

Agawam Public Schools Grade 5 Math Curriculum

Number Sense and Operations

Grade 5

<u>Learning Standards</u>	<u>Benchmarks</u>	<u>Essential Questions</u>	<u>Resources/Lessons</u>
5.N.1 Demonstrate an understanding of (positive integer) powers of ten.	5.N.1 Identify powers of ten up to 10^6	5.N.1 What does $10 \times 10 \times 10 \times 10 \times 10$ equal in exponential form?	Scott Foresman - 1.1, 1.5
5.N.2 Demonstrate an understanding of place value through millions and thousandths.	5.N.2 Demonstrate an understanding of place value to millions and thousandths.	5.N.2 What are some ways to represent large numbers? How can you represent decimals? How are place values related?	Scott Foresman - 1.3
5.N.3 Represent and compare large (millions) and small (thousandths) positive numbers in various forms, such as expanded notation without exponents, e.g., $9724 = 9 \times 1000 + 7 \times 100 + 2 \times 10 + 4$.	5.N.3 Compare and order decimals to the 1,000ths. Represent and compare millions. Represent whole numbers in expanded notations.	5.N.3 What are some ways to represent large numbers?	Scott Foresman - 7.1, 7.2 Scott Foresman - 11.1
5.N.4 Demonstrate an understanding of fractions as a ratio of whole numbers, as parts of unit wholes, as parts of a collection and as locations on the number line.	5.N.4 Demonstrate fractions as both parts of a region and parts of a collection or set. Demonstrate fractions as ratios.	5.N.4 How can you name part of a whole? How can a fraction name a point on a number line? How can you name part of a set? How can you divide 3 objects into equal parts?	Scott Foresman - 1.3 Scott Foresman - 11.1
5.N.5 Identify and determine common equivalent fractions (with denominators 2, 4, 5, 10) and mixed numbers (with denominators 2, 4, 5, 10), decimals and percents (through one-hundred percent) e.g., $\frac{3}{4} = 0.75 = 75\%$.	5.N.5 Recognize commonly used fractions and their decimal equivalents. Recognize the relationship between percents and fractions with denominators of one hundred.	5.N.5 What is a mixed number? How do you change between improper fractions and mixed numbers?	Scott Foresman - 7.7, 7.8, 7.13 Scott Foresman - 11.8
5.N.6 Find and position whole numbers, positive fractions, positive mixed numbers and decimals on a number line.	5.N.6 Find and position positive integers, fractions, mixed numbers and decimals on a number line in an ordered list.	5.N.6 How can you locate fractions and mixed numbers on a number line?	Scott Foresman - 7.5, 7.15
5.N.7 Compare and order whole numbers, positive fractions, positive mixed numbers, positive decimals and percents.	5.N.7 Compare and order whole numbers and positive fractions, mixed numbers, decimals and percents.	5.N.7 How can you compare and order decimals?	Scott Foresman - 1.2, 1.4 Scott Foresman - 2.16 Scott Foresman - 7.5, 7.11, 7.12 Scott Foresman - 12.5

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Grade 5

<u>Learning Standards</u>	<u>Benchmarks</u>	<u>Essential Questions</u>	<u>Resources/Lessons</u>
5.N.8 Apply the number theory concepts of common factor, common multiple and divisibility rules for 2, 3, 5 and 10 to the solution of problems. Demonstrate an understanding of the concepts of prime and composite numbers.	5.N.8 Demonstrate an understanding that a number can be prime or composite and that numbers can be divided into factors. Recognize when one number is a multiple of another. Find the greatest common factor and least common multiple for sets of numbers. Apply divisibility rules for 2, 5, 10.	5.N.8 How can you find all the factors of a number? How can you tell if a number is a prime or composite? How can you write a number as a product of prime factors?	Scott Foresman - 3.10, 3.11 Scott Foresman - 7.9 Scott Foresman - 8.3
5.N.9 Solve problems involving multiplication and division of whole numbers and multiplication of positive fractions with whole numbers.	5.N.9 Select the appropriate operations to solve problems. Determine if there is too little or too much information when solving problems. Model real-world problems using numbers other than whole numbers.	5.N.9 What steps can be used to read and understand a problem?	Scott Foresman - 1.14 Scott Foresman - 3.12 Scott Foresman - 4.7
5.N.10 Demonstrate an understanding of how parentheses affect expressions involving addition, subtraction and multiplication and use that understanding to solve problems, e.g., $3 \times (4 + 2) = 3 \times 6$.	5.N.10 Recognize and demonstrate that addition, subtraction, multiplication and division follow an Order of Operations and that parentheses can affect the order.	5.N.10 How do you evaluate expressions with more than one operation?	Scott Foresman - 3.13
5.N.11 Demonstrate an understanding of the inverse relationship of addition and subtraction, and use that understanding to simplify computation and solve problems.	5.N.11 Explain how addition and subtraction, and multiplication and division are related.	5.N.11 What are inverse operations?	Scott Foresman - 12.1, 12.2
5.N.12 Accurately and efficiently add and subtract whole numbers and positive decimals. Multiply and divide (using double-digit divisors) whole numbers. Multiply positive decimals with whole numbers.	5.N.12 Use algorithms to perform division with two-digit divisors. Use algorithms to add and subtract decimal numbers. Demonstrate understanding of multiplication and division of decimals using diagrams and manipulatives.	5.N.12 How can you model the multiplication of decimals? How can you multiply decimal by decimal? When do you insert extra zeros in the product?	Scott Foresman - 1.1, 1.7, 1.12, 1.13 Scott Foresman - 2.1, 2.4, 2.5, 2.7, 2.9, 2.10, 2.11 Scott Foresman - 3.7, 3.8, 3.9 Scott Foresman - 4.10, 4.11 Scott Foresman - 12.6, 12.7

