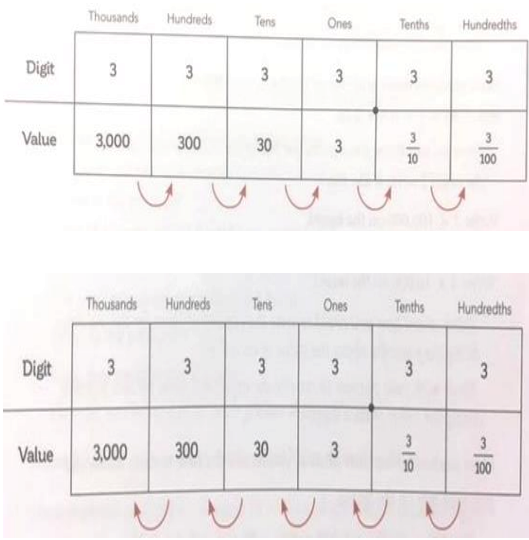
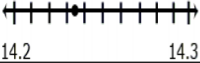
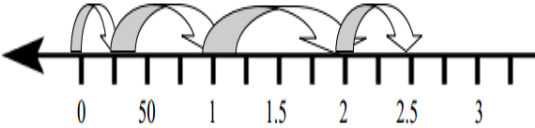


## Grade 5 Unit 2 Family Resource

### Unit Name: Expanding Understanding of Place Value to Decimals

What's my child learning in Unit 2?	What does this mean? What does it look like?	How can I help my child at home?												
<ul style="list-style-type: none"> <li>Students will recognize that in any multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</li> </ul>	 <p>The image shows two identical place value charts. Each chart has columns for Thousands, Hundreds, Tens, Ones, Tenths, and Hundredths. The digit '3' is placed in each column. Below the digit row is a value row: 3,000, 300, 30, 3, 3/10, and 3/100. In the top chart, red curved arrows point from the Ones column to the Tens column, from the Tens to the Hundreds, from the Hundreds to the Thousands, from the Hundredths to the Tenths, and from the Tenths to the Ones. In the bottom chart, these arrows are not present.</p>	<p><a href="#">Multiplication with Powers of 10</a> - a video explaining the the pattern in the number of zeros.</p>												
<ul style="list-style-type: none"> <li>Students will denote powers of 10 and use symbols to compare two powers of 10 expressed exponentially</li> </ul>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th style="padding: 5px;">Expression</th> <th style="padding: 5px;">Expanded Form</th> <th style="padding: 5px;">Product</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;"><math>3 \times 10^1</math></td> <td style="padding: 5px;"><math>3 \times 10</math></td> <td style="padding: 5px;">30</td> </tr> <tr> <td style="padding: 5px;"><math>3 \times 10^2</math></td> <td style="padding: 5px;"><math>3 \times 10 \times 10</math></td> <td style="padding: 5px;">300</td> </tr> <tr> <td style="padding: 5px;"><math>3 \times 10^3</math></td> <td style="padding: 5px;"><math>3 \times 10 \times 10 \times 10</math></td> <td style="padding: 5px;">3,000</td> </tr> </tbody> </table>	Expression	Expanded Form	Product	$3 \times 10^1$	$3 \times 10$	30	$3 \times 10^2$	$3 \times 10 \times 10$	300	$3 \times 10^3$	$3 \times 10 \times 10 \times 10$	3,000	<p><a href="#">Understanding Base 10 System</a> - A document explaining the base ten system.</p>
Expression	Expanded Form	Product												
$3 \times 10^1$	$3 \times 10$	30												
$3 \times 10^2$	$3 \times 10 \times 10$	300												
$3 \times 10^3$	$3 \times 10 \times 10 \times 10$	3,000												
<ul style="list-style-type: none"> <li>Students will use parentheses, brackets, or braces in a numerical expressions and evaluate expressions with these symbols.</li> </ul>	<p>Examples:  <math>(2 \times 10) + (4 \times 1) + 3 \times 1/10) + (7 \times 1/100)</math>                      What is the word form and standard form for this expression?  <math>(2 + 3) + (1.5 - 0.5)</math></p>	<p><a href="#">LearnZillion</a> - a video lesson on written expressions to represent a numerical situations.</p>												

	<p>To further develop students' understanding of grouping symbols and facility with operations, students place grouping symbols in equations to make the equations true or they compare expressions that are grouped differently.</p> <p>Examples:</p> <ul style="list-style-type: none"> <li>• <math>15 - 7 - 2 = 10 \rightarrow 15 - (7 - 2) = 10</math></li> <li>• <math>3 \times 125 \div 25 + 7 = 22 \rightarrow [3 \times (125 \div 25)] + 7 = 22</math></li> <li>• Compare <math>3 \times 2 + 5</math> and <math>3 \times (2 + 5)</math></li> </ul>	
<ul style="list-style-type: none"> <li>• Students will read, write, and compare decimals to thousandths using base ten numerals, number names &amp; expanded form.</li> </ul>	<p>Example: Some equivalent forms of 0.72 are:</p> <ul style="list-style-type: none"> <li>• <math>72/100</math></li> <li>• <math>7/10 + 2/100</math></li> <li>• <math>7 \times (1/10) + 2 \times (1/100)</math></li> <li>• <math>0.70 + 0.02</math></li> <li>• <math>70/100 + 2/100</math></li> <li>• <math>0.720</math></li> <li>• <math>7 \times (1/10) + 2 \times (1/100) + 0 \times (1/1000)</math></li> <li>• <math>720/1000</math></li> </ul>	<p><a href="#">Decimal Place Value Card Game</a>-Create the largest decimal using a deck of cards and printable recording sheets.</p>
<ul style="list-style-type: none"> <li>• Students will compare decimals using symbols and rounding strategies and use place value understanding to round decimals to any place.</li> </ul>	<p>Example: When comparing 0.25 and 0.17, a student might think, "25 hundredths is more than 17 hundredths". They may also think that it is 8 hundredths more. They</p>	<p><a href="#">Soccer Math</a>- online game to practice rounding whole numbers and decimals.</p>

	<p>may write this comparison as <math>0.25 &gt; 0.17</math> and recognize that <math>0.17 &lt; 0.25</math> is another way to express this comparison.</p>	
<ul style="list-style-type: none"> <li>•</li> <li>• Students will determine whether to round up or down depending on the context of the situation.</li> </ul>	<p>Example: Round 14.235 to the nearest tenth. Students recognize that the possible answer must be in tenths thus, it is either 14.2 or 14.3. Th 14.235 is closer to 14.2 (14.20) than to 14.3 (14.30).</p> 	<p><a href="#">Scooter Quest: Rounding Decimals</a>-Online game to practice rounding decimals.</p>
<ul style="list-style-type: none"> <li>•</li> <li>• Students will demonstrate mastery of adding and subtracting decimals to the hundredths and apply this concept to a real world context.</li> </ul>	<p>I saw that the 0.25 in 1.25 and the 0.75 for water would combine to equal 1 whole. I then added the 2 wholes and the 0.40 to get 2.40.</p> $.25 + .75 + 1 + .40 = 2.40$ 	<p><a href="#">Animated Math Model: Add and Subtract Decimals</a> - Online lesson to show how to add and subtract decimals.</p>