

NORTH MAC MIDDLE SCHOOL  
CURRICULUM GUIDE

**Teacher** Sara Floyd

**Grade Level** 7<sup>th</sup> Grade

**Course** Pre-Algebra

**Course Aims** To prepare students for Algebra I.

**Course Description**

This course is designed for students who need the basic skills required for Algebra I. Topics covered will include set of numbers, order of operations with real numbers, algebraic expression, properties of equality, solving equations and inequalities, and graphing. A review of fractions, decimals, integers, percent's and proportions will also be covered. Basic geometry concepts will also be introduced.

**Textbook:**

Title: Prentice Hall: Pre-Algebra

ISBN: 978-0-13-365945-0

Authors: Charles, McNemar, Ramirez

Publisher: Pearson Education, Inc.

Publication Date: 2009

**Assessment**

There will be a minimum of 500 points scored each quarter. These points will be obtained from assignments, quizzes, chapter tests, and participation. The points will be distributed from each category from the range of percents given below.

**Example**

- Assignments 30%
- Portfolio/Notebook 5%
- Tests/Quizzes 65%

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QUARTER: \_\_\_\_\_1st Quarter\_\_\_\_\_

COURSE: \_\_\_\_\_Pre-Algebra\_\_\_\_\_

<i><b>Content</b></i>	<i><b>Assessment</b></i>	<i><b>Common Core</b></i>	<i><b>Essential Questions</b></i>
<p>Chapter 1: Algebraic Expressions and Integers</p> <ul style="list-style-type: none"> <li>Variables and Expressions</li> <li>Order of Operations</li> <li>Writing and Evaluating Expressions</li> <li>Integers and Absolute Value</li> <li>Adding Integers</li> <li>Subtracting Integers</li> </ul>	<p>Key: E: Even A: All EC: Extra Credit PR: Practice worksheet RT: Reteaching worksheet</p> <ul style="list-style-type: none"> <li>p. 6(2-22)E (46-52)E</li> <li>Enrich 1-1</li> <li>p. 11(2-20)E (34-38)E 56,58 #60 EC</li> <li>p. 13(1-12)A</li> <li>p.16(2-16)E (38-44)E</li> <li>RT 1-3 (1-14)A</li> <li>PR 1-4 ws</li> <li>p. 27(6-20)E (42-48)A</li> <li>p. 32(3-17A (82-87)A #88 EC</li> <li>Adding/Subtracting ws (1-18)A</li> </ul>	<p>7 NS 1a</p> <p>7 NS 1b</p> <p>7NS 1c</p> <p>7NS 1d</p> <p>7NS 3</p>	<p>Students will need to be able to answer/solve the following:</p> <p style="text-align: center;">Chapter 1</p> <ul style="list-style-type: none"> <li>Identify variables, numerical expressions, and variable expressions?</li> <li>Write variable expressions for word phrases?</li> <li>Use order of operations and grouping symbols?</li> <li>Evaluate variable expressions?</li> <li>Solve problems by evaluating expressions?</li> <li>Represent, graph, and order integers?</li> <li>Find opposites and absolute values?</li> <li>Use models to add integers?</li> <li>Use rules to add integers?</li> <li>Use models to subtract integers?</li> <li>Use rules to subtract integers?</li> </ul>