Agawam Public Schools Grade 5 Math Curriculum

Number Sense and Operations

Grade 5

<u>Learning Standards</u>	<u>Benchmarks</u>	<u>Essential Questions</u>	<u>Resources/Lessons</u>
5.N.13 Accurately and efficiently add and subtract positive fractions and mixed numbers with like denominators and with unlike denominators (2, 4, 5, 10 only); multiply positive fractions with whole numbers. Simplify fractions in cases when both the numerator and the denominator have 2, 3, 4, 5 or 10 as a common factor.	5.N.13 Add and subtract common fractions with like and unlike denominators. Add and subtract mixed numerals with like denominators. Simplify fractions.	5.N.13 How do you add or subtract fractions with like denominators? How can fraction strips help you add and subtract fractions with unlike denominators?	Scott Foresman - 3.1, 3.2, 3.5 Scott Foresman - 4.1, 4.4, 4.5, 4.6, 4.7 Scott Foresman - 7.10 Scott Foresman - 8.1, 8.2, 8.4, 8.5, 8.10
5.N.14 Estimate sums and differences of whole numbers, positive fractions and positive decimals. Estimate products of whole numbers and products of positive decimals with whole numbers. Use a variety of strategies and judge the reasonableness of the answer.	5.N.14 Estimate sums, differences, products and quotients with whole numbers, fractions and decimals with reasoned strategies.	5.N.14 How can you estimate with mixed numbers? How is adding mixed numbers like adding fractions and whole numbers? How do you subtract a mixed number from a mixed number? How do you subtract a mixed number from a whole number?	Scott Foresman - 1.9 Scott Foresman - 2.2, 2.8, 2.16 Scott Foresman - 3.3 Scott Foresman - 4.2, 4.4, 4.5 Scott Foresman - 8.11 Scott Foresman - 10.10

Agawam Public Schools Grade 5 Math Curriculum

Geometry

Grade 5

<u>Learning Standards</u>	<u>Benchmarks</u>	<u>Essential Questions</u>	<u>Resources/Lessons</u>
5.G.1 Identify, describe and compare special types of triangles (isosceles, equilateral, right) and quadrilaterals (square, rectangle, parallelogram, rhombus, trapezoid) e.g., recognize that all equilateral triangles are isosceles, but not all isosceles triangles are equilateral.	5.G.1 Compare and classify acute, right and obtuse angles. Identify and compare types of triangles (acute, obtuse, right, scalene, isosceles and equilateral) and quadrilaterals. Identify pentagons, hexagons and octagons. Draw all acute, right and obtuse triangles and draw quadrilaterals.	5.G.1 What are some names of polygons? What are some examples of polygons?	Scott Foresman - 6.4, 6.5
5.G.2 Identify, describe and compare special types of three-dimensional shapes (cubes, prisms, spheres, pyramids) based on their properties, such as edges and faces.	5.G.2 Identify three-dimensional shapes based on their properties.	5.G.2 What is a solid figure? How can you tell one solid figure from another?	Scott Foresman - 6.4, 6.5 Scott Foresman - 10.1, 10.2
5.G.3 Identify relationships among points and lines, e.g., intersecting, parallel, perpendicular.	5.G.3 Identify and describe points, lines, angles and circles. Draw illustrations of points, lines, angles and segments. Describe the properties of points and lines. Identify segments of lines. Describe the length of a segment.	5.G.3 How do you represent basic geometric ideas? What are some special lines?	Scott Foresman - 6.1, 6.4, 6.5
5.G.4 Using ordered pairs of whole numbers (including zero), graph, locate and identify points and describe paths on the Cartesian coordinate plane.	5.G.4 Graph points and identify coordinates of points on the Cartesian coordinate plane on the first quadrant.	5.G.4 How can you locate a point on a grid? How do you graph a point?	Scott Foresman - 3.14, 3.15 Scott Foresman - 6.4, 6.5 Scott Foresman - 12.9, 12.10
5.G.5 Describe and perform transformations on two-dimensional shapes, e.g., translations, rotations and reflections.	5.G.5 Predict, describe, identify translations, rotations and reflections.	5.G.5 How can you move a figure? How can I draw patterns?	Scott Foresman - 6.4, 6.5, 6.10
5.G.6 Identify and describe line symmetry in two-dimensional shapes, including shapes that have multiple lines of symmetry.	5.G.6 Using manipulatives, illustrate and record examples/patterns that represent rotational symmetry and line of symmetry.	5.G.6 How can you describe and create symmetrical figures?	Scott Foresman - 6.4, 6.5, 6.11
5.G.7 Determine if two triangles or two quadrilaterals are congruent by measuring sides or a combination of sides and angles, as necessary; or by motions or series of motions, e.g., translations, rotations and reflections.	5.G.7 Describe properties of congruence. Determine congruence through measurement and transformations.	5.G.7 How do you describe figures with the same shape? How can you relate the angles and sides of polygons?	Scott Foresman - 6.4, 6.5, 6.9

