

Unit Name	Investigations	Sessions	Main Math Ideas	Assessments
<b>Unit 6- FRACTION CARDS &amp; DECIMAL GRIDS</b> <i>Fractions and Decimal</i>	1-4	25 Approx. 20-28 days		Checklists, Games Quizzes and Unit Test
<p><b>4.OA.A.3</b> Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p><b>4.NBT.A.1</b> Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that <math>700 \div 70 = 10</math> by applying concepts of place value and division.</p> <p><b>4.NBT.A.2</b> Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of comparisons.</p> <p><b>4.NBT.A.3</b> Use place value understanding to round multi-digit whole numbers to any place.</p> <p><b>4.NBT.B.4</b> Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p><b>4.NF.A.1</b> Explain why a fraction <math>a/b</math> is equivalent to a fraction <math>(n \times a)/(n \times b)</math> by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</p> <p><b>4.NF.A.2</b> Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as <math>1/2</math>. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions.</p> <p><b>4.NF.B.3a</b> Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p><b>4.NF.B.3b</b> Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.</p> <p><b>4.NF.B.3d</b> Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.</p> <p><b>4.NF.B.4a</b> Understand a fraction <math>a/b</math> as a multiple of <math>1/b</math>. For example, use a visual fraction model to represent <math>5/4</math> as the product <math>5 \times (1/4)</math>, recording the conclusion by the equation <math>5/4 = 5 \times (1/4)</math>.</p> <p><b>4.NF.B.4b</b> Understand a multiple of <math>a/b</math> as a multiple of <math>1/b</math>, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express <math>3 \times (2/5)</math> as <math>6 \times (1/5)</math>, recognizing this product as <math>6/5</math>. (In general, <math>n \times (a/b) = (n \times a)/b</math>.)</p> <p><b>4.NF.B.4c</b> Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat <math>3/8</math> of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?</p> <p><b>4.NF.C.5</b> Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. For example, express <math>3/10</math> as <math>30/100</math>, and add <math>3/10 + 4/100 = 34/100</math>.</p> <p><b>4.NF.C.6</b> Use decimal notation for fractions with denominators 10 or 100. For example, rewrite <math>0.62</math> as <math>62/100</math>; describe a length as 0.62 meters; locate 0.62 on a number line diagram.</p> <p><b>4.NF.C.7</b> Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols <math>&gt;</math>, <math>=</math>, or <math>&lt;</math>, and justify the conclusions.</p> <p><b>4.MD.A.2</b> Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.</p> <p><b>4.MD.B.4</b> Make a line plot to display a data set of measurements in fractions of a unit (<math>1/2</math>, <math>1/4</math>, <math>1/8</math>). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.</p>	<p><b>1- Parts of Rectangles</b></p> <p><b>2- Comparing Fractions &amp; Decimals</b></p> <p><b>3- Adding &amp; Subtracting Fractions &amp; Decimals</b></p> <p><b>4- Computation with Rational Numbers</b></p>	<p><b>1.1 – 1.6</b></p> <p><b>2.1 – 2.8</b></p> <p><b>3.1 – 3.6</b></p> <p><b>4.1 – 4.4</b></p>	<p><b>Understanding the meaning of fractions &amp; decimals</b></p> <p><b>Comparing the values of fractions &amp; decimals</b></p> <p><b>Understanding the meaning of fractions &amp; decimals</b></p> <p><b>Comparing the values of fractions &amp; decimals</b></p> <p><b>Computing with rational numbers</b></p> <p><b>Computing with Rational Numbers</b></p>	<p><b>A44 Finding Equivalent Fractions &amp; Representing Decimals</b> Session 1.6</p> <p><b>Quiz 1 A45 – A46</b> Session 2.3</p> <p><b>A47 Assessment Checklist, Sessions 2.5 and 2.6</b></p> <p><b>A48 Comparing Fractions</b> Session 2.6</p> <p><b>A49 Comparing Decimals</b> Session 2.8</p> <p><b>Quiz 2 A51– A52</b> Session 3.4</p> <p><b>A53 Assessment Checklists, Sessions 4.2 and 4.3</b> <b>Quiz 3 A54</b> Session 4.3</p> <p><b>A55 Multiplying, Adding, and Subtracting with Fractions.</b> Session 4.4</p>
			<p><b>Computing with Rational Numbers</b></p>	<p><b>UNIT 6 TEST</b></p>
			<p><b>* Lessons in Unit 6 that cover decimal fractions may be modified or taught in the 40 weeks (post-test).</b></p>	

Fourth Grade

Quarter 3 (January 28 – April 5)

Math Matrix