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<ul style="list-style-type: none"> <li>Inductive Reasoning</li> <li>Look for a Pattern</li> <li>Multiplying and Dividing Integers</li> <li>Coordinate Plane</li> </ul> <p>Chapter 2: Solving One-Step Equations and Inequalities</p> <ul style="list-style-type: none"> <li>Properties of Numbers</li> <li>Distributive Property</li> <li>FOIL</li> </ul>	<ul style="list-style-type: none"> <li>Quiz 1-1--1-6</li> <li>P. 38 (1-12)A</li> <li>p. 42 (1-5)A (10-16)E #17 EC</li> <li>RT 1-9</li> <li>p. 47 (12-28)E (37-40)A #58 EC</li> <li>p. 54 (2-28)E (72-80)E</li> <li>Pr 1-10(1-22)A</li> <li>Review p. 59 (1-57)A</li> <li>Chapter 1 Test</li> <li>Create 16 ?'s Project</li> <li>P. 71 (1-16)A (27-32)A</li> <li>Picnic Distribution ws #1</li> <li>“ ” #2</li> <li>“MathCrush “Why are...”</li> <li>Picnic Distribution ws #3</li> <li>Enrich 2-3 ws</li> </ul>	<p>7 RP</p> <p>7NS 2c</p> <p>7RP 2a</p> <p>7 RP 2d</p> <p>7 NS 1c</p> <p>7 NS 2c</p> <p>7 NS 2b</p> <p>7 NS 2d</p>	<ul style="list-style-type: none"> <li>Write rules for patterns?</li> <li>Make conjectures and test conjectures?</li> <li>Find number patterns and use number patterns in the real-world?</li> <li>Multiply and divide integers using rules?</li> <li>Name quadrants?</li> <li>Graph points in the coordinate plane?</li> </ul> <p style="text-align: center;">Chapter 2</p> <ul style="list-style-type: none"> <li>Identify properties of addition and multiplication?</li> <li>Use the distributive property to solve problems?</li> <li>Use the distributive property with algebraic expressions?</li> <li>Identify parts of a variable expression?</li> <li>Simplify Expressions?</li> <li>Classify types of Equations?</li> <li>Check equations using substitution?</li> </ul>
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<ul style="list-style-type: none"> <li>• Simplifying Variable Expressions</li> <li>• Variables and Equations</li> <li>• Solving Equations by Adding or Subtracting</li> <li>• Solving Equation by Multiplying and Dividing</li> <li>• Guess, Check, and Revise</li> <li>• Inequalities and Graphs</li> <li>• Solve One-Step Equations by Adding or Subtracting</li> <li>• Solve One-Step Equations by Multiplying or Dividing</li> </ul>	<ul style="list-style-type: none"> <li>• p. 80 (1-6)A (12-20)E</li> <li>• p. 80 (21-31)A CheckPoint (2-8)E</li> <li>• p. 84 (2-20)E (48-32)E #38EC</li> <li>• p. 91 (2-20)E (53-56)A</li> <li>• RT 2-5</li> <li>• Quiz 2-1--2-5</li> <li>• p. 96 (2-20)E (62-66)E #44EC</li> <li>• Mixed ws RTF (1-15)A</li> <li>• p. 100 (1-7)A (18-26)A</li> <li>• PR 4-4 ws (M2)</li> <li>• p. 106(2-26)E #28 EC</li> <li>• p. 110 (12-30)E</li> <li>• Enrich 2-10</li> <li>• Review p. 120 (20-53)A</li> <li>• Chapter 2 Test</li> </ul>	<p>7 NS 3</p> <p>7 EE 1</p> <p>7 EE 2</p> <p>7 EE 4</p> <p>7 EE 4a</p>	<ul style="list-style-type: none"> <li>• Solve one-step equations using subtraction?</li> <li>• Solve one-step equations using addition?</li> <li>• Solve one-step equations using multiplication?</li> <li>• Solve one-step equations using division?</li> <li>• Solve a problem using the guess, check, and revise strategy?</li> <li>• Graph and write inequalities?</li> <li>• Solve one-step inequalities by adding and subtracting?</li> <li>• Solve one-step inequalities by multiplying or dividing?</li> </ul>
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QUARTER: \_\_\_\_\_2<sup>nd</sup> Quarter\_\_\_\_\_

