers through 999 999 (Continued) .	- When comparing numbers, the following symbols are used: i. Greater than (>): when the number to the left of the symbol is more than the number to the right of the symbol. - When you compare two numbers, you find out which number is greater and which is less. Example:3 486; 3 462 - Compare the digits starting from left to right <table border="1"><thead><tr><th>Thousand</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr></thead><tbody><tr><td>3</td><td>4</td><td>8</td><td>6</td></tr><tr><td>3</td><td>4</td><td>6</td><td>2</td></tr></tbody></table> ↑ same ↑ same ↑ different 8 tens > 6 tens Therefore, 3 486 >3 462 - On the number line, numbers to the right are greater than numbers to the left. Numbers to the left are less than numbers to the right.	Thousand	Hundreds	Tens	Ones	3	4	8	6	3	4	6	2	Grand Winner - Give each student a copy of a place value table. Have students roll a number cube and place the digits where they wish on their place value mat. In pairs, have students compare their numbers. Then, in groups, have them arrange all numbers in either ascending or descending order. - Give students problems to solve. Example: Which number is halfway between the two numbers given? 1)1 and 10 2) 20 and 40 3) 50 and 100	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 15 - 18 ✓ Textbook: pgs. 23-25 ✓ Workbook: pg. 12	Compare and organize numbers using >, < and = signs.
Thousand	Hundreds	Tens	Ones													
3	4	8	6													
3	4	6	2													

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT												
5. Represent, compare, and order numbers through 999 999 (Continued).	ii. Less than (<): when the number to the left of the symbol is fewer (smaller) than the number to the right of the symbol. - When you compare two numbers, you find out which number is greater and which less is. Example: 3 462; 3 486 - Compare the digits starting from left to right <table><tr><th>Thousand</th><th>Hundreds</th><th>Tens</th><th>Ones</th></tr><tr><td>3</td><td>4</td><td>6</td><td>2</td></tr><tr><td>3</td><td>4</td><td>8</td><td>6</td></tr></table> ↑ same ↑ same ↑ different 6 tens < 8 tens Therefore, 3 462 < 3 486	Thousand	Hundreds	Tens	Ones	3	4	6	2	3	4	8	6	Feed the Hippo Game - Give each of the two students a hippo head puppet. Have students to feed their hungry hippo. - Let students race to see who will feed their hippo the most apples. Remind students to try to gobble up the apple with the greatest number. - One student places two apples with numbers written on them while students with puppets grab an apple. - Allow the class to say which student fed their hippo the greater amount and who fed less.	Online Games https://www.turtlediary.com/games/ordering-numbers.html https://www.education.com/game/less-than-greater-than/	Increase the value of a given number by 1000, 100, 10
Thousand	Hundreds	Tens	Ones													
3	4	6	2													
3	4	8	6													

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
5. Represent, compare, and order numbers through 999 999 .	c. Equal to (=): when both numbers are the same in quantity or amount. Example: 938 540 = 938 540 - Numbers can be written in ascending order or descending order. Ascending order is ordering from least to greatest. Place your smallest number at the beginning and the largest number at the end. Then order the remaining numbers. Example: 218 678; 245 252; 209 123 = 209 123; 218 678; 245 252 Descending order is ordering from greatest to least. Place the largest number at the beginning and the smallest number at the end. Then order the remaining numbers. Example: 373; 315; 406; 522 = 522; 406; 373; 315	- In cooperative groups, create a song on how to compare numbers. - Give 4 students number cards and let them randomly stand in front of the class in a straight line. Ask students to identify the greatest number. Let the student with the greatest number step forward to start a new line. Ask for the greatest number from the ones that are left behind. Let that student stand on the left side the student in the new line. Repeat activity until all the students are in the new line with numbers in descending order. - Repeat activities beginning with smallest number to show ascending order.	- Place Value Chart - Number Line - Number Cube/die	- Decrease value of given number by 1000, 100 or 10 - Arrange numbers in ascending and descending order. 15 636; 106 316; 969 278 ____, ____, _____,

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
6. Recall addition and subtraction facts through 20 within a time frame of 3 seconds each (Continued).	Addition and Subtraction facts involve the addition and subtraction of two single-digit numbers up to $9 + 9$ and $9 - 9$. Examples: $7 + 9 = 16$ $8 - 4 = 4$ Addition facts up to $9 + 9$. Subtraction facts up to $9 - 9$. - Addends are the numbers that are combined or added together. - Sum is the answer to an addition problem. Students are to learn all the addition facts through 20 and be able to recall them within a period of 3 seconds each. Helpful Study Hints - Commutative property of addition Example: $7 + 2 = 2 + 7$ - Identity Property of Zero Example: $7 + 0 = 0 + 7$ Identity Property of Addition: Any number plus 0 equals that number. Example: $3 + 0 = 3$	Beat the Clock - Addition and subtraction facts through 20. - Students are timed as they complete the worksheet to recall addition and subtraction facts. The student with the least time and the most correct is it the winner. (Aim: to complete each fact within the 3 second timeframe). Drill: Use flash cards and allow students to identify addition and subtraction facts in less than 3 seconds. This indicates mastery of the fact. Dominoes: Students will turn over dominoes (one at a time) and add the sets shown on each domino. Students can also subtract the smaller set from the larger set on each domino and provide the difference.	- Bahamas Primary Mathematics Bk 3 - Teacher's Manual: pgs. 23 & 24 - Textbook: pgs. 44-48 - Workbook: pgs. 19 -21 Online Game Addition Facts https://www.mathplayground.com/puzzle_pics_addition_facts_to_20.html Online Game Subtraction Facts: https://www.topmarks.co.uk/subtraction/subtraction-to-10	Assign students to complete an online assessment of addition and subtraction facts

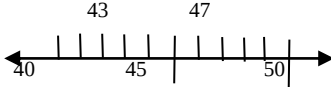
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
6. Recall addition and subtraction facts through 20 within a time frame of 3 seconds each.	• Adding 1: Adding one to a number is the next number in the sequence. Example: $3 + 1 = 4$ • Subtraction Property of Zero: When subtracting 0 from any number, the number stays the same. Example: $5 - 0 = 5$ • When subtracting a number from itself, the difference is 0. Example: $8 - 8 = 0$	• Combine two sets of objects and write the number sentence. • Race to repeat addition fact to 20 in 3 seconds.	• Bahamas Primary Mathematics Bk. 3 ✓ Workbook: pg. 36 • Clock • Timer • Flashcards	• Complete addition and subtraction fact tables.
7. Round numbers to the nearest ten and hundred (Continued).	• Rounding is one way to estimate when you want to know about how many. • A number line can help when rounding. Round up by going to the larger number. Round down by going to the smaller number.	• Make a poster showing the rounding rules • Make a number line to show how to round a number to the nearest ten and hundred. • Write a song/poem regarding the steps to take when rounding a number to the nearest ten or hundred.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 27 & 28 ✓ Textbook: pgs. 58 & 59 ✓ Workbook: pgs. 26 & 27	• Complete an activity sheet on rounding.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
7. Round numbers to the nearest ten and hundred.	Rules for rounding to the nearest ten - The digit in the ones place helps you to find the closest ten. If the digit in the ones place is 5 or more you round up. If the digit in the ones place is less than 5, the digit in the tens place remains the same. Example: Round 43 and 47.  43 is closer to 40 and 3 is less than 5. Therefore, 43 rounds to 40. So, 47 is closer to 50 and 7 is greater than 5. So, 47 rounds to 50.	- A plane is flying from Andros to Nassau. The total distance is 100 miles. After the plane flies 60 miles, one engine develops trouble. The pilot must decide whether to fly back to Andros or fly on to Nassau. What should the pilot do? Why? (fly to Nassau, the plane is closer to Nassau). - Accept all reasonable answers and consider other issues that students may wish to raise. Discuss similar situations. Encourage students to share their thinking. Treasure Diving - Rounding Three-Digit Numbers to the Nearest 10, players will embark on a race to get over the hill and retrieve a treasure. In order to get over the hill, they will need to round the given numbers by selecting the correct speed amp. If they select the wrong amp, the car will roll down the hill. If they select the correct speed amp, the car will go over the hill.	- Bahamas Primary Mathematics Bk 3 ✓ Workbook: pgs. 26 & 27 - Mathematics in Motion: A Resource Book for Primary Teachers, pg. 45 Online Games https://www.abcy.com/games/rounding_numbers https://www.education.com/game/treasure-diving-rounding-three-digit-numbers-to-the-nearest-10/	- Discuss steps to take when round a number to the nearest ten and hundred. - Discuss what steps or rules you follow when rounding a number to the nearest 10 and 100. - Lesson Quiz: Round to the nearest Ten and Hundred 66 = _____ 108 = _____ 684 = _____ 251 = _____ 345 = _____

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
7. Round numbers to the nearest ten and hundred.	Rules for rounding hundreds a. Use the digit in the tens place to help you round. b. If the digit in the tens place is 5 or more round up. If the digit in the tens place is less than 5, the digit in the hundreds place remains the same. Example: Round 334 and 386 to the nearest hundred. 334 386 300 350 400 334 is closer to 300 and 34 is less than 50. Therefore, 334 rounds to 300. 386 is closer to 400 and the 86 is more than 50 so 386 rounds to 400.	Take a Shot Teacher will create a set of number cards to be rounded. Students will come up one at a time to select a number. The teacher will write the benchmarks for the selected number above the baskets. Then, the students will shoot the ball into the correct basket after rounding.	Online Games https://www.mathnook.com/math/skill/roundinggames.php	Complete worksheet to round numbers to the nearest ten and hundred.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
8. Estimate sums and differences.	- Remember estimate means to find the approximate value. - There are many estimation strategies. Rounding is a strategy that is useful for addition and subtraction. - To round numbers, determine the digit to be rounded. Look at the digit to its right. If it is 0-4, the digit in the rounding place stays the same. If it is 5 or more, the digit in the rounding place increases by 1. E.g. $\begin{array}{r} 88 \rightarrow 90 \\ + 91 \rightarrow + 90 \\ \hline 180 \end{array} \quad = \quad \begin{array}{r} 615 \rightarrow 600 \\ 167 \rightarrow 200 \\ \hline 400 \end{array}$	- Have students write about a situation in their own lives when it is better to estimate than to find an exact answer. (Students might suggest estimating the amount of school supplies, such as paper and pencils that they will need for the school year.) On a Budget - Have a store set up in the classroom. Items are to be priced at whole number values. Students are given a certain amount of money and are told to collect as many items that they can get without going over their budget. Students are given 2 minutes to do this.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 27 & 28;32-35 ✓ Textbook: pgs. 60 & 61 ✓ Workbook: pg. 28 Online Games https://www.sheppardsoftware.com/mathgames/menus/roundestimate.htm	- Lesson Quiz - Students think of situations in which they or members of their families have used the words “about “, approximately, or “close to” in giving answer to questions about groups of people, things, or costs of several items in store. Students share their answers. - Have students go to the store set up and gather as many items that they can afford on their budget within a 1 minute time frame. Note: Price tags should be changed daily to accommodate large classrooms.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
9. Create and solve problems involving the addition and subtraction of money.	- Adding and subtracting money amounts is similar to adding and subtracting whole numbers. You add to find the total price of more than one item. You subtract to find the change you will receive. - When you add and subtract money, put the decimal point and the dollar signs in the correct places. (Example: \$2.35)	- Have students write word problems with money amounts. - Have them write one problem using addition and another using subtraction of money amounts. - Have students exchange problems with a partner and solve.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 30 & 31 ✓ Textbook: pgs. 70 & 71 ✓ Workbook: pg. 33 Online Game https://www.math-play.com/math-racing-multiplication-game-2/math-racing-multiplication-game.html	Students find the sums and differences. (1) \$ 1.53 \$3.69 + <u>\$ 2.27</u> - <u>\$ 1.51</u>
10. Create and solve computational problems in addition using whole numbers up to 999 999 with and without regrouping (Continued).	Addition $\begin{array}{r} 7\ 523 \\ +\ 2\ 149 \\ \hline 9\ 672 \end{array}$ Step 1: Add the ones. 9 ones + 3 ones = 12 ones Regroup 12 ones = 1 ten 2 ones Step 2: Add the tens 2 tens + 4 tens = 6 tens	- In cooperative groups, students create addition problems using whole numbers up to 999 999. - Problems are passed to other groups to solve. - Students explain how they arrived at the answers.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 32 & 33 ✓ Textbook: pgs. 74 -78 ✓ Workbook: pgs. 34- 36	Students create and solve addition problems.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
10. Create and solve computational problems in addition using whole numbers up to 999 999 with and without regrouping.	Step 3: Add the hundreds $5 \text{ hundreds} + 1 \text{ hundreds} = 6 \text{ hundreds}$ Step 4: Add thousands $7 \text{ thousands} + 2 \text{ thousands} = 9 \text{ thousands}$ And so on...	Have students create a song, wrap or poem about creating and solving addition with whole numbers up to 999 999	Online Game https://www.splashlearn.com/multiplication-games	Complete a worksheet on addition word problems.
11. Create and solve computational problems in subtraction using whole numbers up to 999 999 with and without renaming.	Subtraction $\begin{array}{r} 237 \\ - 162 \\ \hline 075 \end{array}$ Step 1: Subtract the ones $7 \text{ ones} - 2 \text{ ones} = 5 \text{ ones}$ Step 2: Subtract the tens $3 \text{ tens} - 6 \text{ tens}$ cannot be done so we have to regroup $1 \text{ hundred} = 10 \text{ tens} - 10 \text{ tens} + 3 \text{ tens} = 13 \text{ tens}$ $13 \text{ tens} - 6 \text{ tens} = 7 \text{ tens}$ Step 3: Subtract the hundreds $1 \text{ hundred} - 1 \text{ hundred} = 0 \text{ hundreds.}$	- In cooperative groups, students create addition and subtraction problems using whole numbers up to 999 999. - Problems are passed to other groups to solve. - Students explain how they arrived at the answers.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 34 & 35 ✓ Textbook: pgs. 81-85 ✓ Workbook: pgs. 37-39 Online Game https://www.splashlearn.com/multiplication-games	Students create and solve addition and subtraction problems.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
12. Read and write Roman numbers to XXV (25).	Roman numbers have been used for hundreds of years. Roman numerals are written with letters. I = 1 VI = 6 XI = 11 II = 2 VII = 7 XII = 12 III = 3 VIII = 8 XIII = 13 IV = 4 IX = 9 XIV = 14 V = 5 X = 10 XV = 15 XVI = 16 XXI = 21 XVII = 17 XXII = 22 XVIII = 18 XXIII = 23 XIX = 19 XXIV = 24 XX = 20 XXV = 25	- Have students answer the following question in roman numerals. - How old are you? - How many boys are in your class? - How many girls are in your class? - What day of the month is today? - How many classes of animals are there? - Provide students with standard numbers and have them provide the equivalent Roman number. E.g. 12 (XII), 23 (XXIII), etc.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pg.12 ✓ Textbook: pgs. 8-9 ✓ Workbook: pg. 5 - Mathematics in Motion: A Resource Book for Primary Teachers, pg. 41 Online Game https://www.transum.org/software/SW/Starter_of_the_day/Students/Roman_Numerals.asp	Have students write and read roman numerals to XXV.
13. Calculate and convert combinations of Roman numbers to standard numerals and vice versa.	Roman numerals are based on addition and subtraction. Example: VI = 5+1 = 6. When the symbol for the smaller number is written to the right of the greater number, add. No more than three symbols for smaller numbers are used this way. IV = 5 – 1 = 4 When the symbol for a smaller number is to the left of the greater number, subtract. No more than one symbol for a smaller number is used this way. Examples: XX= 20; VII = 7	Game: Mixed and Match - Students form a circle and are given flash cards with either the Roman numeral or the standard number counterpart. - The teacher says the word mix and then match - Students find the persons with the Roman numeral counterpart and then share their findings with the class.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 11&12 ✓ Textbook: pgs. 8 & 9 ✓ Workbook: pg. 5	- Match Roman Numbers with the Arabic equivalents. - Calculate combinations of Roman Numbers to standard numerals. Examples: XXV = 25 XIV = 14

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
14. Identify and use numbers in everyday life.	- Numbers are all around us. We see and use them daily. - Numbers can be found: a. on our homes b. on building c. on license plates d. in and out of classrooms e. on signs (telephone) f. on labels g. in restaurants h. on price tags	- Take students on a school walkabout to find numbers on classroom doors, on cars, buses, trucks, and vans license plates or take them on a short walkabout in the community to see numbers on buildings such as homes or signs. a. Students write the numbers and use them in different ways. For example, they can add, subtract, put them in order from greatest to least or use patterns - Use newspapers for prices of grocery and telephone numbers of businesses.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 11&12 ✓ Textbook: pgs. 10 & 11 ✓ Workbook: pg. 6	Have students name places where numbers are used in everyday life (E.g. bank, supermarkets) and write a story or poem about numbers.
15. Identify odd and even numbers and explain the relationship between them in addition and subtraction (Continued).	- Even numbers have a 0, 2, 4, 6, or 8 in the ones place - When dividing an even number by 2 (splitting into two groups) there is none left over. - Odd numbers have a 1, 3, 5, 7 or 9 in the ones place. - When dividing an odd number by 2 (splitting into two groups) there is always one left over.	- Have students use a hundred chart where they colour all the odd numbers red and all the even numbers blue. - Challenge students by timing the activity and using a hundred chart from 101 to 200. - Have students count to a certain number alternating claps and snaps. All of the claps are even numbers and all of the snaps are odd numbers. - Have students determine if the date and day of the school is odd or even	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 29 & 30 ✓ Textbook: pgs. 64 & 65 ✓ Workbook: pg. 29 Video/Content https://www.transum.org/software/SW/Starter_of_the_day/Students/Roman_Numerals.asp	Discussion or writing How can you tell odd numbers from even numbers even if you are not skip-counting or using a hundred chart?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
14. Identify and use numbers in everyday life.	- Numbers are all around us. We see and use them daily. - Numbers can be found: a. on our homes b. on building c. on license plates d. in and out of classrooms e. on signs (telephone) f. on labels g. in restaurants h. on price tags	- Take students on a school walkabout to find numbers on classroom doors, on cars, buses, trucks, and vans license plates or take them on a short walkabout in the community to see numbers on buildings such as homes or signs. a. Students write the numbers and use them in different ways. For example, they can add, subtract, put them in order from greatest to least or use patterns - Use newspapers for prices of grocery and telephone numbers of businesses.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 11&12 ✓ Textbook: pgs. 10 & 11 ✓ Workbook: pg. 6	Have students name places where numbers are used in everyday life (E.g. bank, supermarkets) and write a story or poem about numbers.
15. Identify odd and even numbers and explain the relationship between them in addition and subtraction (Continued).	- Even numbers have a 0, 2, 4, 6, or 8 in the ones place - When dividing an even number by 2 (splitting into two groups) there is none left over. - Odd numbers have a 1, 3, 5, 7 or 9 in the ones place. - When dividing an odd number by 2 (splitting into two groups) there is always one left over.	- Have students use a hundred chart where they colour all the odd numbers red and all the even numbers blue. - Challenge students by timing the activity and using a hundred chart from 101 to 200. - Have students count to a certain number alternating claps and snaps. All of the claps are even numbers and all of the snaps are odd numbers. - Have students determine if the date and day of the school is odd or even.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 29 & 30 ✓ Textbook: pgs. 64 & 65 ✓ Workbook: pg. 29 Video/Content https://www.transum.org/software/SW/Starter_of_the_day/Students/Roman_Numerals.asp	Discussion or writing How can you tell odd numbers from even numbers even if you are not skip-counting or using a hundred chart?

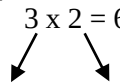
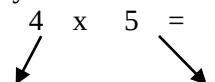
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
15. Identify odd and even numbers and explain the relationship between them in addition and subtraction	Relationship $\text{Odd} + \text{Odd} = \text{Even}$ $7 + 3 = 10$ $\text{Odd} - \text{Even} = \text{Odd}$ $7 - 2 = 5$ $\text{Odd} - \text{Odd} = \text{Even}$ $15 - 11 = 4$	Have students arrange sets of objects in groups of twos with no remainders and groups with remainders. They will identify even and odd numbers on the basis of no remainder and remainder. Have students chant, Even numbers no remainder, Odd numbers always a remainder.	Worksheet https://www.education.com/worksheets/article/grouping-odd-even-numbers/ - Hundred chart - Coloured pencils	Create numbers and state if they are even or odd.
16. Skip count to 100 by 2s, 3s, 4's, 5s, 10s and 50s.	Skip count means to skip a number or leave out a number while counting. Example: Counting by 2s: 2, 4, 6, 8, 10 Counting by 3s: 3, 6, 9, 12, 15, 18 Counting by 4s: 4, 8, 12, 16, 20, 24 Counting by 5s: 5, 10, 15, 20, 25, 30 Counting by 10s: 10, 20, 30, 40, 50, 60,	- Have students cover the squares on the hundred charts with beans. Partners take turns removing 2 beans at a time and coloring every second square yellow. - Partners replace the bean on the hundred chart and repeat the process this time removing 3beans at a time and colouring every third square blue. Partners replace the beans on the hundred chart and repeat the process, this time removing 4 beans at a time and colouring every fourth square red. Repeat the process and use different colours for skip counting 5,10, 50 - Have children discuss the patterns that the colored squares make on the chart.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 29 &30 ✓ Textbook: pgs. 66 & 67 ✓ Workbook: pgs. 30-32 Online Game https://www.abcy.com/games/number_bubble_skip_counting - Hundred Chart Colour - Coloured pencils	Students create skip counting problems by starting at different points on the number line. For example counting by 50, start at 500 and end at 850.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
17. Explain multiplication as repeated addition.	• Multiplication is the process of repeatedly adding the same number. This is also known as repeated addition. • Multiplying is a way to find how many in all when groups have the same number of items. Example: $2 + 2 + 2 = 6$ $3 \times 2 = 6$ (answer)  Number of Groups Amounts in each group	Snappy Sums • Have students work in pairs. One student will use connecting cubes of varying colors to model a repeated addition sentence. The other student will write a repeated addition sentence to match the model. This can also be done in reverse.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-46 ✓ Textbook: pgs. 105-107 ✓ Workbook: pgs. Nil • Connecting Cubes	• Have students demonstrate understanding of repeated addition by modeling using drawings or manipulatives.
18. Model multiplication using arrays	• An array shows objects in equal rows. Example: 00000 00000 00000 00000 ♦ The counters show 4 rows of 5. Each row is a group. You can use addition to find the total. ♦ Multiplication can be used to find the total in an array. $4 \times 5 = 20$  number of rows number in each row	• Teacher places students in pairs. One child spins for the number of tiles in each row. The other student should spin to show the number of rows. Students arrange the tiles to form a rectangle to show the number of rows and the number of tiles in each row. Students write the multiplication sentence to go with the array.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs.42-46 ✓ Textbook: pgs. Nil ✓ Workbook: pgs. Nil • Spinner with numbers 1-4 16 coloured tiles	• Students use pegboards to model multiplication using arrays. Students create 4 number sentences from the arrays and explain the commutative property.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
19. Identify and use multiplication and division facts through 12 x 12.	- Teacher connects fact families and commutative property to multiplication and division facts. - The NINE multiplication facts is the one less = nine method. Subtract one from the number you are multiplying by. Example 9×5 (One less than 5 is 4). The first number in the answer is 4. The two numbers that make up the answer will equal 9. So $4 + \underline{\quad} = 9$ (5). The last number in the answer is 5. $9 \times 5 = 45$. One less than 5 is 4 (45) The answer adds up to nine. $4 + 5 = 9$	Put students in groups and assign each group a multiplication table. Let the group work together to create a poster that illustrates a viable strategy that can be applied to find solutions to those facts. Example: doubles.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-46 ✓ Textbook: pgs. 111-113 ✓ Workbook: pgs. 51-53	Journal Writing: Write at least three sentences containing the words double or doubling. Draw picture to represent one of the sentences. Share sentences and pictures.
20. Create and explain multiplication and division fact families.	Fact family is a group of math facts or equations created using the same set of numbers. The fact family shows the relationships between the three numbers involved. - In a multiplication and division fact family, there are four multiplication and division sentences created using three numbers. Example: Write a fact family using 4, 3, and 12 $4 \times 3 = 12$ $12 \div 3 = 4$ $3 \times 4 = 12$ $12 \div 4 = 3$	Students will complete fact triangles and will document their fact family sentences.	Online Exercise https://www.iknowit.com/lessons/c-fact-families-multiplication-division-to-10s.html	Have students create and complete multiplication and division fact families.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
21. Multiply numbers with at least 2 digits by 1 digit (be certain 0 is in different positions).	Multiply to find the value of ones and then the values of tens. Example $\begin{array}{r} 70 \\ \times 4 \\ \hline 280 \end{array}$ Step 1: Multiply the ones Step 2: Multiply the tens.	Have students multiply 2 digit numbers. Ask them to solve the following problems. a. If you blink 12 times a minute, how many times do you blink in 8 minutes? b. If your heartbeat 73 times a minute how many time does it beat in 5 minute. c. If for breakfast each day you eat 24 ounces of food, how many ounces of food will you eat for breakfast in a week?	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-46 ✓ Textbook: pgs. Nil ✓ Workbook: pgs. Nil	Activity sheet with multiplication problems
22. Create and solve multiplication problems	Some vocabulary words for multiplication are times, every day, and at this rate. Example Daniel reads 25 words per minute. At this rate, how many words does he read in one hour?	- In cooperative groups, students create multiplication problems. - Problems are passed to other groups to solve. - Students explain how they arrived at the answers.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-45 ✓ Textbook: pgs. Nil ✓ Workbook: pgs. Nil	Quiz: Problem Solving

