

Section	Outcomes	Modifications	Resources
1-1 Variables and Expressions	N.FL.07.07 Solve problems involving operations with integers.	Leveled work Hands On Algebra	Algebra pawns
1-2 Algebraic Expressions	N.FL.07.07 Solve problems involving operations with integers.	Leveled work Hands On Algebra	Algebra pawns
1-3 Integers and Absolute Value	N.FL.07.07 Solve problems involving operations with integers.	Leveled work	
1-4 Adding Integers	N.FL.07.07 Solve problems involving operations with integers. N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.	Leveled work Integer chip visuals	Integer chips
1-5 Subtracting Integers	N.FL.07.07 Solve problems involving operations with integers. N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. N.FL.07.09 Estimate results of computations with rational numbers.	Leveled work Integer chip visuals	Integer chips
1-6 Multiplying and Dividing Integers	N.FL.07.07 Solve problems involving operations with integers. N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.	Leveled work	
1-7 Solving Equations by Adding or Subtracting	N.FL.07.07 Solve problems involving operations with integers. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work Hands On Algebra	Algebra pawns

1-8 Solving Equations by Multiplying or Dividing	N.FL.07.07 Solve problems involving operations with integers. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work Hands On Algebra	Algebra pawns
1-9 Introduction to Inequalities	N.FL.07.07 Solve problems involving operations with integers. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.12 Solve linear inequalities in one and two variables, and graph the solution sets.	Leveled work	

Subject: Math

Grade: 7

Chapter/Outcome: Rational Numbers (2)

Date Revised: February 2010

Section	Outcomes	Modifications	Resources
2-1 Rational Numbers	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. N.ME.08.03 Understand that in decimal form, rational numbers either terminate or eventually repeat, and that calculators truncate or round repeating decimals; locate rational numbers on the number line; know fraction forms of common repeating decimals.	Leveled work	
2-2 Comparing and Ordering Rational Numbers	N.ME.08.03 Understand that in decimal form, rational numbers either terminate or eventually repeat, and that calculators truncate or round repeating decimals; locate rational numbers on the number line; know fraction forms of common repeating decimals.	Leveled work	

2-3 Adding and Subtracting Rational Numbers	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.	Leveled work	
2-4 Multiplying Rational Numbers	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.	Leveled work	
2-5 Dividing Rational Numbers	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. N.FL.07.09 Estimate results of computations with rational numbers.	Leveled work	
2-6 Adding and Subtracting with Unlike Denominators	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. N.FL.07.09 Estimate results of computations with rational numbers.	Leveled work	
2-7 Solving Equations with Rational Numbers	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work	
2-8 Solving Two-Step Equations	A.FO.07.13 From applied situations, generate and solve linear equations of the form $ax + b = c$ and $ax + b = cx + d$ , and interpret solutions. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work	

Section	Outcomes	Modifications	Resources
3-1 Ordered Pairs	<p>N.FL.07.07 Solve problems involving operations with integers.</p> <p>A.FO.08.10 Understand that to solve the equation <math>f(x) = g(x)</math> means to find all values of <math>x</math> for which the equation is true.</p>	<p>Leveled work</p> <p>SMARTboard interactive lesson</p> <p>Human Grid of ordered pairs</p>	<p>SMARTboard</p> <p>Tape</p>
3-2 Graphing on a Coordinate Plane	<p>N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.</p> <p>A.PA. 07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.</p> <p>A.FO.08.10 Understand that to solve the equation <math>f(x) = g(x)</math> means to find all values of <math>x</math> for which the equation is true.</p>	<p>Leveled work</p>	
3-3 Interpreting Graphs and Tables	<p><b>NCTM Standards:</b> Understand patterns, relations, and functions; Create and use representations to organize, record, and communicate mathematical ideas; Select, apply, and translate among mathematical representations to solve problems.</p>	<p>Leveled work</p> <p>TI Calculator and Range Interactive Lesson</p>	<p>TI Calculator and Range Detector</p>
3-4 Functions	<p>A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.</p> <p>A.PA.08.03 Recognize basic functions in problem context and represent them using tables, graphs, and formulas;</p> <p>A.RP.08.04 Use the vertical line test to determine if a graph represents a function in one variable.</p>	<p>Leveled work</p>	
3-5 Equations, Tables, and Graphs	<p>A.PA.07.07 Represent linear functions in the form <math>y = x + b</math>, <math>y = mx</math>, and <math>y = mx + b</math>, and graph, interpreting slope and <math>y</math>-intercept.</p> <p>A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.</p> <p>A.PA.08.03 Recognize basic functions in problem context and represent them using tables, graphs, and formulas.</p>	<p>Leveled work</p>	
3-6 Arithmetic Sequences	<p>N.FL.07.07 Solve problems involving integers.</p> <p>A.FO.08.10 Understand that to solve the equation <math>f(x) = g(x)</math> means to find all values of <math>x</math> for which the equation is true.</p>	<p>Leveled work</p>	

