

Mathematical Background

Here is an overview of the content your students will learn in this unit.

Place Value Patterns and Decimal Operations

Represent the value of digits in decimals to thousandths. TEKS 5.2.A

- Decimals can be represented in *standard form*, *expanded form*, and *expanded notation*.
 - » *Expanded form* and *expanded notation* decompose decimals to represent the value of each digit.

Represent fifty-two and thirty-seven thousandths in the table.

Standard form	Expanded form	Expanded notation
52.037	$50 + 2 + 0.03 + 0.007$	$(5 \times 10) + (2 \times 1) + (3 \times 0.01) + (7 \times 0.001)$

Compare and order decimals to thousandths. TEKS 5.2.B, 5.2.C

- Decimals can be compared and ordered to the thousandth using the symbols $>$, $<$, or $=$.
 - » The value of the digits in each place value across the base-ten place value system can be used to compare and order decimals.

Compare the following decimals.

$5.021 > 5.02$

5.021 has 1 thousandth more than 5.02, so it is greater.

Order the numbers 39.482, 37.959, and 37.062 from *least* to *greatest*.

37.062, 37.959, 39.482

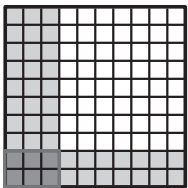
Multiply decimals to the hundredths. TEKS 5.3.D, 5.3.E

- Familiar whole number multiplication strategies can be used to multiply when one or more factors is a decimal.
 - » Area models and hundredths models can be used to decompose factors and represent the product.

$6 \times 0.25 = 1.50$

I know that 6 times 25 is 150, so 6 times 0.25 is 1.50.

$0.20 \times 0.3 = 0.06$



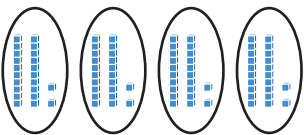
$21.5 \times 3.5 = 75.25$

	20	1	0.5
3	60	3	1.5
0.5	10	0.5	0.25

Divide decimals to the hundredths. TEKS 5.3.F, 5.3.G

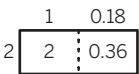
- Familiar whole number division strategies can be used to divide decimals by whole numbers.
 - » Strategies such as the standard algorithm, can be used to solve for quotients of decimals to hundredths.

$0.88 \div 4 = 0.22$



$2.36 \div 2 = 1.18$

Area Model



Standard Algorithm

$$\begin{array}{r} 1.18 \\ 2 \overline{) 2.36} \\ \underline{- 2} \\ 03 \\ \underline{- 2} \\ 16 \\ \underline{- 16} \\ 0 \end{array}$$

Unit Investigation

Lesson 1 is the Unit Investigation. Students explore and identify numbers between 2 whole numbers, including decimals, to build curiosity and apply their own knowledge in a variety of ways. Use the **Caregiver Connection** to help students continue to explore the math they will see in the unit.

Caregiver Connection

Students may enjoy exploring numbers between numbers in their environment by considering whole number and decimal values. For example, students could think about an age between the ages of 2 friends or family members. Students could also consider the price of an item between 2 advertised prices.