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
23. Multiply numbers up to 9 999 by a 1-digit number.	$\begin{array}{r} 2\ 605 \\ \times\ 8 \\ \hline 20\ 840 \end{array}$ Step 1: Multiply the ones. $8 \times 5 \text{ ones} = 40 \text{ ones}$ – Regroup Step 2: Multiply the tens. $8 \times 0 \text{ tens} = 0 \text{ tens}$ Add the regrouped tens. Step 3: Multiply the hundreds. $8 \times 6 \text{ hundreds} = 48 \text{ hundreds}$–Regroup Step 4: Multiply the thousands $2 \times 8 = 16$ Add the regrouped hundreds. Use decimals as well.	- Students solve multiplication problems. - Use decomposing method to solve problem	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 42-45 ✓ Textbook: pgs. 114 & 115	Answer questions related to the topic. Example: $\begin{array}{r} 4\ 231 \\ \times\ 4 \\ \hline \end{array}$ $\begin{array}{r} 1\ 234 \\ \times\ 3 \\ \hline \end{array}$

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
24. Explore the meaning of division.	- Division can help you find how many items are in each group and how many equal groups there are. - Division can be modeled with counters. - Division is the operation used to find out how many are in each equal group. - The quotient is the answer to a division problem. e.g. $6 \div 3 = 2$ 000 000 6 counters grouped in threes give 2 groups.	- Have students use 12 counters to represent team members. Find the number of players if there are 2 teams, 3 teams and 6 teams. - Have students discover the pattern using the counters and team members.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 42-46 ✓ Textbook: pgs. 108-110	Write a poem, jingle or story about the meaning of division.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
25. Explain the relationship between multiplication and division using word, pictures or concrete objects	- To find a quotient, use an array and count the number in each equal row. - Use a related multiplication fact to find a quotient. - Quotient is the answer of a division problem. - Multiplication and division are inverse operations. If $4 \times 3 = 12$ then $12 \div 3 = 4$	- Divide the class into two teams give one team the multiplication cards and the other team the division cards. - Allow each player to find their partner on the other team by finding their inverse operation.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-46 ✓ Textbook: pgs. 105-110	Have students write the inverse operation for given operations. Example: $4 \times 8 = 32$ $32 \div 8 = 4$
26. Model division as repeated subtraction.	- Repeated subtraction may be used to solve a division problem. When using repeated subtraction, start with the total and subtract equal groups until you reach 0. - Count the number of times you subtract to find the quotient. When using repeated subtraction to find a quotient, you are skip-counting backward. - Division may be written in two forms with a division house or as a division sentence.	- Have each student use a number line to solve this problem: A bug started at 12 on the number line and made hops of 2 spaces each, until it gets to 0. - How many hops did the bug make? - Have students write 2 insect problems that involve a number line. Pairs of students exchange papers and solved each other's problems.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-46 ✓ Textbook: pgs. 108-110 - Number line	Have students write in their mathematics journals. a. Why division is called repeated subtraction? b. Have students show examples in their journals.

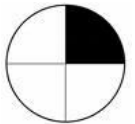
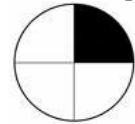
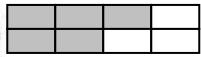
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
27. Divide numbers up to 999 by a 1-digit number including situations where there is a remainder	Division is an operation that is used to find how many equal groups or how many are in each group. E.g. $23 \div 5 = 4 \text{ r } 3$ <pre> graph TD A["E.g. 23 ÷ 5 = 4 r 3"] --> B["Total"] A --> C["Number of equal groups"] A --> D["Number in each group"] A --> E["Remainder"] </pre> - The part that is left over when we divide is called the remainder.	Division Homerun Class is divided into two teams. The teacher calls a division problem and the first student on line gives the answer. If he/she is correct, he/she moves to the first base. If answer is incorrect, he/she is knocked out. The game continues until there are three incorrect responses. When this occurs, the next team bats.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-46 ✓ Textbook: pgs. 116-& 117 - Flash cards	Activity sheet with division with and without remainders.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
28. Identify and write the fraction represented by drawings or concrete material.	• A fraction is a number that names an equal part of a whole or a set. • A fraction is used to name a number that is less than 1 • A fraction is written using a numerator (top number) and a denominator (bottom number). • The numerator is the part of a whole/group. The denominator is the total number of parts in the whole/group.  $\frac{1}{4}$ of this circle is shaded a. Read: one fourth or one quarter. b. Write: $\frac{1}{4}$ The circle represents a whole. 	• Have students work in groups of 3. Give fraction circles, halves, thirds and fourths to each group. Students select a circle and pretend that it is a pizza. The student with the appropriate circle holds it up and responds. • Tell and Show Using 24 manipulatives have students model the fraction given by the teacher. • Tanya invites 2 friends for dinner. She divides the pizza so that everyone has an equal slice. How many slices are there? (3 slices) • Let students fold paper and shade to show different fractions. E.g. $\frac{1}{2}$ (cd or one half) of folded paper, thirds and quarters etc.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 47 & 48 ✓ Textbook: pgs. 120 & 121 ✓ Workbook: pgs. 54 & 55 • Video/Content https://www.youtube.com/watch?v=jgWqSjgMAtw	• Discuss when writing a fraction, how do you know which number to use for the denominator and which for the numerator? • Write a fraction for the shaded part.   $\frac{1}{4}$ $\frac{5}{8}$ 4/8 or $\frac{1}{2}$

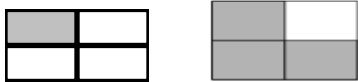
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
29. a. Explain in words or pictures the relationship between a fractional part and its whole b. Explain the role of the numerator and denominator in a fraction using words or pictures	- The concept of a fraction as a part-whole relationship is where one or more equal parts of a whole are compared with the total number of these parts that it takes to make up the whole. - To understand fractions as part-whole relationships, students need to recognise the relationship between the denominator (total number of equal-sized parts that make up the whole) and the numerator (number of these parts of interest). Example: 2/5 of the marbles are shaded  Read: Two fifths Write: 2/5 - The marbles belong in a group. The number tells how many parts are being counted. - The denominator tells how many equal parts are in the whole or group. It is the bottom number of a fraction.	- Students solve problems Example: Darryl has a pizza with 5 equal parts. He ate 2 equal parts of it on Monday and saved the rest for the next day. How many parts are left for Tuesday? (3/5 parts). - Have volunteers name the fractional parts that each circle represents. - Have students draw 10 shapes and colour half of the shapes. - Use any kind of drawings to show 2/3 or 4/12	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 47 & 48 ✓ Textbook: pgs. 120 & 121 ✓ Workbook: pgs. 54 & 55	Write in journal describing the relationship between a fractional part and its whole. Use pictures or drawings to help you. Write in journal describing the role of the numerator and denominator using pictures for illustration.

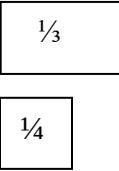
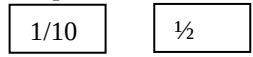
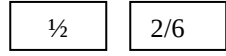
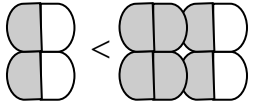
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
30. Compare and order fractions with the same denominator.	- Review the meaning of $>$, $<$, $=$ - Models can help you compare parts of a whole. Example: $\frac{1}{4}$ and $\frac{3}{4}$  - When comparing fractions with like denominators, look at the numerators. $\frac{1}{4} + \frac{3}{4}$ $1 < 3$ $\therefore \frac{1}{4} < \frac{3}{4}$ - After comparing the fractions, order them from least to greatest or greatest to least.	Fraction Game - Groups are given a deck of fractions flash cards. - Students draw cards and compare them. - Students then order the fractions from least to greatest or greatest to least. Groups report on their findings	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 47 & 48 ✓ Textbook: pg. 121 ✓ Workbook: Nil Video/Content Ordering Fractions https://www.youtube.com/watch?v=vM5Uh-zRCbQ Online Game https://www.softschools.com/math/fractions/games/ordering_fractions/	Quiz Example: Shade 4/5 of the following objects  Write fractions for unshaded parts.
31. Compare and order fractions with different denominators (Continued).	Fraction bars can help you compare parts of a whole.	Order Up Use a game to practice comparing fractions. Have each player write a fraction with a denominator of 2, 6, 8, 10, or 12 on an index card.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 47 & 48 ✓ Textbook: pg. 122 & 123 ✓ Workbook: Nil	Write $<$, $>$, or $=$ to fractions. You can use fractions strips to help.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
31. Compare and order fractions with different denominators.	Example: compare $\frac{1}{3}$ and $\frac{1}{4}$  The bar for $\frac{1}{4}$ is shorter than the bar for $\frac{1}{3}$. So, $\frac{1}{4} < \frac{1}{3}$ or $\frac{1}{3} > \frac{1}{4}$ - You can order three or more fractions from least to greatest or from greatest to least. Example: Order the fraction from least to greatest. $\frac{1}{10}$, $\frac{1}{2}$, $\frac{2}{6}$ Step 1 Compare the fractions $\frac{1}{10}$ and $\frac{1}{2}$  $\frac{1}{10} < \frac{1}{2}$  $\frac{1}{2} > \frac{2}{6}$ Therefore: $\frac{1}{10}$, $\frac{2}{6}$, $\frac{1}{2}$ Order the fraction from least to greatest $\frac{1}{10}$, $\frac{2}{6}$, $\frac{1}{2}$	- Collect the cards and use them to create a number line on the chalkboard showing the fractions from least to greatest. - Put the cards in the bowl. Pick a card and read the fraction. Then have players take cards and tell if the fractions are greater than or less than the one you selected. Continue until each player has a turn. Then play again with a different benchmark fractions. - Give students models to shade. Let them work in small groups to compare given models  Example. $\frac{1}{2}$ $\frac{6}{8} = \frac{3}{4}$ - Let students draw from a bag with given fractions to compare. The student with the larger fraction gets a point. The cards are put back in the bag and the process is repeated. The student who scores five points first is the winner.	Video /Content Ordering Fractions https://www.youtube.com/watch?v=vM5Uh-zRCbQ Online Game https://www.softschools.com/math/fractions/games/ordering_fractions/ - Index cards - bowl	Example $\frac{1}{4} \square \frac{3}{4}$ $\frac{5}{6} \square \frac{4}{6}$ $\frac{1}{2} \square \frac{1}{3}$ $\frac{1}{3} \square \frac{2}{3}$ Give students sets of three fractions. Have them write them in order from least to greatest. Example: $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, = $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$

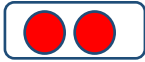
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
32. Find equivalent fractions.	Equivalent fractions are fractions that represent the same portion of a whole or group. - When finding equivalent fractions multiply or divide the numerator and the denominator by the same number (greater than one). - Review: Numbers that are multiplied by one, equal the same number. Example of one as a fraction. $\frac{3}{3}, \frac{4}{4}, \frac{2}{2}$ - Multiply the numerator and denominator by the same number to find the equivalent fraction or divide the numerator and the denominator by the same number. Example: $\frac{3}{12} \times \frac{4}{4} = \frac{12}{48}$ $\frac{3}{12} \div \frac{3}{3} = \frac{1}{4}$ These are equivalent because they represent the same amount ($\frac{1}{4}$).	- Interactive game where students match equivalent fractions. Equivalent Fraction Concentration - Groups are given a deck of equivalent fractions flash cards that are place face down. - Students draw two cards to find equivalent fractions. If the cards match, they keep the set. If the cards do not match, they are placed on the table. - The student with the most matched cards is the winner.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 47 & 48 ✓ Textbook: pgs. 122 &123 ✓ Workbook: pg.56 Video/Content https://www.youtube.com/watch?v=KlfxIbO-KJs Online Game https://www.splashlearn.com/equivalent-fractions-games	- Students create and solve equivalent fractions. Examples a. Write an equivalent fraction for $\frac{3}{4}$. i. Multiply by 2 Answer = $\frac{6}{8}$ b. Complete to make an equivalent fraction. $\frac{6}{12} = \frac{\quad}{2}$ i. Divide by 6 - Answer: $\frac{1}{2}$

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
33. Identify the fractional part of a number or amount.	To find the fractional part of a number or amount is calculated by dividing the number or amount by the denominator of the fraction. Example 1: $\frac{1}{3}$ of 24 Step 1: Divide 24 by 3. Answer: 8 $\frac{1}{3}$ of 24 is 8. Example 2: Circle $\frac{1}{5}$ of the pictures below.  Step 1: Count the pictures = 10 Step 2: Divide 10 by 5 Answer: 2 (circle 2 pictures)  $\frac{1}{5}$ of 10 circles is 2 circles	- Teacher will place a number of manipulatives in each group, and ask for them to find the fractional part of the amount. - They will follow the steps to find the fractional of the amount of manipulatives given to them.	Video/Content Part of an amount https://youtu.be/nQUgBAsW2KA	Have students find the fractional part of a number or amount.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
34. Find the simplest form of a fraction.	- A fraction is in its simplest form when the greatest common factor of its numerator and denominator is one. - To simplify fractions, find a common factor that will divide evenly into the numerator and denominator. For example: 6/9 - Find the factors of the numerator and denominator. Factors of 6 = 1, 2, <u>3</u> Factors of 9 = 1, <u>3</u> * The common factor is 3 - To simplify the fraction, divide by 3. $6/9 \div 3/3 = 2/3$	Give groups problems involving different operations of fractions where students have to reduce fractions. Example: David found 12 seashells. Four of them were conch shells. The rest of them were soldier crab's shells. In simplest form, what fraction of the shells were soldier crab shells?	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 47 & 48 ✓ Textbook: pgs. 124 -126 ✓ Workbook: pg. 57 Video/Content https://www.youtube.com/watch?v=AtBUQH8Tkqc Online Game https://www.roomrecess.com/games/JetReduction/play.html	Students write sums of fractions in simplest form.
35. Add and subtract fractions with like denominators.	When adding and subtracting fractions with like denominators, simply add/subtract the numerators. The denominators stay the same. Examples: $\frac{3}{10} + \frac{4}{10} = \frac{7}{10}$ $\frac{12}{12} - \frac{6}{12} = \frac{6}{12}$	- Teacher will create fraction game cards with addition or subtraction questions on it (problem solving can also be included). - Students will solve the question on the cards given by the teacher.	Online Activities: https://www.mathgames.com/skill/4.59-add-two-fractions https://www.mathgames.com/skill/4.60-subtract-two-fractions	Have students add and subtract fractions with like denominators.

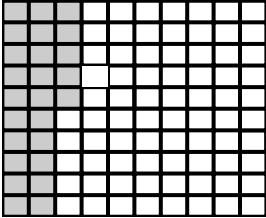
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
36. Read, write and draw representation for tenths and hundredths (Continued)	A decimal is made up of a whole number part and fractional part that is separated by a decimal point. The digits after the decimal point have a value smaller than one. The places following the decimal point are called decimal places. Examples: a. Write: 0.4 (0 is the whole part and 4 is the fractional part) Read 0.4: four tenths b. Write: 0.04 Read 0.04: four hundredths	- Give students a tenths grid or a hundredths grid, and have them shade to represent the decimal. - Teacher will place decimal cards on the board (some in standard form and others in word form). Teacher will say or describe the decimal and students will have to select the card that matches.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 51 & 52 ✓ Textbook: pgs. 138 & 139 ✓ Workbook: pgs. 62 & 63 - Graph paper 1cm	How many equal parts of a hundredths decimal model would you shade to show 0.65? Explain your answer.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
36. Read, write and draw representation for tenths and hundredths.	 Hundredths are decimal numbers. They are shown on a decimal square. Count to find the decimal that names the shaded part. 0.25 Read: Twenty-five hundredths. Write: 0.25 Fraction: 25/100	- Relate a decimal to money by teaching 0.35 is 35¢. - Place students into groups. Give each group some ten cents and American one cent pieces - Let students explore and find the following: a. How many ten cent pieces equal? i) \$1.00, ii) 1/10 of a \$1.00 and (iii) 0.10 of \$1.00 b. What part of the \$1.00 is?(a) 10¢ (b) 1¢ c. Record findings in at least three (3) different ways.	Video/Content https://www.youtube.com/watch?v=ibR_iBxnITE Online Game https://mrnussbaum.com/decimals-of-the-caribbean-online-game	Have students read, write and represent tenths and hundredths.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
37. Multiply and divide tens, hundreds, and thousands by a 1-digit number.	- When multiplying by ten, move all the digits one place to the left and put a zero in the space. This means the ones become tens, tens become hundreds, and hundreds become thousands. - When we multiply by 100, move all the digits two places to the left. The empty columns in the ones and tens places are filled by 0. - When you divide a decimal number by 10, you move all the digits one place to the right. The number becomes ten times smaller. Example: $350 \div 10 = 35$	Students solve problems using multiplication and division strategies.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 42-46 ✓ Textbook: pgs. 114 & 115	- Complete problems. Example - For the concert, the 64 members of the Royal Bahamas Police Force Band were divided equally into 4 different groups. How many band members were in each group?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: NUMBER AND OPERATIONS
GRADE: 3

Sub-Goal 1: Demonstrate and apply knowledge of numbers, including multiple ways of representing numbers, relationship among numbers and number systems; compute fluently using the four rules of operations and make reasonable estimates.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
38. Add and subtract measurements in compound units.	100 cm = 1 m - Addition $\begin{array}{r} \text{m} \quad \text{cm} \\ 2 \quad 70 \\ + 3 \quad 45 \\ \hline 6 \quad 15 \end{array}$ Step 1: Add the cm. $70 + 45 = 115$ $115 \text{ cm} = 1 \text{ m } 15 \text{ cm}$ Step 2: Add m. $2 + 3 + 1 = 6$ - Subtraction $\begin{array}{r} \text{m} \quad \text{cm} \\ 2 \quad 25 \\ - 1 \quad 50 \\ \hline 0 \quad 75 \end{array}$ Step 1: Subtract cm. Need to rename. Change 1 m and add to 25 cm $125 \text{ cm} - 50 \text{ cm} = 75 \text{ cm}$ Step 2: Subtract m $1 - 1 = 0$	In groups have students solve problems using compound units (linear and customary) Example: a. How many centimeters must I cut from a rod 5.2 cm long to have 4.5 left? b. Joseph is 1m 25cm tall. James is 1 m 35 cm. How much taller is James?	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 60-62 ✓ Textbook: pgs. 164 & 165 ✓ Workbook: pgs. 75-77	Independent practice on solving problems. Example: a. The school garden has rectangular plots each measuring 4m long and 3m wide. How far must you walk to go around one plot?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 3

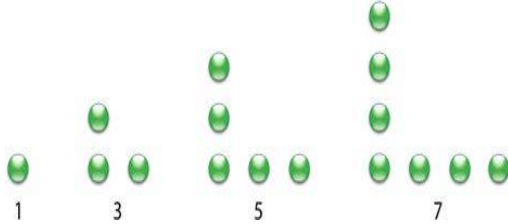
Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

Essential Questions

1. How can I use place value to identify and extend number patterns?
2. How do tables, charts, and/or lists work together to solve problems?
3. What are the different ways to represent the patterns or relationships?
4. How can we compare expressions?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 3

Sub-Goal 2: Use algebraic and analytical methods to identity and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Identify, extend and create repeating, growing/shrinking numerical and symbolic patterns.	- A repeating pattern is made up of shapes or numbers that form a part that repeats. Examples. O, Δ, O, Δ, _____ 1, 3, 5, _____ Growing Pattern is a pattern that grows or increases according to a certain rule Example: YBB, YBBB, YBBBB  Shrinking Patterns is a pattern the shrinks or decreases according to a certain rule.	- Have students (about 6) make a line around the room. Have the first few students do as you say. For example, stand, sit, stand, sit, and then ask, “What should the next child do?” - Have students create pyramids using blocks. Provide the number of blocks that should be used as the base e.g. 3) Have students explain what they notice happening at each row of the pyramid. Have students then attach numbers to pattern (i.e. 3, 2, 1) 	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 13 & 14 ✓ Textbook: pgs. 7 & 8 ✓ Workbook: pgs. 14& 15 - Manipulatives Counting books such as “Ten Black Dots” by Donald Crews - List of other counting books that can be used https://www.nctm.org/uploadedFiles/Content/Lessons/Resources/pre-K-2/524-TS-CountingBooks.pdf	- Students create repeated and growing patterns using numbers and symbols. - Have students build a shrinking pattern using 10 manipulatives.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 3

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Identify and locate missing numbers on a number line	- Number lines can be used to help you determine the pattern of a series of numbers. - Determine if the order of numbers is ascending (getting larger in value) or descending (becoming smaller in value). Example: Find the missing number: 30, 23, ____, 9 - The order of numbers is going down or descending. - The missing number is 16 since it is 7 more than the last number 9.	Place a number line on the floor. Have students fill in the missing numbers on the number line.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 13 & 14 ✓ Textbook: pg. 9 ✓ Workbook: pgs. 16 & 17 - Number line - Number cards	Interactive missing number game: Students click and type in the missing number shown with a triangular symbol. www.ictgames.com/missingnumbers.html

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 3

Sub-Goal 2: Use algebraic and analytical methods to identity and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Solve problems that involve pattern identification to complete patterns.	- A pattern is a strategy that can be used to solve problems. - You can use the order of shapes in a design to identify a pattern to solve a problem. To find patterns you can use the following steps. Step 1- Understand - What are you asked to find? - What information will you use? Step 2 - What strategy can you use to solve the problem? Step 3 - How can you use the strategy to solve the problem? Step 4 - How can you decide if your answer is right?	- Have students work in small groups to find examples of patterns in the classroom. Suggest that they look for patterns in books, magazines, on clothing or on object such as pencil, vases, or artwork that is displayed in the room. - Students solve problems in groups. Example It's time for the Literacy parade. The third grade decides to march in a special formation this year. One student walks in the first row, two students walk in the second row, and three students walk in the third row. This pattern continues. a. If the whole third grade marches in 10 full rows, how many students are in third grade? b. Use numbers, words, tables, and/or pictures to explain how you know your answer is correct.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 38 & 139 ✓ Textbook: pgs. 94 & 95 ✓ Workbook: pgs. 44 -46 - Magazines http://www.mathwire.com/problemsolving Online Resource https://www.funwithpuzzles.com/2012/02/mind-twisters.html	- Lesson Quiz Examples: a. What will the next three shapes in the pattern be? O□▶O□▶... b. What are the next three numbers in the pattern? 14, 17, 20, 18, - - - - Complete worksheet where students solve problems requiring pattern identification.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 3

