

Table of Contents

Introduction	i-iv
What is <i>Engaging Mathematics, Volume I: Grade 6</i> ?.....	iii
What is found in an Engaging Mathematics TEKS-based activity?	iv
Number and operations	2-43
Whole Numbers, Integers, and Rational Numbers 6(2)(A)	2
Rational Number Relationships 6(2)(A).....	4
Opposites 6(2)(B)	6
Compare and Order Integers on a Number Line 6(2)(C).....	8
Compare and Order Rational Numbers, Activity 1 6(2)(C)	10
Compare and Order Rational Numbers, Activity 2 6(2)(C)	12
Compare and Order Rational Numbers, Activity 3 6(2)(D)	14
Modeling Integer Addition 6(3)(C)	18
Modeling Integer Subtraction 6(3)(C).....	20
Modeling Integer Multiplication 6(3)(C)	22
Modeling Integer Division 6(3)(C).....	24
Integer Operations, Activity 1 6(3)(D).....	26
Integer Operations, Activity 2 6(3)(D).....	30
Application Problems Involving Integers 6(3)(D).....	34
Decimal Division 6(3)(E)	36
Fraction Multiplication 6(3)(E).....	38
Fraction Division 6(3)(E)	40
Application Problems Involving Fractions and Decimals 6(3)(E).....	42
Proportionality	44-117
Proportional Reasoning, Activity 1 6(4)(B)	44
Proportional Reasoning, Activity 2 6(4)(B)	46
Proportional Reasoning, Activity 3 6(4)(B)	48
Ratios 6(4)(C)	50
Unit Rates 6(4)(D)	54
Ratios and Rates 6(4)(C), 6(4)(D)	56
Modeling Ratios 6(4)(E)	60
Modeling Percents, Activity 1 6(4)(E)	64
Modeling Percents, Activity 2 6(4)(E)	66
Modeling Percents, Activity 3 6(4)(E)	68
Modeling Percents, Activity 4 6(4)(E)	72
Benchmark Fractions and Percents 6(4)(F)	74
Benchmark Percents 6(4)(F).....	78
Equivalent Forms of Rational Numbers, Activity 1 6(4)(G).....	82
Equivalent Forms of Rational Numbers, Activity 2 6(4)(G).....	84
Measurement Conversions, Activity 1 6(4)(H)	88
Measurement Conversions, Activity 2 6(4)(H)	90
Measurement Conversions, Activity 3 6(4)(H)	92
Proportional Relationships, Activity 1 6(5)(A)	94
Proportional Relationships, Activity 2 6(5)(A)	96
Proportional Relationships, Activity 3 6(5)(A)	98
Proportional Relationships, Activity 4 6(5)(A)	100
Proportional Relationships, Activity 5 6(5)(A)	104
Percents, Activity 1 6(5)(B)	108
Percents, Activity 2 6(5)(B)	110
Percents, Activity 3 6(5)(B)	112
Percents, Activity 4 6(5)(B)	114
Equal Parts of the Same Whole 6(5)(C)	116

Expressions, equations, and relationships	118-171
Independent and Dependent Quantities 6(6)(A)	118
Multiple Representations, Activity 1 6(6)(B)	120
Multiple Representations, Activity 2 6(6)(C)	122
Multiple Representations, Activity 3 6(6)(C)	124
Multiple Representations, Activity 4 6(6)(C)	128
Prime Factors 6(7)(A)	132
Order of Operations, Activity 1 6(7)(A)	134
Order of Operations, Activity 2 6(7)(A)	136
Order of Operations, Activity 3 6(7)(A)	138
Modeling the Distributive Property 6(7)(D)	140
Triangles, Activity 1 6(8)(A)	142
Triangles, Activity 2 6(8)(A)	144
Modeling Area of Polygons 6(8)(B)	146
Writing Equations for Area, Activity 1 6(8)(C)	150
Writing Equations for Area, Activity 2 6(8)(C), 6(8)(D)	154
Area of a Trapezoid 6(8)(D).....	156
Area 6(8)(D)	158
Volume 6(8)(D)	160
Writing Inequalities 6(9)(A).....	164
Representing Solutions for Inequalities, Activity 1 6(9)(B), 6(10)(B)	166
Representing Solutions for Inequalities, Activity 2 6(9)(B), 6(10)(B)	168
Writing Equations 6(9)(C)	170
Measurement and data	172-202
Coordinate Plane, Activity 1 6(11)(A).....	172
Coordinate Plane, Activity 2 6(11)(A).....	174
Box Plots 6(12)(A)	178
Statistical Measures, Activity 1 6(12)(C).....	180
Statistical Measures, Activity 2 6(12)(C).....	182
Statistical Measures, Activity 3 6(12)(C).....	184
Statistical Measures, Activity 4 6(12)(C).....	186
Mode 6(12)(D)	188
Percent Bar Graphs, Activity 1 6(12)(D)	190
Percent Bar Graphs, Activity 2 6(12)(D)	192
Data Analysis, Activity 1 6(13)(A)	196
Data Analysis, Activity 2 6(13)(A)	200
Personal financial literacy	204-205
Balancing a Check Register 6(14)(C)	204

What is *Engaging Mathematics, Volume I: Grade 6*?

1 An instructional resource featuring 81 Texas Essential Knowledge and Skills (TEKS)-based, classroom-ready mathematics activities that each take approximately 10 to 15 minutes to complete. We took the best activities of the original series, refreshing and revising them, and then added new activities where needed to create a complement for *Engaging Mathematics, Volume II*.

2 A TEKS-based resource that addresses the majority of the grade 6 mathematics TEKS. *Engaging Mathematics, Volume I* complements *Engaging Mathematics, Volume II*. Both volumes provide—

- Rigorous problem-solving tasks;
- Manipulative-based tasks;
- Vocabulary development tasks; and
- Sorting and classifying tasks.

3 A resource that supports high-quality, research-based practices by providing activities that can be used for various purposes, including—

- Engaging warm-ups and opening tasks that draw students into relevant and challenging mathematics;
- Instructional support for all students to help learners articulate, refine, and retain important mathematical concepts, processes, and skills;
- Short-cycle, formative assessments that provide immediate and ongoing feedback to guide instruction for the teacher and learning for the student; and
- Supplemental tasks to support intervention strategies.

4 A resource that incorporates the mathematical process standards by promoting—

- Reasoning, generalizing, and problem-solving in mathematical and real-world contexts;
- Modeling, using tools, and connecting representations;
- Analysis; and
- Communication.