Agawam Public Schools Grade 5 Math Curriculum

Data Analysis, Statistics and Probability

Grade 5

Learning Standards

Benchmarks

Essential Questions

Resources/Lessons

5.D.1 Given a set of data, find the median, mean, mode, maximum, minimum and range and apply to solutions of problems.	5.D.1 Using given data, apply the concepts of median, mean, mode, maximum, minimum and range.	5.D.1 How can data be described by a single number? Does the mean, median or mode best describe the data?	Scott Foresman - 5.6
5.D.2 Construct and interpret line plots, line graphs, and bar graphs. Interpret and label circle graphs.	5.D.2 Construct line and bar graphs. Interpret line, bar graphs and circle graphs.	5.D.2 How do you read a line graph? How do you make a line graph?	Scott Foresman - 5.1, 5.4, 5.5, 5.7
5.D.3 Predict the probability of outcomes of simple experiments (e.g., tossing a coin, rolling a number cube) and test the predictions.	5.D.3 Demonstrate a basic understanding of the probability of an event occurring as the likelihood that an event will happen. Conduct an experiment that produces experimental data and compute a ratio to represent the probability.	5.D.3 What is the probability of an event? How can you decide if a game is fair?	

Agawam Public Schools Grade 5 Math Curriculum

Patterns, Relations and Algebra

Grade 5

<u>Learning Standards</u>	<u>Benchmarks</u>	<u>Essential Questions</u>	<u>Resources/Lessons</u>
5.P.1 Analyze and determine the rules for extending symbolic, arithmetic and geometric patterns and progressions, e.g., ABBCCC; 1, 5, 9, 13...; 3, 9, 27...	5.P.1 Recognize, describe and extend whole number sequences (e.g., square numbers 1, 4, 9, 16...and Fibonacci Numbers 1, 1, 2, 3, 5...). Recognize and extend patterns involving various two-dimensional geometric shapes. Represent patterns with manipulatives by building towers, pyramids or other patterns.	5.P.1 How can properties help you multiply more easily? What's the multiplication pattern?	Scott Foresman - 2.1 Scott Foresman - 3.2, 3.4 Scott Foresman - 4.9
5.P.2 Replace variable with given values and evaluate/simplify.	5.P.2 Find the "missing number" in a number sentence. Recognize and describe the concept of a variable as the "missing number" in a number sentence.	5.P.2 What is an algebraic expression? How can you evaluate an algebraic expression?	Scott Foresman - 2.12
5.P.3 Use the properties of equality to solve problems with whole numbers.	5.P.3 Identify properties of equality with whole numbers in four operations.	5.P.3 What are the properties of equality? What are inverse operations?	Scott Foresman - 12.1, 12.2, 12.3
5.P.4 Represent real situations and mathematical relationships with concrete models, tables, graphs and rules in words and with symbols, e.g., input-output tables.	5.P.4 Analyze and describe the data orally and in writing, commenting on patterns and trends. Organize data logically with a table, chart or other model.	5.P.4 How do you make and use a table to solve a problem? How can objects be used to model a problem? How do you write an equation to solve a problem? When might you write an equation?	Scott Foresman - 2.14 Scott Foresman - 3.15
5.P.5 Solve problems involving proportional relationships using concrete models, tables, graphs and paper-pencil methods.	5.P.5 Find the value of an expression given the replacement value for the variables. Solve equations in one variable using concrete objects and "guess and check".	5.P.5 How can you solve equations using mental math?	Scott Foresman - 2.15 Scott Foresman - 12.2, 12.3
5.P.6 Interpret graphs that represent the relationship between two variables in everyday situations.	5.P.6 Determine and express simple ratios. Create graphs using data from table of values.	5.P.6 How do you read and interpret a bar graph? How do you make a bar graph?	Scott Foresman - 5.3, 5.5, 5.9

