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Start Quick and Ramp It Up! 4th Grade Multiplication

Content and **Instruction** Extras

TABLE OF STANDARDS (PG. 1 OF 2)

The activities in this 4th grade Multiplication book address the following standards.

Where are we going? Focus Standards		Activity
(4.4)	**Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:**	
4.4B	determine products of a number and 10 or 100 using properties of operations and place value understandings; **Supporting Standard**	10
4.4C	represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15; **Supporting Standard**	1, 2, 3, 5
4.4D	use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties; **Supporting Standard**	3, 4, 5, 6, 7, 8, 9, 10, 11, 12

How will we get there? Working Standards		Activity
(4.4)	**Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:**	
4.4G	round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers. **Supporting Standard**	1, 2, 3, 4, 6, 7, 8, 9, 11
(4.5)	**Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to:**	
4.5A	represent multi-step problems involving the four operations with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity. **Readiness Standard**	1, 2, 3, 4, 5, 8, 9, 10, 11, 12

TABLE OF STANDARDS (PG. 2 OF 2)

The activities in this 4th grade Multiplication book address the following standards.

What kind of mathematical thinking will we use? Process Standards		Activity
(4.1)	**Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:**	
4.1A	apply mathematics to problems arising in everyday life, society, and the workplace;	1, 2, 3, 4, 5, 6, 7, 8, 9
4.1B	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;	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12
4.1C	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, 7, 8, 9, 10, 11, 12
4.1D	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	1, 2, 3, 5, 6, 8, 9
4.1E	create and use representations to organize, record, and communicate mathematical ideas;	7, 10, 11, 12
4.1F	analyze mathematical relationships to connect and communicate mathematical ideas.	5, 6, 8, 11, 12