What is *Engaging Mathematics, Volume I: Grade 2*?

1 An instructional resource featuring 75 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 2 mathematics TEKS. *Engaging Mathematics, Volume I* complements *Engaging Mathematics, Volume II*. Both volumes provide—

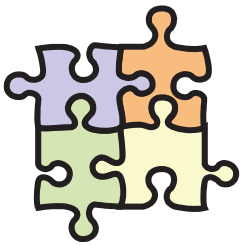
- Rigorous problem-solving tasks;
- Manipulative-based tasks;
- Vocabulary development tasks; and
- Sorting and classifying tasks.

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.



What is found in an Engaging Mathematics TEKS-based activity?

Each activity addresses a specific student expectation that is reflected in the content objective.

Common classroom materials are used for ease of preparation. Materials are listed 1-per-student unless otherwise noted. Page titles for student handouts are represented with bold font.

Directions are included as a separate document to guide student completion of activities with multiple steps.

Facilitation questions are provided for teacher use when supporting student thinking and discourse.

Composing and Decomposing Numbers, Activity 3
2(2)(A)

Activity Objective
I can compose and decompose numbers.

Materials
- **Directions: Decomposing a Number**
- **Decomposing a Number**
- Base-ten blocks

Facilitation Questions
- How can you use the least number of hundreds, tens, and ones to represent 475?
  I can use four flats, seven rods, and five units.
- How can you use the base-ten blocks to show decomposing four hundreds? Seven tens? Five ones?
  I can decompose the four hundreds into two or more groups.
- How can you use composing to show that you decomposed the value correctly?
  I can compose the answer I got, and if it equals 475 then I did it correctly.

Answer
Possible answers:

My Ways to Decompose 475

200 + 200 + 50 + 20 + 5	*400 + 20 + 20 + 30 + 2 + 3*

My Partner's Ways to Decompose 475

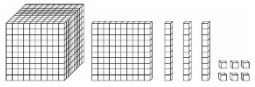
200 + 100 + 100 + 20 + 50 + 5	*300 + 100 + 60 + 10 + 3 + 2*

An answer key is included for each activity.

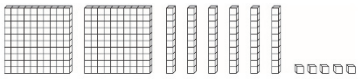
Date: _____

Composing Numbers

ts of values that can be composed to represent the same base-ten blocks.



0 + 100 + 30 + 6	1,000 + 10 + 10 + 10 + 3 + 3
00 + 10 + 20 + 5 + 1	1,000 + 100 + 20 + 10 + 4 + 2



100 + 100 + 30 + 30 + 5	200 + 50 + 10 + 3 + 2
100 + 100 + 6 + 5	200 + 60 + 4 + 1

Communicating about Mathematics
Choose one of the sets of values not circled. Explain how you know this value cannot be composed to represent the value of the base-ten blocks.

Each activity includes an opportunity for students to articulate and summarize aspects of their learning.