Agawam Public Schools Grade 5 Math Curriculum

Measurement

Grade 5

<u>Learning Standards</u>	<u>Benchmarks</u>	<u>Essential Questions</u>	<u>Resources/Lessons</u>
5.M.1 Apply the concepts of perimeter and area to the solution of problems involving triangles and rectangles. Apply formulas where appropriate.	5.M.1 Find the area of squares and rectangles. Describe how to find the perimeter of a polygon. Calculate perimeter of a polygon.	5.M.1 How can you find the distance around a shape? How can you use counting to find the area of a shape? How can you find the areas of squares and rectangles without counting? How can you use rectangles to find the area of parallelograms? How can you use a formula to find the area of a parallelogram?	Scott Foresman - 4.3 Scott Foresman - 9.5, 9.7, 9.8, 9.11
5.M.2 Identify, measure, describe, classify and draw various angles. Draw triangles given two sides and the angle between them or given two angles and the side between them, e.g., draw a triangle with one right angle and two sides congruent.	5.M.2 Identify, measure, describe, classify and construct various angles, triangles and quadrilaterals. (e.g., acute, right, obtuse, equilateral, square, rectangle)	5.M.2 How can you find a missing angle measure in a triangle? How can you measure angles? How do you use a protractor? How do you classify angles?	Scott Foresman - 6.2, 6.5, 6.6, 6.8
5.M.3 Solve problems involving simple unit conversions within a system of measurement.	5.M.3 Solve problems involving proportional relationships and units of measurement.	5.M.3 How can you measure liquid? What are some metric units of capacity? How can you measure how light or heavy something is? What is mass and how is it measured? How can you change units of mass? When do you need to measure and when is an estimate enough?	Scott Foresman - 4.12 Scott Foresman - 9.1, 9.12, 9.13 Scott Foresman - 10.6, 10.7, 10.8, 10.9, 10.10 Scott Foresman - 11.6
5.M.4 Find volumes and surface areas of rectangular prisms.	5.M.4 Define the surface area of a cube and find its value.	5.M.4 How do you measure how much space something occupies?	Scott Foresman - 9.9, 9.10 Scott Foresman - 10.3, 10.5
5.M.5 Find the sum of the measure of the interior angles in triangles by measuring the angles, and without measuring the angles.	5.M.5 Using sum of angles in a triangle - 180° , find sum of simple polygons without measuring. Estimate various angles in simple polygons.	5.M.5 How do you classify quadrilaterals? What is the sum of the measures of the angles of a quadrilateral?	Scott Foresman - 6.5

Agawam Public Schools Grade 5 September 2006

Chapter 1

Grade 5

Standards

- 5.N.1 Demonstrate an understanding of (positive integer) powers of ten.
- 5.N.2 Demonstrate an understanding of place value through millions and thousandths.
- 5.N.3 Represent and compare large (millions) and small (thousandths) positive numbers in various forms, such as expanded notation without exponents, e.g., $9724 = 9 \times 1000 + 7$.
- 5.N.5 Identify and determine common equivalent fractions (with denominators 2, 4, 5, 10) and mixed numbers (with denominators 2, 4, 5, 10), decimals and percents (through one-hundred percent) e.g., $\frac{3}{4} = 0.75 = 75\%$.
- 5.N.7 Compare and order whole numbers, positive fractions, positive mixed numbers, positive decimals and percents.
- 5.N.9 Solve problems involving multiplication and division of whole numbers and multiplication of positive fractions with whole numbers.
- 5.N.12 Accurately and efficiently add and subtract whole numbers and positive decimals. Multiply and divide (using double-digit divisors) whole numbers. Multiply positive decimals with whole numbers.
- 5.N.14 Estimate sums and differences of whole numbers, positive fractions and positive decimals. Estimate products of whole numbers and products of positive decimals with whole numbers. Use a variety of strategies and judge the reasonableness of the answer.

Vocabulary

digits	word form	commutative property of addition
place value	tenths	associative property of addition
period	hundredths	identity property of addition
standard form	thousandths	compensation
expanded form	equivalent decimals	rounding
		front-end estimation

Key Lessons

- 1.4 Comparing and ordering decimals
- 1.9 Estimating sums and ordering decimals
- 1.13 Subtracting decimals

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
				1 Pro Dev
4 Holiday	5 Pro Dev	6 1 st day of school	7 Chapter 1 15 days	8
11	12	13	14	15 Diagnostic Testing Done
18	19	20	21	22
25	26	27 Chapter 1 Test Readiness (2)	28 Chapter 2 16 days	29

Assessment Schedule by Chapter
Quick -- Diagnosing Readiness - Beg of Chap. Pre-Test -Assessment Manual
Quiz - MCAS Section A Quiz - MCAS Manual
Quiz - MCAS Section B. Quiz - MCAS Manual
Quiz - MCAS Section C Quiz - MCAS Manual
End of Chap. Test for Practice - Text
Test - Chap. Test A or B - Assessment Manual
Test - Cumulative Review & Test Prep. - Text

Agawam Public Schools Grade 5 October 2006

Chapter 2

Grade 5

Standards

- 5.N.7 Compare and order whole numbers, positive fractions, positive mixed numbers, positive decimals and percents.
- 5.N.9 Solve problems involving multiplication and division of whole numbers and multiplication of positive fractions with whole numbers.
- 5.N.12 Accurately and efficiently add and subtract whole numbers and positive decimals. Multiply and divide (using double-digit divisors) whole numbers. Multiply positive decimals with whole numbers.
- 5.N.14 Estimate sums and differences of whole numbers, positive fractions and positive decimals. Estimate products of whole numbers and products of positive decimals with whole numbers. Use a variety of strategies and judge the reasonableness of the answer.
- 5.P.1 Analyze and determine the rules for extending symbolic, arithmetic and geometric patterns and progressions, e.g., ABBCCC; 1, 5, 9, 13...; 3, 9, 27...
- 5.P.2 Replace variables with given values and evaluate/simplify.
- 5.P.3 Use the properties of equality to solve problems with whole numbers.
- 5.P.4 Represent real situations and mathematical relationships with concrete models, tables, graphs and rules in words and with symbols, e.g., input-output tables.
- 5.P.5 Solve problems involving proportional relationships using concrete models, tables, graphs and paper-pencil methods.