Sub-Goal 2: Use algebraic and analytical methods to identity and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Compare expressions (equations or inequalities) using =, >, and < (Continued).	- An equation is a number sentence that says two expressions are equal. e.g. $5 + 3 = 10 - 2$ $8 = 8$ - Two sides of a number sentence can be equal or unequal. A symbol >, <, or = tells how the sides compare. Example: $3 + 4$  $2 + 7$ $7 < 9$ - The symbol = means “is equal to”. In a number sentence, the symbol = tells that the value on the left is equal to the value on the right. Example a) $9 + \underline{\hspace{2cm}} = 11$ b) $10 = 3 + \underline{\hspace{2cm}}$ c) $17 - \underline{\hspace{2cm}} = 9$	Have students complete equation puzzles where they match the equation with the correct response.	Video/Content https://www.youtube.com/watch?v=3FDIXz0AFCA	Complete worksheet requiring students to compare expressions using =, <, and >.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: ALGEBRA
GRADE: 3

Sub-Goal 2: Use algebraic and analytical methods to identify and describe patterns and relationships in data, solve problems and predict results.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Compare expressions (equations or inequalities) using =, >, and <.	An inequality is a number sentence that uses < or >. An inequality shows that two expressions are not equal. $5 + 6 > 10$ $11 > 10$	Have each student write an expression (i.e. $4 + 1$) on a sheet of paper. Have 2 students go to the front of the room and hold up their expression and have the class discuss the comparison symbol that should be placed between the two expressions ensuring that they explain why that symbol is correct.	Worksheet https://www.mathworksheetsfun.com/compare/comparing-expressions-1.html	Quiz: Comparing Expressions

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

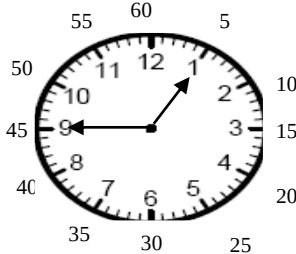
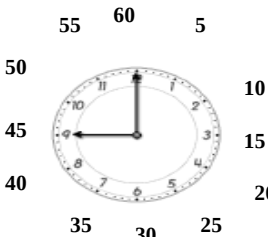
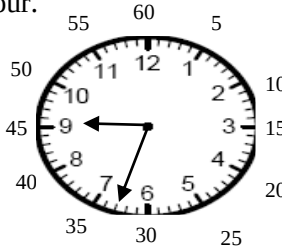
Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

Essential Questions

1. Why is elapsed time important and how can it be used in everyday life?
2. How can one convert between units of time?
3. What types of problems are solved with measurement?
4. What are tools of measurement and how are they used?
5. How can you make change from a given amount of money?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Tell time to the nearest five minutes (Continued).	- It takes 5 <u>minutes</u> for the <u>minute hand</u> to move from number to number.  - Remember there are 60 minutes in one hour.  - Remember there are 30 minutes in a half hour. 	- Review skip counting by fives. Draw a series of 5 pointed stars on the board or have children flash their fingers as they count aloud to 60: 5, 10, 15, 25, 30, 35, 40, 45, 50, 55, and 60. Explain that there are 60 minutes in one hour. - Direct children's attention to the classroom clock. Then have groups of 12 children form large circles. - Practice going around the circle with each child adding 5 minutes to the time said before. The first child says "5 minutes". The next child says "10 minutes" and so on. The twelfth child says "60 minutes equals 1 hour". Repeat until everyone has had a turn. Musical Clock - Provide each student with a blank clock. Let them draw the hands on the clock to show a time of their choice. Then, provide each student with a recording sheet. - Play music and students move from desk to desk. When the music is stopped, students must record the time on the analog clock using the digital clock format or words on their recording sheet.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 49& 50 ✓ Textbook: pgs. 128-130 ✓ Workbook: pg. 59 Video/Content https://www.youtube.com/watch?v=h6RNkQ7IU8Y Teacher Resource https://www.weareteachers.com/5-hands-on-ways-to-teach-telling-time/	- Display 9:35 on the classroom clock. Discuss and write how can you find how many minutes have passed since 9 o' clock? - What time is it if the minute hand now moves to 9?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Tell time to the nearest five minutes.	VOCABULARY • Minute- a unit of time equal to 60 seconds. • Minute hand – the longest hand on an analog clock; it designates minutes. • Hour- a unit of time equal to 60 minutes • Half hour- a unit of time equal to 30 minutes.	• In cooperative groups, students create and report scenarios of a.m. and p.m. activities. • Play the game ‘Time for Bingo’. Download the bingo game board, instructions and materials for telling time to the nearest five minutes from.	• superteacherworksheets.com/ti me/clock.	• Have students decide whether the time is a.m. or p.m. Example What time the bus arrive at school more likely be. 8.30 a.m. or 8.30 p.m.? • Would you be more likely to eat lunch at 12.20 am or 12.30 p.m.?
2. Identify events taking the same amount of time, more time than, or less time than.	• We tell time in minutes, hours, days, weeks, months, and years. • Some events take the same amount of time, more time than, and less time than.	• Model time relationships. • Create a list of events taking the <i>same amount of time, more time than</i> or <i>less time than</i> other events. Have students draw three columns. Label each the following: <i>same amount of time, more time than, and less time than</i>. Tell them to sort events into three categories.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 21& 22 ✓ Textbook: pgs. 34 & 35 ✓ Workbook: pg. 15 • Analogue clock • Calendar	• Classify events taking the same amount of time, more time than, or less time than
3. Apply vocabulary associated with time using a.m., p.m., noon, or midnight (Continued).	• The hours between noon and midnight are p.m. hours. • A. M. stands for ante meridian meaning before noon. The hours between midnight and noon are ante meridian hours • P. M. stands post meridian meaning afternoon. The hours between noon and midnight are post meridian hours.	• Students match word to its meaning.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 21& 22 ✓ Textbook: pgs. 36 & 37 ✓ Workbook: pg. 16	• Journal entry: Write to explain why it is incorrect to use the terms 12:00 a.m. and 12:00 p.m.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Apply vocabulary associated with time using a.m., p.m., noon, or midnight.	• A. M. and P. M. start immediately after midday. Midnight and Noon (Midday) respectively. • Use 12 noon and 12 midnight for clarity. Do not use the terms 12.00 a.m. and 12.00 p.m. It is incorrect. • Noon is neither before or after noon; it is simply noon. Therefore, neither the "a.m." nor the "p.m." designation is correct. On the other hand, midnight is both 12 hours before noon and 12 hours after noon. Therefore, either 12 a.m. or 12 p.m. could work as a designation for midnight, but both would be ambiguous as to the date intended. • Every day starts precisely at midnight and a.m. start immediately after that point in time. • To avoid ambiguity, airlines, railroads, and insurance companies use 12.01 a.m. for an event beginning the day and 11.59 p.m. for ending it. • The hours of the day between midnight and noon are a.m. hours.	• In groups, draw and write events that occur at specific times. For example, breakfast, lunch, and the like. Solve Riddles • Have students solve the riddles and write the given times. ✓ It was getting dark and I was very tired, so I climbed into bed and quickly fell asleep. Then I got thirsty, so I opened my eyes and glanced at the clock. Both long and short hand were on 12. What time of day is it? ✓ The bell rang and everyone sang, "IT'S TIME FOR LUNCH, IT'S TIME FOR LUNNCH, IT'S LUNCH TIME". What time of day is it?	Videos/Content https://www.youtube.com/watch?v=wv3mtG_wGWw https://www.youtube.com/watch?v=p1Kl2K_XSoY https://www.youtube.com/watch?v=xrwQIYmoYhs	• Differentiate between noon and midnight by matching picture scenes to 12 noon or 12 midnight. Also, match pictures indicating whether events are in a.m. and p.m.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Identify equivalent periods of time including relationships among days, months and years and hours, minutes and seconds.	Time Relationships - There are 60 seconds in 1 minute. - There are 60 minutes in 1 hour. - There are 24 hours in a day. - There are 7 days in a week. - There are 4 weeks in one month. - There are 28, 30 or 31 days in 1 month - There are 12 months in 1 year - There are 52 weeks in 1 year	- Name two time periods and have children tell which time period is longer. - Help them see that a time period is made up of a number of time periods and have children tell which time period is shorter. - Have children use their clocks and calendars to model time relationships. How many days are in a week? - Ask children to point to and count each day on the calendar. (7 days) - How many hours does your birthday last? (24 hours) - Have children explain their reasoning. (Because my birthday is one day long.)	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 21&22; 49 &50 ✓ Textbook: pgs. 38 & 39;134 &135 ✓ Workbook: pg. 61	- Quiz Example: How many minutes are in 1 hour? 1 and a half hours? 2. How many months are in 1 year? - half a year?
5. Use a calendar to identify specific dates (Continued).	- Calendars are tables that show the days, weeks, and months of a year in order. - Remember 7 days = 1 week 12 months = 1 year	- Give a current calendar to each group. Ask each student to find his or her birthday. i. On what day of the week does your birthday fall this year? Write the date including the day. Online Activity https://mathsframe.co.uk/en/resources/resource/261	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 21&22 ✓ Textbook: pgs. 40 & 41 ✓ Workbook: pgs. 4, 17 &18 Video/Content https://www.youtube.com/watch?v=ILCRuXriKMU	Highlight specific dates on calendars and write the ordinal and cardinal numbers.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT										
5. Use a calendar to identify specific dates .	The calendar shows the order of dates so, use ordinal numbers to name dates. <table><tr><th>Write</th><th>Read</th></tr><tr><td>June 1</td><td>June first</td></tr><tr><td>March 4</td><td>March fourth</td></tr><tr><td>May 3</td><td>May third</td></tr><tr><td>October 2</td><td>October second</td></tr></table>	Write	Read	June 1	June first	March 4	March fourth	May 3	May third	October 2	October second	Example: a. Thursday, May 24th b. Does your birthday fall on the same day of the week each year? Have a student report to the class who will have the next birthday and who had the most recent birthday.	calendars	Complete a worksheet requiring students to read a calendar.
Write	Read													
June 1	June first													
March 4	March fourth													
May 3	May third													
October 2	October second													
6. Calculate elapsed time to the day with calendars and to the hour with a clock.	Elapsed time is the total amount of time that passes from the starting time to the ending time. - Find the starting time. Count the hours and minutes to find elapsed time after identifying ending time.	- Have students label a calendar month beginning with the first Monday. - Have groups answer questions about the calendar. Example: What is the date of the second Thursday in March? Suppose you have ball practice on Saturdays. How many practice days do you have in March? - Have students use clocks to find elapsed time. Ask questions. E.g., Sean and Kiara went to the carnival at 3 o'clock in the afternoon. They left at 11 o'clock in the evening. How long did they stay at the carnival?	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 49 & 50 ✓ Textbook: pgs. 131-133 ✓ Workbook: pgs. 59 & 60 Videos/Content https://www.youtube.com/watch?v=wxQyICv76qY https://www.youtube.com/watch?v=yy0NwS8abQA Activity https://www.roomrecess.com/mobile/TimeTeller/play.html	Have students use a schedule to calculate elapsed time. Virtual Assessment https://www.splashlearn.com/time-games-for-3rd-graders										

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
7. Convert between units of time	- To convert weeks to days, multiply the number of weeks by 7. Example: 4 weeks = $4 \times 7 = 28$ days - To convert days to hours, multiply the number of days by 24. Example: 7 days = $7 \times 24 = 168$ hours. - To convert hours to minutes, multiply the number of hours by 60. For example, 6 hours = 144 minutes.	- Riddles Example: I am known as four weeks. a. What is my name? Answer: 28 days b. I am 5 weeks. What is my name in days? - Give students practice converting units of time: E.g. 730 days = ___yrs. 3 yrs. = ___ days.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 49 & 50 ✓ Textbook: pgs. 134 & 135 ✓ Workbook: pg. 61 Video/Content https://www.youtube.com/watch?v=cf0I1eXqPJA	- Explain why 8 weeks equivalent to 56 days is and write how many months are in 8 weeks. - Complete a worksheet on conversion between units of time.
8. Read and record temperatures on a thermometer and interpret the readings.	- A thermometer measures temperature. Degrees (°) of Celsius (C) and Fahrenheit (F) are units of temperature. - Water freezes at 32°F or 0°C. Water boils at 212°F or 100°C. - Room temperature is 68°F or 20°C. - Degrees Fahrenheit is the customary unit of temperature. - Degrees Celsius is the metric units of temperature.	Measuring Temperature: - Estimate the temperature outside the classroom in degrees Celsius and in degrees Fahrenheit. Record your estimates. - Measure the temperature outside the classroom using thermometers. Record the differences between your estimates and the actual measurements. - Field trip to MET office.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 19 & 20 ✓ Textbook: pgs. 28-31 ✓ Workbook: pgs. 4, 13 & 14 - Celsius and Fahrenheit thermometer.	Use data from a chart where students have measured temperatures at the same time every day for a week in the degrees Celsius and Fahrenheit. Students answer questions from the chart. Examples: d. Which day shows the highest temperature? b. Which day shows the lowest temperature?

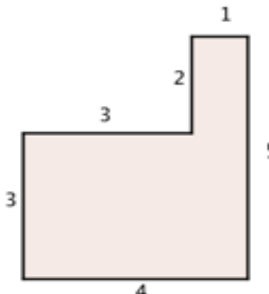
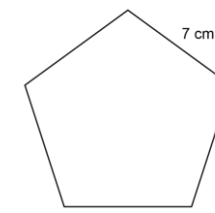
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
9. Estimate and measure length in metres, decimeters, centimetres, and millimetres.	- In the metric system, centimetre (cm), decimetre (dm), meter (m) and millimetres are used to measure length. - A centimetre is about the width of your index finger. - A decimetre is about the width of an adult's hand. - Your armspan is about 1 meter long. - A millimetre is about the thickness of a coin. (penny)	- Have each student make a simple drawing that includes 4 line segments of different lengths (5cm- 15 cm), as well as some curved lines. - Pairs of students measure the line segments, record the lengths, and discuss the results with their partners. - Have students draw lines according to the length provided: E.g. Draw the following lines: 3.9 cm, 8 cm, 4 cm, etc.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 40 & 41 ✓ Textbook: pgs. 98- 102 ✓ Workbook: pgs. 47-50 - Centimeter rulers Video/Content https://www.youtube.com/watch?v=sFr7o9X-Iwc	- Discuss: Why it is better to measure the length of a chalkboard in meters rather than in centimeters? Write: Why is it important to have more than one unit of measure? Lesson Quiz Choose the unit you would use to measure each. Write cm, m or mm. - The length of a basketball court. - The thickness of a nickel. - The length of an eraser - The length of a notebook.
10. Estimate and find the perimeter of polygons using standard and non-standard measurements (Continued).	- Perimeter is the total distance around a figure. - To find the perimeter of a shape: - Determine the measurement of each side - Add the lengths of each side	Ten Squares Have students arrange square tiles to form shapes that have a perimeter of 10 units. OR Have students use grid paper to draw as many shapes as they can that has a perimeter of 10 units.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 57 & 58 ✓ Textbook: pgs. 154 & 155 ✓ Workbook: pgs. 69 & 70	Discuss and write how to find the perimeter of a plane figure. Use diagrams to help you.

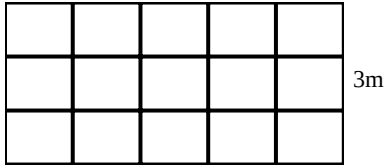
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
10. Estimate and find the perimeter of polygons using standard and non-standard measurements.	 Perimeter = $3 + 3 + 2 + 1 + 5 + 4$ $P = 18$ units - A polygon is a closed plane figure whose sides and angles are equal. - To find the perimeter of regular polygons multiply the length of one side times the number of sides.  To find the perimeter of the regular pentagon: $P = 5 \text{ cm} \times \text{the length of one side}$ $P = 5 \text{ cm} \times 7 \text{ cm} \quad P = 35 \text{ cm}$	- Have students point out objects and buildings in the community that resemble polygons. Have them draw some of these objects/buildings, label them and find the perimeter. Walk the Plank - Have students walk the perimeter of the basketball court and count their steps as they walk around Online Game https://toytheater.com/perimeter-climber/	Video/Content https://www.youtube.com/watch?v=k6UFutxXcpw Graph paper 1cm.	Virtual Assessment https://www.splashlearn.com/math-skills/third-grade/measurements/perimeter-of-regular-figures

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
11. Estimate and find area of shapes using non-standard and standard measurements.	The area of a figure is the number of square units needed to cover its surface. Count the square units  5m The area is 15 square cm.	Building understanding. - Have students look at a textbook and guess how many square tiles they will need to cover the surface of the book. Once they have guessed, have students get that number of tiles and cover the surface to see if their estimate was reasonable or accurate. - Have students find the area of the classroom using the tiles on the room floor.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 57& 58 ✓ Textbook: pgs. 156 & 157 ✓ Workbook: pgs. 71 &72 - Trundle Wheel Video/Content https://www.youtube.com/watch?v=ux5hEdUcCko	Ask students to explain how 2 differently shaped figures can have the same area. (The area of 2 differently shaped figures can be the same because the area is just arranged in different ways). Virtual Assessment https://www.splashlearn.com/area-games-for-3rd-graders
12. Estimate and measure capacity using litres, and milliliters.	Capacity is the amount a container can hold. - Capacity can be measured by using metric units such as the millilitre (ml) and litre (L). - A medicine dropper holds about 1ml. - A water bottle holds about 1L. - A water glass holds about 250ml.	Mental Scavenger Hunt - Have students think of things around their home or school where capacity can be determined. - Next, have students decide if they would be measured using liters or milliliters. - Then, have students determine the approximate metric capacity of the items	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 53 & 54 ✓ Textbook: pgs. 142 & 143 ✓ Workbook: pg. 64 Video/Content https://www.youtube.com/watch?v=b3rcIj-geuY	- Discuss: What is the relationship of millilitres to litres? - Choose the unit you would use to measure each. Write L or ml. - A tank of gasoline - A bottle of syrup - A jug of laundry soap. - Complete a worksheet requiring students to choose the most appropriate metric unit of capacity and the most appropriate measurement.

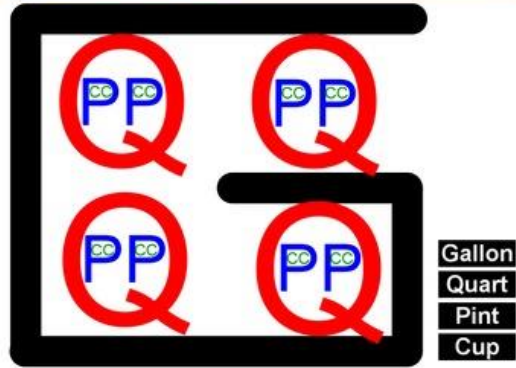
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT									
13. Estimate and measure mass using grams and kilograms.	- The milligram (mg), gram (g) and the kilogram (kg) are metric units used to measuring mass. - A grain of sand has a mass of about 1 milligram. - A paper clip has a mass of about 1 gram. - A large book has a mass of about 1 kilogram.	Guess and Check - Have pairs of students choose five objects and estimate their mass then find the exact mass using a metric scale. - Have students record their findings in a chart. <table><tr><th>Object</th><th>Estimated Mass</th><th>Exact Mass</th></tr><tr><td></td><td></td><td></td></tr></table>	Object	Estimated Mass	Exact Mass				- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pg. 53 ✓ Textbook: pgs. 144 & 145 ✓ Workbook: pg. 65 Video/Content https://www.youtube.com/watch?v=bPwCNT26R_g&t=63s - Balances - Scales - Grams and kilogram weights	Discuss: Brainstorm a list of objects that have a mass of about 1 gram and about 1 kilogram. - If a book has a mass of 500 grams, how many books of this size will you need to have a mass of one kilogram? Explain.			
Object	Estimated Mass	Exact Mass											
14. Convert units within systems using multiplication (Continued).	- To convert within the metric units, multiply or divide by 10, 100 or 1000. - To convert larger units to smaller units MULTIPLY. Examples: Metric Units 7cm = <u>70 mm</u> 7 x 10 = 70 Multiply by 10 because 1cm = 10 mm 4m = <u>400 cm</u> 4 x 100 = 400 Multiply by 100 because 1m = 100 cm	- Have students collect objects such as detergent bottles or food boxes. Allow them to use the outlined measurements and convert to other units. Conversions in Real-Life - Have students gather store ads or circulars from grocery stores, hardware stores, etc. - Have students select and cut out the items they want to use to convert the given measurements to another unit of measurement. See link below for complete demo.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher’s Manual: pgs. 60 - 62 ✓ Textbook: pgs. 164 & 165 ✓ Workbook: pgs. 75-77	Create a chart to show equivalent measures using different units. <table><tr><th>Item</th><th>Measurement</th><th>Conversion</th></tr><tr><td>Cereal</td><td>5 g</td><td>_____mg</td></tr><tr><td>Cloth</td><td>5 yds.</td><td>_____ft</td></tr></table>	Item	Measurement	Conversion	Cereal	5 g	_____mg	Cloth	5 yds.	_____ft
Item	Measurement	Conversion											
Cereal	5 g	_____mg											
Cloth	5 yds.	_____ft											

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
14. Convert units within systems using multiplication.	- Converting within customary units, multiply to change larger units to smaller units. 12 inches = 1 foot 3 feet = 1 yard 4 quarts = 1 gallon 2 pints = 1 quart Example: Customary Unit 3 quarts = 6 pts 3 x 2 = 6 You multiply by 2 because 1 quart = 2 pints	https://jenniferfindley.com/measurement-in-real-life-math-is-rea/?epik=dj0yJnU9YlBiYUfnd3dZSm04VE9qSEJWUFpldUYzaGpoekcxUnYmcD0wJm49a0pwSTZmdTNmeVN2dlNNd0ZLSVBCQSZ0PUFBQUFBR0J2aHV Using the BIG G for Converting Customary Units of Capacity <u>"Big G" Gallon Diagram</u>  Have students use the above diagram to convert customary units of capacity quickly with no calculations	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 60 - 62 ✓ Textbook: pgs. 164 & 165 ✓ Workbook: pgs. 75-77	Complete an activity sheet

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
15. Identify and compare coins, bills and their values.	Bahamian Coins: Five cent - \$0.05 Ten cent - \$0.10 Twenty-five cent - \$0.25 - All Bahamian coins have the Coat of Arms on one side. All Bahamian bills are colored and have the Coat of Arms on the back. American Coins: Penny - \$0.01 Dime - \$0.10 Nickel - \$0.05 Quarter - \$0.25 - All American coins have a president's face on one side. All American bills are gray. - When comparing coins, bills, and their values, use greater than (>), less than (<) or equal to (=).	Currency Fun: Students will state whether the coin or bill shown by the teacher is BAHAMIAN or AMERICAN. At the Market - Students will add coins and bills. - Students will compare prices and totals.	Video/Content https://youtu.be/rzssgSDxChk	Have students identify and compare coins, bills and their values.
16. Discover and model equivalent amounts.	Equivalent amounts are amounts that are equal (or the same) but using different coins and/or bills. Example: \$2.05 Set 1: 2 - \$1.00 Set 2: 1 - \$1.00 1 - 5¢ 4 - 25¢ 1 - 5¢	- Teacher will provide money manipulatives for students and will ask them to represent an amount using different bills and/or coins. - Students will look at sets of coins and/or bills and match those that are equivalent.	Content Video: https://www.youtube.com/watch?v=KjufnZmARSc	Have students determine and model equivalent amounts.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
17. Make change for purchases \$20.00 or less.	Change is the difference between the price of an item and the amount you give the clerk. The clerk will give back change. Example: if an item cost \$0.47 and you give the clerk \$0.50, you will receive \$0.03 change. - Counting on is one way to make sure you get the correct amount of change when you buy something. - Subtraction is another way to ensure you get the correct change.	- Divide the class into 4 or 5 groups. Allow each group to sell different items (e.g. one group sells toys, one group food, one group DVD's or CD's; one group games etc.). Base items on students' interest. - Allow students at different times to go to each group and make a purchase. Make sure items do not cost more than \$5.00. This activity can be extended where students set up booths and have other students from other classes or grades come to make purchases.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 30 & 31 ✓ Textbook: pgs. 70 & 71 ✓ Workbook: pg. 33 Video/Content https://www.youtube.com/watch?v=2g3K_82V9TM	Discuss - How can the cashier count out the change when you pay with \$5.00 for a \$2.55 item? Write - Using as few coins as possible, make change from a \$5.00 bill for groceries that cost \$4.77. Explain how you found your answer. Performance Assessment - Have students provide the correct change that would be given based on a given word problem.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: MEASUREMENT
GRADE: 3

