TABLE OF CONTENTS (PG. 1 OF 2)

Start Quick and Ramp It Up! 4th Grade Division

ACTIVITY	TOPICS	PAGE
	Table of Standards	5
Group It	Review of 2-Digit by 1-Digit Division	7
Group It 2	Review of 2-Digit by 1-Digit Division	21
Group It 3	3-Digit by 1-Digit Division	26
Soccer Camp	3-Digit by 1-Digit Division	36
Our Solar System	3-Digit by1-Digit Division	43
Dastardly Division	4-Digit by1-Digit Division	48
Awards Buffet	4-Digit by1-Digit Division	55
Elena Danger & the Combining Machine	4-Digit by1-Digit Division	62
Elena Danger & the Splitting Machine	3-Digit and 4-Digit by 1-Digit Division	68
All In	Introduction to Remainders	74
What Remains?	Introduction to Remainders	80
What Can I Ask?	Answering the Right Question	89
The Right Question	Division with Remainders	94
The Magician's Castle	Finding & Correcting Division Mistakes	103
Dangerous Animals	Division Practice	108
	Grid paper	113

TABLE OF CONTENTS (PG. 2 OF 2)

Start Quick and Ramp It Up! 4th Grade Division

Content and **Instruction** Extras

MEANING BEHIND THE MATH	
About Area and Array Division Models and Partial Quotients (4.1C)	7
Models for Multiplication and Division: Flip Sides of the Same Coin	8
Different Kinds of Division	21
Connecting Area Models and the Standard Algorithm	27
Understanding the Long Division Process	37
When Should Students *Stop* Using Models?	43
What If a Student Underestimates When Dividing?	48
The Meaning of Remainders (4.1B)	80
"Answer" Key	89
Estimation (4.1C)	103
READING, WRITING, AND SPEAKING TO IMPROVE CRITICAL THINKING	
How Does Asking More Than One Question About a Problem Situation Help Students Learn to Solve Problems? (4.1B)	90
Justification (4.1G)	94
WORKING THE CLASSROOM	
Tutoring vs. Intervention: Two Sides of the Same Coin (Part 1)	48
Tutoring vs. Intervention: Two Sides of the Same Coin (Part 2)	55
Managing Small Groups	108

TABLE OF STANDARDS

The activities in this 4th grade Division 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:**	
4.4 C	represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15; **Supporting Standard**	8
4.4D	use 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**	8
4.4E	represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations; **Supporting Standard**	1, 2, 3, 4, 6, 7, 9, 10, 11
4.4F	use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor. **Supporting Standard**	1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15
4.4H	solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders. **Readiness Standard**	5, 8, 9, 11, 12, 13, 14, 15

What kind of mathematical thinking will we use? 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**	3

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, 7, 8, 9, 10, 11, 12, 13, 14, 15
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, 8, 9, 10, 11, 12, 13, 14, 15
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, 10, 14, 15
4.1D	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	1, 2, 3, 4, 8, 9, 10
4.1E	create and use representations to organize, record, and communicate mathematical ideas;	5, 7, 9, 11, 13, 15
4.1F	analyze mathematical relationships to connect and communicate mathematical ideas.	1, 2, 3, 4, 8, 10, 11, 12, 13, 14
4.1G	display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	12, 13