



# Hattiesburg Public School District

## Grade 4 Mathematics Units

### 2015 – 2016



Unit 8: Adding and Subtraction Fractions	Time Frame: 3 weeks (Feb 16 – March 4, 2015)
<b>Content Standards</b>	<b>Standards for Mathematical Practice</b>
<b>Major Standards</b>	
<p><b>4.NF.B.3.A</b> Understand addition and subtraction of fractions as joining and separating parts referring to the same whole.</p> <p><b>4.NF.B.3.C</b> 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.3.D</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>	<ol style="list-style-type: none"><li>(1) Make sense of problems and persevere in solving them.</li><li>(2) Reason abstractly and quantitatively.</li><li>(3) Construct viable arguments and critique the reasoning of others.</li><li>(4) Model with mathematics.</li><li>(5) Use appropriate tools strategically.</li><li>(6) Attend to precision.</li><li>(7) Look for and make use of structure.</li><li>(8) Look for and express regularity in repeated reasoning.</li></ol>
<b>Supporting Standards</b>	
<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, e.g., by using a visual fraction model.</p> <p><b>4.NF.B.3.B</b> Decompose a fraction into a sum of fractions with the same denominator</p>	



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in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model.

**4.MD.B.4** Make a line plot to display a data set of measurements in fractions of a unit ( $\frac{1}{2}$ ,  $\frac{1}{4}$ ,  $\frac{1}{8}$ ). Solve problems involving addition and subtraction of fractions by using information presented in line plots.

#### Additional Standards

**4.NBT.B.4** Fluently add and subtract multi-digit whole numbers using the standard algorithm.

**4.NBT.B.5** Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

#### Pre-requisite Standards

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
Mixed Numbers and Improper Fractions 4.NF.3 <a href="#">Creating Equivalent Fractions</a>	Add Like Fractions 4.NF.3a-b,d <a href="#">Adding Fractions using Pattern Blocks</a>	Subtract Like Fractions 4.NF.3a & d <a href="#">Subtraction Word Problems with Fractions</a>	Add Mixed Numbers 4.NF.3b-d <a href="#">Mixed Number Word Problems</a>	Subtract Mixed Numbers 4.NF.3b-d <a href="#">Mixed Number Word Problems</a>
<b>Performance Task</b> <a href="#">Comparing Sums of Unit Fractions</a>				