

		Student Book	Skill Builders
•	Immediately recall multiplication facts (products to 81).	BI: 3-13, 15, 17, 18	20-1 to 20-7
	Estimating and Estimation Strategies		
1.3.6	Estimate the number of objects in a set using various techniques.	BI: 70-73	
	Computation		
1.3.7	Add and subtract two- and three-digit numbers with and without regrouping.	BI: 43-47, 55-62	10-1 to 10-6, 15-1 to 15-5
•	Add and subtract decimals using money as a model.	BI: 61	47-1, 47-2
	Solving Problems and Number Theory		
1.3.8	Generate and solve two-step addition and subtraction problems and one-step multiplication problems based on practical situations.	BI: 64-68 BI: 17, 28	10-5, 15-5 to 15-7, 34-5
•	Model addition, subtraction, multiplication, and division in a variety of ways.	BI: 43-63, 66-68, 75-79 BI: 3-13, 15-17, 19-27, 30-35, 38, 39, 42-49, 54, 55, 58, 60, 62-69, 71-74 BI: 19-29	9-1, 9-2, 10-1, 15-1 to 15-3, 17-1, 21-1, 21-2, 21-4, 21-6, 22-1, 22-2, 25-1, 25-2, 26-2, 27-1, 27-2, 27-4, 28-3, 33-1, 33-3, 34-1, 34-2, 26-1
•	Use mathematical vocabulary and symbols to describe multiplication and division.	BI: 3-17, 19-28, 30-39, 42-54, 58-60, 62-69	20-1, 20-2, 21-2, 21-6, 22-1, 22-2, 25-1, 25-2, 25-4, 26-2, 27-2, 27-4, 28-2, 28-3
2.0	PATTERNS, FUNCTIONS, AND ALGEBRA		
	Students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and raps) of patterns, functions, and algebraic relations as modeled in practical situations to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.		
	Patterns		
2.3.1	Recognize, describe, and create patterns using objects and numbers found in tables, number charts, and charts.	BI: 14-16 BI: 5, 13, 19, 34, 36, 78	3-1, 20-3, 20-5
•	Record results of patterns created using manipulatives, pictures, and numeric representations and describe how they are extended.	BI: 14 BI: 5, 13, 16, 19, 34	3-1
	Variables and Unknowns		

		Student Book	Skill Builders
2.3.2	Model, explain, and solve open number sentences involving addition, subtraction, and multiplication facts.	BI: 7, 15, 57	
	<ul style="list-style-type: none"> Use variables and open sentences to express relationships. 		
	Number Sentences, Expressions, and Polynomials		
2.3.3	Complete number sentences with the appropriate words and symbols (+, -, >, <, =).	BI: 11, 25, 69 BI: 77 BIII: 16-18	2-3, 14-1, 15-7, 19-1, 24-1, 29-1, 32-2, 32-3. 49-2
3.0	COMPARISON, ESTIMATION, AND CONVERSION		
	Students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.		
	Comparison, Estimation, and Conversion		
3.3.1	Compare, order, and describe objects by various measurable attributes for area and volume/capacity.	BIII: 52, 58, 65-67	
	Precision in Measurements		
3.3.2	Select and use appropriate units of measure.	BIII: 46, 48-50, 54-60	42-2, 43-1 to 43-4, 44-1, 44-2, 45-1, 45-2
	<ul style="list-style-type: none"> Measure to a required degree of accuracy (to the nearest $\frac{1}{2}$ unit). 	BIII: 48-50	43-1 to 43-4
	Money		
3.3.4	Determine possible combinations of coins and bills to equal given amounts.	BIII: 68	
	<ul style="list-style-type: none"> Read, write, and use money notation. Recognize equivalent relationships between and among bills and coins. 	BIII: 68-71 BIII: 68	47-1, 47-2
	Time		
3.3.6	Tell time to the nearest minute, using analog and digital clocks.	BIII: 44, 45	41-1 to 41-3
	<ul style="list-style-type: none"> Use elapsed time in half-hour increments, beginning on the hour or half-hour, to determine start, end, and elapsed time. Recognize that there are 60 minutes in 1 hour. 	BIII: 44, 45	41-3
4.0	SPATIAL RELATIONSHIPS, GEOMETRY, AND LOGIC		