Sub-Goal 3: Make and use measurements of objectives, qualities, and relationships and determine acceptable levels of accuracy.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
18. Round the purchase amount for items in a penny exempt trading system (to be referred to as “Rounding for Cash Exchange”).	- Rounding takes place on the total bill of purchase and not on individual prices. - Rounding for Exchange Rules: When a total bill is paid; the amount of change to be paid will be rounded to the nearest 5 or 10 cents: - Amounts ending in \$0.01 or \$0.02 will be rounded down to \$0.00 (Example: \$4.21 becomes \$4.20). - Amounts ending in \$0.03 or \$0.04 will be rounded down to \$0.05 (Example: \$7.23 becomes \$7.25). - Amounts ending in \$0.06 or \$0.07 will be rounded down to \$0.05 (Example: \$15.67 becomes \$15.65). - Amounts ending in \$0.08 or \$0.09 will be rounded down to \$0.10 (Example: \$27.89 becomes \$27.90).	Allow a group of students to make purchases. When the total of the items is calculated, allow a volunteer from the group to provide the adjusted total using “Rounding for cash exchange”. Example:  Price: \$1.21 Student should pay \$1.20	Video/Content DECOMMISSIONING OF THE BAHAMIAN PENNY - YouTube	Write: - Reviewing a group of purchase totals round for cash exchange. Performance Assessment: - Have students provide the adjusted totals called.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

Essential Questions

1. What are the properties of shapes?
2. How are solid figures different from plane figures?
3. How can I use plane shapes to help me identify different geometric solids?
4. What strategies can be used to verify symmetry?
5. What happens when you change a shapes position and orientation (slides, flips, and turns)?
6. How is the world of geometry connected to the world of numbers?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Classify common shapes (plane and solid) and explain their properties in simple terms (Continued).	• Plane shapes are 2-dimensional shapes. They are also called flat shapes. They have length and width, but no thickness. e. Properties of a plane shape include the number straight sides and the number of corners. • Circles, squares, triangles, rectangles and ovals are plane figures. a. Circle is a flat, round closed plane shape. All points on the circle are the same distance from the center point. A circle has 0 straight sides and 0 corners. f. Square is a rectangle with all 4 sides of equal length. It has four corners g. Rectangle is a plane shape with 4 straight sides and 4 corners. 2 sides are long and 2 are short. h. Triangle is a plane shape with 3 straight sides and 3 corners.	Who am I? • Put out three or more objects (such as a ball, a party hat, and a box). Describe one of them (it is round all over, it is flat on the bottom, its sides are all flat) and have the children guess which object you are describing. How many sides? • This activity uses pattern blocks. If you do not have pattern blocks you can use other shapes or cut shapes with different number of sides from construction paper. Each child needs only one shape for this activity. • Call a number and ask children who have a shape with that number of sides to stand. (Be sure to call numbers such as two and seven, to which no one will stand). Then have a search for all different shapes that have three sides, four sides, five sides, six sides, and zero sides (the circle).	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 25 & 26 ✓ Textbook: pgs. 51-54 ✓ Workbook: pg2. 22-24 • Helping Children Learn Maths, pgs. 222- 230 • Geometric shapes	• Discuss and write Display a solid figure, and have children to draw the plane shapes they could trace from the faces of that solid figure. Students then write the properties of the shapes.

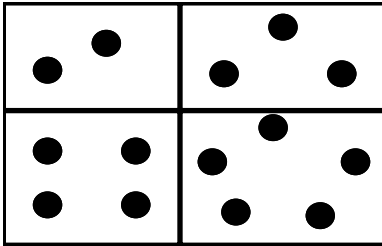
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Classify common shapes (plane and solid) and explain their properties in simple terms (Continued).	e. Oval is a closed plane shape that looks like a stretch circle. - Solid shapes are 3-dimensional shapes. They have faces, edges and vertices. - Faces are the flat parts of the shape. - Edges are the sides of the shape. - Vertices are the points where the sides meet, also known as corners. Cubes, Cones, Cylinder, square pyramid, triangular and prisms are solid figures. - A cube has 6 faces, 12 edges, and 8 vertices. - A cone has 1 face, 0 edges and 1 vertices - A cylinder has 2 faces, 0 edges and 0 vertices. - A square pyramid has 5 faces, 8 edges and 5 vertices.	How many sides? - This activity uses pattern blocks. If you do not have pattern blocks you can use other shapes or cut shapes with different number of sides from construction paper. Each child needs only one shape for this activity. - Call a number and ask children who have a shape with that number of sides to stand. (Be sure to call numbers such as two and seven, to which no one will stand). Then have a search for all different shapes that have three sides, four sides, five sides, six sides, and zero sides (the circle).	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 25 & 26 ✓ Textbook: pgs. 51-54 ✓ Workbook: pgs. 22-24 - Helping Children Learn Maths, pgs. 222- 230 - Geometric shapes Video/Content https://www.youtube.com/watch?v=K5Uwcag7QaE Online Games https://www.splashlearn.com/geometry-games SOLID SHAPES Video/Content https://www.youtube.com/watch?v=CkMcboPCg7A	Discuss and write Display a solid figure, and have children to draw the plane shapes they could trace from the faces of that solid figure. Students then write the properties of the shapes.

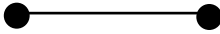
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Classify common shapes (plane and solid) and explain their properties in simple terms.	e. A triangular pyramid has 4 faces, 6 edges and 4 vertices. f. A rectangular prism has 6 faces, 12 edges, and 8 vertices. g. A triangular prism has 5 faces, 9 edges and 6 vertices.	Who am I? Put out three or more objects (such as a ball, a party hat, and a box). Describe one of them (it is round all over, it is flat on the bottom, it sides are all flat) and have the children guess which object you are describing.	Online Games: https://www.splashlearn.com/geometry-games	Complete an activity sheet on classifying plane and solid shapes.
2. Identify, draw and differentiate points, lines, and line segments using rulers and straight edges (continued).	A point is an exact location or position  A and B are points on a line. A line is straight. It continues in both directions. It does not end. 	How many segments? - Have students complete the following by drawing as many line segments as possible between the points in each example.  - Have students draw lines of various length. For example 5 cm, 10 cm, 2 ins, 4 ins.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 25 & 26 ✓ Textbook: pg. 55 ✓ Workbook: pg. 25 Video/Content https://www.youtube.com/watch?v=61OSVmZuQug	Have students explain each term point, line, line segment in their mathematics journals.

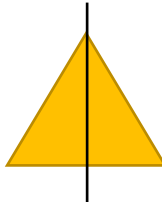
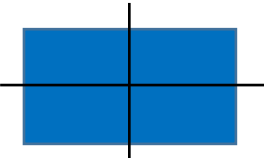
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Identify, draw and differentiate points, lines, and line segments using rulers and straight edges	• A line segment is straight. It is the part of a line between two points, called end points  Use a ruler or an object with a straight edge to draw a line.	Road Maps Place a map on the board. On the map highlight different points (rest spots). Call up two students at a time. One student will highlight the point or road that the teacher describes with a marker. The other student will have to say whether the part highlighted shows a point, line, or line segment. <i>Examples:</i>  1. What is A? – a point 2. What is shown from point A to point B? – a line segment 3. Miller Road runs from North to South, what does it show? – a line	Online Game: https://www.mathgames.com/skill/4.2-lines-line-segments-and-rays	• Performance Based Assessment: Road Maps (similar to the activity)

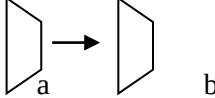
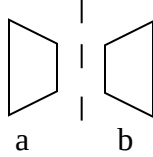
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
3. Identify and draw lines of symmetry on plane shapes.	• A line of symmetry is an imaginary line which divides a figure into equal parts. Lines of symmetry can be drawn from left to right or top to bottom on a shape. • If you fold a figure along a line of symmetry, both sides should be the same. Some shapes have one line of symmetry. Some shapes have more than one. • Shapes that can be divided into equal parts are symmetrical. Shapes that cannot be divided into equal parts are asymmetrical. Examples:  One line of symmetry. The same on both sides  No line of symmetry. Not the same on both sides.  Two lines of symmetry	• Student folds a sheet of paper in half and make a simple drawing on only one side of the fold. Partners exchange papers and try to complete the drawing on the other side of the paper, using the fold as a line of symmetry. • To Slice or Not to Slice? Students will be shown shapes. They will have to determine whether the shapes are symmetrical or asymmetrical. • At the Bakery Students will be given pictures of different shaped cakes and cookies. They will draw lines of symmetry to determine how each sweet treat would share equally before the time runs out.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 55 & 56 ✓ Textbook: pgs. 148 & 149 ✓ Workbook: pgs. 66 & 67 • Mira Video/Content https://www.youtube.com/watch?v=dAqDwuHOi4g Online Activity: https://pbskids.org/peg/games/symmetry-painter	Discuss: • Describe lines of symmetry for the figure below.  Write • What strategy could you use to locate the lines of symmetry in a figure? Worksheet Have students identify symmetrical and asymmetrical shapes, as well as draw lines of symmetry for figures given.

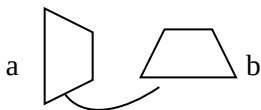
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Explore slides, flips, and turns (Continue).	Slide is a movement of a figure to a new position without turning or flipping it. A shape can slide right, left, up, down or diagonally and won't change. Example: slide  Flip is a movement that involves flipping a figure across an imaginary line. To flip a shape is to reflect it over a line. The shape faces the opposite direction. 	- Students' model the motions slide, flip and turn. - Have students place an index card on the left side of their desks and then slide it to the right side. a. Ask: What has changed? (the location) b. Next tell students to place the card down and turn it over. Ask: What has changed? (Now I can see the reverse or other side) c. Have students place the card with the long side running from top to bottom in the middle of the desk and move it so that the long side is going from side to side on the desk. d. Ask: what has changed? Explain. It is pointing in a different direction). Check students work	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 55 & 56 ✓ Textbook: pgs. 150 & 151 ✓ Workbook: pg. 68 - Index cards Video/Content https://www.youtube.com/watch?v=AH4VsH8mIgs	Discuss and write What does it mean to flip, turn, and slide an object?

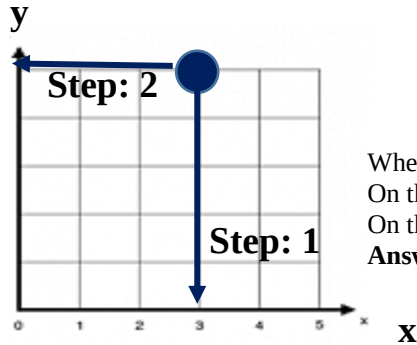
SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Explore slides, flips, and turns.	Turn: A move that involves rotating in a circular motion around a point. When a shape turns it changes direction. 	Geometric Slide: Students will do a geometric slide dance. They will start with one hand out to the left to imitate a shape. They will then use their bodies to show slide, flip, and turn. Cut and Paste: Students will glue shapes to show slide, flip and turn. What's the Move? Students will have to tell how a shape moved and explain how they know.	Online Game https://www.ixl.com/math/grade-2/flip-turn-and-slide	Performance Based Assessment Have students model slide, flip and turn using their plane shape cutouts given.
5. Name and find the location of an object on a plane (Continued).	- A plane is a flat surface. When moving on a plane, movement should be horizontal (left and right) then vertical (up and down). - On a plane, the line from left to right is known as the x-axis. The line from bottom to top is known as the y-axis.	On the Plane - Teacher will set up classroom floor as a grid using floor tiles. - Teacher will place different objects on the grid. - Students will state the location using ordered pairs. - Students will also be asked to use ordered pairs to put on an object on the grid.	Video/Content https://www.youtube.com/watch?v=9nLKVss63hE Online Game: https://www.mathnook.com/math/coordinate-bee.html	Performance-Based Assessment: On the Plane (as seen in Activity)

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: GEOMETRY AND SPATIAL SENSE
GRADE: 3

Sub-Goal 4: Use geometric methods to analyze, categorize, and draw conclusion about points, lines, planes, and space.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
5. Name and find the location of an object on a plane.	When reading lines on a plane (or grid), take the number on the x-axis first, then look over to the number on the y-axis. The two numbers are called an ordered pair. <i>Example:</i>  Where is the circle/dot? On the x-axis, it is on line 3. On the y-axis it is on line 5. Answer: Circle/Dot = (3, 5)	Online activity https://www.ixl.com/math/grade-3/objects-on-a-coordinate-plane Have students use ordered pairs as codes. Each student will link ordered pairs together to spell missing words and discover the hidden greeting.	Live Worksheet: https://www.liveworksheets.com/xe1379578yl	Complete an activity sheet on locating objects on a plane.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 3

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

Essential Questions

1. What kinds of questions can be answered using different data displays?
2. What are the parts of a graph?
3. What predictions can you make based on data given?
4. What is the benefit of charts, tables, and graphs in our daily lives?
5. How is probability used to predict outcomes in problem-solving?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 3

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
1. Collect, record and interpret data on horizontal and vertical bar graphs	• Data: The information collected about people or things. • Tally Table: A chart used to summarize the number of time items occur in a set of data. • Frequency Table: A table that uses numbers to record data. • Bar graph: A kind of graph that uses rectangular bars to show information. The bar can be vertical or horizontal. • Horizontal bar graph: A graph with bars drawn from left to right. • Vertical bar graph: A graph with bars drawn from bottom to top. • Scale: A set of numbers to help measure or quantify (read the number) objects.	• Have students conduct a survey of about 30 people finding out their favorite color, sports or TV channel. a. Allow students to collect this data using a tally sheet. b. Using their tally sheets, have students create a frequency table. • Have students create a bar graph of the birthdays of their classmates. Also, have them write questions pertaining to the graph that the other students or teachers in the school can answer.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 36 & 37 ✓ Textbook: pg.88 ✓ Workbook: pg. 40 • Behumane The Bahamas Humane Society Resource Manual Online Games: https://www.mathgames.com/skill/3.11-create-bar-graphs-using-tables https://www.mathgames.com/skill/3.13-create-pictographs www.softschools.com/math/data-analysis/tally-chart/	• Discuss how horizontal and vertical bar graphs alike and different? • Complete Survey 2.2.1 (Top Ten Pets) in Behumane The Bahamas Humane Society. • Have students record the number of water bottles collected by each seating group in the class. Then have the students answer the following questions: a. Which group collected the most bottles? b. Which group collected the least bottles? c. What was the average amount of bottles collected this week?

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 3

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
2. Draw graphs to include title, label and a key where needed.	- A graph is a way of organizing and displaying data. - All graphs include a title and labels - Some graphs have a key. - There are different types of graphs. Pictorial graphs uses pictures to stand for numbers and it must always have a key to tell you how much each picture represents. - A bar graph uses bars that are usually horizontal or vertical. The bars are used to show numbers. - The bars in bar graphs do not touch. If bars touch, it is a histogram.	- Have students work in groups of four to make their graphs from a survey they have conducted. - Remind students to include title, labels, and a key where needed. - Give groups of students a bag of M & Ms or Skittles. Tell them to count the number of each color. Have them enter the numbers on a graph. Remind them to include the title and labels.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 36 & 37 ✓ Textbook: pgs. 89 & 90 ✓ Workbook: pgs. 41-43 Online Game https://toytheater.com/fishing/	- Discussion What are the important parts of a graph? - Write/Explain how a bar graphs and a pictographs are alike and how they are different.
3. Solve questions related to data representation, including finding the range and mode.	Range: The difference between the highest and lowest values in the set. Example: {35, 40, 80, 107, 225} Range 225- 35 = 190 Mode: The most frequent number found in a collection of data	- In groups, students list their ages and find the range and mode of the ages. - Find the range and mode of data from graphs.	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 36 & 37 ✓ Textbook: pg. 91	Find the range and mode of given data.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 3

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
4. Analyze graphs, draw conclusions, and make predictions.	- To analyze data you can look at the mean, mode, range to make conclusions. Conclusion is the result or outcome of a development.	- Students create graph on their favorite subjects. They analyze, make predictions, and draw conclusions from the data. Example a. Why do you think more students like Social Studies than Science? b. What is the range of the two most favoured subjects?	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 36 & 37 ✓ Textbook: pg. 91 Online Games https://www.mathgames.com/skill/3.10-interpret-bar-graphs https://www.mathgames.com/skill/3.12-interpret-pictographs	Analyze, draw conclusions, and make predictions based on information displayed on a graph.
5. Apply the terms possible, impossible, always, sometimes, never, and no to everyday situations	Event: Something that happens Certain: Describes an event that will always happen. Possible: Something that has a chance of happening. Impossible: Describes an event that will never happen	- Label a two column chart "Possible" and "Impossible". a. Students describe events that happen every day which are placed in the "Possible" column b. Then ask students to tell things that could never happen to them. For example "arriving at school in a space ships."	- Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 59 & 60 ✓ Textbook: pgs. 160 & 161 ✓ Workbook: pgs. 73 & 74 Videos/Content https://www.youtube.com/watch?v=KGdUVEKCSEA https://www.youtube.com/watch?v=nbKIALXtV7k	Discussion If you use a spinner with three equal parts that are orange, red and yellow, what is a possible (certain) event? An impossible event. Write: Describe two events that are certain to happen in the classroom and two events that are impossible.

SCOPE OF WORK
PRIMARY SCHOOL MATHEMATICS
STRAND: DATA ANALYSIS AND PROBABILITY
GRADE: 3

Sub-Goal 5: Collect, organize; and analyze data using statistical methods: predict results; and interpret uncertainty using concepts of probability.

OBJECTIVES	CONTENT	ACTIVITIES	RESOURCES	ASSESSMENT
6. Give the probability of an event happening.	• Probability speaks to the extent which something is likely to happen. It is the number of possible outcomes there are in an event. • Likely: The event can happen. • Unlikely: The event will not happen. • Impossible: The event can never happen under any circumstance. • Possible: There is a chance the event can happen, but it is not guaranteed. • Certain: The event can happen.	• Have students spin a colour spinner and record the following: a. The probability of revealing a primary colour. b. The probability of revealing a specific colour. • Have students write a fraction that represent the probability of : a. boys to girls in the classroom. b. teacher to students in the classroom. c. windows to doors in the classroom.	• Bahamas Primary Mathematics Bk 3 ✓ Teacher's Manual: pgs. 59 & 60 ✓ Textbook: pg. 159-162 ✓ Workbook: pgs. 73 & 74 Videos/Content https://www.youtube.com/watch?v=_OC3q7VFjYU&t=9s https://www.youtube.com/watch?v=JnIGCLb6ewk&t=6s	• Have students roll a large die and record the following: a. The probability of revealing an even number. (Possible) b. The probability of revealing an odd number. c. The probability of revealing a number between 7-10. (Impossible) d. The probability of revealing a number between 1-6. (possible)

Primary School Mathematics

Problems of the Day

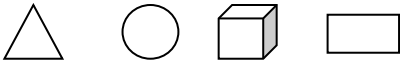
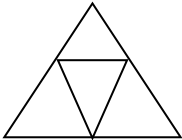
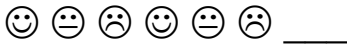
Grade 1

THE BAHAMAS PRIMARY MATHEMATICS CURRICULUM
PROBLEM OF THE DAY
GRADE: 1

Instructions: The following can be read aloud or written and discussed with students.	Alternatives
0 1 2 3 4 5 6 7 8 9 10 11 12 1. Begin at the 0. Take 8 hops forward. Take 2 hops back. Take 6 hops forward. Where did you stop? Answer: 12	Change instructions.
2. Tami’s birthday is on February 17th. February 16th is a Friday this year. On which day of the week is Tami’s birthday? How do you know? Answer: Saturday reasoning should include: Saturday is after Friday, 17 is one more than 16	Use students’ name in your class and actual birth dates.
3. Christopher has 10¢ . What are all the different coins he can have? Answer:  or  or 	Use students’ name in your class and change money amounts.
4. Asia has 1 ten cent and 3 five cent pieces in her bag. She found 2 more five cents. Now how much money does she have? Answer: 35¢	Use students’ name in your class and change money amounts.
5. Andrew divides an orange in half. Can he give equal parts to three of his friends? Why? Answer: No, too few pieces or too many friends	Use other common foods.
6. Shantell has 6 circle stickers and 3 triangle stickers. Show one pattern she could make that would use all her stickers. Answer: ▲●●●▲●●▲ or ●●▲●●▲●●▲	Change type of stickers and amount.

7. David drew a robot. He used circles, rectangles, squares, and triangles in his drawing. Show how you would draw a robot using these shapes. Answer: accept all reasonable pictures.	Give students precut shapes to create their pictures.
8. A square table has 1 chair on each side. How many people can sit at the table? Answer: 4 people	
9. Destiny cuts a square sandwich to make two triangles. Draw a picture to show how she did this.  	Use students name and change shape to rectangles.
10. A dozen is another word for 12. Would a dozen mangoes be enough to give each child in our class 1 each? How many more mangoes would we need? Answer: Answers will vary depending on the number of students in the class. E.g. 20 students in the class. Answer: 8 more mangoes	
11. Tamika dropped her set of number cards. Which cards did she lose? Answer: Numbers will vary based on the two numbers left out.	Show number cards 0-10 with two cards missing (alternate the numbers).
12. It takes 10 points to win a game. Mark has 9 points. If he gets another point, will he win? Answer: Yes	
13. Tamara has 5 sugar apples. Does she have enough to give one to each of her four friends and keep one for herself? Answer: Yes	Exchange fruit and number of children.

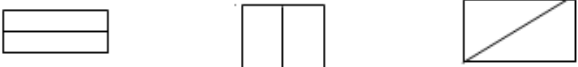
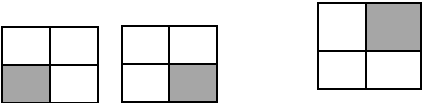
14. Keith lost three marbles. Isaiah lost two more than Keith. How many marbles has Isaiah lost? Answer: 5 marbles	Change the toy and number amounts.
15. Use only the numbers in the squares. Show all the 2-digit numbers you can make. 4 3 9 Answer: 43, 49, 34, 39, 94, 93	Change the digits in the squares.
16. Write the next number in the pattern a) 10, 20, 30, _____ b) 15, 25, 35, _____ c) 90, 80, 70, _____ Answer: a) 40 b) 45 c) 60	Change the number patterns.
17. I have three coins worth 15¢. What are they? Draw a picture to show your answer. Answer: 5¢ 5¢ 5¢	Change the money amount.
18. Put these numbers in order from least to greatest. a) 17, 56, 21, 38, 71 b) 45, 53, 28, 81, 38 Answers: a) 17, 21, 38, 56, 71 b) 28, 38, 45, 53, 81	Create varying sets of four numbers. Instructions can change to ordering from greatest to least.
19. There are 13 girls with Baby Alive dolls. 24 girls also have Brats dolls. How many girls have dolls altogether? Answer: 37 girls	Change toys with gender and amount of toys.
20. What number does not belong in each group? Why? A: 35 38 27 36 34 B: 46 45 48 69 43 49 Answers: a) 27 b) 69 Accept all reasonable answers	Change numbers.