Section	Outcomes	Modifications	Resources
4-1 Exponents and Roots	N.FL.07.07 Solve problems involving operations with integers.	Leveled work	
4-2 Look for a Pattern in Integer Exponents	N.FL.07.07 Solve problems involving operations with integers. N.ME.08.02 Understand meanings for zero and negative integer exponents.	Leveled work	
4-3 Properties of Exponents	A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. N.ME.08.02 Understand meanings for zero and negative integer exponents.	Leveled work	
4-4 Scientific Notation	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. N.ME.08.02 Understand meanings for zero and negative integer exponents.	Leveled work	
4-5 Squares and Square Roots	N.MR.07.06 Understand the concept of square root and cube root, and estimate using calculators. N.FL.08.06 Find square roots of perfect squares and approximate the square roots of nonperfect squares by locating between consecutive integers;. N.ME.08.01 Understand the meaning of a square root of a number and its connection to the square whose area is the number; understand the meaning of a cube root and its connection to the volume of a cube.	Leveled work	
4-6 Estimating Square Roots	N.FL.07.09 Estimate results of computations with rational numbers. N.MR.07.06 Understand the concept of square root and cube root, and estimate using calculators. N.FL.08.06 Find square roots of perfect squares and approximate the square roots of nonperfect squares by locating between consecutive integers.	Leveled work	

4-7 The Real Numbers	<p>N.MR.07.06 Understand the concept of square root and cube root, and estimate using calculators.</p> <p>N.ME.08.03 Understand that in decimal form, rational numbers either terminate or eventually repeat, and that calculators truncate or round repeating decimals; locate rational numbers on the number line; know fraction forms of common repeating decimals.</p> <p>N.ME.08.04 Understand that irrational numbers are those that cannot be expressed as the quotient of two integers, and cannot be represented by terminating or repeating decimals; approximate the position of familiar irrational numbers, on the number line.</p>	Leveled work	
4-8 The Pythagorean Theorem	<p>N.MR.07.06 Understand the concept of square root and cube root, and estimate using calculators.</p> <p>A.FO.08.08 Factor simple quadratic expressions with integer coefficients, verify solutions by evaluation.</p>	Leveled work SMARTboard interactive lesson	SMARTboard

Subject: Math

Grade: 7

Chapter/Outcome: Ratios, Proportions, and Similarity (5)

Date Revised: February 2010

Section	Outcomes	Modifications	Resources
5-1 Ratios and Proportions	<p>N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation <math>a/b = c/d</math>; know how to see patterns about proportional situations in tables.</p> <p>N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.</p>	Leveled work Student models	Students

<p>5-2 Ratios, Rates, and Unit Rates</p>	<p>N.FL.07.03 Calculate rates of change including speed;  N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation <math>a/b = c/d</math>; know how to see patterns about proportional situations in tables.  N.MR.07.02 Solve problems involving derived quantities such as density, velocity, and weighted averages.  N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.</p>	<p>Leveled work</p>	
<p>5-3 Dimensional Analysis</p>	<p>N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation <math>a/b = c/d</math>; know how to see patterns about proportional situations in tables.  N.MR.07.04 Convert ratio quantities between different systems of units, such as feet per second to miles per hour.  N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.</p>	<p>Leveled work</p>	
<p>5-4 Solving Proportions</p>	<p>N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation <math>a/b = c/d</math>; know how to see patterns about proportional situations in tables.  N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.</p>	<p>Leveled work</p>	
<p>5-5 Similar Figures</p>	<p>G.TR.07.03 Understand that in similar polygons, corresponding angles are congruent and the ratios of corresponding sides are equal; understand the concepts of similar figures and scale factor.  G.TR.07.04 Solve problems about similar figures and scale drawings.  G.TR.07.05 Show that two triangles are similar using the criteria: corresponding angles are congruent; the ratios of two pairs of corresponding sides are equal and the included angles are congruent; ratios of all pairs of corresponding sides are equal; use these criteria to solve problems and to justify arguments.</p>	<p>Leveled work  Similar Figures Project  SMARTboard lesson</p>	<p>Pictures  SMARTboard</p>

