



TABLE OF CONTENTS

Start Quick and Ramp It Up! 3rd Grade
Perimeter, Area, and Time

Measurement	PAGES
Table of Standards	5
3.MMT.1 Ramp Up: Perimeter	8
3.MMT.2 Ramp Up: Perimeter	17
3.MMT.3 Ramp Up: Perimeter	22
3.MMT.4 Ramp Up: Area	33
3.MMT.5 Ramp Up: Area	45
3.MMT.6 Ramp Up: Area	55
3.MMT.7 Ramp Up: Mixed Perimeter & Area	58
3.MMT.8 Ramp Up: Mixed Perimeter & Area	67
3.MMT.9 Ramp Up: Mixed Perimeter & Area	76
3.MMT.10 Ramp Up: Composite Area	91
3.MMT.11 Ramp Up: Composite Area	97
3.MMT.12 Ramp Up: Composite Area	99
3.MMT.13 Ramp Up: Time	104
3.MMT.14 Ramp Up: Time	114
3.MMT.15 Ramp Up: Time	124
Grid paper	134



TABLE OF CONTENTS

Start Quick and Ramp It Up! 3rd Grade
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Content and Instruction Extras	PAGES
MEANING BEHIND THE MATH	
What is Perimeter? (3.1F)	9
The Importance of Drawing Pictures in Measurement Problems (3.1B, 3.1C)	17
Vertical Alignment for Perimeter & Area: Where is This Going? (3.6C, 3.6D)	19
What Manipulatives Can You Use for Measurement? (3.1C)	22
What is Area? (3.1F, 3.1G)	34
How are Inches, Square Inches, and Cubic Inches Different? (3.1G)	46
Extending the Activity (3.1F, 3.1G)	56
Helping Students Separate Perimeter and Area (3.1F)	58
Guiding Students through Problems that Involve Both Perimeter & Area (3.1B)	68
What is Composite Area? (3.6D)	91
Two Half Squares to Make a Whole Square Unit (3.6E)	97
Important Information for Connecting Math and the Visual Arts	97
Using Highlighters with Composite Area (3.1C, 3.6D)	99
Potential Misconceptions about Time	104
Vertical Alignment: Time (3.7C)	105
Three Ways to Model the Same Problem! (3.1C)	115
Three Ways to Solve the Same Problem! (3.1C)	125
READING, WRITING, AND SPEAKING TO IMPROVE CRITICAL THINKING	
Sentence Frames for a Language-Rich Environment (3.1G)	8
Why Should Students Write Stories in Math?	18
Making Vocabulary Accessible (ELPS IC, IF, 4C, 4F)	34
Five Key Elements for ELL Success in the Math Classroom	100
WORKING THE CLASSROOM	
Coloring for Perfectionists	45
Managing Small Groups	77



TABLE OF STANDARDS (PG. 1 OF 2)

The activities in this 3rd grade Perimeter, Area, and Time book address the following standards.

Where are we going? Focus Standards		Activity
(3.6)	Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to:	
3.6C	Determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row; Readiness Standard	4, 5, 6, 7, 8, 9
3.6D	decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area; Supporting Standard	10, 11, 12
3.6E	decompose two congruent two-dimensional figures into parts with equal areas and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape. Supporting Standard	11
(3.7)	Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:	
3.7B	Determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems; Readiness Standard	1, 2, 3, 7, 8, 9
3.7C	determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes; Supporting Standard	13, 14, 15

How will we get there? Operations Standards		Activity
(3.4)	Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to:	
3.4D	determine the total number of objects when equally-sized groups of objects are combined or arranged in arrays up to 10 by 10; Supporting Standard	4, 5
3.4E	3.4E represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting; Supporting Standard	4, 5
3.4F	3.4F recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts; Supporting Standard	4, 5
(3.5)	Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to:	
3.5B	represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations; Readiness Standard	13, 14, 15



TABLE OF STANDARDS (PG. 2 OF 2)

The activities in this 3rd grade Perimeter, Area, and Time book address the following standards.

What kind of mathematical thinking will we use? Process Standards		Activity
(3.1)	Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	
3.1A	apply mathematics to problems arising in everyday life, society, and the workplace;	1, 2, 3, 4, 5, 6, 8, 9, 11, 13, 14, 15
3.1B	use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;	4, 5, 6, 8, 9, 13, 14, 15
3.1C	select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;	1, 2, 3, 4, 5, 6, 8, 9, 10, 11, 12, 13, 14, 15
3.1D	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	3, 4, 5, 8, 9
3.1E	create and use representations to organize, record, and communicate mathematical ideas;	1, 2, 4, 6, 8, 9, 13, 14, 15
3.1F	analyze mathematical relationships to connect and communicate mathematical ideas.	5, 7, 9
3.1G	display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	3, 5, 8, 9, 13, 14, 15