21. One side of a square is 2 paper clips long. How many paperclips would you need to go around the whole square? Why? Answer: 8 paper clips Accept all reasonable answers	Change object and amount per side.
22. Which figure does not belong? Why?  Answer: cube It is a solid shape.	Change shapes.
23. Write the missing signs. a) $3 \square 7 = 10$ _____ b) $4 \square 3 = 1$ _____ c) $2 \square 6 = 8$ _____ Answer: a) + b) - c) +	Change numbers.
24. How many triangles can you count?  Answer: 5 triangles	Change shapes.
25. Draw the next face in this pattern.  _____ Answer: 😊	Change shapes.
26. Which clock does not belong? Why?  A B C D Answer: C Accept reasonable answers	Alternate between digital and analog clocks showing different time sets.

27. Draw the next shape for this pattern.	Use various shape fraction patterns. Example

33. Solve the riddle. Add me to 3 to get 4. Subtract me from 5 to get 4 again. What number am I? Answer: 1	Change numbers.
34. Draw a picture story about one of these problems. $10 - 3 = \underline{\quad}$ $9 - 4 = \underline{\quad}$ $\begin{array}{r} 6 \\ -0 \\ \hline \end{array}$ $\begin{array}{r} 8 \\ -3 \\ \hline \end{array}$ $\begin{array}{r} 7 \\ -2 \\ \hline \end{array}$ Answers: 7, 5 ; 6, 5, 5 pictures will vary	Change numbers and operation.
35. These numbers are lost. Write them where they belong. $\begin{array}{ccccccc} & \textcircled{8} & & \textcircled{3} & & \textcircled{9} & & \textcircled{0} \\ \textcircled{2} & & \textcircled{4} & & \textcircled{7} & & \textcircled{5} & \end{array}$ $10, 9, \underline{\quad}$ $4, \underline{\quad}, 2$ $2, 1, \underline{\quad}$ $9, 8, \underline{\quad}$ $5, \underline{\quad}, 3$ $10, \underline{\quad}, 8$ $7, 6, \underline{\quad}$ $\underline{\quad}, 1, 0$ Answers: 8, 3, 0; 7, 4, 9; 5, 2	Change numbers and patterns. Example: Count in fives, twos, tens, in ascending or descending.
36. Acklins is 223 miles south east of New Providence. Crooked Island is 250 miles south east of New Providence. Which island is closer to New Providence.? Answer: Acklins	Change islands and use local settlements.

37. The Students at Mangrove Bush Primary had a read-a-thon in September. Use the graph to answer the following questions about the amount of books read by the students in this school.		Change picture and number amount. Change graph representation.													
<table><tr><th>Grade</th><th>Number of books read by students in September</th></tr><tr><td>Grade 1</td><td>☺ ☺ ☺ ☺</td></tr><tr><td>Grade 2</td><td>☺ ☺</td></tr><tr><td>Grade 3</td><td>☺</td></tr><tr><td>Grade 4</td><td>☺ ☺</td></tr><tr><td>Grade 5</td><td>☺ ☺ ☺</td></tr><tr><td>Grade 6</td><td>☺ ☺</td></tr></table>	Grade		Number of books read by students in September	Grade 1	☺ ☺ ☺ ☺	Grade 2	☺ ☺	Grade 3	☺	Grade 4	☺ ☺	Grade 5	☺ ☺ ☺	Grade 6	☺ ☺
Grade	Number of books read by students in September														
Grade 1	☺ ☺ ☺ ☺														
Grade 2	☺ ☺														
Grade 3	☺														
Grade 4	☺ ☺														
Grade 5	☺ ☺ ☺														
Grade 6	☺ ☺														
38. Cat Island Air made three flights on Friday for the Cat Island rake and Scrape Festival. The first flight was at 12:00 noon, the second flight was at 1:00 p.m. What time was the third flight? Why?		Use analog clocks to assist with this.													
Answer: 2:00 p.m. The flights were 1 hour apart.		Change island and event along with airline or mail boat.													
39. Think about the Bahamian flag to answer the following questions.															
a. How many colors are in the flag? _____ b. The color black is in what shape? _____ c. Is there a pattern in our flag? What is it? _____ Answers: a. 3; b. triangle c. yes Accept colour identification if stated (blue yellow blue) aquamarine, gold, aquamarine)															
40. One side of a square is 10 paper clips long. How many paper clips would you need to go around the whole square?															
Answer: 40 paper clips															
41. Kyra ate half of a small pizza. Jim also ate half of the same pizza. How Much of the pizza is left?															
Answer: Nothing is left. Two halves make a whole.															

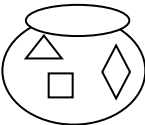
42. On a sheet of paper, draw the figure that does not belong. Tell why?  Answer: S; The others are closed figures.	
43. Aunt Lucinda has a garden shape like this.  In one half she grows flowers. In the other half she grows vegetables. Draw a picture of her garden.  Answer: Display pictures. Discuss different ways to show halves.	
44. Which takes less time? Guess first, then try it with a friend. a. Jump 10 times. b. Turn your body around 10 times. Answer: Probably turn around.	
45. Think about the pattern. Draw the picture that comes next. 	Answer 
46. Which takes longer? Guess first, then try it with a friend. a. Bounce and catch a ball 10 times. b. Write your first name 10 times. Answer: Probably write.	

47. Continue these patterns. 25, 35, 45, _____, _____, _____ 13, 23, 33, _____, _____, _____ 87, 77, 67, _____, _____, _____ Answer: 55, 65, 75; 43, 53, 63; 57, 47, 37.																									
48. Greta has some coins in her change purse. The value is 30c. What could she have? Answers: 3 dimes / 3 10 cents; 6 nickels; and 2 dimes and 2 nickels																									
49. You want to buy a jump rope. It cost 25c. Show different ways you could give the clerk 25c. <table border="1"><tr><td>Quarters</td><td>1</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Dimes</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Nickels</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table> Answer: a. 1 Quarter b. 2 Dimes and 1 nickel c. 1 Dime and 2 nickels d. 5 Nickels	Quarters	1							Dimes								Nickels								
Quarters	1																								
Dimes																									
Nickels																									
50. <table border="1"><tr><td>SPOONS 5 ¢</td><td>FORKS 5¢</td><td>CUPS 10¢</td></tr></table> Which costs more to buy 2 spoons and a cup or a spoon, a fork, and a cup? Answer: They are the same 20¢	SPOONS 5 ¢	FORKS 5¢	CUPS 10¢																						
SPOONS 5 ¢	FORKS 5¢	CUPS 10¢																							
51. Give an addition question for this story. Can you think of more than one question? Answer your question. Pia had 4 nickels. She earned 3 more nickels drying dishes. Answer: How much money did she have in all? Or How many nickels did she have in all?																									
52. Use only the numbers in the squares. Show all the different 2-digit numbers you can make. <table border="1"><tr><td>4</td></tr><tr><td>3</td></tr><tr><td>9</td></tr></table> Answer: 43, 49, 39, 34, 94, 93	4	3	9																						
4																									
3																									
9																									

53. Write the next number in the pattern. 10, 20, 30, _____ 15, 25, 35, _____ 20, 40, 60, _____ 33, 53, 73, _____ Answer: 40; 80; 45; 93													
54. Write the next number in the pattern. 90, 80, 70 _____ 85, 75, 65 _____ 90, 70, 50 _____ 63, 53, 43 _____ Answer: 60; 30, 55; 33													
55. What number does not belongs in each group? A. 35; 38; 27; 36; 34 B. 46; 45; 48; 64; 43; 49 C. 64; 84; 24; 74; 45; 34 Answer: Group A: 27 (3 tens); Group B: 64 (4 tens); Group C: 45 (4 ones)													
56. 93 71 56 14 38 I am thinking of one of these numbers. It is less than 85. It is greater than 39. The sum of its digit is 11. What is the number? Answer: 56													
57. Help this machine finish its work. <table border="1"><tr><td>IN</td><td>4</td><td>5</td><td>8</td><td>2</td><td>10</td></tr><tr><td>OUT</td><td>6</td><td></td><td></td><td></td><td></td></tr></table> Answer: 7, 10, 4, 12; Rule is “add 2”.	IN	4	5	8	2	10	OUT	6					
IN	4	5	8	2	10								
OUT	6												
58. There are some hidden fact families in this set Of numbers. Find 3 numbers that make a fact Family. How many different fact families can you find? <table border="1"><tr><td>1</td><td>7</td><td>4</td><td>9</td><td>5</td><td>3</td><td>2</td><td>8</td></tr></table> Answer: The fact families are: 1, 2, 3; 1, 3, 4; 2, 3, 5; 3, 5, 8; 4, 5, 9; 2, 7, 9; 1, 7, 8; 1, 8, 9; 3, 4, 7; 1, 4, 5; 2, 5, 7	1	7	4	9	5	3	2	8					
1	7	4	9	5	3	2	8						

59. Clancy threw 2 darts and score 9 points. Where did the darts land? Yoko threw 3 darts and scored 13 points. Where did the darts land? Answer: 8, 1; 8, 3, 2	
60. I have 3 coins worth 15¢. What are they? Answer: 1 dime and 1 nickel or 3 nickels	
61. These numbers got out of order. Can you put each set back in order from least to greatest? A. 17, 56, 21, 38, 71 B. 45, 53, 28, 81, 38 C. 50, 22, 75, 54, 95 D. 90, 51, 38, 62, 73 Answer: A: 17, 21, 38, 56, 71 B: 28, 38, 45, 53, 81, C: 22, 50, 54, 75, 95 D: 38, 51, 62, 73, 90	
62. I am a number. If you subtract 6 from me, you get a number that is the same as 4+5. What am I? Answer: 15	
63. Put your own numbers in the problem. Write a question for the problem. Favorite Sports: Children in the neighborhood like skateboarding. _____children like swimming best. Answer: Answers will vary	
64. Copy the facts. Write the missing signs. 3 □ 7 =10 ____ 6 □ 5 =1____ 4 □ 3 = 1 ____ 12 □ 5 = ____ 9 □ 2 = 11 ____ 2 □ 6 = ____ 9 □ 5 = 4 ____ 4 □ 4 = ____ Answer: +; -; -; +; +; -; -	
65. Joan exercises every day. She runs on the first day, swims on the second day, and walks on the third day. Continue the pattern. What exercise will she do on the seventh day? Answer: run	

66. Tomlin threw 2 darts and scored 7 points. Where did the darts land? Then he threw 3 darts and scored 9 points. Where did the darts land.														
Answer: 5, 2, or 4, 3; 4, 3, 2 or 3, 3, 3 or 9,0														
67. <table><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr></table>Begin at 0 Take 12 hops forward. Take 7 hops back. Where do you land?	0	1	2	3	4	5	6	7	8	9	10	11	12	
0	1	2	3	4	5	6	7	8	9	10	11	12		
Answer: 5														
68. Make designs with these shapes to show different ways to make 7.														
□ □ □ □ □ □ □ ○ ○ ○ ○ ○ ○ ○														
Answer: Will Vary. Discuss students’ designs.														
69. Use white or coloured chalk. Look at these patterns. Continue them on a sheet of paper.														
□ Δ □ Δ □ ? ? ? ○ □ ○ □ ○ ? ? ? Δ ○ Δ ○ Δ ? ? ?														
Answer: Δ □ Δ Answer: ○ □ ○ Answer: Δ ○ Δ														
70. Use 3 of these numbers 1, 2, and 3 at a time to write an addition sentence. How many complete sentences can you write?														
Answer: 2 sentences: 1+ 2 = 3; 2 + 1 = 3														
71. Four boats raced in the regatta in Exuma. The blue boat was not first or third. The red boat was last. In what place did the blue boat finish?														
Answer: second place														

72. Solve the riddle. Add me to 10 to get 14. Subtract me from 7 to get 3. What number am I? Answer: 4	
73. Make up a subtraction story problem for $5 - 1 = ?$. Answer: Share and Discuss students' stories	
74. Use a number only once in each problem. Write as many addition and subtraction facts as you can. 0 1 2 3 4 5 Answer: Will vary	
75. I am more than 3. I am less than 10. When you add one to me, I am halfway to 10. What number am I? Answer: 4	
76. Use this code to write 5 addition problems. Have a classmate write the answers. 0 1 2 3 4 5 6 Answer: Will vary	
77. June is carrying 6 balloons. Ivy is carrying 2 more than that. How many balloons is Ivy carrying? Write an addition sentence. Answer: $6 + 8 = 14$ balloons	
78. Luis is 4 years old. Nina is 1 year older than Luis. Tony is 2 years younger than Nina. How old is each child? Answer: Nina is 5 years old. Tony is 3 years old.	
79. Which shape does not belong in the bowl? Why? Answer: ▷ has 3 sides, all others have 4 sides.	

80. Solve the riddle. I am either a cube, sphere, or cylinder. I have fewer than 4 edges. I have a curved face. I have at least 1 flat face. What solid figure am I?	
Answer: cylinder	
81. Draw 2 bowls on paper. Sort the numbers by writing them on the Bowl shapes. Can you find more than one way? 92021611 173128 241015	
Answer: Sort by odd/even, more than ten/less than ten.	
82. A bag contains 4 red marbles, 6 green marbles, and 1 black marble. Is it certain, possible, or impossible to pick a blue marble from the bag?	
Answer: Impossible	
83. Samuel draws a line through a square to make two three-sided figures. Did he draw a line of symmetry? Explain	
Answer: Yes, he drew a line of symmetry. He drew it diagonally from one corner to the other.	
84. A square table has 1 chair on each side. How many people can sit at the table?	
Answers: Will vary	
85. Nan has a cat and a dog. In what ways are these animals the same?	
Answers: Will vary	
86. Think about your nose, mouth, and eyes. Which is on top? Which is in the middle? Which is on the bottom?	
Answer: Nose: Middle Mouth: Bottom Eyes: Top	

87.

[illegible][illegible]

tens

[illegible]

9

9

ones

What 2- digit numbers could you show using any combination of these tens and ones pieces?

Answer: 10, 11, 12, 13, 20, 21, 22, 23, 30, 31, 32, 33

88. How many numbers are more than 50 and less than 58?

Answer: 7 numbers

89. How many numbers are less than 90 and more than 85?

Answer: 4 numbers

90. Write the number sentence

● ● ● ● ● ● ● ● ●

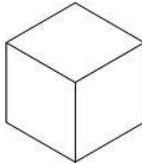
Answer: $6 + 3 = 9$

91. Shirley has 4 dillies and 3 coco plums. She also has 1 guava. How many pieces of fruit does Shirley have altogether?

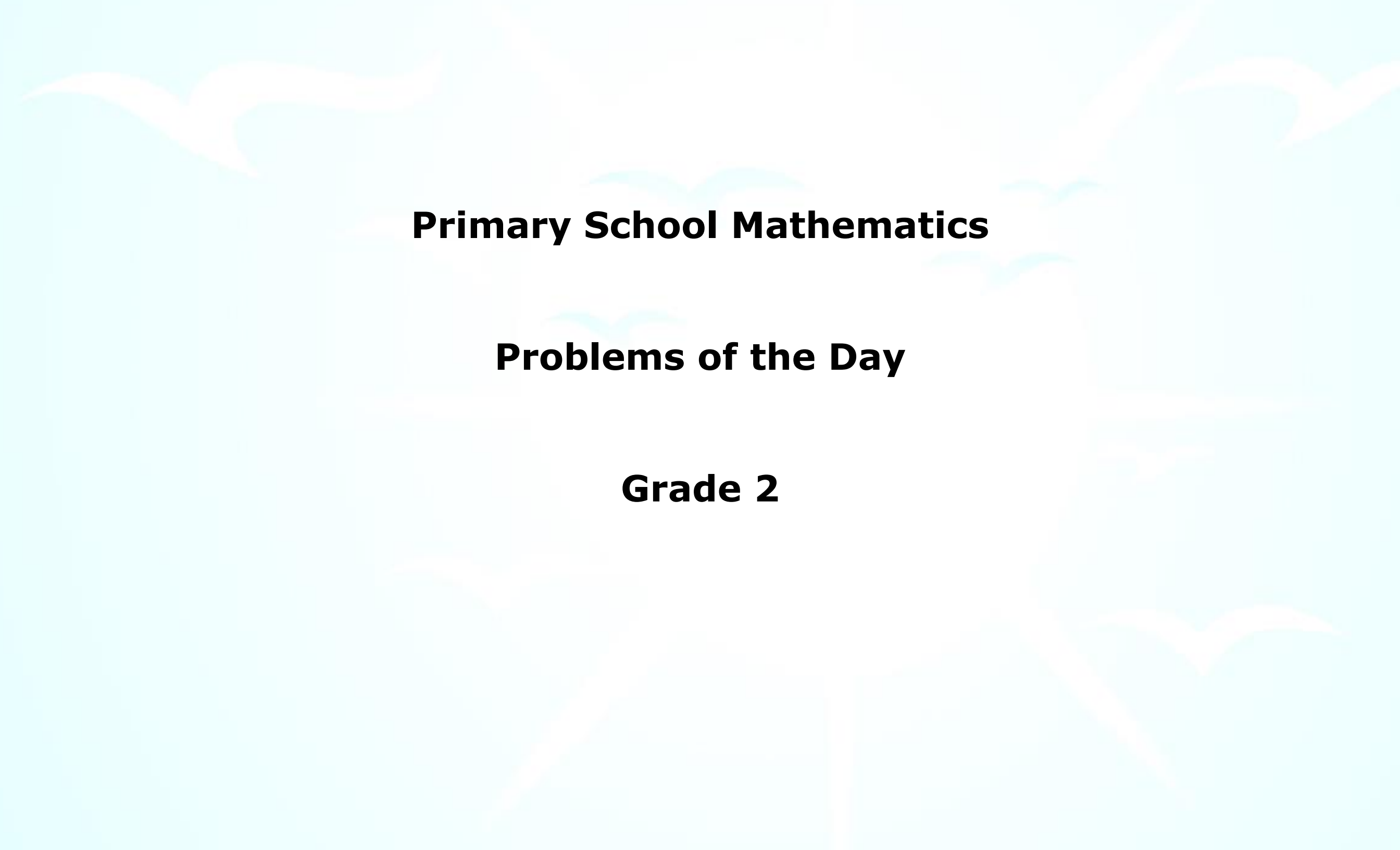
Answer: 8 pieces of fruit

92. There are 9 houses on the block. The 5th house is yellow. The last house is green. The rest of the houses are white. How many are white?

Answer: 7 white houses

93. High Rock Primary is having a bean bag toss contest. The person who tosses the most bean bags through the hoop wins. Mary won the contest but made her mom guess how many bean bags she got through the hoop. Here are the clues Mary gave. Clues: There are more than 28. There are fewer than 32. It is an even number. Answer: 30	
94. Tim has 2 ten cent coins and 3 five cent coins. A balloon costs 30¢. Can Tim buy it? Answer: Yes. Tim has 35¢	
95. Terry wrote the addition example below. What mistake did he make? Write the example correctly to fix his mistake. 30¢ + 45¢ 65¢ Answer: Terry make a mistake adding 4 and 3. The correct answer is 75¢	
96. David picks an odd number from a box. It has 2 tens. It is less than 30. It is greater than 27. What number does David pick? Answer: 29	
97. How many faces does this plane figure have  Answer: 6 faces	
98. A drawer contains 4 brown socks, 8 white socks, and 10 black socks. Are you more, less, or equally likely to chose a brown sock than white? Answer: Equally likely. Have students to explain responses.	
99. There are 15 dogs and cats in a store. 9 of the pets are dogs and 4 of the cats are white. How many cats are there? Answer: 6 cats	

100. Gary can go swimming, to the park, or to the carnival. It is too cold to swim. Gary likes to wing, but he is tired of going to the park. Where does Gary go?	
Answer: Carnival	



Primary School Mathematics

Problems of the Day

Grade 2

THE BAHAMAS PRIMARY MATHEMATICS CURRICULUM
PROBLEM OF THE DAY
GRADE: 2

Instructions: The following can be read aloud or written and discussed with students.

Alternatives

1. Find the missing number in each problem. □ 4 + 1 9 □ 6 + 1 14 5 □ + 3 14 9 2 + □ 13 7 □ + 4 14 6 2 + □ 13 Answers: 4; 7; 6; 2; 3; and 5	Create different sets using the various operations. Example: 16 - □ 7 □ x 3 21
2. Mr. Gibson has 10 animals on his farm in Long Island. Some are goats and some are chickens. Altogether there are 26 legs. How many Chickens are there if there are 3 goats? Answer: 7 chickens	Use different animals and objects with two or four legs, wheels etc.
3. Judy did these problems and the answers are incorrect. Change one digit in the addends of each problem to make them correct for Judy. 34 + 28 72 14 + 59 72 Change 1 digit in the addends of each problem to make them correct for Judy. Answers: a. Change 3 to 4 or the 2 to 3 (b) Change 4 to 3 or 9 to 8	
4. Write the next 3 numbers in each pattern. 50, 60, 70, ____, ____, ____ 94, 84, 74, ____, ____, ____ 100, 80, 60, ____, ____, ____ 65, 60, 55, ____, ____, ____ Answers: 80, 90, 100; 40, 20, 0; 64, 54, 44; 50, 45, 40	

5. Which sum is greatest? 2111182022 +13+31+21+19+12 Answer: 11 + 31 = 42	
6. Which problems have a difference of 23? A B C D 78388759 -55-15-44-26 Answer: A and B	
7. Jamico had 3 quarters when he went to the shop. He bought a cup and salty sausage for 60cents. How much money did he have left? What kinds of coins might he have in his pockets? Answer: \$0. 15 ; 10 ¢, 5 ¢. Or 5 ¢, 5 ¢, 5 ¢	
8. Less has 2 pieces of wire. One piece is 24 inches. The other piece is 12 inches. Does he have more or less than 30 inches? How much more or less? Answer: He has 6 inches more	
9. Trudy has 4 more stickers than Melissa. Together they have 10. How many stickers does Melissa have? Guess and then check. Answer: 3 stickers	
10. Mike is cutting sandwiches into fourths. He cuts 3 sandwiches. How many equal pieces does he have? Answer: 12 pieces	
11. What number does not belong in each group? A. 3538263634 B. 4648644349 C. 6484742437 Answer: Group A is 27 Group B is 64 Group C is 37	

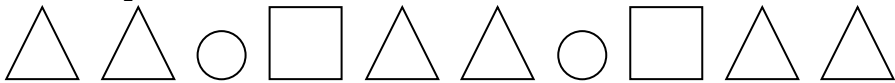
12. I have 5 coins worth 40¢. What are they? Answer: 3 ten cent coins and 2 five cent coins	
13. Copy the problems and fill in the missing signs. a. $12 \square 13 = 25$ c. $45 \square 22 = 67$ b. $22 \square 10 = 12$ d. $71 \square 12 = 83$ Answers: +, -, +, +	Change numbers and operations.
14. Use only the numbers in the squares. Show all the different 2-digit numbers you can make. 3 4 9 Answer: 43, 34, 94, 49, 39, 93	
15. Erica got home at 2 o'clock in the afternoon. She ate dinner 4 hours later, what time did she eat? Answer: 6 o'clock in the evening	
16. You want to buy an apple. It costs 20 ¢. Show different ways you could give the clerk 20 ¢. Answers: a. 10 ¢, 10 ¢ b. 10 ¢, 5 ¢, 5 ¢ c. 5 ¢, 5 ¢, 5 ¢, 5 ¢.	
17. Aunt Lucinda has a garden shaped like this:  In one half she grows flowers. In the other half she grows vegetables. Draw a picture of her garden. Answer: Accept all reasonable answers	Change shape and purpose.
18. Joan exercise every day. She runs on the first day, swims on the second day, and walks on the third day. Continue the pattern. What exercise will she do in the seventh day? Answer: run	Change pattern for example; fruit brought for lunch or leisure activity.
19. Jerome drinks 6 glasses of water every day. How many glasses of water does he drink in 10 days? Answer: 60 glasses	

20. Each student chose a number 16 29 2 89 72 Alicia chose 29. Beverly did not choose 16. She chose the smallest number. Dolores chose 72. What numbers could Edward choose? Answer: 16 or 89	Use different numbers and different skill, for example odd numbers etc.
21. How many rectangles can you find? Answer: 3	
22. Cedric is taller than Mark, and Devin is the tallest of the three. Who is the shortest? Answer: Mark is the shortest	
17 99 76 56 15 37 23. I am thinking of one of these numbers. It is less than 85. It is greater than 39. The sum of its digits is 11. What is the number? Answer: 56	
24. Latoya has 5 coins in her pocket worth 60¢. Four of them are less than a quarter/twenty-five cents. One coin is a dime. Another coin is greater than a dime. Draw a picture to show what her coins are. Answer: 10¢ 10¢ 10¢ 5¢ 25¢	Change money value and amounts of coins present.
SPOONS 5 ¢ FORKS 10¢ CUPS 15¢ 25. Which costs more to buy? 2 spoons and a cup or a spoon, a fork, and a cup? Answer: a spoon, a fork, and a cup - cost 30¢	
26. One side of a square is 10 paper clips long. How many paper clips would you need to go around the whole square? Answer: 40 paper clips; a square has 4 sides all the same length.	

