

Mathematical Ideas Across Chapters

This reproducible provides an easy way for you to locate the mathematical ideas in this book.

Chapter	Page	Activity or Context	Mathematical Ideas
1	10	Classroom Vignette: Building Rectangles With Third Graders	Multiplication, area, and strategies
1	12	Your Turn: Conjectures for Rectangles	Multiplication, doubling, and halving
1	16	Classroom Vignette: Decimal Observations With Fifth Graders	Comparing decimals
1	20	Your Turn: Addition and Multiplication Task	Addition and multiplication, sequences, and patterns
2	33	Classroom Vignette: Hannah Introduces Conjectures and Argumentation to Third Graders	Multiplying a number by 10
3	55	Classroom Vignette: Fourth Graders Operate With Fractions	Fraction operations (subtraction)
3	59	Classroom Vignette: Making Sense of Equivalence	Equivalent fractions
3	61	Classroom Vignette: Relationship Between the Numerator and Denominator	Fractions as wholes
3	68	Classroom Vignette: Building Rectangles in Hannah's Third-Grade Classroom	Multiplication, area, and strategies
3	69	Your Turn: Multiplication Tools and Representations	Connecting equal groups to arrays
3	70	Classroom Vignette: Third-Grade Fractions Story Problem	Plotting fractions on a number line
4	85	Your Turn: What Do You Know About _____?	Understanding the fraction $\frac{1}{4}$
4	86	Classroom Vignette: What We Know About 80 in Fourth Grade	Operations, expressions, and decomposing
4	90	Your Turn: Comparing Fractions	Comparing fractions
4	90	Classroom Vignette: Third Graders Explore Multiplication and Division	Understanding multiplication and division
4	97	Your Turn: Count by 0.05 Starting at 0	Decimals
4	98	Classroom Vignette: Counting by $\frac{1}{2}$ in Fifth Grade	Fractions
4	101	Your Turn: Revise Your Choral Count Design	Sequences, choral counting, and skip counting
4	103	Your Turn: True or False?	Operations, properties, fractions, and decimals
4	105	Classroom Vignette: Fourth Graders Make Sense of the Equal Sign	Equations, equal sign, operations, and properties
5	118	Your Turn: Exploring $\frac{1}{2}$	Equivalent fractions, equations, and operations

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5	126	Your Turn: Fraction Representations	Fraction representations
5	127	Classroom Vignette: Developing Multiplication Fluency With Groups of Five	Multiplication fluency
5	130	Your Turn: Connecting to Groups of Five	Patterns within multiplication
6	137	Your Turn: Rectangle Conjectures	Multiplication, doubling, and halving
6	138	Classroom Vignette: Conjecturing With the True or False Routine	Operations, properties, fractions, and decimals
6	143	Target Numbers Task	Operating with decimals
6	145	Your Turn: Volume Task	Volume
6	147	Pause and Ponder: Connections to the Rectangle Rumble Task	Volume and area
7	156	Your Turn: Exploring Doubling and Halving	Doubling and halving
7	156	Classroom Vignette: Justifying With the True or False Routine	Unit fractions
7	162	Classroom Vignette: Liza's Conjecture	Fractions as whole numbers
7	173	Your Turn: Decomposing Fractions	Operating with fractions
7	176	Your Turn: How Many Rectangles? Task	Factor pairs
8	183	Your Turn: Extending Ideas About Rectangle Rumble	Fractions, area, doubling, and halving
8	184	Classroom Vignette: Extending With the True or False Routine	Fractions as numbers
8	185	Your Turn: Hops to $\frac{1}{3}$ or $\frac{1}{4}$	Unit fractions
8	188	Your Turn: Multiplication Table	Multiplication, properties
8	189	Tyler's Diagrams Task	Multiplication and properties of operations
9	198	Figure 9.1: Five Parts of Something Activity	Comparing fractions, fractions on a number line
9	199	Your Turn: Identifying Argumentation-Ready Tasks	Multidigit multiplication
9	201	Your Turn: Quadrilateral Card Sort	Quadrilaterals
9	205	Classroom Vignette: Interpreting Diagrams in Fifth Grade	Multiplication and scaling
10	217	Reflecting on Addition and Multiplication Patterns	Patterns, addition, and multiplication
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