

2009-2010 6th Grade Math Curriculum Map

Topic: (01) Multiplication and Division of fractions and decimals		Days: 32
Subject: Math		Grade: 6
Key Learning: Understand procedures of and develop procedural fluency with multiplication and division of fractions and decimals		
Unit Essential Questions: How can I multiply and divide fractions and decimals fluently?		
Concept: Procedures for multiplying and dividing fractions and decimals	Concept: Procedural Fluency	Concept: Real-world Application
MA.6.A.1.1	MA.6.A.1.2	MA.6.A.1.3
Lesson Essential Questions: How can I explain and justify procedures for multiplying and dividing fractions and decimals? Materials- Graph Paper, Base Ten Blocks Lessons – 4.1, 4.3, 4.4, 4.6, 7.1, 7.2, 7.4	Lesson Essential Questions: How can I multiply and divide fractions and decimals efficiently? Materials- Lessons- 4.2, 7.3, 7.5	Lesson Essential Questions: Solve real world problems involving multiplication and division of fractions and decimals. Materials- Lessons- 4.7, 4.8, 7.6, 7.7
Vocabulary: Whole Number, Decimal, Fraction, Numerator, Denominator Fraction Bar, Product, Dividend, Divisor, Quotient, Equivalent Fractions, Mixed Numbers, Improper Fraction, Reciprocal, Simplest Form, Compatible Number, Substitute		
Additional Info: All lessons are in course 1 unless noted otherwise.		
Resources: McDougall Littell Course 1, Practice Workbook, SSS Workbook, Classzone.com, Notetaking Guide and Warm-ups, Chapter 4 and Chapter 7 Resource books.		

2009-2010 6th Grade Math Curriculum Map

Topic: (01S) Number and Operations		Days: 24
Subject: Math		Grade: 6
Key Learning: Review and reinforce fraction, decimal and percents.		
Unit Essential Questions: How are fractions decimals and percents related?		
Concept: Fractions, Decimals and Percents – Renaming and using equivalents.	Concept: Comparing and Ordering	Concept: Estimation and judging reasonableness of the estimate.
MA.6.A.5.1	MA. 6.A.5.2	MA. 6.A.5.3
Lesson Essential Questions: How do I use equivalent forms of fractions, decimals and percents to solve problems? Materials- Lessons- 3.3, 5.1, 5.2, 5.3, 5.4, 5.6, 5.7, 5.8, 8.5	Lesson Essential Questions: How do we compare and order fractions and decimals on the number line? Materials- Lessons- 5.5, 8.6	Lesson Essential Questions: Estimate the results of computations with fractions decimals and percents then judge the reasonableness of the results. Materials- Lessons- 3.5, 6.1,
Vocabulary: Divisible, prime number, composite number, prime factorization, equivalent fraction, simplest form, multiple, least common multiple, least common denominator, mixed number, improper fraction, fraction, repeating decimal, terminating decimal, bar notation, number line, percent, rename, front end estimation		
Additional Info : All lessons are in course 1 unless noted otherwise		
Resources: McDougall Littell Course 1, Practice Workbook, SSS Workbook, Classzone.com, Notetaking Guide and Warm-ups, Chapter 3, 5, 6 and 8 Resource book.		

2009-2010 6th Grade Math Curriculum Map

Topic: (02) Connect ratio and rates to multiplication and division.		Days: 22
Subject: Math		Grade: 6
Key Learning: Understand procedures of and develop procedural fluency with ratio and rate problems.		
Unit Essential Questions: How are ratios and rates connected?		
Concept: Use reasoning to solve ratio and rate problems.	Concept: Interpret and compare ratios and rates.	Concept:
MA.6.A.2.1	MA.6.A.2.2	
<p>Lesson Essential Questions:</p> <p>How do you use reasoning about multiplication to solve ratio and rate problems?</p> <p>How do we use reasoning about division to solve ratio and rate problems?</p> <p>Materials- Graph paper, ruler, measuring tape.</p> <p>Lessons- 8.1, 8.2,</p>	<p>Lesson Essential Questions:</p> <p>How are ratios and rates related?</p> <p>Materials-</p> <p>Lessons- 8.3, 8.4, Course 2: 8.4, 8.5</p>	<p>Lesson Essential Questions:</p> <p>Can you use ratios and proportions to create your own scale drawing?</p> <p>Materials-</p> <p>Lessons- Course 2: 8.6</p>
Vocabulary: Ratio, rate, unit rate, proportion, cross products, scale, scale drawing, key.		
Additional Info: Students will create a scale drawing of the classroom. All lessons are in course 1 unless noted otherwise.		
Resources: McDougall Littell Course 1 and Course 2: Practice Workbook, SSS Workbook, Classzone.com, Notetaking Guide and Warm-ups, Chapter 8 Resource book.		