5-6 Dilations	<p>N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation <math>a/b = c/d</math>; know how to see patterns about proportional situations in tables.</p> <p>G.TR.08.09 Understand the definition of a dilation from a point in the plane, and relate it to the definition of similar polygons.</p>	Leveled work	
5-7 Indirect Measurement	<p>N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation <math>a/b = c/d</math>; know how to see patterns about proportional situations in tables.</p> <p>N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.</p>	Leveled work	
5-8 Scale Drawings and Scale Models	<p>G.TR.07.03 Understand that in similar polygons, corresponding angles are congruent and the ratios of corresponding sides are equal; understand the concepts of similar figures and scale factor.</p> <p>G.TR.07.04 Solve problems about similar figures and scale drawings.</p> <p>N.FL.07.05 Solve proportion problems using such methods as unit rate, scaling, finding equivalent fractions, and solving the proportion equation <math>a/b = c/d</math>; know how to see patterns about proportional situations in tables.</p> <p>N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.</p>	Leveled work Similar Figures Project	Photos



Section	Outcomes	Modifications	Resources
6-1 Relating Decimals, Fractions, and Percents	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.	Leveled work Number lines Fraction tiles	Fraction tiles
6-2 Estimate with Percents	N.FL.07.09 Estimate results of computations with rational numbers. N.MR.08.07 Understand percent increase and percent decrease in both sum and product form.. N.MR.08.08 Solve problems involving percent increases and decreases.	Leveled work	
6-3 Finding Percents	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.	Leveled work Hundreds Grids	Hundred Grids
6-4 Finding a Number When the Percent is Known	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.	Leveled work	
6-5 Percent Increase and Decrease	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. N.FL.08.09 Solve problems involving compounded interest or multiple discounts. N.MR.08.07 Understand percent increase and percent decrease in both sum and product form. N.MR.08.08 Solve problems involving percent increases and decreases.	Leveled work	
6-6 Applications of Percent	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.	Leveled work	
6-7 Simple Interest	A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.07 Recognize and apply the common formulas.	Leveled work	

Section	Outcomes	Modifications	Resources
7-1 Points, Lines, Planes, and Angles	<b>NCTM Standards:</b> Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.	Leveled work	
7-2 Parallel and Perpendicular Lines	N.FL.07.07 Solve problems involving operations with integers. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition.	Leveled work	
7-3 Angles in Triangles	G.SR.07.01 Use a ruler and other tools to draw squares, rectangles, triangles, and parallelograms with specified dimensions. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work	
7-4 Classifying Polygons	G.SR.07.01 Use a ruler and other tools to draw squares, rectangles, triangles, and parallelograms with specified dimensions.	Leveled work	
7-5 Coordinate Geometry	A.PA.07.06 Calculate the slope from the graph of a linear function as the ratio of “rise/run” for a pair of points on the graph, and express the answer as a fraction and a decimal; understand that linear functions have slope that is a constant rate of change.	Leveled work Calculate slope	Stairs
7-6 Congruence	N.FL.07.07 Solve problems involving operations with integers. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.11 Solve simultaneous linear equations in two variables by graphing, by substitution, and by linear combination; estimate solutions using graphs; include examples with no solutions and infinitely many solutions.	Leveled work	

7-7 Transformations	G.TR.08.10 Understand and use reflective and rotational symmetries of two-dimensional shapes, and relate them to transformations to solve problems.	Leveled work SMARTboard interactive lesson	SMARTboard
7-8 Symmetry	G.TR.08.10 Understand and use reflective and rotational symmetries of two-dimensional shapes, and relate them to transformations to solve problems.	Leveled work	
7-9 Tessellations	G.SR. 07.01 Use a ruler and other tools to draw squares, rectangles, triangles, and parallelograms with specified dimensions.	Leveled work	