Vocabulary Chapter 2

factor	distributive property	product
product	partial product	quotient
commutative property of multiplication	identity property of multiplication	input/output
associative property of multiplication	zero property of multiplication	equation
overestimate	variable	solution
underestimate	algebraic expression	
rounding	sum	
compatible numbers	difference	

Key Lessons

- 2.4 Multiplying whole numbers
- 2.11 Multiplying decimals by decimals
- 2.15 Algebra solving equations

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
2	3	4	5	6
9 Columbus Day	10	11	12	13
16	17	18	19	20 Chapter 2 Test Readiness (3)
23 Chapter 3 (see next page)	24	25	26	27
30	31			

Assessment Schedule by Chapter

- Quick -- Diagnosing Readiness - Beg of Chap.
Pre-Test -Assessment Manual
- Quiz - MCAS Section A Quiz - MCAS Manual
- Quiz - MCAS Section B. Quiz - MCAS Manual
- Quiz - MCAS Section C Quiz - MCAS Manual
- End of Chap. Test for Practice - Text
- Test - Chap. Test A or B - Assessment Manual
- Test - Cumulative Review & Test Prep. - Text
- Test - Benchmark Test - Benchmark Test Manual

Agawam Public Schools Grade 5 October 2006

Chapter 3

Grade 5

Standards

- 5.N.8 Apply the number theory concepts of common factor, common multiple and divisibility rules for 2, 3, 5 and 10 to the solution of problems. Demonstrate an understanding of the concepts of prime and composite numbers.
- 5.N.9 Solve problems involving multiplication and division of whole numbers and multiplication of positive fractions with whole numbers.
- 5.N.10 Demonstrate an understanding of how parentheses affect expressions involving addition, subtraction and multiplication and use that understanding to solve problems, e.g., $3 \times (4 + 2) = 3 \times 6$.
- 5.N.13 Accurately and efficiently add and subtract positive fractions and mixed numbers with like denominators and with unlike denominators (2, 4, 5, 10 only); multiply positive fractions with whole numbers. Simplify fractions in cases when both the numerator and the denominator have 2, 3, 4, 5 or 10 as a common factor.
- 5.N.14 Estimate sums and differences of whole numbers, positive fractions and positive decimals. Estimate products of whole numbers and products of positive decimals with whole numbers. Use a variety of strategies and judge the reasonableness of the answer.
- 5.P.1 Analyze and determine the rules for extending symbolic, arithmetic and geometric patterns and progressions, e.g., ABBCCC; 1, 5, 9, 13...; 3, 9, 27...
- 5.P.4 Represent real situations and mathematical relationships with concrete models, tables, graphs and rules in words and with symbols, e.g., input-output tables.
- 5.G.4 Using ordered pairs of whole numbers (including zero), graph, locate and identify points and describe paths on the Cartesian coordinate plane.

Vocabulary

inverse operations	divisible	prime factorization
compatible numbers	factor	order of operation
rounding	divisibility rules	coordinates
overestimate	factor pair	ordered pairs
underestimate	prime number	variable
quotient	composite number	table of values
divisor	rectangular array	

Key Lessons

- 3.3 Estimating quotients
 3.6 Dividing whole numbers
 3.15 Algebra -- solving equations

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
2	3	4	5	6
9 Columbus Day	10	11	12	13
16	17	18	19	20 Chapter 2 Test Readiness (3)
23 Chapter 3 16 days	24	25	26	27
30	31			

Assessment Schedule by Chapter

Quick -- Diagnosing Readiness - Beg of Chap.
 Pre-Test - Assessment Manual
 Quiz - MCAS Section A Quiz - MCAS Manual
 Quiz - MCAS Section B. Quiz - MCAS Manual
 Quiz - MCAS Section C Quiz - MCAS Manual
 End of Chap. Test for Practice - Text
 Test - Chap. Test A or B - Assessment Manual
 Test - Cumulative Review & Test Prep. - Text

Agawam Public Schools Grade 5 November 2006

Chapter 4 Grade 5 Standards

- 5.N.2 Demonstrate an understanding of place value through millions and thousandths.
- 5.N.9 Solve problems involving multiplication and division of whole numbers and multiplication of positive fractions with whole numbers.
- 5.N.10 Demonstrate an understanding of how parentheses affect expressions involving addition, subtraction and multiplication and use that understanding to solve problems, e.g., $3 \times (4 + 2) = 3 \times 6$.
- 5.N.12 Accurately and efficiently add and subtract whole numbers and positive decimals. Multiply and divide (using double-digit divisors) whole numbers. Multiply positive decimals with whole numbers.
- 5.N.13 Accurately and efficiently add and subtract positive fractions and mixed numbers with like denominators and with unlike denominators (2, 4, 5, 10 only); multiply positive fractions with whole numbers.
- 5.N.14 Estimate sums and differences of whole numbers, positive fractions and positive decimals. Estimate products of whole numbers and products of positive decimals with whole numbers. Use a variety of strategies and judge the reasonableness of the answer.
- 5.P.1 Analyze and determine the rules for extending symbolic, arithmetic and geometric patterns and progressions, e.g., ABBCCC; 1, 5, 9, 13...; 3, 9, 27...
- 5.M.1 Apply the concepts of perimeter and area to the solution of problems involving triangles and rectangles. Apply formulas where appropriate.
- 5.M.3 Solve problems involving simple unit conversions within a system of measurement.