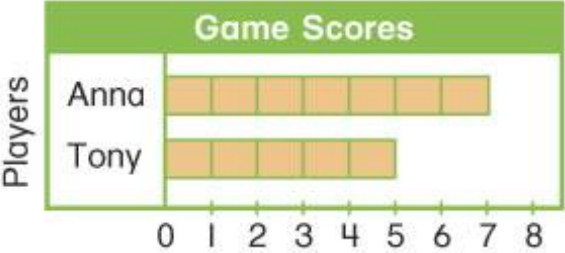
27. Add: the number of sides in a triangle the number of corners in a square + the number of sides in a circle	Answer: 3 + 4 + 0 =7												
28. The Bahamas National Trust was 50 years old in 2009. What year was it started? Answer: 1959													
29. Mr. Johnson brought his catch from Bimini to Nassau to sell. He sold everything in one day. Use this chart to find out how much money he made. <table border="1"><thead><tr><th>Product</th><th>Cost</th><th>Amount sold</th></tr></thead><tbody><tr><td>Crawfish</td><td>\$ 9. 00</td><td>2</td></tr><tr><td>Grunts</td><td>\$ 4. 00</td><td>5</td></tr><tr><td>Snapper</td><td>\$ 7. 00</td><td>3</td></tr></tbody></table> Answer: \$59.00	Product	Cost	Amount sold	Crawfish	\$ 9. 00	2	Grunts	\$ 4. 00	5	Snapper	\$ 7. 00	3	Use items local to the area also have persons purchase things from Nassau.
Product	Cost	Amount sold											
Crawfish	\$ 9. 00	2											
Grunts	\$ 4. 00	5											
Snapper	\$ 7. 00	3											
30. There are 10 000 flamingoes in the rookery in Inagua. 2 467 are females. How many males are there? Answer: 7 533 males	Change island and animas indigenous to that island.												
31. Mama Rose used silver top to plait 234 yards of straw. She will sell it for \$5.00 a yard to a vendor in Nassau. Answer: \$1 170.00	Use various local names and items sold from any island.												
32. Use the table below to answer questions about various items sold at the Conch Fest in... Questions: a. What food item did most persons buy? _____ b. How many persons bought Scorched Conch? _____ c. How many persons bought conch Salad and Conch Fritters? _____ Answers : Conch Fritters; 8; 33	<table border="1"><tbody><tr><td>Conch Salad</td><td> </td></tr><tr><td>Conch Fritter</td><td> </td></tr><tr><td>Crack Conch</td><td> </td></tr><tr><td>Scorched Conch</td><td> </td></tr></tbody></table>	Conch Salad		Conch Fritter		Crack Conch		Scorched Conch					
Conch Salad													
Conch Fritter													
Crack Conch													
Scorched Conch													

33. At the Exuma Cays Land and Sea Park, a record is kept to help keep count of the various living creatures. Use the Pictograph below to answer questions about various animals in the park. Questions: a. Write the animals in order from least to greatest. _____ b. Which animal is 40 less than the Iguanas? _____ c. How many Sea Turtles and Hutias are there in the park? _____ <table><tr><th>Animals</th><th>Amount</th><th>Number</th></tr><tr><td>Osprey</td><td><i>O O O O O</i></td><td></td></tr><tr><td>Sea Turtles</td><td><i>O O O</i></td><td></td></tr><tr><td>Iguanas</td><td><i>O O O O O O</i></td><td></td></tr><tr><td>Hutias</td><td><i>O O O O</i></td><td></td></tr></table> Key: <i>O</i> = 20 Answers: Iguanas, Osprey, Hutias, Sea turtles; Hutias; 140	Animals	Amount	Number	Osprey	<i>O O O O O</i>		Sea Turtles	<i>O O O</i>		Iguanas	<i>O O O O O O</i>		Hutias	<i>O O O O</i>		
Animals	Amount	Number														
Osprey	<i>O O O O O</i>															
Sea Turtles	<i>O O O</i>															
Iguanas	<i>O O O O O O</i>															
Hutias	<i>O O O O</i>															
34. The 2009 Boxing Day Junkanoo parade started at 2:30 a.m. It lasted for eight hours. At what time did the parade end? Answer: 10:30 a.m.	Change event and times.															
35. The Rolle Family has a family reunion every five years. If their last reunion was held in 2007, when will the next reunion be held? Answer: 2012																
36. Thirty members of the _____ church cleaned up the community park on Saturday. They divided the work equally into six groups. How many persons where in each group? Answer: 5 people	Change organization and community project.															
37. I am thinking of a number. It is less than 85 and greater than 39. The sum of its digit is 11.What is the number? Answer: 56																
38. Ogden has a dime. Loren has 2 dimes more than Ogden. Elsa has 1 more dime than Loren. Lonnie has 2 dimes more than Loren. How much money does Loren have? Answer: 50 cents																
39. Trudy has 4 more stickers than Melissa. Together they have 10. How many stickers does Melissa have? Guess and then check. Answer: Melissa has 7 stickers																

40. Give a subtraction question for this story. Write a subtraction sentence to answer your question. Paul had a piece of string 10cm long. He used a piece that was 7cm long.																																											
Answer: $10-7 = 3$																																											
41. Use the Calendar below to answer the following questions about the Long Island Regatta.																																											
Questions: a. How many days was the regatta held? _____ b. Which day of the week has no activity? _____ c. Which week has the most activities? _____ d. On which days will the committee meet? _____ <table><tr><th>Sunday</th><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th><th>Saturday</th></tr><tr><td></td><td></td><td>1</td><td>2 Committee Meeting</td><td>3</td><td>4 Opening Ceremony & B Class Race</td><td>5 A & C Class Race</td></tr><tr><td>6 Church Service</td><td>7 Awards Ceremony</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td></tr><tr><td>13</td><td>14</td><td>15</td><td>16</td><td>17 Committee Meeting</td><td>18</td><td>19</td></tr><tr><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td><td>25</td><td>26</td></tr><tr><td>27</td><td>28</td><td>29</td><td>30</td><td></td><td></td><td></td></tr></table> Answers: 4 days; Tuesday; week of 1st – 5th ; Wednesday the second and Thursday the seventeenth	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday			1	2 Committee Meeting	3	4 Opening Ceremony & B Class Race	5 A & C Class Race	6 Church Service	7 Awards Ceremony	8	9	10	11	12	13	14	15	16	17 Committee Meeting	18	19	20	21	22	23	24	25	26	27	28	29	30				
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday																																					
		1	2 Committee Meeting	3	4 Opening Ceremony & B Class Race	5 A & C Class Race																																					
6 Church Service	7 Awards Ceremony	8	9	10	11	12																																					
13	14	15	16	17 Committee Meeting	18	19																																					
20	21	22	23	24	25	26																																					
27	28	29	30																																								
42. Copy the problems and fill in the missing signs.																																											
12□13 = 28 45□22 = 67 22□10 = 12 71□12 =83 51□27 = 78 86□75 = 11																																											
43. Help this machine finish its work. What is its rule? Complete.																																											
IN 458210 OUT 6710412																																											
Answer: Rule is + 2.																																											
44. Can you write an addition question for this story? Can you think of more than one question?																																											
Pia had 4 nickels. She earned 3 more nickels drying dishes. Answer: Yes. How many nickels does Pia have altogether? Or How much money does Pia have altogether?																																											
45. Which one does not belong?																																											
2 nickels1 nickel1 nickel4 nickels 2 dimes1 quarter3 dimes1 dime Answer: All amounts are 30¢ except 3 dimes and 1 nickel																																											

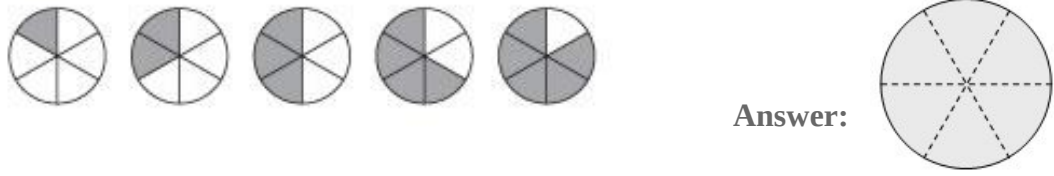
46. Provide a large sheet of newsprint. Draw a picture of 3 things you do during a day. Put them in order. First Next Last	
47. Joan exercises every day. She runs on the first day, swims on the second day, and walks on the third day. Continue the pattern. What exercise will she do in the Seventh day? Answer: Run	
48. Jerome drinks 6 glasses of water every day. How many glasses of water does he drink in 10 days? Answer: 60 glasses	
49. Write as many fact families as possible using only these numbers. Do not use a number more than once in any facts. 7 2 10 8 5 3 Answer: Students can write 4 facts for each of these families: 2, 3, 5: 3, 5, 8; 2, 5, 7; 3, 7, 10; and 2, 8, 10.	
50. Rico has 6 triangles, 3 circle, and 3 squares. Draw a pattern that Rico can make. Check student drawings. Example: 	
51. How many numbers are less than 90 and more than 85? Answer: 4 numbers	
52. Using the digits 2, 5, 3, 8, Which two numbers should you group in order to make a ten? Answer: 8, 2	

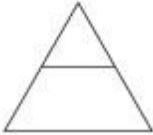
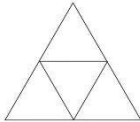
53. What date is 3 days after December 9 th ? Answer: December 12th	
54. Is the value of 5 nickels closer to the value of 3 dimes or 4 dimes? Answer: 3 dimes	
55. Write the number for each number word. twenty-two; ninety; fifty-four Answers: 22 ; 90; 54	
56. What addition sentence comes next in the pattern? 2 + 4 = 6 3 + 4 = 7 4 + 4 = 8 5 + 4 = 9 Answer: 6 + 4 = 10	
57. Which subtraction facts have a difference of 4? 12 – 6 = ? 11 – 7 = ? 13 – 9 = ? Answers: 11-7 = 4; 13-9 = 4	
58. Danny thinks of a number. It has an 8 in the ones place. It has the same number of tens as ones. What is Danny’s number? Answers: 118; 228; 338; 448; 558; 668; 778; 998	
59. What number doubled is 14? Answer: 7	

60. List all even numbers between 20 and 30. Answer: 22, 24, 26, 28							
61. How many more points did Anna score than Tony?  <table border="1"><caption>Game Scores</caption><thead><tr><th>Player</th><th>Score</th></tr></thead><tbody><tr><td>Anna</td><td>7</td></tr><tr><td>Tony</td><td>5</td></tr></tbody></table> Answer: 2 more points	Player	Score	Anna	7	Tony	5	
Player	Score						
Anna	7						
Tony	5						
62. Judy plays two games of chess. Her first game lasts 23 minutes. Her second game lasts 31 minutes. For how many minutes does Judy play altogether? Answer: 54 minutes							
63. Marie has 15 marbles. Harry has twice as many marbles as Marie. How many marbles do they have altogether? Answer: 45 marbles							
64. In May and June, a total of 52 people visited Adastra Gardens. The number of people who visit the gardens in May is 32. How many people visited Adastra Gardens in June? Answer: $52-32 = 20$ people							
65. Seventeen people visit the penguin house at the zoo. Then 9 people leave. 23 more people come in. How many are in the penguin house now? Answer: 31 people							

66. Five 😊 on a pictograph stand for a total of 20 children. How much does 1 😊 stand for? Answer: 4 children	
67. Daniel decorates 35 boxes. Simeon decorates 26 boxes. Jewel decorates 5 more boxes than Simeon. Who decorates more boxes? Daniel, Simeon, or Jewel? Answer: Daniel	
68. Olivia makes 25 bracelets. For 8 of them she uses green thread. For the others she uses red thread. How many bracelets does Olivia make with red thread? Answer: $25 - 8 = 17$ bracelets	
69. Michele earns \$13 on Saturday. On Sunday she earns twice as much. On Monday she earns \$8. What is the total amount Michele earns? Answer: $\\$13.00 + \\$26.00 + \\$8.00 = \\47.00	
70. Sixteen children are on the park. Then twice as many children arrive. How many children in all are on the park? Answer: $16 + 32 = 48$ children	
71. Draw the figure that is most likely to come next in the pattern.  Answer: The sphere will come next.	
72. There are 64 blank pages in Darnel's mathematics journal. If she fills in 18 pages the first week and 23 pages the second week, how many blank pages are left? Answer: 23 pages	

73. The sum is 15. One addend is 3 more than the other. What are the two addends? Answer: 6 and 9	
74. Write the missing number in the pattern. 1, 2, 2, 3, 3, 3, 4, 4, 4, ____ Answer: 4	
75. Lunch begins at 11:30. It lasts 45 minutes. What time does lunch end? Answer: 12: 15 p.m.	
76. Sarah was born on the third day of the first month. What is Sarah's date of birth? Answer: 3 January	
77. Numbers 40 through 50 are in a hat. I pick 44, 40, 49, 41, and 45. What numbers are left in the hat? Answer: 42, 43, 47, 48,50	
78. Keisha puts 2 quarters in her bank each day. How many days will it take her to save \$3.00? Answer: 6 days	
79. Stephen Dillet’s Blue Marlin and Freeport Primary Conquerors are playing basketball. So far this season, the Marlins have 100 points more than last year's final score of 385. The Conquerors have 10 more points than the Blue Marlins have. How many points does each team have so far this year? Answers: Marlins: 485 Conquerors: 495	

80. Ten groupers were swimming in one direction. Half of them swam in another direction. How many groupers were left swimming on the original direction? Answer: 5 groupers	
81. Draw the next picture in the pattern. 	
82. Paul sets the table with 8 plates. What is the fraction that tells about 1 plate on the table? Answer: 1/8	
83. Lady Pindling reads 5 pages of her book each day. On which day will Lady Pindling finish reading 25 pages? Answers: Starts on Monday and finishes on Friday or starts on Tuesday and finishes on Saturday... etc Answers will vary depending when Lady Pindling starts reading her book.	
84. Darnell has 3 eggs. She buys a dozen more. Then she uses a half dozen. How many eggs does Darnell have left? Answer: 9 eggs	
85. Is it more likely, less likely, or equally likely for the spinner to land on white than grey?  Answer: Equally likely	

86. If September 25 is on a Thursday, how many Saturdays are left in that month? Answer: One Saturday	
87. If a crayon is longer than a paper clip, will it take more or fewer paper clips than crayons to measure a book? Answer: More paper clips	
88. Patsy has 35 stamps. Rickiera has a dozen more stamps than Patsy. How many stamps do they have altogether? Answer: 82 stamps	
89. A fence has 5 posts from its beginning to its end. The poles are 10 feet apart. How long is the fence? Answer: 40 feet	
90. Draw 2 lines to make 4 equal parts.  Answer: 	
91. It is winter and snow is falling. Is it more likely to be 25°F, 70°F, or 110°F? Answer: 25°F	
92. Does a book weigh about 1 pound, about 1 inch, or about 1 cup? Answer: 1 pound	

93. I am thinking of two numbers. Their sum is 21. One number is 9 more than the other. What are the two numbers? Answer: 6 and 15	
94. Ben is thinking of a number that is between 24 and 30. When the tens digit of the number is subtracted from the ones digit, the difference is 6. What number is Ben thinking of? Answer: 28	
95. Rickiera’s first test takes her 34 minutes to complete. Her second test takes her 25 minutes to complete. About how long does it take Rickiera to complete both tests? Answer: 59 minutes	
96. Rashad puts 4 crayons into each box. How many crayons will be in 7 boxes? Answer: 28	
97. Angela has 27 pictures. She wants to put 3 pictures in each booklet. How many booklets does she need? Answer: 9 booklets	
98. Eric has 23 CDs. He puts 4 CDs on each page of an album. How many pages can he fill? How many CDs are left over? Answer: 5 pages, 3CDs	
99. Write a 2-digit number. The digit in the ones place should be greater than the tens digit. Answer: Will vary	
100. Your friends just gave you 12 sparkle markers. Now you have 19 markers. How many markers did you have before your friends gave you 12 more? Answers: $19-12 = 7$ markers	

Primary School Mathematics

Problems of the Day

Grade 3

THE BAHAMAS PRIMARY MATHEMATICS CURRICULUM
PROBLEM OF THE DAY
GRADE: 3

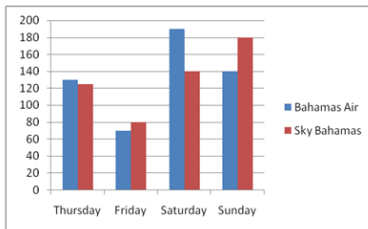
Instructions: The following can be read aloud or written and discussed with students.

Alternatives

1. What two numbers sum is 15 and whose difference is 3? Answer: 6 and 9	Sum is 11 and difference 3 Answer: 4 and 7 Sum is 13 and difference 3 Answer: 5 and 8
2. Andrew bought half- dozen eggs. On the way home he dropped them, and four eggs broke. So Andrew went back to the store and bought another half dozen eggs. How many eggs does he have now? Answer: 8	
3. How many different ways can you write a number sentence with a sum of 13 using two numbers from 1 through 9? Answer: 9 + 4 ; 8 + 5 ; 7 + 6	Alternative sums; 15 ,12, 9 Sum 15: 9+6; 8+7; Sum 12: 9+3; 8+4; 7+5; 6+6 Sum 9: 8+1; 7+2; 6+3; 5+4
4. David, William and Dexter all attend Carmichael Primary School. David lives 2 miles from the school. William lives 3 more miles away from the school than David. Dexter lives 4 miles from the school. How many more miles does William live from the school than Dexter? Answer: 1 mile	
5. Jeffrey has 3 bags of marbles with 100 marbles in each bag. He also has 9 single marbles. How many marbles does he have in all? Answer: 309 marbles	

6. Stickers come in squares of 100, in strips of 10, and singly. How many stickers would you have if you had 2 squares, 12 strips, and 3 single stickers? Answer: 323 stickers	
7. Computer paper comes in packages of 100 sheets and in boxes of 10. (Vice Principals name) has 2 boxes and 14 packages of computer paper in (his/her) office. How many sheets of computer paper does (he/she) have? Answer: 3 400 sheets	Change supplies to pencils, stickers, sharpeners etc. and quantity amount.
8. The Taylors lived in Hope Town Abaco, with a population of 109 099. They now live in Murphy Town Abaco with 1 000 more people. What is the population of the town in which they now live? Answer: 110 099	Change settlements to match various islands.
9. Henry bought a book and gave the cashier 2 one-dollar bill, 1 quarter, and dimes. The cashier asked Henry for 1 more dime. How much did the book cost? Answer: \$2.55	Alternate money amounts and currency [Bahamian and American]
10. Paris buys a pencil that cost \$1.60. She pays with a five-dollar bill. How much change will Paris receive? Answer: \$3.40	Change to other school supplies and vary the cost.
11. Phillip has 1 034 stickers. Cedric has 1 304. Who has more stickers? How do you know? Answer: Cedric, 1 304 is greater than 1 034	Alternate product and amount.
12. Which is greater? 3 256 rounded to the nearest hundred or 3 256 round to the nearest ten? How can you tell? Answer: 3 256 rounded to the nearest hundred, accept all reasonable answers.	
13. Dwight is 8 years old. His grandmother was visiting when he was born. Since then his grandmother has visited every other year. How many times has Dwight's grandmother visited? Answer: 5 times	

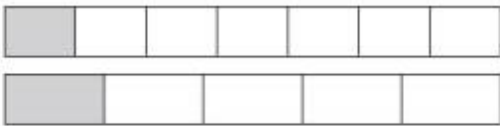
14. In August crawfish tails were sold for \$7.00 a pound. Mrs. Kemp bought crawfish to cook for Sunday Dinner. She paid \$28.00. How many pounds of crawfish did she purchase?																
Answer: 4 pounds																
15. The table below shows the number of books read by third and fourth grade students of Garvin Tynes Primary School. a) In which month were the fewest books read? b) In which month, were the greatest number of books read? c) Which grade read the most books? <table><tr><th colspan="3">Books Read in School Read-A Thon</th></tr><tr><th>Month</th><th>Grade 3</th><th>Grade 4</th></tr><tr><td>January</td><td>120</td><td>145</td></tr><tr><td>February</td><td>146</td><td>123</td></tr><tr><td>March</td><td>112</td><td>112</td></tr></table>	Books Read in School Read-A Thon			Month	Grade 3	Grade 4	January	120	145	February	146	123	March	112	112	
Books Read in School Read-A Thon																
Month	Grade 3	Grade 4														
January	120	145														
February	146	123														
March	112	112														
Answers: a) March b) February c) Grade 4																
16. Ashley and Kendra each had pizza for dinner. Ashley’s pizza was cut into 6 equal slices and Kendra’s pizza was cut into 12 equal slices. Ashley ate 5 slices and Kendra ate 5 slices of her pizza. Who ate more of their pizza?																
Answer: Ashley																
17. Samantha has two more pencils than DeAngelo. What happens when she gives him one of her pencils?																
Answer: They will both have the same amount of pencils.																
18. Ricardo’s mother baked coconut tarts for dessert. She told him that he and his friends could have some for an afternoon snack, as long as they ate only half of what she baked. If Ricardo has five friends, how many coconut tarts must there be in all for each to have 1?	Change dessert and amount of friends.															
Answer: 12																

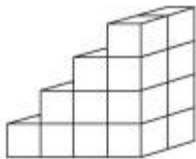
19. Raymond is working to earn money to buy an Xbox. His uncle wants to help him. He told him that if he earns 1/5 of the cost, he will pay the rest. Raymond earned \$20. How much money does his uncle need to give him? How much does the Xbox cost? Answer: \$80.00, the Xbox cost \$100.00	Change purchase item, cost and fraction to be earned.															
20. At the Andros crab Fest 362 crabs were used to prepare crab dishes. 124 crabs were used for crab and rice. 116 crabs were used for crab and dough, and the rest was used for crab soup. How many crabs were used to make crab soup? Answer: 122 Crabs	Change event change food item. Example: coconut at the Coconut Festival In Andros Pineapples at Pineapple Fest															
21. Aunt Cybil sells sweet treats on the weekends. Sami has \$3.00 to spend. Use the table below to answer the questions. a) Can he buy two coconut cakes? b) How much does an almond cake and a Bennie cake cost? c) Would Sami get any change? If yes, How much? <table><tr><th colspan="2">Aunt Cybil’s Sweet Treats</th></tr><tr><th>cake</th><th>cost</th></tr><tr><td>Bennie cake</td><td>\$1.15</td></tr><tr><td>Coconut cake</td><td>\$1.45</td></tr><tr><td>Almond cake</td><td>\$1. 27</td></tr></table> Answer: a) yes b) \$2.42, yes, \$ 0.58	Aunt Cybil’s Sweet Treats		cake	cost	Bennie cake	\$1.15	Coconut cake	\$1.45	Almond cake	\$1. 27						
Aunt Cybil’s Sweet Treats																
cake	cost															
Bennie cake	\$1.15															
Coconut cake	\$1.45															
Almond cake	\$1. 27															
22. James thought that he could trick his brother and get a bigger piece of carrot cake. He asked, “do you want 1/3, 2/6 , or 4/12 of the carrot cake?” his brother said, “since you are being so nice, you keep 4/12 and I’ll take what is left over. Is James happy? Explain your answer? Answer: No explanations will vary.																
23. Janice cut a loaf of banana bread into 8 slices. She gave three of her friends a slice. She wrapped two slices for her grandparents. She ate a slice. Write a fraction and an equivalent fraction to show how many slices of bread Janice has left. Answer: 2/8 and ¼																
24. For the Exuma Regatta, Bahamas Air and Ski Bahamas made several flights. Use the graph to answer the questions. a) How many passengers did Bahamas Air carry on Saturday? b) Which aircraft carried more passengers? c) How many more passengers did they carry? d) Which day did they carry the least amount of people? e) How many passengers did they carry on that day? <table><caption>Passenger Data from Graph</caption><tr><th>Day</th><th>Bahamas Air</th><th>Sky Bahamas</th></tr><tr><td>Thursday</td><td>120</td><td>125</td></tr><tr><td>Friday</td><td>70</td><td>80</td></tr><tr><td>Saturday</td><td>190</td><td>140</td></tr><tr><td>Sunday</td><td>140</td><td>180</td></tr></table> Answers: a) 190 b) Bahamas Air 5 c) Friday 150	Day	Bahamas Air	Sky Bahamas	Thursday	120	125	Friday	70	80	Saturday	190	140	Sunday	140	180	
Day	Bahamas Air	Sky Bahamas														
Thursday	120	125														
Friday	70	80														
Saturday	190	140														
Sunday	140	180														