Subject: Math

Grade: 7

Chapter/Outcome: Perimeter, Area, and Volume

(1)

Date Revised: February 2010

Section	Outcomes	Modifications	Resources
8-1 Perimeter and Area of Rectangles and Parallelograms	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.04 Find area and perimeter of complex figures by sub-dividing them into basic shapes. G.SR.08.05 Solve applied problems involving areas of triangles, quadrilaterals, and circles.	Leveled work Work with shapes	Shape tiles
8-2 Perimeter and Area Triangles and Trapezoids	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.04 Find area and perimeter of complex figures by sub-dividing them into basic shapes. G.SR.08.05 Solve applied problems involving areas of triangles, quadrilaterals, and circles.	Leveled work Work with shapes	Shape tiles
8-3 Circles	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.03 Understand the definition of a circle; know and use the formulas for circumference and area of a circle to solve problems. G.SR.08.05 Solve applied problems involving areas of triangles, quadrilaterals, and circles.	Leveled work Measure circles	Lids, string
8-4 Drawing Three-Dimensional Figures	G.SR.08.08 Sketch a variety of two-dimensional representations of three-dimensional solids including orthogonal views, picture views, and nets, use such two-dimensional representations to help solve problems.	Leveled work Centimeter cube and isometric drawings	Centimeter cubes, isometric dot paper

8-5 Volume of Prisms and Cylinders	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.06 Know the volume formulas for generalized cylinders, generalized cones and pyramids and spheres and apply them to solve problems.	Leveled work Fill prisms and cylinders	Various containers, rice, water
8-6 Volume of Pyramids and Cones	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.06 Know the volume formulas for generalized cylinders, generalized cones and pyramids and spheres and apply them to solve problems.	Leveled work Fill pyramids and cones	Paper, rice, 3-D shapes
8-7 Surface Area of Prisms and Cylinders	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.07 Understand the concept of surface area, and find the surface area of prisms, cones, spheres, pyramids, and cylinders.	Leveled work Draw nets of 3-D figures	Centimeter or inch grid paper
8-8 Surface Area of Pyramids and Cones	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.07 Understand the concept of surface area, and find the surface area of prisms, cones, spheres, pyramids, and cylinders.	Leveled work	
8-9 Spheres	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.SR.08.06 Know the volume formulas for generalized cylinders, generalized cones and pyramids and spheres and apply them to solve problems. G.SR.08.07 Understand the concept of surface area, and find the surface area of prisms, cones, spheres, pyramids, and cylinders.	Leveled work	
8-10 Symmetry in Three Dimensions	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. G.TR.07.04 Solve problems about similar figures and scale drawings. N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.	Leveled work	

Section	Outcomes	Modifications	Resources
9-1 Samples and Surveys	D.AN.08.02 Recognize practices of collecting and displaying data that may bias the presentation or analysis.	Leveled work Collect Data	
9-2 Organizing Data	D.RE.07.01 Represent and interpret data using circle graphs, stem and leaf plots, histograms, and box-and-whisker plots, and select appropriate representation to address specific questions.	Leveled work	
9-3 Measures of Central Tendency	D.AN.07.04 Find and interpret the median, quartiles, and interquartile range of a given set of data. D.AN.08.01 Determine which measure of central tendency best represents a data set.	Leveled work	
9-4 Variability	D.AN.07.04 Find and interpret the median, quartiles, and interquartile range of a given set of data. D.AN.08.01 Determine which measure of central tendency best represents a data set.	Leveled work	
9-5 Displaying Data	D.RE.07.01 Represent and interpret data using circle graphs, stem and leaf plots, histograms, and box-and-whisker plots, and select appropriate representation to address specific questions.	Leveled work	
9-6 Misleading Graphs and Statistics	D.RE.07.01 Represent and interpret data using circle graphs, stem and leaf plots, histograms, and box-and-whisker plots, and select appropriate representation to address specific questions. D.AN.08.02 Recognize practices of collecting and displaying data that may bias the presentation or analysis.	Leveled work	
9-7 Scatter Plots	D.AN.07.02 Create and interpret scatter plots and find line of best fit; use an estimated line of best fit to answer questions about the data.	Leveled work	
9-8 Choosing the Best Representation of Data	D.RE.07.01 Represent and interpret data using circle graphs, stem and leaf plots, histograms, and box-and-whisker plots, and select appropriate representation to address specific questions. D.AN.08.02 Recognize practices of collecting and displaying data that may bias the presentation or analysis.	Leveled work	