Vocabulary

quotient	estimate	divisor	hundredths
multiple of 10	rounding	remainder	
compatible numbers	dividend	tenths	

Key Lessons

- 4.2 Estimate with two-digit divisors
- 4.4 Dividing whole numbers by two-digit divisors
- 4.11 Dividing decimals by whole numbers

Monday	Tuesday	Wednesday	Thursday	Friday
		1	2	3
6	7 Pro. Dev. Day	8	9	10 Veterans' Day
13	14	15 Chapter 3 Test Readiness (4)	16 Chapter 4 13 days	17
20	21	22 Half Day	23 Thanksgiving	24 Thanksgiving
27	28	29	30	

Assessment Schedule by Chapter
Quick -- Diagnosing Readiness - Beg of Chap.
Pre-Test -Assessment Manual
Quiz - MCAS Section A Quiz - MCAS Manual
Quiz - MCAS Section B. Quiz - MCAS Manual
Quiz - MCAS Section C Quiz - MCAS Manual
End of Chap. Test for Practice - Text
Test - Chap. Test A or B - Assessment Manual
Test - Cumulative Review & Test Prep. - Text

Agawam Public Schools Grade 5 December 2006

Chapter 5 Grade 5 Standards

- 5.P.2 Replace variables with given values and evaluate/simplify.
 5.P.6 Interpret graphs that represent the relationship between two variables in everyday situations.
 5.D.2 Construct and interpret line plots, line graphs, and bar graphs. Interpret and label circle graphs.
 5.D.3 Predict the probability of outcomes of simple experiments (e.g., tossing a coin, rolling a number cube) and test the predictions.

Vocabulary

survey	trend	event
data	stem-and leaf-play	outcome
line plot	stem	equally likely
frequency table	leaf	less likely
sample	range	more likely
bar graph	average	certain event
double bar graph	median	impossible event
scale	mean	sample space
axis (axes)	mode	tree diagram
interval	circle graph	probability
line graph	pictograph	

Key Lessons

- 5.3 Line graphs
 5.6 Mean, median and mode
 5.12 Expressing probability as a fraction

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
				1
4	5	6 Half-Day Parent Conferences Chapter 4 Test Readiness (5)	7 Chapter 5 11 days	8
11	12	13	14	15
18	19	20	21 Chapter 5 Test Readiness (6)	22
25 Winter Vacation	26 Winter Vacation	27 Winter Vacation	28 Winter Vacation	29 Winter Vacation

Assessment Schedule by Chapter
Quick -- Diagnosing Readiness - Beg of Chap. Pre-Test -Assessment Manual
Quiz - MCAS Section A Quiz - MCAS Manual
Quiz - MCAS Section B. Quiz - MCAS Manual
Quiz - MCAS Section C Quiz - MCAS Manual
End of Chap. Test for Practice - Text
Test - Chap. Test A or B - Assessment Manual
Test - Cumulative Review & Test Prep. - Text
Test - Benchmark Test - Benchmark Test Manual

Agawam Public Schools Grade 5 January 2007

Chapter 6

Grade 5

Standards

- 5.G.1 Identify, describe and compare special types of triangles (isosceles, equilateral, right) and quadrilaterals (square, rectangle, parallelogram, rhombus, trapezoid) e.g., recognize that all equilateral triangles are isosceles, but not all isosceles triangles are equilateral.
- 5.G.3 Identify relationships among points and lines, e.g., intersecting, parallel, perpendicular.
- 5.G.5 Describe and perform transformations on two-dimensional shapes, e.g., translations, rotations and reflections.
- 5.G.6 Identify and describe line symmetry in two-dimensional shapes, including shapes that have multiple lines of symmetry.
- 5.G.7 Determine if two triangles or two quadrilaterals are congruent by measuring sides or a combination of sides and angles, as necessary; or by motions or series of motions, e.g., translations, rotations and reflections.
- 5.M.2 Identify, measure, describe, classify and draw various angles. Draw triangles given two sides and the angle between them or given two angles and the side between them, e.g., draw a triangle with one right angle and two sides congruent.
- 5.M.5 Find the sum of the measure of the interior angles in triangles by measuring the angles, and without measuring the angles.