25. There are 30 minutes in half an hour. How many groups of 5 minutes are in a half hour?																			
Answer: 6 groups																			
26. Jade has 12 green grapes and 6 red grapes. She wants to share all of the grapes equally among herself and her two friends. How many grapes of each color will they get?																			
Answer: 2 red grapes, 4 green grapes.																			
27. In a pictograph to show people’s favorite day of the week, the symbol ☺ stands for 6 people. How many ☺ would be in the pictograph to show that 24 people picked Friday as their favorite day?																			
Answer: 4																			
28. Try filling in the missing numbers in the magic square below. Use numbers 1 through 9. Make all rows, columns, and diagonals add up to 15.																			
<table border="1"><tr><td>8</td><td></td><td></td></tr><tr><td></td><td>5</td><td></td></tr><tr><td></td><td></td><td>2</td></tr></table>	8				5				2	Answer: <table border="1"><tr><td>8</td><td>1</td><td>6</td></tr><tr><td>3</td><td>5</td><td>7</td></tr><tr><td>4</td><td>9</td><td>2</td></tr></table>	8	1	6	3	5	7	4	9	2
8																			
	5																		
		2																	
8	1	6																	
3	5	7																	
4	9	2																	
29. James has 56 tomatoes divided equally among 7 crates. Joseph has 54 tomatoes divided equally among 6 crates. Who has more tomatoes in each crate? How can you tell?																			
Answer: Joseph																			
30. Andrewnique’s birthday is 6 days after Valentine’s Day. What is the date of Andrewnique’s birthday? What information do you need to find the answer?																			
Answer: February 20th You need to know which day is Valentine’s Day																			
31. The table blow shows the amount of miles traveled by various Mail Boats. Read the chart then answer the questions that follow.																			
a) Which boat traveled the least amount of miles?_____																			
b) Write the names of the mail boats in order from greatest to least to show the amount of miles they traveled._____																			
	<table border="1"><tr><th>Mail Boat</th><th>January</th><th>February</th><th>March</th></tr><tr><td>Captain Moxey</td><td>647</td><td>445</td><td>499</td></tr><tr><td>Lady Mathilda</td><td>467</td><td>623</td><td>649</td></tr><tr><td>Emmitt and Cephas</td><td>632</td><td>752</td><td>478</td></tr></table>	Mail Boat	January	February	March	Captain Moxey	647	445	499	Lady Mathilda	467	623	649	Emmitt and Cephas	632	752	478		
Mail Boat	January	February	March																
Captain Moxey	647	445	499																
Lady Mathilda	467	623	649																
Emmitt and Cephas	632	752	478																

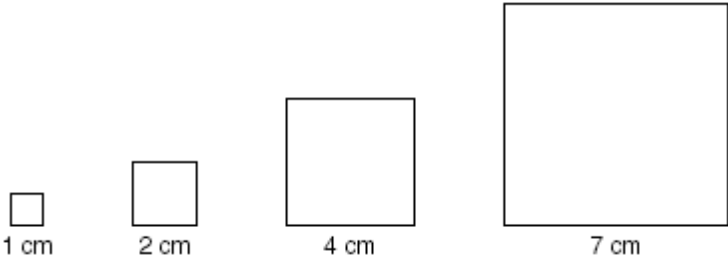
c) How many more miles did the Lady Mathilda travel than the Captain Moxey?_____ Answer: a) Captain Moxey b) Emmitt and Cephas Lady Mathilda Captain Moxey c) 148 mile	
32. In the 2009 Carifta Games, The Bahamas won 8 bronze medals. The won 5 less gold medals than bronze. They won 9 more silver medals than bronze. How many medals did The Bahamas won in all? Answer: 28 medals	
33. There are 36 passengers on Pineapple Air. There are 77 passengers on Cat Island Air. Bahamas air has the sum of the first and second airplanes. How many passengers are on Bahamas Air? Answer: 113 passengers	
34. Sir Milo Butler was born in 1906. Sir Lynden Pindling was born 24 years later. When was Sir Lynden born? Answer: 1930	
35. Chris Brown ran 54 miles on Monday, 46 miles on Tuesday, and 30 miles on Wednesday. Avard Muncur ran 149 miles the week before. Who ran the greater distance? Answer: Avard Moncur	
36. Marcus had a doctor’s appointment at 2:15. He was one hour late. What time did he arrive at the doctor’s office? Give your answer in two ways. Answer: 3:15 or 15 minutes past 3	Change times and place or events.
37. Mrs. Forbes asked her first grader to tell her the time. The student said, “the big hand is on the 2 and the little hand is on the 4” What time is it? Answer: 4:10	
38. It took Arianna Vanderpool-Wallace 22 minutes to swim 1 500 metres. If she finished the 1500 metres at 2:00 p.m., what time did she begin? Answer: 1:38 p.m.	

39. There are 4 boxes of yogurt in a case. Each box contains 2 cups. A case contains 6 boxes. How many cups of yogurt are there in a case? Answer: 48 cups	
40. A birthday cake was cut into 8 equal slices. Rhonda ate 2 slices and her sister ate 3 slices. What fraction of the pizza was not eaten? Answer: 3/8	
41. There are 827 people at the concert. A reporter wants to round that number to the nearest hundred. What number should the reporter use? Answer: 800 people	
42. How many numbers between 500 and 1000 have both 7 ones and 5 tens? Answer: 5 numbers	
43. Lonice placed 3 hundred flats, 7 tens rods, and 8 ones units on the table. Jason added another hundreds flat. Deborah took away 2 tens rods. What number is Lonice modeling now? Answer: 458	
44. Write the missing number in this pattern. 100, 300, 500, ____, 900 Answer: 700	
45. Write the missing digits. 4 □ 6 − 5 □ □ 3 3 Answer: 486 − 153 333	

46. Andy has only nickels and dimes. He has 9 coins. He has 65¢. How many of each coin does he have? Answer: 5 nickels and 4 dimes	
47. What number pattern is shown here? 726, 626, 526 Answer: Decreasing by 100	
48. Predict which part the spinner would land on the most. Explain your reasoning.  Answer: black, more black parts	
49. Compare the fractions. Write < , =, or >.  $\frac{1}{7} \bigcirc \frac{1}{5}$ Answer: $\frac{1}{7} < \frac{1}{5}$	
50. A movie runs for 180 minutes. How many hours is that? Answer: 3 hours	
51. The sides of a triangle measure 3 cm, 4 cm, and 5 cm. Find the perimeter. Answer: 12 cm	

52. How many cubes does it take to make these steps? Each step is 2 cubes wide.  Answer: 20 cubes	
53. Complete: 3 x 2 is to 2 x 3 as 4 x 5 is to ____. Answer: 5 x 4	
54. Which solid figure has more edges?  Answer: 	
55. How can you show 90¢ using the fewest coins possible? Answer: 25¢, 25¢, 25 ¢, 10¢, 5¢	
56. Which numbers between 400 and 800 have both an 8 in the tens place and a 3 in the ones place? Answer: 483, 583, 683, 783	
57. What are the next two numbers? 5, 8, 6, 9, 7, 10, 8, . . . Answer: 11, 9, 12, 10	

58. Ralphry has 17 dillies to be shared equally among Amber and 4 of her friends. How many dillies does each person get and how many are left over? Answer: Each person gets 3 dillies and 2 dillies are left over.	
59. Sam is going to use the letters in his name as a password. How many different passwords can he make using each letter only once? a. 1 b. 3 c. 6 d. 9 Answer: c. 6	
60. Mrs. Brown asks James, Timothy, and Samuel to line up. How many different ways can they line up? a. 6 b. 4 c. 3 d. 2 Answer: 3	
61. All the letters in the alphabet are placed in a bag. How likely is it that you will pull out a vowel? Answer: a. $\frac{5}{26}$ b. $\frac{21}{26}$ c. $\frac{7}{20}$ d. $\frac{5}{7}$	
62. There are twenty Spelling words on a test. Eight of the words begin with the letter S, four begin with the letter T, and the rest of the words begin with the letter M. Based on this information, which sentence is true? a. The first word on the Spelling test is more likely to start with T than S. b. The first word on the Spelling test is equally likely to start with M than S. c. The first word on the Spelling test is less likely to start with S than M. d. The first word on the Spelling test is less likely to start with M than T. Answer: b. The first word on the Spelling test is equally likely to start with M than S.	
63. Ruth has twice as many coins as Dorothy. When Ruth gives Dorothy 2 coins, they each have the same number. How many coins do they each have? Answer: Ruth has 4 coins and Dorothy has 2 coins.	

64. Bill is twice as old as Curtis. The sum of their ages three years ago was 45 years. How old are they now? Answer: Bill = 34; Curtis = 17	
65. Mary looked out of her window in Inagua and saw a group of pigeons and donkeys passing by. She counted all the legs of the pigeons and donkeys and found that the total number of legs add up to 66. How many of each kind of animals (pigeons and donkeys) passed by her window if the total number of animals is 24? Answer: 15 pigeons and 9 donkeys	
66. An Island has no currency; it instead has the following exchange rate: 50 bananas = 20 coconuts 30 coconuts = 12 fish 100 fish = 1 bed. How many bananas equal 1 bed? Answer: 1 bed = 625 bananas	
67. The squares below increase in size from left to right. If the pattern continues, how long will each side of the next square be?  a. 8 b. 9 c. 10 d. 11 Answer: d. 11	
68. How many times are nine ones used in writing all the numbers between 1 and 100? Answer: 10 times	

69. What figure comes next in the following sequence?  Answer: 	
70. Mary has the following in her cash box: nickels, dimes, and quarters. If she has to return 25¢ change to a customer, how many different ways can she make change? Answers: 5 nickels; 2 dimes and 1 nickel; 1 quarter or twenty-five cents	
71. There are four dozen pamphlets on fire safety being delivered to a third-grade classroom of thirty-six students. Will there be enough for each person? How many pamphlets will be left over? Answer: Yes, there will be enough for each person. Twelve pamphlets are left over.	
72. Every day last week Robert got a nickel from his mom and also found an American penny. How much money was that? Answer: 36¢	
73. Harris read 53 pages in a storybook. She skipped 14 pages of pictures. How many more pages does Nan have left to read? Answer: 53- 14 = 19 pages	
74. Sean is twice as old as his brother. In 5 years, Sean will be 11. How old is his brother now? Answer: His brother is 3 years old.	

75. Use each of these digits only once to find the addends: 0, 6, 7, 8, 9. □□□ + □□ 804 Answer: 708 + 96 804	
76. Delores and Troy are playing an arcade game. Delores scores 25 points in each of her 3 turns. Troy scores 40, 30, and 10 points. Who has the higher score? Answer: Troy has the higher score	
77. Who am I? a. I am 17 more than 397. Answer: 414 b. I am 3 hundred more than 776. Answer: 1 076 c. I am twice as large as 209. Answer: 418 d. I am the greatest 3-digit number above. Answer: 418	
78. In Mr. Stewart's garden there are 5 heads of lettuce in each row. If Mr. Stewart planted 3 rows of lettuce, how many heads of lettuce will he be able to harvest? Answer: 15 heads of lettuce will be able to harvest	
79. How many whole numbers between 1 and 200 have the digit 7 in them? Answer: 38 whole numbers	
80. Carlos has a blue shirt and a green shirt. He has white pants and brown pants. How many combinations of shirts and pants can he choose? Answer: 4 combinations	

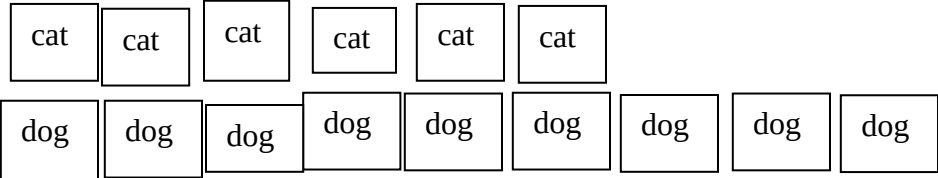
81. Dan lives 1 mile from Marathon Mall. Henry lives 8 more miles away from the mall than Dan. Phyllis lives 6 miles from the mall. How many more miles does Henry live from the mall than Phyllis? Answer: Henry lives 2 more miles from the mall than Phyllis.	
82. Janice is in a basketball league. There are 5 teams in the league. If each team has 6 players, how many players are there in the league? Answer: 30	
83. Some months have 30 days and some have 31. How many months have at least 28 days? Answer: 12 months	
84. The first jitney of the group has 28 people in it. The second jitney has twice as many people as the first jitney. The third jitney has the sum of people from the first and second jitneys. How many people are in these three jitneys? Answer: 168 people	
85. I am thinking of two numbers whose sum is 14 and whose difference is 6. What are they? Answer: 10 and 4	
86. In a ring toss game the points that can be scored are 4, 2, 3, and 9. How can Foster get a score of 15 with 3 tosses? Answer: 4, 2, 9	
87. Glenda is thinking of a 3-digit number. The ones digit of the number is 4. The hundreds digit of the number is two times the ones digit. The tens digit is 2 less than the hundreds digit. What is Glenda's number? Answer: 864	

88. Fill in the missing numbers in the magic square. Each number from 1 to 9 will appear once. When the magic square is complete, the sum of the three numbers in any row, column, or diagonal will be 15. <table><tr><td>8</td><td>?</td><td>6</td></tr><tr><td>?</td><td>5</td><td>7</td></tr><tr><td>4</td><td>?</td><td>?</td></tr></table> Answer: <table><tr><td>8</td><td>1</td><td>6</td></tr><tr><td>3</td><td>5</td><td>7</td></tr><tr><td>4</td><td>9</td><td>2</td></tr></table>	8	?	6	?	5	7	4	?	?	8	1	6	3	5	7	4	9	2	
8	?	6																	
?	5	7																	
4	?	?																	
8	1	6																	
3	5	7																	
4	9	2																	
89. Put the numbers in order from least to greatest: 23 454 , 23 445, 24 354 , 22 345, 23 123 , 22 534 Answer : 22 345, 22 534, 23 123, 23 445, 23 545, 24 354																			
90. Look at the pattern below. What comes next? <table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>																			
																			
91. Tom and Eric have \$7.00 between them. Tom has \$3.70. Which one has more money? Answer: Tom has more money. Eric has \$3.30																			
92. Kenny is trying to save money. The first week he puts 25 ¢ into his piggy bank. The next week he puts 30 ¢ in the bank. If he keeps adding 5¢ to the amount he puts in his bank each week, how much money will he have after 8 weeks of saving? Answer: 85¢																			
93. A box can hold 6 books. There are 7 boxes of books, but one box has only 3 books in it. If all the other boxes are full, how many books are there in total? Answer: 39 books																			

94. A 3-digit number has the sum of 17. The second digit is 4. If none of the digits are the same, what is the greatest number that fits this description? Answer: 845							
95. Emily makes jewelry. She earns 50 ¢ for each piece of jewelry she sells. If Emily earned \$18.00 last week, how many pieces of jewelry did she sell? Answer: 36 pieces of jewelry							
96. I have 2 digits. My tens digit is half my ones digit. I am an even number. The sum of my digits is 12. What number am I? Answer: 48							
97. Use these digits to complete each sentence below. Use each digit only once in a given number. <table><tr><td>9</td><td>3</td></tr><tr><td>6</td><td>5</td></tr><tr><td>1</td><td>7</td></tr></table> a. The smallest 3-digit number is ____. b. The largest 3-digit number is ____. c. The 3-digit number nearest 600 is ____. Answers: a. 135 b. 976 c. 597	9	3	6	5	1	7	
9	3						
6	5						
1	7						

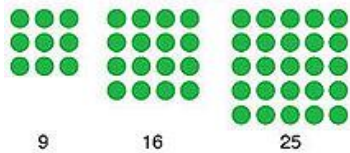
98. Jeff and George surveyed 75 people, asking if they like dogs or cats better. They made a pictograph to show the results. In their pictograph 🐱 stands for 5 people who like cats better. How many 🐱 would be in the pictograph to show that 30 people like cats better? If 🐶 stands for 5 people who like dogs better, how many 🐶 would be in the pictograph to show that 45 people like dogs better?

Answer:



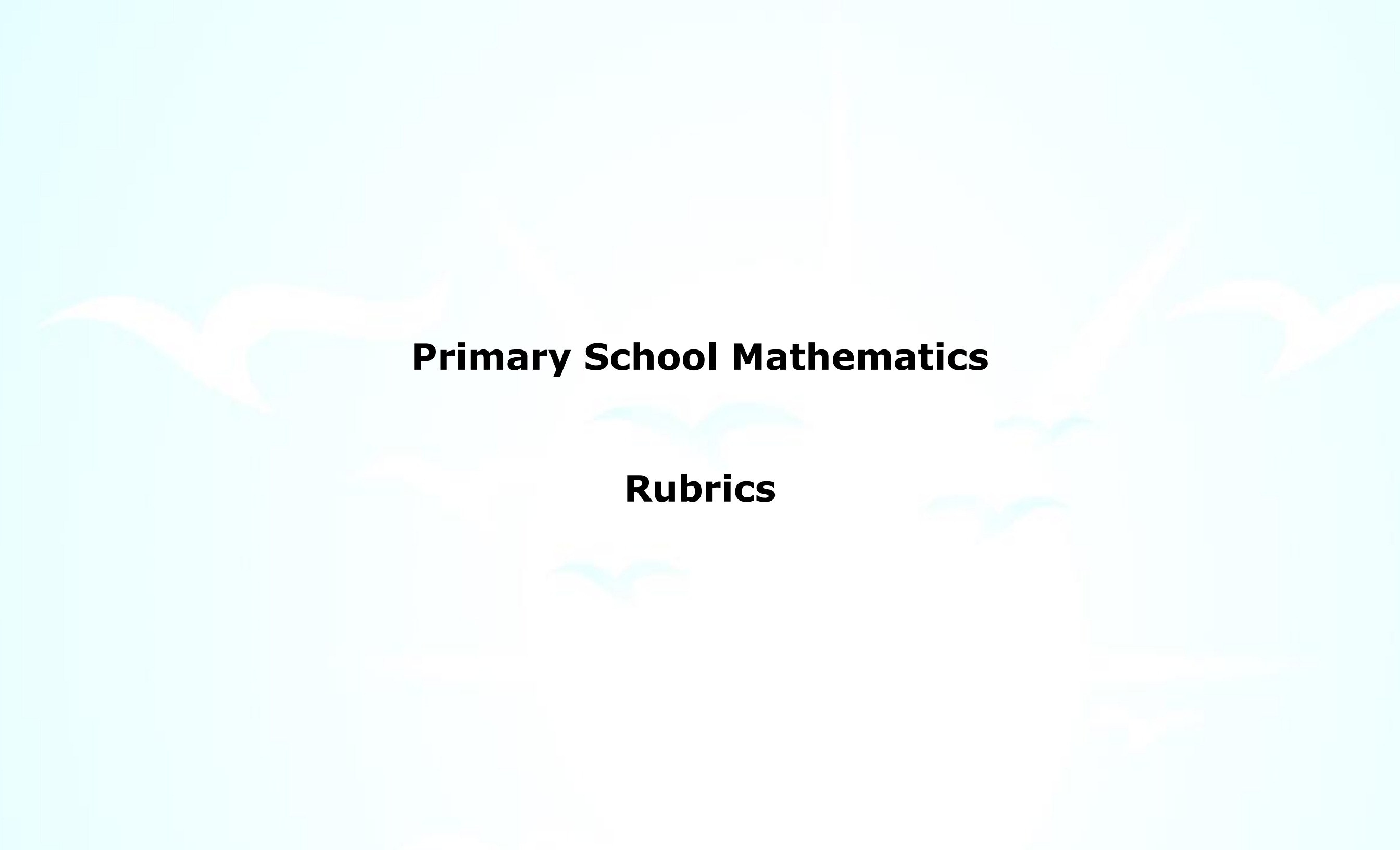
99. Use the illustration below to find the number that comes next.
9, 16, 25, ?

Answer: 36



100. Lynn has 57 oatmeal cookies. She divides them equally into 3 cookie jars. Will there be more than or fewer than 20 cookies in each cookie jar?

Answer: Yes, there will be fewer than 20 cookies in each jar.



Primary School Mathematics

Rubrics

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM REPORT RUBRIC

	Beginning 1	Developing 2	Accomplished 3	Exemplary 4	Score
Topic	Totally unrelated	Remotely related	Somewhat relevant	Directly relevant	
Organization	Not organized, events make no sense	Some organization, events jump around, start and end are unclear	Organized, events are somewhat jumpy	Good organization, events are logically ordered, sharp sense of beginning and end	
Quality of Information	Unable to find specific details	Details are somewhat sketchy	Some details are non-supporting to the subject	Supporting details specific to subject	
Grammar & Spelling	Very frequent grammar and/or spelling errors	More than two errors	Only one or two errors	All grammar and spelling are correct	
Interest Level	Needs descriptive words	Vocabulary is constant, details lack "color"	Vocabulary is varied, supporting details need work	Vocabulary varied, supporting details vivid	
Neatness	Illegible writing, loose pages	Legible writing, some ill-formed letters, print too small or too large, papers stapled together	Legible writing, well-formed characters, clean and neatly bound in a report cover, illustrations provided	Word processed or typed, clean and neatly bound in a report cover, illustrations provided	
Timeliness	Report handed in more than one week late	Up to one week late	Up to two days late	Report handed in on time	
				TOTAL	

ARTbeat@school

<http://www.sdcoe.k12.ca.us/score/actbank/reportrub.html>

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM GROUP DISCUSSION SCORING GUIDE

Teacher Name: _____

Student Name: _____

CATEGORY	4	3	2	1
Contributions	Routinely provides useful ideas when participating in the group and in the group discussion. A definite leader who contributes a lot of effort.	Usually provides useful ideas when participating in the group and in classroom discussion. A strong group member who tries hard!	Sometimes provide useful ideas when participating in the group and in classroom discussion. A satisfactory group member who does what is required.	Rarely provides useful ideas when participating in the group and in classroom discussion. May refuse to participate.
Attitude	Never is publicly critical of others. Always has a positive attitude about the task (s).	Rarely is publicly critical others. Often has a positive attitude about the task (s).	Occasionally is publicly critical of others. Usually has a positive attitude about the task (s).	Often is publicly critical of the project or others. Often has a negative attitude about the task (s).
Working with Others	Almost always listen to, shares with, and supports the efforts of others.	Usually listens to, shares with, and supports the efforts of others.	Often listens to, shares with and supports the efforts of others.	Rarely listens to, shares with, and supports the efforts of others.
Effort	Participation reflects student's best efforts.	Participation reflects a strong effort from this student.	Participation reflects some effort from this student.	Participation reflects very little effort on the part of this student.

