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## Correlation of *Moving with Math® Extensions* Grade 1 To Ohio Academic Content Standards

	Student Book	Skill Builders
<b>NUMBER, NUMBER SENSE AND OPERATION STANDARDS</b>		
Students demonstrate number sense including an understanding of number systems and operations, and how they relate to one another. Students compute fluently and make reasonable estimates using paper and pencil, technology-supported and mental methods.		
<b>NUMBER AND NUMBER SYSTEMS</b>		
1. Use ordinal numbers to order objects; e.g., first, second, third.	7	13-1
2. Recognize and generate equivalent forms for the same number using physical models, words and number expressions; e.g., concept of ten is describe by "10 blocks", full tens frame, numeral 10, $5 + 5$ , $15 - 5$ , one less than 11, my brother's age.	16	
3. Read and write the numerals for numbers to 100.	1-3, 25, 29, 30, 35	
4. Count forward and back starting at any number between 1 and 100.	32-36	6-2, 9-2, 30-1
5. Use place value concepts to represent whole numbers using numerals, words, expanded notation and physical models with ones and tens. For example:		
a. Develop a system to group and count by twos, fives and tens.	36	30-1
b. Identify patterns and groupings in a 100's chart and relate to place value concepts.	32, 36	30-1
c. Recognize the first digit of a two digit number as the most important to indicate size of a number and the nearness to 10 or 100.	39	

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6.	identify and state the value of a penny, nickel, dime, quarter and dollar.	8, 9, 40, 60	46-2, 47-1, 48-1
7.	Determine the value of a small collection of coins (with a total value up to one dollar) using 1 or 2 different type coins, including pennies, nickels, dimes and quarters.	8, 9, 40, 41, 60	46-1, 47-1, 48-1
8.	Show different combinations of coins that have the same value.	40, 60	48-1
9.	Represent commonly used fractions using words and physical models for halves, thirds and fourths, recognizing fractions are represented by equal size parts of a whole and of a set of objects.	64	41-1, 42-1
<b>MEANING OF OPERATIONS</b>			
10.	Model, represent and explain addition as combining sets (parts + parts = whole) and counting on. For example:		
	a. Model and explain addition using physical materials in contextual situations.	10, 11, 26, 27, 42, 43, 46	15-1, 17-1
	b. Draw pictures to model addition.	13	
	c. Write number sentences to represent addition.	44, 51, 58, 59	27-1
	d. Explain that adding two whole numbers yields a larger whole.	51, 53	27-1
11.	Model, represent and explain subtraction as take-away and comparison. For example:		
	a. Model and explain subtraction using physical materials in contextual situations.	17-19, 28, 47, 49, 50	16-1, 16-3
	b. Draw pictures to model subtraction.	18	16-1, 25-2, 29-1
	c. Write number sentences to represent subtraction.	48, 54, 58, 59	28-1, 29-1
	d. Explain that subtraction of whole numbers yields an answer smaller than the original number.	52, 53	28-1
12.	Use conventional symbols to represent the operations of addition and subtraction.	10-14, 18-24, 27, 28, 42-59	15-1, 15-2, 16-1 to 16-3, 17-1, 18-1 to 18-3, 19-1 to 19-3, 20-1, 21-1, 22-1 to 22-3, 25-1 to 25-3, 27-1, 28-1, 28-2

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13. Model and represent multiplication as repeated addition and rectangular arrays in contextual situations; e.g., four people will be at my party and if I want to give 32 balloons to each person, how many balloons will I need to buy?		
14. Model and represent division as sharing equally in contextual situations; e.g., sharing cookies.		31-2
15. Demonstrate that equal means "the same as" using visual representation.	13	18-2
<b>COMPUTATION AND ESTIMATION</b>		
16. Develop strategies for basic addition facts such as:		
a. Counting all;	10, 11	
b. Counting on;	12, 26, 27	
c. One more, two more;	12	
d. Doubles;	14	
e. Doubles plus or minus one;	14	
f. Make ten;	56	18-1
g. Using ten frames;		
h. Identity property (adding zero).		
17. Develop strategies for basic subtraction facts, such as:		
a. Relating to addition (for example, think of $7 - 3 = ?$ as $3$ plus $?$ equals $7$ ");	22	19-2
b. One less, two less;	20	16-2
c. All but one (for example, $8 - 7$ , $5 - 4$ );		
d. Using ten frames;		
e. Missing addends.		
<b>MEASUREMENT STANDARDS</b>		
<b>Students estimate and measure to a required degree of accuracy and precision by selecting and using appropriate units, tools and technologies.</b>		
<b>MEASUREMENT UNITS</b>		
1. Recognize and explain the need for fixed units and tools for measuring length and weight; e.g., rulers and balance scales.	61?	
2. Tell time to the hour and half hour on digital and analog (dial) timepieces.	62	49-1, 49-2