COURSE: \_\_\_\_\_Pre-Algebra\_\_\_\_\_

<i><b>Content</b></i>	<i><b>Assessment</b></i>	<i><b>Common Core</b></i>	<i><b>Essential Questions</b></i>
Chapter 3: Decimals and Fractions			Chapter 3
<ul style="list-style-type: none"> <li>• Rounding and Estimating</li> </ul>	<ul style="list-style-type: none"> <li>• p. 132 (1-18)A #44EC</li> </ul>	7 SP 3	<ul style="list-style-type: none"> <li>• Round decimals?</li> </ul>
<ul style="list-style-type: none"> <li>• Estimating by Multiplying and Dividing</li> </ul>	<ul style="list-style-type: none"> <li>• p. 136(2-18)E (40-50)E</li> </ul>	7 SP 4	<ul style="list-style-type: none"> <li>• Estimate sums and differences?</li> </ul>
<ul style="list-style-type: none"> <li>• Mean, Median, and Mode</li> </ul>	<ul style="list-style-type: none"> <li>• Mean/Med/Mode ws</li> <li>• Quiz 3-1--3-3</li> </ul>	7 G 1	<ul style="list-style-type: none"> <li>• Estimate products?</li> <li>• Estimates quotients?</li> </ul>
<ul style="list-style-type: none"> <li>• Using Formulas</li> </ul>	<ul style="list-style-type: none"> <li>• p. 147 (2-18)E (28-32)E</li> </ul>	7 NS 1b	<ul style="list-style-type: none"> <li>• Find the mean, medium, mode, and range of a set of data?</li> </ul>
<ul style="list-style-type: none"> <li>• Solve Equations by Adding or Subtracting Decimals</li> </ul>	<ul style="list-style-type: none"> <li>• p. 152 (2-16)E (39-43)A #38EC</li> </ul>	7 NS 1c	<ul style="list-style-type: none"> <li>• Choose the best measure of tendency?</li> </ul>
<ul style="list-style-type: none"> <li>• Solve Equations by Dividing or Multiplying Decimals</li> </ul>	<ul style="list-style-type: none"> <li>• PR 1-4 (5-10)A (17-18)A M2L1</li> <li>• RT 3-6</li> </ul>	7 NS 1d	<ul style="list-style-type: none"> <li>• Substitute formulas?</li> </ul>
<ul style="list-style-type: none"> <li>• Metric System</li> </ul>	<ul style="list-style-type: none"> <li>• PR 1-5/ MathCrush</li> </ul>	7 NS 2a	<ul style="list-style-type: none"> <li>• Use the formula for the perimeter of a rectangle?</li> </ul>
		7 NS 2b	<ul style="list-style-type: none"> <li>• Solve one-step decimal equations involving addition and subtraction?</li> <li>• Solve one-step equations involving multiplication and division?</li> <li>• Identify appropriate metric measurements?</li> </ul>

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<ul style="list-style-type: none"> <li>Act it out</li> </ul>	<ul style="list-style-type: none"> <li>Metric from Technology</li> <li>p. 168 (1-8)A (12-24)E</li> <li>Review p. 174 (2-40)E</li> <li>Chapter 3 Test</li> </ul>	7 NS 2c	<ul style="list-style-type: none"> <li>Convert metric measurements?</li> <li>Solve problems by acting them out?</li> </ul>
Chapter 4: Factors, Fractions, and Exponents			Chapter 4
<ul style="list-style-type: none"> <li>Divisibility and Factors</li> </ul>	<ul style="list-style-type: none"> <li>Pr 4-1 (1-20)A#21EC</li> </ul>	7 NS 1	<ul style="list-style-type: none"> <li>Using divisibility tests?</li> </ul>
<ul style="list-style-type: none"> <li>Exponents</li> </ul>	<ul style="list-style-type: none"> <li>p. 188(2-32)E</li> <li>Pr 4-2 ws</li> </ul>	7 NS 3	<ul style="list-style-type: none"> <li>Finding factors?</li> <li>Finding equivalent fractions?</li> <li>Writing fractions in simplest form?</li> <li>Analyzing errors?</li> <li>Solve a simpler problem?</li> </ul>
<ul style="list-style-type: none"> <li>Simplifying Fractions</li> </ul>	<ul style="list-style-type: none"> <li>p. 198 (8-20)E (28-38)E (52-56)E #58EC</li> </ul>	7 EE 1	<ul style="list-style-type: none"> <li>Identifying and graphing rational numbers?</li> </ul>
<ul style="list-style-type: none"> <li>Solve a Simpler Problem</li> </ul>	<ul style="list-style-type: none"> <li>Pr 4-4</li> <li>p. 203 (1-8)A (14-24)E #12EC</li> </ul>	7 EE 3	<ul style="list-style-type: none"> <li>Evaluating fractions containing variables?</li> <li>Multiplying powers with the same base?</li> <li>Finding a power of a power?</li> <li>Dividing expressions containing exponents?</li> </ul>
<ul style="list-style-type: none"> <li>Rational Numbers</li> </ul>	<ul style="list-style-type: none"> <li>Pr 4-6 ws</li> </ul>	7 SP 5	<ul style="list-style-type: none"> <li>Simplifying expressions with integer exponents?</li> </ul>