		Student Book	Skill Builders
	Students will identify, represent, verify, and apply spatial relationships and geometric properties to solve problems, communicate, and make connections within and beyond the field of mathematics.		
	Two-Dimensional Shapes		
4.3.1	Describe, sketch, compare, and contrast plane geometric figures.	BIII: 32, 34-39	38-1, 38-2, 39-1, 40-1, 40-2
	Congruence, Similarity, and Transformations		
4.3.2	Demonstrate and describe the transformational motions of geometric figures (translation/slide, reflection/flip, and rotation/turn).		
	Coordinate Geometry and Lines of Symmetry		
4.3.3	Create two-dimensional designs that contain a line of symmetry.	BIII: 38	38-2
	Three-Dimensional Figures		
4.3.4	Compare, contrast, sketch, model, and build two- and three-dimensional geometric figures and objects.	BIII: 39-41	38-1, 38-2, 39-1, 40-1, 40-2
	Lines, Angles, and Their Properties		
4.3.6	Identify, draw, and describe horizontal, vertical, and oblique lines.	BIII: 35	36-1
	Logic		
4.3.9	Use the quantifiers, all, some, and none to describe the characteristics of a set.		
5.0	DATA ANALYSIS		
	Students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections to solve problems, communicate, reason, and make connections within and beyond the field of mathematics.		
	Data Collection and Organization		
5.3.1	Pose questions that can be used to guide data collection, organization, and representation.		
	<ul style="list-style-type: none"> Use graphical representations, including number lines, frequency tables, and pictographs to represent data. 	BIII: 72-75, 79	50-1, 50-2
	Experimental and Theoretical Probability		
5.3.5	Use informal concepts of probability (certain, likely, unlikely, impossible) to make predictions about future events.	BIII: 76-79	50-3, 50-4
	PROBLEM SOLVING		

		Student Book	Skill Builders
	Students will develop their ability to solve problems by engaging in developmentally appropriate opportunities where there is a need to use various approaches to investigate and understand mathematical concepts in order to:		
	- Formulate their own problems		
	- Find solutions to problems from everyday situations		
	- Develop and apply strategies to solve a variety of problems		
	- Integrate mathematical reasoning, communication and connections		
	• Generalize and apply previous experiences and strategies to new problem solving situations	BI: 54	20-1, 20-2, 25-1, 25-2
	• Determine an efficient strategy, verify, interpret, and evaluate the results with respect to the original problem	BI: 64	
	• Try more than one strategy when the first strategy proves to be unproductive	BII: 33, 79	
	• Interpret and solve a variety of mathematical problems by paraphrasing	BI: 64	
	• Identify necessary extraneous information	BI: 65	
	• Check the reasonableness of a solution	BI: 64	
	• Use technology, including calculators to develop mathematical concepts	BI: 49 BII: 53	
	MATHEMATICAL COMMUNICATION		
	Students will develop their ability to communicate mathematically by solving problems where there is a need to obtain information from the real world through reading, listening, and observing in order to:		
	- Translate information into mathematical language and symbols		
	- Process information mathematically		
	- Present results in written, oral, and visual formats		
	- Discuss and exchange ideas about mathematics as a part of learning		
	- Read a variety of fiction and nonfiction texts to learn about mathematics		
	- Use mathematical notation to communicate and explain problems		
	• Use inquiry techniques to solve mathematical problems	BI: 64, 65	50-1, 50-2
	• Use a variety of methods to represent and communicate mathematical ideas through oral verbal, and written formats	BIII: 6, 8	4-1, 4-2, 15-5 to 15-7, 29-1

		Student Book	Skill Builders
•	Identify and translate key words and phrases that imply mathematical operations	BI: 64, 66-68	10-5, 14-1, 29-1
•	Use everyday language, both orally and in writing to communicate strategies and solutions to mathematical problems	BI: 40	10-1, 10-5, 29-1
	MATHEMATICAL REASONING		
	Student will develop their ability to reason mathematically by solving problems where there is a need to investigate mathematical ideas and construct their own learning in all content areas in order to:		
	- Reinforce and extend their logical reasoning abilities		
	- Reflect on, clarify, and justify their thinking		
	- Ask questions to extend their thinking		
	- Use patterns and relationships to analyze mathematical situations		
	- Determine relevant, irrelevant, and/or sufficient information to solve mathematical problems		
•	Draw logical conclusions about mathematical problems	BIII: 19	
•	Follow a logical argument and judge its validity	BIII: 19	
•	Review and refine the assumptions and steps used to derive conclusions in mathematical arguments	BIII: 19	
•	Justify and explain the solutions to problems using manipulatives and physical models	manipulatives used throughout	
	MATHEMATICAL CONNECTIONS		
	Students will develop the ability to make mathematical connections by solving problems where there is a need to view mathematics as an integrated whole in order to:		
	- Link new concepts to prior knowledge		
	- Identify relationships between content strands		
	- Integrate mathematics with other disciplines		
	- Allow the flexibility to approach problems in a variety of ways within and beyond the field of mathematics		
•	Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics	BIII: 14	
•	Use physical models to explain the relationship between concepts and procedures	BI: 7, 54	
*	Apply mathematical thinking and modeling to solve problems that arise in other disciplines, such as rhythm in music and motion in science	BIII: 65, 67	
•	Identify, explain, and use mathematics in everyday life.	BI: 55 BIII: 52	10-5, 15-5, 47-1, 47-2, 48-2