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3.	Order a sequence of events with respect to time; e.g., summer, fall, winter and spring; morning, afternoon and night.		
	<b>USE MEASUREMENT TECHNIQUES AND TOOLS</b>		
4.	Estimate and measure weight using non-standard units; e.g., blocks of uniform size.		
5.	Estimate and measure lengths using non-standard and standard units; i.e., centimeters, inches and feet.	61	50-1
	<b>GEOMETRY AND SPATIAL SENSE STANDARD</b>		
	<b>Students identify, classify, compare and analyze characteristics, properties and relationships of one-, two-, and three-dimensional geometric figures and objects. Students use spatial reasoning, properties of geometric objects and transformations to analyze mathematical situations and solve problems.</b>		
	<b>CHARACTERISTICS AND PROPERTIES</b>		
1.	Identify, compare and sort two-dimensional shapes; i.e., square, circle, ellipse, triangle, rectangle, rhombus, trapezoid, parallelogram, pentagon and hexagon. For example:		
	a. Recognize and identify triangles and rhombuses independent of position, shape or size;		40-1, 44-1
	b. Describe two-dimensional shapes using attributes such as number of sides and number of vertices (corners or angles).		37-1, 38-1, 40-1
2.	Create new shapes by combining or cutting apart existing shapes.		
3.	Identify the shapes of the faces of three-dimensional objects.		
	<b>SPATIAL RELATIONSHIPS</b>		
4.	Extend the use of location words to include distance (near, far, close to) and directional words (left, right).		32-1, 33-1, 34-1, 35-1, 36-1
5.	Copy figures and draw simple two-dimensional shapes from memory.		37-1, 38-1, 39-1, 40-1

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<b>PATTERNS, FUNCTIONS AND ALGEBRA STANDARD</b>		
Students use patterns, relations and functions to model, represent and analyze problem situations that involve variable quantities. Students analyze, model and solve problems using various representations such as tables, graphs and equations.		
<b>USE PATTERNS, RELATIONS AND FUNCTIONS</b>		
1. Sort, classify and order objects by two or more attributes, such as color and shape, and explain how objects were sorted.		
2. Extend sequences of sounds, shapes or simple number patterns, and create and record similar patterns. For example:		
a. Analyze and describe patterns with multiple attributes using numbers and shapes; e.g., AA, B, aa, b, AA, B, aa, b,...	T.G.p. 6	6-1, 9-1, 14-1
b. Continue repeating and growing patterns with materials, pictures and geometric items; e.g., XO, XOO, XOOO, XOOOO.		30-1
3. Describe orally the basic unit or general plan of a repeating or growing pattern.	T.G.p. 6	
<b>USE ALGEBRAIC REPRESENTATIONS</b>		
4. Solve open sentences by representing an expression in more than one way using the commutative property; e.g., $4 + 5 = 5 + 4$ or the number of blue balls plus red balls is the same as the number of red balls plus blue balls ( $R + B = B + R$ ).	13	15-2
5. Describe orally and model a problem situation using words, objects or number phrase or sentence.	43, 51-54, 58, 59	29-1, 50-3
<b>DATA ANALYSIS AND PROBABILITY STANDARD</b>		
Students pose questions and collect, organize, represent, interpret and analyze data to answer those questions. Students develop and evaluate inferences, predictions and arguments that are based on data.		
<b>DATA COLLECTION</b>		

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1.	Identify multiple categories for sorting data.		10-1, 11-1, 43-1, 44-1
2.	Collect and organize data into charts using tally marks.	63	50-2
3.	Display data in picture graphs with units of 1 and bar graphs with intervals of 1.	63	50-2
4.	Read and interpret charts, picture graphs and bar graphs as sources of information to identify main ideas, draw conclusions, and make predictions.	63	
5.	Construct a question that can be answered by using information from a graph.		
<b>STATISTICAL METHODS</b>			
6.	Arrange five objects by attribute, such as size or weight, and identify the ordinal position of each object.	7	10-1, 11-1, 12-1, 13-1
7.	Answer questions about the number of objects represented in a picture graph, bar graph or table graph; e.g., category with most, how many more in a category compared to another, how many altogether in two categories.		50-3
<b>PROBABILITY</b>			
8.	Describe the likelihood of simple events as possible/impossible and more likely/less likely; e.g., when using spinners or number cubes in classroom activities.		50-5