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<ul style="list-style-type: none"> <li>Exponents and Multiplication</li> <li>Exponents and Division</li> </ul>	<ul style="list-style-type: none"> <li>p. 217 (2-34)E</li> <li>Pr 4-8 #13EC</li> </ul>	7 SP6	<ul style="list-style-type: none"> <li>Writing and evaluating scientific notation?</li> <li>Solving problems with fractions?</li> </ul>
Chapter 5: Fraction Mini Lesson	<ul style="list-style-type: none"> <li>p. 211 (2-32)E (50-54)E</li> <li>Review p. 227 (7-60)E</li> <li>Chapter 4 Test</li> </ul>		Chapter 6
Chapter 6: Ratios, Proportions, and Percents	<ul style="list-style-type: none"> <li>Fraction Packet</li> </ul>	7 NS 2d; 7 EE 3	<ul style="list-style-type: none"> <li>Writing and simplifying ratios?</li> <li>Finding rates and unit rates?</li> <li>Solving proportions?</li> <li>Using Proportions to solve problems?</li> <li>Using similar figures?</li> </ul>
<ul style="list-style-type: none"> <li>Ratios and Unit Rates</li> <li>Proportions</li> </ul>	<ul style="list-style-type: none"> <li>p. 294 (2-22)E #28EC</li> <li>p. 300 (2-20)E (55-60)A</li> <li>Pr 6-3 (1-14)A</li> <li>Quiz 6-1--6-3</li> </ul>	7 RP 1	<ul style="list-style-type: none"> <li>Using scale drawings? Writing percents as fractions and decimals?</li> <li>Ordering rational numbers?</li> </ul>
<ul style="list-style-type: none"> <li>Similar Figures and Scale Drawings Fractions, Percents, and Decimals</li> <li>Proportions to Percents</li> <li>Percents and Equations</li> </ul>	<ul style="list-style-type: none"> <li>p. 316 (2-30)E (46-54)E #87EC</li> <li>Pr 6-7 ws #7E</li> </ul>	7 RP 2	<ul style="list-style-type: none"> <li>Finding the part of a whole and percent?</li> <li>Finding the whole amount?</li> </ul>
		7 RP 2a	<ul style="list-style-type: none"> <li>Writing and solving percent equations?</li> </ul>
		7 RP 2b	<ul style="list-style-type: none"> <li>Using equations to solve Percent Problems?</li> </ul>
		7 RP 2c	

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COURSE: \_\_\_\_\_Pre-Algebra\_\_\_\_\_

