

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

TEKS have been phrased in student-friendly language so that students may gauge their learning.

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

## Representing the Value of Digits, Activity

### Activity Objective

I can match the words, numerals, and expanded notation that represent the same value.

I can use formal language to explain representations of a number.

### Materials

- Same Value
- Expanded Notation Cards
- Scissors
- Tape or glue

### Answer Key

| Word Form                                       | Standard Notation | Expanded Notation  |
|---|-------------------|--|
| Seven and eighteen hundredths                   | 7.18              | $(7 \times 1) + (1 \times \frac{1}{10}) + (8 \times \frac{1}{100})$                              |
| Seven and eighty-one thousandths                | 7.081             | $(7 \times 1) + (0 \times \frac{1}{10}) + (8 \times \frac{1}{100}) + (1 \times \frac{1}{1,000})$ |
| Eight and seventy-one hundredths                | 8.71              | $(8 \times 1) + (7 \times \frac{1}{10}) + (1 \times \frac{1}{100})$                              |
| Eight and one hundred seventy-eight thousandths | 8.178             | $(8 \times 1) + (1 \times \frac{1}{10}) + (7 \times \frac{1}{100}) + (8 \times \frac{1}{1,000})$ |

ELPS have been included in the form of a student-friendly language objective.

Debriefing questions are included to assist the teacher with facilitating a post-activity student discussion.

### Debriefing Questions

- What strategies did you use to help you determine the matching Expanded Notation Card?
- How might the number in the ones place have helped you to eliminate some of the cards?
- How could a place value chart help verify that you have the correct solutions?

### Listen For . . .

- Use of place value terms; ones, tenths, hundredths, thousandths, expanded notation.
- Connections between the value of the digit and the place of the digit.

### Communicating about Mathematics

Students may respond by talking to a partner and recording a written response in the space provided.

Possible sentence frame:  
I would use the \_\_\_\_\_ notation because \_\_\_\_\_.

### Listen/Look For . . .

Connections between the notation, place value, and the model selected.

Each activity includes an opportunity for students to articulate and summarize their own learning. A sentence frame is provided for students who may need language support.

Key learning outcomes from the debriefing discussion are summarized here.

Key learning outcomes from the Communicating about Mathematics section are included here.