Vocabulary

point	exterior	polygon	parallelogram
line	degrees	triangle	trapezoid
line segment	protractor	quadrilateral	rectangle
midpoint	acute angle	pentagon	rhombus
ray	right angle	hexagon	square
plane	obtuse angle	octagon	similar figures
parallel lines	straight angle	regular polygon	congruent figures
intersecting lines	circle	equilateral triangle	transformations
perpendicular lines	center	isosceles triangle	slide (translation)
angle	radius	scalene triangle	flip (reflection)
vertex	diameter	right triangle	turn (rotation)
sides	chord	acute triangle	symmetric figure
interior	central angle	obtuse triangle	line of symmetry

Key Lessons

- 6.3 Segments and angles related to circles
- 6.4 Polygons
- 6.10 Transformations

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
1 Winter Vacation	2 Chapter 6 11 days	3	4	5
8	9	10	11	12
15 Holiday	16	17 Chapter 6 Test Readiness (7)	18 Mid-Year Assessment	19 Chapter 7 16 days
22	23	24	25	26
29	30	31		

Assessment Schedule by Chapter

Quick -- Diagnosing Readiness - Beg of Chap.
 Pre-Test -Assessment Manual
 Quiz - MCAS Section A Quiz - MCAS Manual
 Quiz - MCAS Section B. Quiz - MCAS Manual
 Quiz - MCAS Section C Quiz - MCAS Manual
 End of Chap. Test for Practice - Text
 Test - Chap. Test A or B - Assessment Manual
 Test - Cumulative Review & Test Prep. - Text
 Test - Benchmark Test - Benchmark Test Manual
 Mid Year Assessment

Agawam Public Schools Grade 5 February 2007

Chapter 7 & 8

Grade 5

Standards

Chapter 7

5.N.4 Demonstrate an understanding of fractions as a ratio of whole numbers, as parts of unit wholes, as parts of a collection and as locations on the number line.

5.N.5 Identify and determine common equivalent fractions (with denominators 2, 4, 5, 10) and mixed numbers (with denominators 2, 4, 5, 10), decimals and percents (through one-hundred percent) e.g., $\frac{3}{4} = 0.75 = 75\%$.

5.N.6 Find and position whole numbers, positive fractions, positive mixed numbers and decimals on a number line.

5.N.7 Compare and order whole numbers, positive fractions, positive mixed numbers, positive decimals and percents.

5.N.8 Apply the number theory concepts of common factor, common multiple and divisibility rules for 2, 3, 5 and 10 to the solution of problems. Demonstrate an understanding of the concepts of prime and composite numbers.

5.N.13 Accurately and efficiently add and subtract positive fractions and mixed numbers with like denominators and with unlike denominators (2, 4, 5, 10 only); multiply positive fractions with whole numbers.

Chapter 8

5.N.8 See Above

5.N.13 See Above

5.N.14 Estimate sums and differences of whole numbers, positive fractions and positive decimals. Estimate products of whole numbers and products of positive decimals with whole numbers.

Use a variety of strategies and judge the reasonableness of the answer.

Vocabulary Chapter 7

fraction	equivalent fractions
numerator	factor
denominator	common factors
mixed number	greatest common factor
improper fraction	simplest form
benchmark fractions	common denominator

Key Lessons Chapter 7

7.5 Fractions and mixed numbers on a number line
 7.12 Comparing and ordering fractions w/mixed numbers
 7.13 Fractions and decimals

Vocabulary Chapter 8

numerator	divisible
denominator	least common denominator
common denominator	mixed number
equivalent fractions	benchmark
multiple	compatible numbers
least common multiple	

Key Lessons Chapter 8

8.4 Adding and subtracting fractions w/unlike denominators
 8.5 Understanding adding and subtracting denominators
 8.13 Multiplying mixed numbers

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
			1	2
5	6	7	8	9 Chapter 7 Test Readiness (8)
12 Chapter 8 14 days	13	14	15	16
19 Winter Vacation	20 Winter Vacation	2 Winter Vacation	22 Winter Vacation	23 Winter Vacation
26	27	28		

Assessment Schedule by Chapter

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 Quiz - MCAS Section A Quiz - MCAS Manual
 Quiz - MCAS Section B. Quiz - MCAS Manual
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Agawam Public Schools Grade 5 March 2007

Chapter 9 & 10

Grade 5

Standards

Chapter 9

5.M.1 Apply the concepts of perimeter and area to the solution of problems involving triangles and rectangles. Apply formulas where appropriate.

5.M.3 Solve problems involving simple unit conversions within a system of measurement.

5.M.4 Find volumes and surface areas of rectangular prisms.

Chapter 10

5.G.2 Identify, describe and compare special types of three-dimensional shapes (cubes, prisms, spheres, pyramids) based on their properties, such as edges and faces.

5.M.3 See Above

5.M.4 See Above

5.N.14 Estimate sums and differences of whole numbers, positive fractions and positive decimals.

Estimate products of whole numbers and products of positive decimals with whole numbers.

Use a variety of strategies and judge the reasonableness of the answer.