<i>Content</i>	<i>Assessment</i>	<i>Common Core</i>	<i>Essential Questions</i>
Continue Chapter 6			<ul style="list-style-type: none"> <li>Finding probability?</li> </ul>
<ul style="list-style-type: none"> <li>Probability</li> </ul>	<ul style="list-style-type: none"> <li>RT 6-4 (1-16)A</li> <li>Review p. 343 (2-44)E</li> <li>Chapter 6 Test</li> </ul>		Chapter 9
Chapter 9: Spatial Thinking			<ul style="list-style-type: none"> <li>Points, Lines, and planes?</li> <li>Drawing and measuring angles-lab?</li> <li>Adjacent and vertical angles?</li> <li>Relating Angles and parallel lines?</li> <li>Classifying triangles?</li> <li>Classifying quadrilaterals?</li> <li>Drawing a diagram?</li> <li>Identifying corresponding parts?</li> <li>Identifying congruent triangles?</li> <li>Graphing translations?</li> <li>Describing translations?</li> <li>Identifying lines of symmetry?</li> </ul>
<ul style="list-style-type: none"> <li>Introduction to Geometry: Points, Lines, and Planes</li> </ul>	<ul style="list-style-type: none"> <li>Pr 9-1</li> <li>Pr 9-2</li> </ul>	7 SP 4	
<ul style="list-style-type: none"> <li>Angle Relationships and Parallel Lines</li> </ul>	<ul style="list-style-type: none"> <li>p. 477 (1-19)A</li> <li>p. 482 (1-9)A</li> </ul>	7 SP 8b	
<ul style="list-style-type: none"> <li>Classifying Polygons</li> </ul>	<ul style="list-style-type: none"> <li>Slide, Flip, Turn ws</li> </ul>	7 SP 8c	
<ul style="list-style-type: none"> <li>Draw a Diagram</li> </ul>	<ul style="list-style-type: none"> <li>Short Response</li> </ul>	7 G 1	
<ul style="list-style-type: none"> <li>Translations</li> </ul>	<ul style="list-style-type: none"> <li>Extended Response</li> </ul>	7 G 2	
<ul style="list-style-type: none"> <li>Symmetry and Reflections</li> </ul>			



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<ul style="list-style-type: none"> <li>• Rotations</li> <li>• Tessellations</li> </ul> <p>Chapter 10: Area and Volume</p> <ul style="list-style-type: none"> <li>• Area: Parallelograms</li> <li>• Area: Triangles and Trapezoids</li> <li>• Area: Circles (&amp; Circumference)</li> <li>• Surface Area: Prisms and Cylinders</li> <li>• Volume: Prisms and Cylinders</li> </ul>	<ul style="list-style-type: none"> <li>• Sign Quiz</li> <li>• Comp. Lab: ISAT Practice Test</li> </ul> <ul style="list-style-type: none"> <li>• Pr 10-1</li> <li>• Pr 10-2</li> <li>• Pr 10-3</li> <li>• Quiz over Area</li> <li>• p. 554 (4-13)A</li> <li>• p.565 (1-6)A(10-13)A</li> <li>• Chapter Test 10</li> </ul>	<p>7 G 3</p> <p>7 RP 2d</p> <p>7 SP 7</p> <p>7 SP 7a</p> <p>7 SP 7b</p> <p>7 SP 8</p> <p>7 SP 8a</p> <p>7 G1, G2, G3, G4</p>	<ul style="list-style-type: none"> <li>• Graphing reflections?</li> <li>• Graphing rotations?</li> <li>• Identifying rotational symmetry?</li> <li>• Tessellations-lab?</li> </ul> <p>Chapter 10</p> <ul style="list-style-type: none"> <li>• Finding areas of rectangles &amp; triangles?</li> <li>• Perimeter and area of similar figures-lab</li> <li>• Finding areas of triangles?</li> <li>• Finding areas of trapezoids?</li> <li>• Finding the areas of circles?</li> <li>• Finding the areas of irregular figures?</li> <li>• Three views of an object?</li> <li>• Naming space figures?</li> <li>• Identifying Space figures from nets?</li> <li>• Wrapping cylinders?</li> <li>• Finding the surface areas of Prisms?</li> <li>• Finding the surface areas of Cylinders?</li> </ul>
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QUARTER: \_\_\_\_\_4<sup>th</sup> Quarter\_\_\_\_\_