Rubric Made Using: RubiStar (<http://rubistar.4teachers.org>)

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM COOPERATIVE LEARNING RUBRIC

	1	2	3	4
Contribution to group goals	Works toward group goals only when prompted	Works toward group goals with occasional prompting	Works toward group goals without occasional prompting; accepts and fulfills individual role within group	Consistently and actively works toward group goals; willingly accepts and fulfills individual role within group
Consideration of others	Needs occasional reminders to be sensitive to the feelings of others	Shows sensitivity to the feelings of others	Shows and expresses sensitivity to the feelings of others; encourages the participation of others	Shows sensitivity to the feelings and learning needs of others; values the knowledge, opinion, and skills of all group members and encourages their contribution
Contribution of knowledge	Contributes information to the group only when prompted	Contributes information to the group with occasional prompting or reminding	Contributes knowledge, opinions, and skills without prompting or reminding	Consistently and actively contributes knowledge, opinions, and skills without prompting or reminding
Working and sharing with others	Participates in needed changes when prompted and encouraged; always or often relies on others to do the work	Participates in needed changes with occasional prompting; often needs reminding to do the assigned work	Willingly participates in needed changes; usually does the assigned work and rarely needs reminding	Helps the group identify necessary changes and encourages group action for change; always does the assigned work without having to be reminded

Signatures and comments:

Read.write.think
NCTE

Copyright 2003 IRA/NCTE. All rights reserved. ReadWriteThink
Materials may be reproduced for educational purposes.

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM CLASS DEBATE RUBRIC

Category	Excellent	Good	Satisfactory	Needs Improvement
Information	All information was accurate and clear	Most information was accurate and clear	Most information was accurate and clear, but not usually thorough	Information had several inaccuracies or was usually unclear
Rebuttal	All counter-arguments were accurate, relevant, and strong	Most counter-arguments were accurate, relevant and strong	Most counter-arguments were accurate, and relevant, but several were weak	Counter-arguments were not accurate or relevant
Organization	All arguments were logical and clearly followed a premise	Most arguments were logical and clearly followed a premise	Arguments were logical, but did not always follow a premise	Arguments were illogical and did not follow a premise
Understanding of Topic	The team clearly understood the topic fully and presented convincingly	The team clearly understood the topic and presented with ease	The team understood the main points of the topic and presented those well	The team did not exhibit an adequate understanding of the topic
Respect for Other Team	Showed high respect for other team in language, responses, and body language	Showed good respect for other team in language, responses, and body language	Showed moderate respect for other team in language, responses, and body language	Language, responses, and body language were consistently disrespectful

File:///Andromeda/Desktop%20Folder/favorites/Education/...tro_project/content/html/information/debate_rubic.html(3/26/2002 10:36:16PM)

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM JOURNAL RESPONSE AND COMPREHENSION RUBRIC

Use this rubric to assess students' abilities to complete the journal activities assigned for this lesson. Share this assessment with students prior to completing the journal-writing lesson so they will understand how they will be assessed. You can also use the rubric as a basis for discussion and feedback with each student.

Student name: _____

Date: _____

1. The student writes journal responses in complete sentences. _____
2. The student writes three or more sentences to answer questions. _____
3. The student responds to questions by self-questioning, retelling, predicting, _____
4. The student's experiences and opinions are clear. _____
5. The student works with a peer to share journal responses and to develop a combined response when requested. _____

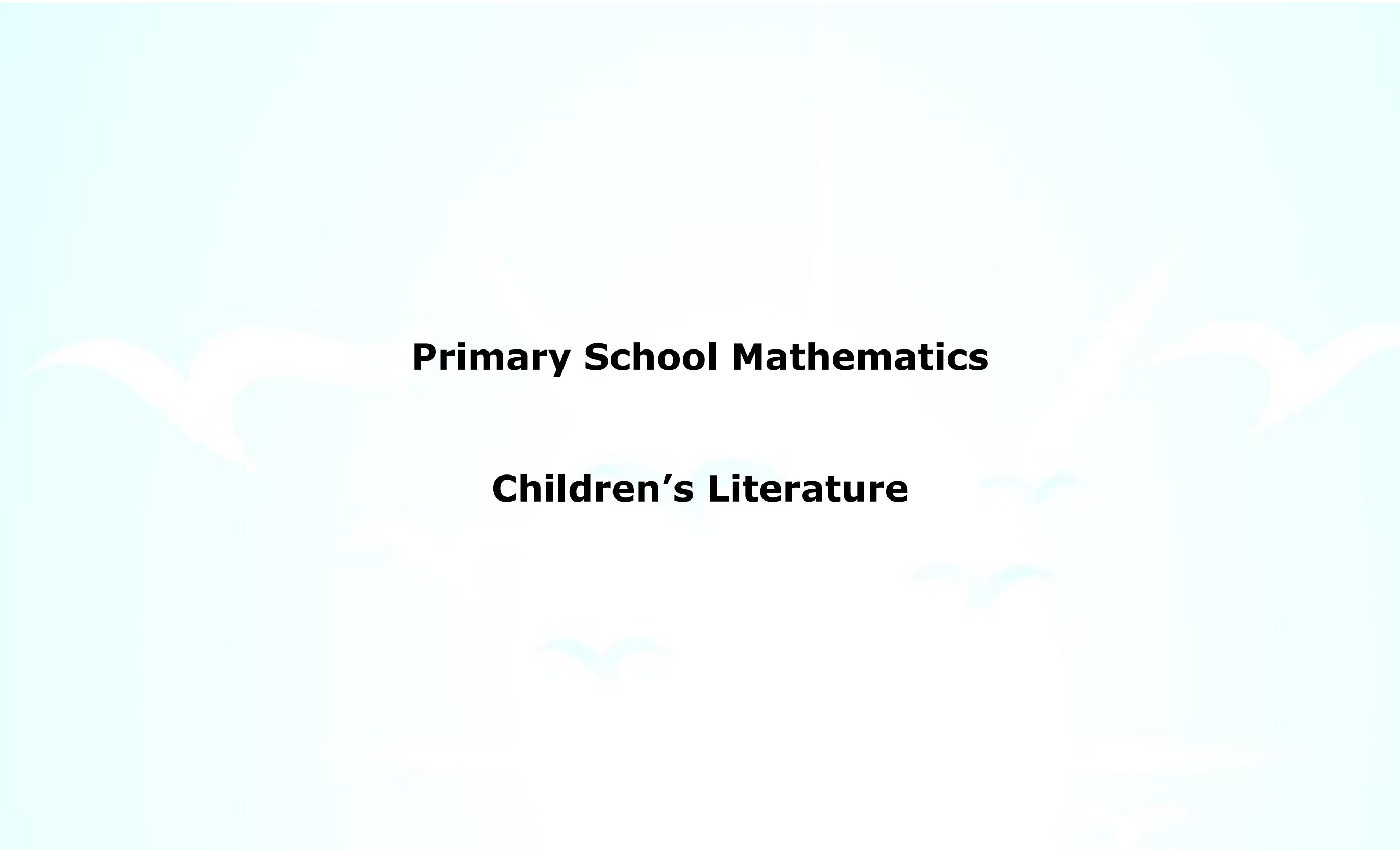
Scale:

Excellent 4	Very Good 3	Fair 2	Poor 1
The student completes the task with no major errors.	The student completes the task with only a few major errors and some minor errors.	The student fails to complete the task with some major errors and many minor errors.	The student fails to complete the task.
The student demonstrates a full understanding of the concepts.	The student demonstrates a strong understanding of the concepts.	The student has difficulty understanding the concepts.	The student does not understand the concepts.

Include anecdotal notes in the space below:

Read.write.think
NCTE

Copyright 2004 IRA/NCTE. All rights reserved. ReadWriteThink
Materials may be reproduced for educational purposes.



Primary School Mathematics

Children's Literature

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM CHILDREN’S LITERATURE FOR MATHEMATICS

TITLE	AUTHOR	ISBN NUMBER
Two of Everything	Lilly Toy Hong	0-8075-8157-7
The Crayon Counting Book	Pam Munoz Ryan and Jerry Palotta	8-88106-953-1
The M& Ms Counting Book	Barbara Barbieri McGarth	0-88106-853-5
Seven Little Hippos	Mike Thaler	0-671-89907-4
Five Little Ducks	Pamela Papacone	1-55858-473-0
Nine O’clock Lullaby	Marilyn Singer	0-06-443319-6
The Go-Around Dollar	Barbara Johnston Adams	0-02-700031-1
The Very Hungry Caterpillar	Eric Carle	0-399-20853-4
Ten Black Dots	Donald Carews	0-688-13574-9
What Comes in 2’s, 3’s and 4’s?	Suzanne Aker	0-671-79247-4
The King’s Chessboard	David Birch	0-14-054880-7
Sea Squares	Joy Hulme	1-56282-520-8
Frog Counts To Ten	John Lieber	1-56294-698-6
Clocks and More Cocks	Pat Hutchins	0-689-71769-5
Monster Money Book	Lareen Leedy	0-8234-0922-8
2 x 2= Boo	Lareen Leedy	0-8234-1190-7
The Greedy Triangle	Marilyn Burns	0-590-48991-7
Grandfather Tang’s Story	Ann Tompert	0-517-57487-X
A Quarter From The Tooth Fairy	Caren Holtzman	0-590-26598-9
Bat Jamboree	Kathi Appelt	0-688-13883-7
Anno’s Counting Book	Mitsumasa Anno	0-06-443123-1
Counting on Frank	Roger Clement	0-8368-0358-2
Seven Blind Mice	Ed Young	0-590-46971-1
Counting by Kangaroos	Joy N. Hulme	0-7167-6602-7
Sea Sums	Joy N. Hulme	0-7868-0170-0
Mother Goose Math	Emily Boland	0-670-87569-4
So Many Circles, So Many Squares	Tana Hoban	0-688-15165-5 TR
Spaghetti and Meatballs for All	Marilyn Burns	0-590-94459-2

**THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM
CHILDREN’S LITERATURE FOR MATHEMATICS**

TITLE	AUTHOR	ISBN NUMBER
In The Next Three Seconds	Rowland Morgan	0-525-67551-5
The Shape of Things	Dayle Ann Dobbs	1-56402-698-1
Anno’s Counting House	Mitsumasa Anno	0-399-20896-8
Math Counts Length	Henry Pluckrose	0-516-45453-6
Five Little Monkeys Jumping On a Bed	Eileen Christlow	0.395-55701-1
Five Little Monkeys Sitting in a Tree	Eileen Christlow	0-395-66413-6
A Remainder of One	Elinor J. Pinczes	0-395-69455-8
Notorious Numbers	Paul Giganti, Jr.	1-56785-006-5
10 For Dinner	JoEllen Bogart	0-590-73173-4
Each Orange Had 8 Slices	Paul Giganti, Jr.	0-688-13116-6
How Big Is a Foot	Rolf Myller	0-440-40495-9
Math Counts Weight	Henry Pluckrose	0-516-45460-9
Math Counts Pattern	Henry Pluckrose	0-516-45455-2
Math Counts Sorting	Henry Pluckrose	0-516-45458-7
Even Steven and Odd Todd	Kathryn Cristaldi	0-590-22715-7
Harriet’s Halloween Candy	Nancy Carlson	0-87614-850-X
The Button Box	Margarette S. Reid	0-14-055495-5
From One to One Hundred	Teri Sloat	0-14-055643-5
A Grain of Rice	Helena Claire Pittman	0-553-15986-0
How The Second Grade Got \$8,205.50 to Visit the Statue Of Liberty	Nathen Zimelman	0-8075-3431-5
Neighborhood Soup	JoAnne Nelson	0-8136-4266-3
Ten Sly Piranhas	Victoria Chess	0-8037-1200-6
Sadako and the Thousand Paper Cranes	Eleanor Coerr	0-440-47465-5
The Paper Crane	Molly Bang	0-688-07333-6
Anno’s Mysterious Multiplying Jar	Masaichiro & Mitsumasa Anno	0-399-20951-4
More Than One	Miriam Schlein	0-688-14103-XLE
One Hundred Hungry Ants	Elinor Pinczes	0-395-63116-5
A Giraffe And A Half	Shel Silverstein	0-06-025655-9

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM CHILDREN'S LITERATURE FOR MATHEMATICS

TITLE	AUTHOR	ISBN NUMBER
17 Kings and 42 Elephants	Margaret Mahy	0-8037-0458-5
How Much Is A Million?	David M. Schwartz	0-590-43614-7
If You Made A Million	David M. Schwartz	0-688-07017-5
Somebody and the Three Blairs	Marilyn Tolhurst	0-531-05876-6
Sadako	Eleanor Coerr, Ed Young	0-399-21771-1
The King's Commissioners	Aileen Freedman	0-590-48987-9
Half and Half	JoAnne Nelson	0-8136-4311-2
The Great Graph Contest	Loreen Leedy	0-8234-2029-9
How Do You Know What Time it is?	Robert E. Wells	0-8075-7940-8
Fraction Fun	David A. Adler	0-8234-1259-8
Anno's Mysterious Multiplying Jar	Masaichiro and Mitsumasa Anno	0-6981-1753-0
Remainder of One	Elinor J.Pinczes	1-6182-5077-8
Pigs Will Be Pigs: Fun with Math and Money	Amy Axelrod	0-6898-1219-1
Sir Cumference and the Great Knight of Angleland: A Math Adventure	Cindy Neuschwander	1-5709-1166-5
Fraction Action	Loreen Leedy	9-7808-2341-109-2
The Math Chef	Joan D'Amico and Karen EichDrummond	0-4711-3813-4
The Amazing Impossible Erie Canal	Cheryl Harness	9-7806-8982-584-2
Piece = Part = Portion: Fractions = Decimals = Percents	Scott Gifford	1-58246-102-3
Sir Cumference and the Sword in the Cone: A Math Adventure	Cindy Neuschwandwander	5-709-1601-2
Fair is Fair	Jennifer Dussling	13: 9-7806-1379-279-0
Measuring Penny	Loreen Leedy	0-6702-4133-4
Grandfather Tang's Story: A Tale Told with Tangrams	Ann Tompert	0-5178-8558-1
The Grape of Math	Greg Tang	0-4392-1042-9
Keep Your Distance!	Gail Herman	9-7806-1339-333-1
One is a Snail: Ten is a Crab	April Pulley Sayre	9-7807-6362-631-0
Go Fractions!	Judith Bauer Stamper	9-780-4484-3113-0
Hottest, Coldest, Highest, Deepest	Steve Jenkins	0-6184-9488-X

Primary School Mathematics

Materials List

Grades 1-3

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM

MATERIALS LIST

GRADE 1

The following is a list of materials that every grade 1 classroom teacher should have access to. Ultimately, we should strive to have each grade 1 classroom equipped with these materials.

QUANTITY	MATERIALS	QUANTITY	MATERIALS
1 000	Snap blocks, linking cubes, or Unifix cubes		Judy clocks (teacher demonstration clock and 15 mini clocks)
4	Buckets of 2-colour counters (200 per bucket)	3	Sets of solid shape
	Number charts (100,99,1-20 with quantity)*	**15	Sets of attribute block
	Base ten models		Classroom set of 4-function calculators
15	Sets of pattern blocks		Scissors
5	Balance scales		Play money (Bahamian and United States)
	A selection of Math-related children's literature (see appendix)	**	Height charts
**	A set of counters per student	1	Giant set of attribute blocks
15	Thermometers	15	Geoboards with rubber bands
**15	Sets of tangrams	**	Bag of items that can be sorted such as buttons, shells, nuts & bolts, beans
	Dominoes		1-Inch cubes (500)
15	Sets of dice	**	Addition flash cards
15	Sets of number cubes		An assortment of Math games
	Metric measuring tapes	**	Crayons, pencils
	Straws, calendars	**	Yarn, rope
	Chart paper	15	Sets of markers
	Construction paper		

**** These items can be made, collected or obtained inexpensively.**

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM

MATERIALS LIST

GRADE 2

The following is a list of materials that every grade 2 classroom teacher should have access to. Ultimately, we should strive to have each grade 2 classroom equipped with these materials.

QUANTITY	MATERIALS	QUANTITY	MATERIALS
1 000	Snap blocks		Judy clocks (teacher demonstration clock and 15 mini clocks)
4	Buckets of 2 – colour counters (200 per bucket)	3	Sets of solid shape
**	Number charts (100, 99, 1-20 with quantity)	15	Sets of attribute block
	Base ten models		Classroom set of 4-function calculators
15	Sets of pattern blocks		Scissors
5	Balance scales		Play money (Bahamian and United States)
	A selection of Math-related children’s literature (see appendix)		Height charts
**	A set of counters per student	1	Giant set of attribute blocks
15	Thermometers	15	Geoboards with rubber bands
**15	Sets of tangrams	1	Overhead geoboard
15	Sets of dice /decks of card	**	Bag of items that can be sorted such as buttons, shells, nuts & bolts, beans
15	Sets of number cubes		A Classroom calendar
	Metric measuring tapes	**	Addition and subtraction flash cards
	An assortment of Math games		
	Straws		Molding clay
	Chart paper		Dried beans
	Construction paper		Paper cups for sorting
15	Sets of markers	**	Old magazines for cut ups
**	Crayons, pencils	**	Old catalogues for cut ups
**	Yarn, rope		Paper clips

**** These items can be made, collected or obtained inexpensively**

THE BAHAMAS PRIMARY SCHOOL MATHEMATICS CURRICULUM

MATERIALS LIST

GRADE 3

The following is a list of materials that every grade 3 classroom teacher should have access to. Ultimately, we should strive to have each grade 3 classroom equipped with these materials.

QUANTITY	MATERIALS	QUANTITY	MATERIALS
1 000	Linking cubes, snap blocks or unifix cubes		A classroom calendar
	Play money (Bahamian and United States)	5	Stop watches
**	Fraction circles – one set per student	10	Meter sticks
	An assortment of Math games	**15	Geoboards with rubber bands
1	Buckets of 2 colour counters (200 per bucket)	1	Overhead geoboard
	Tangrams – set per student	**	Addition and subtraction flash cards
500	Colour tiles	15	Sets of Cuisenaire rods
3	Balance scales		Base ten blocks
10 of each	Spinners of different types	**	Class size hundreds chart
	Models of solids	**	Multiplication chart
**	Judy clocks – 15 individual	**	Numeral cards, word name cards
	Classroom set of 4 – function calculators		A selection of children’s literature (see appendix)
1	Overhead projector	**50	Individual counters per student
15	Metric measuring tapes	15	Pairs of dice
**	Empty containers’/ shoe boxes/egg cartons	**	Yarn, string
**	Old calendars/ paper plates	**	Square paper
**	Old catalogues and magazines		Paper clips/paper fasteners

**** These items can be made, collected or obtained inexpensively.**

REFERENCES

Altieri, M. B., & Francis Skip, F. (2009). *Silver Burdett Ginn Mathematics: Level K*. Silver Burdett Ginn Publishers: Glenville.

Altieri, M. B., Francis Skip, F., Graves Miller, J., Hall, G. K., Ferruggia, A. M., Egts, M., & Miller, J. A. (1992). *Silver Burdett Ginn Mathematics*. Silver Burdett Ginn Publishers: Glenville.

Andromeda (2002). *Class debate rubric*. Retrieved from

File:///Andromeda/Desktop%20Folder/favorites/Education/...tro_project/content/html/information/debate_rubic.html

Art Beat (2005). *Group discussion scoring guide*. Retrieved from <http://www.rubistar.4teachers.org>

CARICOM (2017). *A curriculum framework for the sustainable development goals*. Retrieved from http://www.20ccem.gov.fj/images/IPF_TAB/12.-Curriculum-Framework-for-the-Sustainable-Development-Goals-First-Edition.pdf

Carvin, A. (2010). *Constructivism basics*. Retrieved from <http://www.edwebproject.org>

Champagne, R. L., Greenes, C.E., McKillip, W. D., Orsan, L.J., Prevost, F.J. Vogeli, B. R., & Weber, M.V. (1992). *Silver Burdett & Ginn Mathematics*. Silver Burdett & Ginn Inc.

Department of Education Primary Mathematics Unit (2010). *Mathematics in motion: A resource book for primary teachers*. Government Printing, The Bahamas.

Frazer Elementary School (2010). *Numeracy plan*. Retrieved from http://www.fraserps.act.edu.au/__data/assets/word.../Numeracy_plan.doc

Grouws, D.A., & Cebulla, K. J. (2002). *Improving student achievement in mathematics, part 2: Recommendations for the classroom*. (ERIC Document Reproductive Service No. ED463953)

- Hanushek, E and L Woessmann (2008), ‘*The role of cognitive skills in economic development*’, Journal of Economic Literature, Vol. 46, No. 3, 607–68
- Kennedy, L.M., Johnson, A., & Tipps, S. (2007). *Guiding children’s learning of mathematics*. Retrieved from <http://www.books.google.bs/books?isbn=049509191X>
- Kenyon, R. (2010). *What are strategies for teaching a student with a math-related learning disability?* Retrieved from <https://www.washington.edu/doit/what-are-strategies-teaching-student-math-related-learning-disability>
- Microsoft Power Point (2020). *Problem of the day: Grade 3*. Retrieved from www.ces.ccs.k12.nc.us
- Morrison, K. (2016). *Bahamas Primary Mathematics Books 1-6*. Hodder Education, an Hachette UK Company
- National Council of Teachers of Mathematics (2020). *The Curriculum Principle*. Retrieved from <http://www.nctm.org>
- National Council of Teachers of Mathematics (2020). *Guiding Principles of Mathematics*. Retrieved from <http://www.nctm.org/standards>
- National Council of Teachers of Mathematics (2020). *Mathematics Standards*. Retrieved from <http://www.standard.nctm.org>
- Projects by students for students (2020). *Problem solving in mathematics*. Retrieved from <http://www.library.thinkquest.org>
- Purpose Associates (2008). *Constructivism*. Retrieved from <http://www.funderstanding.com>
- Randall, I. C., Caldwell, J. H., Cavanagh, M., Chancellor, D., Copley, J. V., Crown, W. D., Fennell, F., Ramirez, A. B., Sammons, K. B., Schielack, J. F., Tate, W., Van De Walle, J.A. (2009). *envision*. Pearson Education, Inc.
- Reys, R. E., Lindquist, M. M., Lambdin, D. V., Smith, N. L., Suydam, M.N., Niess, M., Erickson, D., & Higgins, K. (2004). *Helping children learn mathematics* (7th ed.). John Wiley & Sons, Inc.
- International Reading Association (2003). *Cooperative learning rubric*. Read. Write. Think. IRA/NCTE
- International Reading Association (2004). *Journal response and comprehension rubric*. Read. Write. Think. IRA/NCTE
- Sadlier-Oxford (2020). *Problem of the day: Grade 1*. Retrieved from <http://www.sadlier-oxford.com/math/mc-problem.cfm?grade=1>

Samuel-Cenac, D., Playfair, J., Johnson, E., James, A., Constantine S., James-Brown, Y., Redhead, J., Trotman, S., Severin, S., Byer, B., Serieux, J., Blaize, J., Sharplis, S., Dorleon, H., Edward, T., Lewis, E., Richardson, L., Griffith, W., Abraham, P. (2003). *Caribbean primary mathematics*. Pearson Education.

Sealy, L., & Moore, S. (2005). *Caribbean primary mathematics: Bright sparks*. Macmillan Publishers Limited.

SCORE: Report Rubric (2010). *Report rubric*. Retrieved from <http://www.sdcoe.k12.ca.us/score/actbank/reportrub.html>

Special Math (2020). *Grade 5 problems*. Retrieved from <http://www.mystfx.ca/special/mathproblems/grade5.html>

Special Math (2020). *Grade 6 problems*. Retrieved from <http://www.mystfx.ca/special/mathproblems/grade6.html>

Williams, M. M. (2008). *Primary Math standards at a glance*. Retrieved from <http://www.primary-school-curriculum.suite101.com>