



Hattiesburg Public School District

Grade 6 Mathematics Units

2015 – 2016



Unit 1: Operations with Decimals & Fractions	Time Frame: 5 Weeks (Aug10-Sept 11, 2015)
Content Standards:	Standards for Mathematical Practice
Major Standards	<ul style="list-style-type: none"> (1) Make sense of problems and persevere in solving them. (2) Reason abstractly and quantitatively. (3) Construct viable arguments and critique the reasoning of others. (4) Model with mathematics. (5) Use appropriate tools strategically. (6) Attend to precision. (7) Look for and make use of structure. (8) Look for and express regularity in repeated reasoning.
<p>6.NS.1 Interpret and compute quotients of fractions, and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.</p>	
Supporting Standards	
<p>6.G.1 Find the <u>area</u> of right triangles, other triangles, special quadrilaterals, and polygons (introduced using formulas only).</p>	
Additional Standards:	
<p>6.NS.2 Fluently divide multi-digit numbers using the standard algorithm.</p> <p>6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation.</p> <p>6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers 1-100 with a common factor as a multiple of a sum of two whole numbers with no common factor.</p>	
Pre-requisite Standards	
<p>5.NBT.5 Fluently multiply multi-digit whole numbers using the standard algorithm.</p>	



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5.NBT.6 Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

5.NBT.7 Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction, relate the strategy to a written method and explain the reasoning used.

5.NF.7c Solve real-world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual models and equations to represent the problem.

Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
<p>Lesson Topic: Adding/Subtracting Whole/Decimal Numbers Standard Ref: 6.NS.3 Resource: Engage NY Module 2; Lesson 9</p>	<p>Lesson Topic: Multiplying whole numbers and decimals Standard Ref: 6.NS.3 Resource: Engage NY Module 2; Lesson 9</p>	<p>Lesson Topic: Finding the area whole numbers and decimals Standard Ref: 6.G.1 Resource: Engage NY https://learnzillion.com/lessonsets/701-interpret-</p>	<p>Lesson Topic: Dividing Whole Numbers Standard Ref: 6.NS.2 Resource: Engage NY Module 2; Topic C- Lesson 14</p>	<p>Lesson Topic: Dividing Decimals Standard Ref: 6.NS.3 Resource: Engage NY https://learnzillion.com/lessonsets/586-perform-operations-with-decimals-</p>



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<p>https://learnzillion.com/lessons/586-perform-operations-with-decimals-using-the-standard-algorithm</p> <p>Strategy:</p> <ul style="list-style-type: none"> ● Line up Decimals ● Use concrete models or drawings ● Use base ten blocks ● Use number lines ● Annex Decimals at the end of whole numbers ● Annex Zeroes for place holders 	<p>https://learnzillion.com/lessons/586-perform-operations-with-decimals-using-the-standard-algorithm</p> <p>Strategy:</p> <ul style="list-style-type: none"> ● Do not have to line up decimals. ● Lattice Method ● Partial Product ● Use area models ● http://www.hudsonville.k12.mi.us/HS/images/stories/Enrichment/4th%20&%205th%20session.pdf 	<p>and-compute-quotients-of-fractions</p> <p>Strategy:</p> <ul style="list-style-type: none"> ● Use the formulas: ● $A = b \times h$ (rectangle) ● $A = l \times w$ (parallelogram/rhombus) ● $A = b \times h / 2$ (triangle) 	<p>https://learnzillion.com/lessons/545-divide-multi-digit-numbers</p> <p>Strategy:</p> <ul style="list-style-type: none"> ● Use multiples strategy ● Does McDonalds Sell Burgers ● Division Man ● Repeated Subtraction ● http://www.hudsonville.k12.mi.us/HS/images/stories/Enrichment/4th%20&%205th%20session.pdf 	<p>using-the-standard-algorithm</p> <p>Strategy</p> <ul style="list-style-type: none"> ● Use multiples strategy ● Does McDonalds Sell Burgers ● Division Man ● Repeated Subtraction ● http://www.hudsonville.k12.mi.us/HS/images/stories/Enrichment/4th%20&%205th%20session.pdf
Lesson 6	Lesson 7	Performance Task		
<p>Lesson Topic: Dividing Fractions using Models</p> <p>Standard Ref: 6.NS.1</p>	<p>Lesson Topic: Finding the area using whole numbers, decimals, and fractions.</p>	<p>HCPSS Dividing Multi-Digit Numbers</p>		



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<p>https://learnzillion.com/lessons/701-interpret-and-compute-quotients-of-fractions</p> <p>Resource: www.learnzillion.com/lesson_plans/642-divide-fractions-by-dividing-with-common-denominators#fndtn-lesson</p> <p>Strategy:</p> <ul style="list-style-type: none">● Dividing fractions using the least common denominator.● Use KCF● Number Lines● Division Models	<p>Standard Ref: 6.G.1</p> <p>Resource:</p> <p>Strategy:</p>	<p>//grade6commoncoremath.wikispaces.com/Unit+2+The+Number+System</p>		
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