COURSE: \_\_\_\_\_Pre-Algebra\_\_\_\_\_

<i>Content</i>	<i>Assessment</i>	<i>Common Core</i>	<i>Essential Questions</i>
<p>Chapter 7: Solving Two-Step Equations and Inequalities</p> <ul style="list-style-type: none"> <li>Solving Two-Step Equations</li> <li>Solving Multi-Step Equations</li> <li>Write an Equation</li> </ul>	<ul style="list-style-type: none"> <li>RT 7-1</li> <li>p. 354 (4-22)E (42-43)A #38EC</li> <li>PR 7-1 (1-18)A #19EC (not 2-16)E</li> <li>2-Step Equation ws (1-15)A math-drills</li> <li>Quiz over 7-1</li> <li>RT 7-2 (1-7)A</li> <li>PR 7-2 (L1) #12 EC</li> <li>“Multi-Step Eq 2”</li> <li>“Intro to 7-3” RTF</li> <li>p. 364 (10-30)E (44-50)E</li> <li>PR 7-3</li> </ul>	<p>7 EE 1</p> <p>7 EE 2</p> <p>7 EE3</p>	<p>Chapter 7</p> <ul style="list-style-type: none"> <li>Using properties to solve two-step equations?</li> <li>Solving problems with two-step equations?</li> <li>Combing like terms?</li> <li>Using the distributive property?</li> <li>Writing equations to solve problems?</li> </ul>

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<ul style="list-style-type: none"> <li>• Solving Equations with Variables on Both Sides</li> </ul>	<ul style="list-style-type: none"> <li>• Quiz over 7-1--7-3</li> <li>• p. 368 (1-8)A (12-14)A #22 EC</li> <li>• p. 373 (4-22)E #30EC</li> </ul>	7 EE 4	<ul style="list-style-type: none"> <li>• Solving equations with variables on both sides?</li> </ul>
<ul style="list-style-type: none"> <li>• Solving 2-Step Inequalities</li> </ul>	<ul style="list-style-type: none"> <li>• PR 7-5 (1-17) Odd #13 EC</li> <li>• PR 7-6 (modified)</li> </ul>	7 EE 4a	<ul style="list-style-type: none"> <li>• Using equations with variables on both sides?</li> </ul>
<ul style="list-style-type: none"> <li>• Transforming Formula</li> </ul>	<ul style="list-style-type: none"> <li>• p. 384 (4-12)E (17-20)A (22-27)A</li> <li>• Enrich 7-7</li> <li>• RT 7-7 ws</li> </ul>	7 NS 3	<ul style="list-style-type: none"> <li>• Solving formulas for a given variable?</li> <li>• Using formulas to solve problems?</li> </ul>
<ul style="list-style-type: none"> <li>• Simple &amp; Compound Interest</li> </ul>	<ul style="list-style-type: none"> <li>• p.389(1, 4, 5, 6, 10, 11,12)(26-32)Acalc.</li> <li>• Simple/Compound (1-12)A rtf calc</li> <li>• PR 9-7 modified M2</li> <li>• p. 393 (1-7)A (8-18)E (24-34)E (40-50)E</li> </ul>	7 RP 3	<ul style="list-style-type: none"> <li>• Find the simple and compound interest?</li> <li>• Graph simple interest?</li> </ul>

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<p>Chapter 12: Data Analysis and Probability</p> <ul style="list-style-type: none"> <li>• Using Graphs to Persuade</li> <li>• Counting Outcomes and Theoretical Probability</li> </ul> <p>Chapter 13 Nonlinear Functions and Polynomials</p> <ul style="list-style-type: none"> <li>• Use Multiple Strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Chapter 7 Test</li> <li>• p. 660 (2-14)E</li> <li>• p. 734 (1-9)A (19-20)A</li> <li>• Chapter 12 &amp; 13 Test</li> </ul>	<p>7 SP 1</p>	<p style="text-align: center;">Chapter 12</p> <ul style="list-style-type: none"> <li>• Using breaks in scales?</li> <li>• Using different scales?</li> <li>• Counting possible choices?</li> <li>• Finding the probability by counting outcomes?</li> <li>• Independent events?</li> <li>• Dependent events?</li> </ul> <p style="text-align: center;">Chapter 13</p> <ul style="list-style-type: none"> <li>• Combining strategies?</li> </ul>
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