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NEW YORK STATE LEARNING STANDARDS FOR MATHEMATICS CORRELATED TO *MOVING WITH MATH® EXTENSIONS KINDERGARTEN*

		Student Book	Skill Builders
PROBLEM SOLVING			
Students will build new mathematical knowledge through problem solving.			
K.PS.1	Explore, examine, and make observations about a social problem or mathematical situation	57, 58	30-1
K.PS.2	Interpret information correctly, identify the problem, and generate possible solutions		
Students will solve problems that arise in mathematics and in other contexts.			
K.PS.3	Act out or model with manipulatives activities involving mathematical content from literature and/or story telling		
K.PS.4	Formulate problems and solutions from everyday situation (e.g., counting the number of children in the class, using the calendar to teach counting)	57, 58, 64	11-1, 30-1
Students will apply and adapt a variety of appropriate strategies to solve problems.			
K.PS.5	Use informal counting strategies to find solutions	52, 53	25-1
K.PS.6	Experience teacher-directed questioning process to understand problems		
K.PS.7	Compare and discuss ideas for solving a problem with teacher and/or students to justify their thinking		
K.PS.8	Use manipulatives (e.g., tiles, blocks) to model the action in problems	49	27-2
K.PS.9	Use drawings/pictures to model the action in problems	48, 50	

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	Students will monitor and reflect on the process of mathematical problem solving.		
K.PS.10	Explain to others how a problem was solved, giving strategies		
	REASONING AND PROOF		
	Students will recognize reasoning and proof as fundamental aspects of mathematics.		
K.RP.1	Understand that mathematical statements can be true or false		
	Students will make and investigate mathematical conjectures.		
K.RP.2	Investigate the use of knowledgeable guessing as a mathematical tool		
K.RP.3	Explore guesses, using a variety of objects and manipulatives		
	Student will develop and evaluate mathematical arguments and proofs.		
K.RP.4	Listen to claims other students make		
	COMMUNICATION		
	Students will organize and consolidate their mathematical thinking through communication.		
K.CM.1	Understand how to organize their thought processes with teacher guidance		
	Students will communicate their mathematical thinking coherently and clearly to peers, teachers, and others.		
K.CM.2	Share mathematical ideas through the manipulation of objects, drawings, pictures, and verbal explanations	1	1-1
	Students will analyze and evaluate the mathematical thinking and strategies of others.		
K.CM.3	Listen to solutions shared by other students		
K.CM.4	Formulate mathematically relevant questions with teacher guidance		

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	Students will use the language of mathematics to express mathematical ideas precisely.		
K.CM.5	Use appropriate mathematical terms, vocabulary, and language		
	CONNECTIONS		
	Students will recognize and apply mathematics in contexts outside of mathematics.		
K.CN.1	Recognize the presence of mathematics in their daily lives		
K.CN.2	Use counting strategies to solve problems in their daily lives		
K.CN.3	Recognize and apply mathematics to objects and pictures		
	REPRESENTATION		
	Students will create and use representations to organize, record, and communicate mathematical ideas.		
K.R.1	Use multiple representations, including verbal language, acting out or modeling a situation, and drawing pictures as representations	1	1-1
K.R.1	Use standard and nonstandard representations	1	1-1
	Students will use representations to model and interpret physical, social, and mathematical phenomena.		
K.R.3	Use objects to show and understand physical phenomena (e.g. guess the number of cookies in a package)	32-34	25-1
K.R.4	Use objects to show and understand social phenomena (e.g. count and represent sharing cookies between friends)	57, 58	30-1
K.R.5	Use objects to show and understand mathematical phenomena (e.g., draw pictures to show a story problem, show number value using fingers on your hand)		
	NUMBER SENSE AND OPERATIONS		

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	Students will understand numbers, multiple ways of representing numbers, relationships among numbers, and number systems.		
K.N.1	Count the items in a collection and know the last counting word tells how many items are in the collection (1 to 10)	1	1-1
K.N.2	Count out (produce) a collection of a specified size 1 to 10	1, 23, 24, 32-36	1-1, 5-2, 24-1, 24-2, 25-1, 29-2
K.N.3	Numerically label a data set of 1 to 5	20	5-1, 6-1
K.N.4	Verbally count by 1's to 20		
K.N.5	Verbally count backwards from 10		
K.N.6	Represent collections with a finger pattern up to 10		
K.N.7	Draw pictures or other informal symbols to represent a spoken number up to 10		
K.N.8	Draw pictures or other informal symbols to represent how many in a collection up to 10	20, 43	5-1, 6-1
K.N.9	Write numbers 1-10 to represent a collection	20	5-1, 6-1
K.N.10	Visually determine how many more or less, and then using the verbal counting sequence, match and count 1-10\	10, 11, 28, 43, 54	3-1, 8-1
K.N.11	Use and understand verbal ordinal terms, first to tenth	22	9-1
	Students will understand meanings of operations and procedures, and how they relate to one another.		
K.N.12	Solve and create addition and subtraction verbal word problems (use counting-based strategies, such as counting on and to ten)	44-52	25-1, 26-1, 26-2, 27-1, 27-2, 29-1
K.N.13	Determine sums and differences by various means		
	ALGEBRA		
	Students will recognize, use and represent algebraically patterns, relations, and functions		
K.A.1	Use a variety of manipulatives to create patterns using attributes of color, size, or shape	4, 7, 12, 17	4-1, 12-1
K.A.2	Recognize, describe, extend, and create patterns that repeat (e.g., ABABAB or ABAABAAAB)	4, 7, 12, 17	4-1, 12-1
	GEOMETRY		

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	Students will use visualization and spatial reasoning to analyze characteristics and properties of geometric shapes.		
K.G.1	Describe characteristics and relationships of geometric objects	5, 13-16, 18, 19	5-1, 13-1, 15-1, 16-1
	Students will identify and justify geometric relationships, formally and informally.		
K.G.2	Sort groups of objects by size and size order (increasing and decreasing)	1, 3, 6, 27, 40, 41	1-1, 14-1, 20-1
	Students will apply transformations and symmetry to analyze problem solving situations.		
K.G.3	Explore vertical and horizontal orientation of objects		
K.G.4	Manipulate two- and three-dimensional shapes to explore symmetry		
	Students will apply coordinate geometry to analyze problem solving situations.		
K.G.5	Understand and use ideas such as over, under, above, below, on, beside, next to, and between	4	12-1
	MEASUREMENT		
	Students will determine what can be measured and how, using appropriate methods and formulas.		
K.M.1	Name, discuss, and compare attributes of length (longer than, shorter than)	37	20-1
K.M.2	Compare the length of two objects by representing each length with string or a paper strip	39	
	STATISTICS AND PROBABILITY		
	Students will collect, organize, display, and analyze data.		
K.S.1	Gather data in response to questions posed by the teacher and students	2	
K.S.2	Help to make simple pictographs for quantities up to 10, where one picture represents 1	21	
K.S.3	Sort and organize objects by two attributes (e.g., color, size, or shape)	1, 3, 6, 27, 40, 41	1-1, 14-1, 20-1

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K.S.4	Represent data using manipulatives	55	
K.S.5	Identify more, less, and same amounts from pictographs or concrete models	10, 11, 56	3-1