Vocabulary Chapter 9

kilometer	diameter
meter	pi
centimeter	radius
millimeter	area
hectometer	base
decameter	height
perimeter	elapsed
formula	Fahrenheit
circumference	Celsius

Vocabulary Chapter 10

polyhedron	surface area	milliliter
solid figure	volume	liter
faces	cubic unit	weight
edge	capacity	ounce
vertex	teaspoon	pound
prism	tablespoon	ton
pyramid	fluid ounce	mass
cylinder	cup	gram
cone	pint	kilogram
sphere	quart	milligram
net	gallon	

Key Lessons Chapter 9

9.5 Finding perimeter
9.7 Finding area
9.13 Elapsed time

Key Lessons Chapter 10

10.1 Solid figure
10.5 Algebra -- volume
10.8 Algebra customary units of weight

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
			1	2
5	6	7 Half Day Parent Conf	8 Chapter 8 Test Readiness (9)	9 Chapter 9 14 days
12	13	14	15	16
19	20	2	22	23
26	27	28 Chapter 9 Test Readiness (10)	29 Chapter 10 11 days	30

Assessment Schedule by Chapter

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Pre-Test -Assessment Manual
Quiz - MCAS Section A Quiz - MCAS Manual
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Quiz - MCAS Section C Quiz - MCAS Manual
End of Chap. Test for Practice - Text
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Agawam Public Schools Grade 5 April 2007

Chapter 11

Grade 5

Standards

5.N.4 Demonstrate an understanding of fractions as a ratio of whole numbers, as parts of unit wholes, as parts of a collection and as locations on the number line.

5.N.5 Identify and determine common equivalent fractions (with denominators 2, 4, 5, 10) and mixed numbers (with denominators 2, 4, 5, 10), decimals and percents (through one-hundred percent) e.g., $\frac{3}{4} - 0.75 = 75\%$.

5.M.3 Solve problems involving simple unit conversions within a system of measurement.

5.P.4 Represent real situations and mathematical relationships with concrete models, tables, graphs and rules in words and with symbols, e.g., input-output tables.

Vocabulary

ratio	unit rate
equal ration	scale drawing
proportion	scale
terms	percent
rate	

Key Lessons

- 11.2 Equal ratios
- 11.6 Scale drawings
- 11.7 Understanding percent

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
2	3	4	5	6 Holiday
9	10	11	12	13 Chapter 10 Test Readiness (11)
16 Spring Vacation	17 Spring Vacation	18 Spring Vacation	19 Spring Vacation	20 Spring Vacation
23 Chapter 11 6 days	24	25	26	27
30 Chapter 11 Test Readiness (12)				

Assessment Schedule by Chapter

Quick -- Diagnosing Readiness - Beg of Chap.
 Pre-Test -Assessment Manual
 Quiz - MCAS Section A Quiz - MCAS Manual
 Quiz - MCAS Section B. Quiz - MCAS Manual
 Quiz - MCAS Section C Quiz - MCAS Manual
 End of Chap. Test for Practice - Text
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 Test - Benchmark Test -- Benchmark Test Manual

Agawam Public Schools Grade 5 May 2007

Chapter 12

Grade 5

Standards

- 5.P.3 Use the properties of equality to solve problems with whole numbers.
- 5.P.4 Represent real situations and mathematical relationships with concrete models, tables, graphs and rules in words and with symbols, e.g., input-output tables.
- 5.P.5 Solve problems involving proportional relationships using concrete models, tables, graphs and paper-pencil methods.
- 5.N.7 Compare and order whole numbers, positive fractions, positive mixed numbers, positive decimals and percents.
- 5.N.12 Accurately and efficiently add and subtract whole numbers and positive decimals. Multiply and divide (using double-digit divisors) whole numbers. Multiply positive decimals with whole numbers.
- 5.G.4 Using ordered pairs of whole numbers (including zero), graph, locate and identify points and describe paths on the Cartesian coordinate plane.

Vocabulary

equation	positive integers	origin
properties of equality	negative integers	x-value
inverse operations	opposites	y-value
variable	coordinate plane	linear equation
integers	ordered pair	

Key Lessons

- 12.2 Algebra solving addition and subtraction equations
- 12.5 Algebra understanding integers
- 12.10 Graphing equations

Monday	Tuesday	Wednesday	Thursday	Friday
	1 Chapter 12 9 days	2	3	4
7	8	9	10	11 Chapter 12 Test
14 MCAS	15	16	17	18
21	22	23	24	25
28 Holiday	29	30	31	

Assessment Schedule by Chapter

Quick -- Diagnosing Readiness - Beg of Chap.
Pre-Test -Assessment Manual

Quiz - MCAS Section A Quiz - MCAS Manual
Quiz - MCAS Section B. Quiz - MCAS Manual
Quiz - MCAS Section C Quiz - MCAS Manual

End of Chap. Test for Practice - Text
Test - Chap. Test A or B - Assessment Manual
Test - Cumulative Review & Test Prep. - Text

Agawam Public Schools Grade 5 June 2007

Chapter

Grade 5

Standards

<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
				1
4	5	9	7	8
11	12	13	14	15
18 Last Day	19	20	21	22
25 Last Day / Snow	26	27	28	29

Assessment Schedule by Chapter

Quick -- Diagnosing Readiness - Beg of Chap.
 Pre-Test -Assessment Manual
 Quiz - MCAS Section A Quiz - MCAS Manual
 Quiz - MCAS Section B. Quiz - MCAS Manual
 Quiz - MCAS Section C Quiz - MCAS Manual
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