2009-2010 6th Grade Math Curriculum Map

Topic: (03a) Write, interpret and use mathematical expressions.		Days: 30
Subject: Math		Grade: 6
Key Learning: Understanding and applying mathematical expressions and equations.		
Unit Essential Questions: What are mathematical expressions and equations?		
Concept: Write and evaluate mathematical expressions that correspond to given situations.	Concept: Write, solve and graph one and two step linear equations and inequalities.	Concept: Work backwards with two - step function rules to undo expressions.
MA.6.A.3.1	MA.6.A.3.2	MA.6.A.3.3
<p>Lesson Essential Questions: How can I use mathematical expressions to evaluate real life situations?</p> <p>How can I evaluate mathematical expressions?</p> <p>Materials-</p> <p>Lessons- 12.1, 12.2, 12.3, 12.4 Course 2: 7.1, 7.2</p>	<p>Lesson Essential Questions: What are linear equations and inequalities?</p> <p>How do I solve a linear equation or inequalities?</p> <p>How do I graph a linear equation or inequalities?</p> <p>Materials-</p> <p>Lessons- Chapter 12 Special Topic pg. 604. Course 2: 7.3, 7.4, 7.5, 7.6</p>	<p>Lesson Essential Questions: How are function rules and expressions related?</p> <p>Materials-</p> <p>Lessons- 12.5 Course 2: 7.7</p>
Vocabulary: Expression, equations, inequalities, functions, evaluate, variable, solution, graph, linear function, input, output, verbal model, terms, like terms, coefficient, constant terms, inverse operation.		
Additional Info: All lessons are in course 1 unless noted otherwise.		
Resources: McDougall Littell Course 1 and McDougall Littell Course 2: Practice Workbook, SSS Workbook, Classzone.com, Notetaking Guide and Warm-ups, Chapter 8 Resource book.		

2009-2010 6th Grade Math Curriculum Map

Topic: (03b) Write, interpret and use mathematical expression.		Days: 18
Subject: Math		Grade: 6
Key Learning: Understanding and applying mathematical expressions and equations.		
Unit Essential Questions: What are mathematical expressions and equations?		
Concept: Solve problems using a given formula.	Concept: Applying the commutative, associative and distributive properties.	Concept: Use common language and algebraic notation to solve and graph linear functions and relations.
MA.6.A.3.4	MA.6.A.3.5	MA.6.A.3.6
Lesson Essential Questions: How do I use a given mathematical formula to solve a problem? Materials- Lessons- Hands on activity 12.5, pg.604. Course 3: Chapter 1.6	Lesson Essential Questions: How do I use the commutative, associative and distributive properties to show equivalency? Materials- Lessons-	Lesson Essential Questions: How can I describe linear functions and other simple relations? Materials- Lessons- 12.5, 12.6
Vocabulary: Commutative property, associative property and distributive property, equivalent		
Additional Info: NEED MORE RESOURCES. : All lessons are in course 1 unless noted otherwise.		
Resources: McDougall Littell Course 1, Course 3 Practice Workbook, SSS Workbook, Classzone.com, Notetaking Guide and Warm-ups, Chapter 8 Resource book		

2009-2010 6th Grade Math Curriculum Map

Topic: (04S) Geometry and Measurement		Days: 30
Subject: Math		Grade: 6
Key Learning: Understanding area, perimeter and volume of plane figures and the use of Pi in calculating the perimeter, area and volume of circular figures and composite figures.		
Unit Essential Questions: Can I identify the basic shape of a figure and use the appropriate formula to find the area, perimeter and volume?		
Concept: Understanding the concept of Pi and using its value to find circumference and area.	Concept: Find the perimeter and area of two- dimensional figures.	Concept: Find the area or volume using a given formula or given the solution find the missing dimension.
MA.6.G.4.1	MA.6.G.4.2	MA.6.G.4.3
Lesson Essential Questions: What is Pi? How is Pi used to find the circumference and area? Materials- Lessons- 10.3 Hands on activity, pg. 484. 10.3, 10.4 Course 2: 11.6, 11.7	Lesson Essential Questions: How do I find the perimeter and area of two-dimensional figures including non-rectangular figures? Materials- Lessons- 2.2, 10.1, 10.2 Course 2: 1.6, 11.4, 11.5	Lesson Essential Questions: How do I find the area or volume of a two-dimensional figure or prism? How do you find a missing dimension of a two-dimensional figure or prism given its area or volume or some of its dimensions? Materials- Lessons- 10.5, 10.6, 10.7 Course 2: 11.4, 11.5, 12.5, 12.6
Vocabulary: Radius, diameter, circumference, ratio, height, base, circle, center, Pi, cylinder, prism, sphere, pyramid, cube, surface area, volume, face, edge, vertex.		
Additional Info : All lessons are in course 1 unless noted otherwise.		
Resources: Course 1 and Course 2: Practice Workbook, SSS Workbook, Classzone.com, Notetaking Guide and Warm-ups, Chapter 1, 2, 10, 11, 12 Resource book		

2009-2010 6th Grade Math Curriculum Map

Topic: (05S) Data Analysis		Days: 24
Subject: Math		Grade: 6
Key Learning: Students will understand, describe, analyze and summarize a data set using measures of central tendency or variability.		
Unit Essential Questions: How can I use the appropriate measure of central tendency or variability to analyze or describe a data set?		
Concept: Measure of central tendency	Concept: Application of the measure of central tendency	Concept: Real World Application
MA.6.S.6.1	MA.6.S.6.2	
Lesson Essential Questions: What are the ways to measure central tendency? Materials- Lessons- Course 1: 2.8, Course 2: 3.1	Lesson Essential Questions: How do we apply the measures of central tendency Materials- Lessons- Course 1: 13.5,13.6 Course 2: 3.3,3.4 Hands on activity pg. 122.	Lesson Essential Questions: How do we use measures of central tendency in real life? Materials- Lessons- Teacher assigned project.
Vocabulary: Mean, median, mode, range, stem and leaf, upper and lower extreme, upper and lower quartile, box and whisker plot.		
Additional Info: Need more resources. : All lessons are in course 1 unless noted otherwise.		
Resources: Course 1 and Course 2: Practice Workbook, SSS Workbook, Classzone.com, Notetaking Guide and Warm-ups, Chapter 2, 13 Resource book.		