

# Table of Contents

<b>Introduction</b> .....	<b>i-iv</b>
What is <i>Engaging Mathematics, Volume I: Grade 4</i> ?.....	iii
What is found in an Engaging Mathematics TEKS-based activity? .....	iv
<b>Number and operations</b> .....	<b>2-117</b>
Representing the Value of Digits, Activity 1 4(2)(B) .....	2
Representing the Value of Digits, Activity 2 4(2)(B) .....	4
Comparing and Ordering Whole Numbers 4(2)(C).....	8
Rounding Whole Numbers 4(2)(D).....	10
Representing Decimals 4(2)(E) .....	14
Comparing and Ordering Decimals, Activity 1 4(2)(F).....	18
Comparing and Ordering Decimals, Activity 2 4(2)(F).....	24
Relating Decimals to Fractions, Activity 1 4(2)(G).....	28
Relating Decimals to Fractions, Activity 2 4(2)(G).....	32
Relating Decimals to Fractions, Activity 3 4(2)(G).....	34
Relating Decimals to Fractions, Activity 4 4(2)(G).....	36
Identifying Decimals on a Number Line 4(2)(H).....	40
Representing Fractions 4(3)(A) .....	42
Determining Equivalent Fractions, Activity 1 4(3)(C) .....	44
Determining Equivalent Fractions, Activity 2 4(3)(C) .....	46
Determining Equivalent Fractions, Activity 3 4(3)(C) .....	50
Determining Equivalent Fractions, Activity 4 4(3)(C) .....	52
Comparing Fractions, Activity 1 4(3)(D) .....	54
Comparing Fractions, Activity 2 4(3)(D) .....	56
Comparing Fractions, Activity 3 4(3)(D) .....	60
Adding and Subtracting Fractions, Activity 1 4(3)(E) .....	64
Adding and Subtracting Fractions, Activity 2 4(3)(E) .....	66
Representing Fractions and Decimals on a Number Line, Activity 1 4(3)(G), 4(3)(C) .....	68
Representing Fractions and Decimals on a Number Line, Activity 2 4(3)(G), 4(3)(C) .....	72
Representing Fractions and Decimals on a Number Line, Activity 3 4(3)(G), 4(3)(C) .....	76
Adding and Subtracting Whole Numbers and Decimals, Activity 1 4(4)(A) .....	78
Adding and Subtracting Whole Numbers and Decimals, Activity 2 4(4)(A) .....	80
Adding and Subtracting Whole Numbers and Decimals, Activity 3 4(4)(A) .....	82
Adding and Subtracting Whole Numbers and Decimals, Activity 4 4(4)(A) .....	84
Representing Products, Activity 1 4(4)(C).....	86
Representing Products, Activity 2 4(4)(C).....	88
Representing Products, Activity 3 4(4)(C).....	90
Multiplying Whole Numbers 4(4)(D).....	92
Representing Quotients, Activity 1 4(4)(E).....	96
Representing Quotients, Activity 2 4(4)(E).....	98
Dividing Whole Numbers, Activity 1 4(4)(F) .....	100
Dividing Whole Numbers, Activity 2 4(4)(F) .....	102
Estimating with Whole Numbers, Activity 1 4(4)(G).....	104
Estimating with Whole Numbers, Activity 2 4(4)(G).....	106
Estimating with Whole Numbers, Activity 3 4(4)(G).....	110
Multiplying and Dividing, Activity 1 4(4)(H).....	112
Multiplying and Dividing, Activity 2 4(4)(H).....	114
Multiplying and Dividing, Activity 3 4(4)(H).....	116

<b>Algebraic reasoning .....</b>	<b>118–151</b>
Representing Multi-Step Problems, Activity 1 4(5)(A) .....	118
Representing Multi-Step Problems, Activity 2 4(5)(A) .....	122
Representing Multi-Step Problems, Activity 3 4(5)(A) .....	124
Representing Numerical Relationships, Activity 1 4(5)(B) .....	126
Representing Numerical Relationships, Activity 2 4(5)(B) .....	128
Representing Numerical Relationships, Activity 3 4(5)(B) .....	130
Representing Numerical Relationships, Activity 4 4(5)(B) .....	134
Determining Formulas for Perimeter of a Rectangle 4(5)(C) .....	138
Determining a Formula for Area of a Rectangle 4(5)(C) .....	142
Solving Problems Related to Perimeter and Area, Activity 1 4(5)(D) .....	146
Solving Problems Related to Perimeter and Area, Activity 2 4(5)(D) .....	148
Solving Problems Related to Perimeter and Area, Activity 3 4(5)(D) .....	150
<b>Geometry and measurement .....</b>	<b>152–204</b>
Identifying Parallel and Perpendicular Lines 4(6)(A) .....	152
Identifying and Drawing Lines of Symmetry, Activity 1 4(6)(B) .....	154
Identifying and Drawing Lines of Symmetry, Activity 2 4(6)(B) .....	158
Identifying Triangles, Activity 1 4(6)(C) .....	160
Identifying Triangles, Activity 2 4(6)(C) .....	164
Classifying Two-Dimensional Figures, Activity 1 4(6)(D) .....	166
Classifying Two-Dimensional Figures, Activity 2 4(6)(D) .....	170
Classifying Two-Dimensional Figures, Activity 3 4(6)(D) .....	174
Measuring Angles, Activity 1 4(7)(C) .....	178
Measuring Angles, Activity 2 4(7)(C) .....	182
Measuring Angles, Activity 3 4(7)(C) .....	184
Drawing Angles 4(7)(D) .....	186
Determining Unknown Angle Measures 4(7)(E) .....	188
Converting Measurements, Activity 1 4(8)(B) .....	190
Converting Measurements, Activity 2 4(8)(B) .....	192
Converting Measurements, Activity 3 4(8)(B) .....	194
Solving Measurement Problems, Activity 1 4(8)(C) .....	196
Solving Measurement Problems, Activity 2 4(8)(C) .....	198
Solving Measurement Problems, Activity 3 4(8)(C) .....	200
Solving Measurement Problems, Activity 4 4(8)(C) .....	202
<b>Data analysis .....</b>	<b>206–211</b>
Representing Data, Activity 1 4(9)(A) .....	206
Representing Data, Activity 2 4(9)(A) .....	210

## What is *Engaging Mathematics, Volume I: Grade 4*?

1

An instructional resource featuring 77 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 4 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.

