



TABLE OF CONTENTS (I OF 2)

Master Fractions, Grade 2

Master Fractions	PAGE
Table of Standards	5
SECTION 1: PARTITIONING TO UNDERSTAND FRACTIONS	
Vertical Alignment: Partitioning Fractions (2.3A, 2.3B)	9
2.F.1 Bridge: Exploring Fair Shares	11
2.F.2 Master: Naming Fractional Parts	14
2.F.3 Master: Partitioning Wholes & Naming Fractions Using Area Models (Squares)	22
2.F.4 Master: Partitioning Wholes & Naming Fractions Using Area Models (Circles)	30
2.F.5 Master: Partitioning Wholes & Naming Fractions Using Linear Models	38
2.F.6 Master: Using Cuisenaire Rods to Identify Fractional Parts & Wholes	46
2.F.7 Master: Fractional Parts of Strips & Diagrams	51
2.F.8 Master: Partitioning Line Segments	59
2.F.9 Master: Partitioning Wholes & Naming Fractional Parts Using All Models	66
2.F.10 Master: Identifying Examples & Non-examples of Halves, Fourths, & Eighths	73
2.F.11 Master: Identifying Examples of Fourths & Eighths	79
2.F.12 Bridge: Comparing the Sizes of Fractional Parts	94
2.F.13 Master: Comparing the Sizes of Fractional Parts	98
2.F.14 Master: Problem Solving with Fractional Parts	104
2.F.15 Evaluate	108
SECTION 2: COUNTING FRACTIONAL PARTS	
Vertical Alignment: Counting Fractional Parts (2.3C)	119
2.F.16 Master: Counting Fractional Parts Up To & Beyond One Whole	121
2.F.17 Master: Counting Fractional Parts Up To & Beyond One Whole	123
2.F.18 Master: Counting Fractional Parts Up To & Beyond One Whole	130
2.F.19 Master: Counting Fractional Parts Up To & Beyond One Whole	138

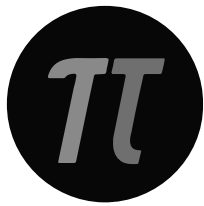


TABLE OF CONTENTS (2 OF 2)

Master Fractions, Grade 2

Content and Instruction Extras

Master Fractions, Grade 2	PAGE
MEANING BEHIND THE MATH	
Meaning of Fractions (2.ID, 2.IE, 2.IF)	15
What is Partitioning? (2.ID, 2.IF)	15
Understanding Regular Polygon Models for Fractions (2.IC, 2.ID, 2.IE, 2.IG)	23
Meaning of <i>Equal</i> in Fractions (2.IB, 2.IC, 2.ID, 2.IG)	23
Understanding Area Models for Fractions (2.IC, 2.ID, 2.IE, 2.IG)	31
Understanding Linear Models for Fractions (2.IA, 2.IC, 2.ID, 2.IG)	39
Creating & Using Strip Diagrams (2.IC, 2.IG)	39
Why Use Cuisenaire Rods? (2.IC, 2.ID, 2.IF)	48
Modeling Fractions with Cuisenaire Rods (2.IC, 2.ID, 2.IF)	49
From Strip Diagrams to Number Lines (2.IC, 2.ID, 2.IG)	52
Why are Linear Models More Difficult Than Area Models? (2.IA, 2.IC, 2.ID 2.IG)	52
Lines & Line Segments (2.ID)	53
Why Don't We Use Fraction Symbols in 2nd Grade? (2.ID, 2.IG)	60
Partitioning Line Segments (2.IB, 2.IC)	60
Talking About Equivalent Fractions Without Teaching Equivalent Fractions (2.IB, 2.ID, 2.IG)	67
Examples and Non-examples of Fractional Parts (2.ID, 2.IG)	80
What is Iterating? (2.IE)	124
Counting Fractional Parts (2.IF)	131
Counting Fractional Parts Isn't Just About Counting (2.IB, 2.IF)	138
RESOURCES	
Evaluating Resources for Partitioning	67
Technology Resources (2.IC)	74
Evaluating Resources for Understanding the Magnitude of Fractions (2.IA, 2.IB, 2.IC, 2.ID, 2.IF, 2.IG)	104
READING, WRITING, AND SPEAKING TO IMPROVE CRITICAL THINKING	
Using Word Walls to Support the Academic Vocabulary of Fractional Parts (2.ID, 2.IG)	31
Importance of Using the Proper Name of a Fraction When Counting (2.IG)	98
WORKING THE CLASSROOM	
Other Ways to Use Card Sets (2.ID, 2.IG)	73
Open-Ended vs. Multiple Choice Problems (2.IG)	108



TABLE OF STANDARDS (PG. 1 OF 2)

The activities in this Master Fractions, Grade 2 book address the following standards.

Where are we going? Focus Standards		Activity
(2.3)	Number and operations. The student applies mathematical process standards to recognize and represent fractional units and communicates how they are used to name parts of a whole. The student is expected to:	
2.3A	partition objects into equal parts and name the parts, including halves, fourths, and eighths, using words	1, 2, 3, 4, 5, 6, 7, 8, 9, 15
2.3B	explain that the more fractional parts used to make a whole, the smaller the part; and the fewer the fractional parts, the larger the part	11, 12, 13, 14, 15
2.3C	use concrete models to count fractional parts beyond one whole using words and recognize how many parts it takes to equal one whole	16, 17, 18, 19
2.3D	identify examples and non-examples of halves, fourths, and eighths	10, 11, 15

What kind of mathematical thinking will we use? Process Standards		Activity
(2.1)	Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:	
2.1A	apply mathematics to problems arising in everyday life, society, and the workplace;	1, 3, 4, 5, 8, 9, 12, 13, 14
2.1B	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;	6, 7
2.1C	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, 3, 4, 5, 6, 12, 13, 14, 16, 17, 18, 19
2.1D	communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15
2.1E	create and use representations to organize, record, and communicate mathematical ideas;	2, 3, 4, 5, 9
2.1F	analyze mathematical relationships to connect and communicate mathematical ideas.	2, 6, 12, 13, 14, 15
2.1G	display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.	2, 3, 4, 5, 8, 9, 11, 12, 13, 14, 15