Section	Outcomes	Modifications	Resources
10-1 Probability	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. D.PR.08.03 Compute relative frequencies from a table of experimental results for a repeated event. Interpret the results using relationship of probability to relative frequency.	Leveled work Probability experiments	Cups, marbles, cubes, etc
10-2 Experimental Probability	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. D.PR.08.03 Compute relative frequencies from a table of experimental results for a repeated event. Interpret the results using relationship of probability to relative frequency.	Leveled work Probability experiments	Cups, marbles, cubes, etc
10-3 Use a Simulation	D.PR.08.03 Compute relative frequencies from a table of experimental results for a repeated event. Interpret the results using relationship of probability to relative frequency.	Leveled work	
10-4 Theoretical Probability	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. N.MR.08.11 Solve problems involving ratio units such as miles per hour, dollars per pound, or persons per square mile.	Leveled work	
10-5 Independent and Dependent Events \ 	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. D.PR.08.04 Apply the Basic Counting Principle to find total number of outcomes possible for independent and dependent events, and calculate the probabilities using organized lists or tree diagrams. D.PR.08.06 Understand the difference between independent and dependent events, and recognize common misconceptions involving probability.	Leveled work	

10-6 Making Decisions and Predictions	<p>N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.</p> <p>A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition.</p> <p>D.PR.08.06 Understand the difference between independent and dependent events, and recognize common misconceptions involving probability.</p>	Leveled work	
10-7 Odds	<p><b>NCTM Standards:</b> Develop and evaluate inferences and predictions that are based on data; Understand and apply basic concepts of probability.</p>	Leveled work	
10-8 Counting Principals	<p>N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.</p> <p>D.PR.08.04 Apply the Basic Counting Principle to find total number of outcomes possible for independent and dependent events, and calculate the probabilities using organized lists or tree diagrams.</p>	Leveled work	
10-9 Permutations and Combinations	<p>N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.</p> <p>D.PR.08.04 Apply the Basic Counting Principle to find total number of outcomes possible for independent and dependent events, and calculate the probabilities using organized lists or tree diagrams.</p>	Leveled work	

Section	Outcomes	Modifications	Resources
11-1 Simplifying Algebraic Expressions	A.FO.07.12 Add, subtract, and multiply simple algebraic expressions of the first degree. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work Hands On Algebra	Algebra pawns
11-2 Solving Multi-Step Equations	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work Hands On Algebra	Algebra pawns
11-3 Solving Equations with Variables on Both Sides	A.FO.07.13 From applied situations, generate and solve linear equations of the form $ax + b = c$ and $ax + b = cx + d$ , and interpret solutions. A.FO.08.10 Understand that to solve the equation $f(x) = g(x)$ means to find all values of $x$ for which the equation is true.	Leveled work Hands On Algebra	Algebra pawns
11-4 Solving Inequalities by Multiplying or Dividing	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.12 Solve linear inequalities in one and two variables, and graph the solution sets.	Leveled work	
11-5 Solving Two-Step Inequalities	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.FO.08.12 Solve linear inequalities in one and two variables, and graph the solution sets.	Leveled work	



11-6 Systems of Equations	<p>N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently.</p> <p>A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition.</p> <p>A.FO.08.11 Solve simultaneous linear equations in two variables by graphing, by substitution, and by linear combination; estimate solutions using graphs; include examples with no solutions and infinitely many solutions.</p> <p>A.FO.08.13 Set up and solve applied problems involving simultaneous linear equations and linear inequalities.</p>	Leveled work	
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Subject: Math

Grade: 7

Chapter/Outcome: Graphing Lines

(12)

Date Revised: February 2010

Section	Outcomes	Modifications	Resources
12-1 Graphing Linear Equations	<p>A.PA.07.01 Recognize when information given in a table, graph, or formula suggests a directly proportional or linear relationship.</p> <p>A.PA.07.04 For directly proportional or linear situations, solve applied problems using graphs and equations.</p> <p>A.PA.07.07 Represent linear functions in the form <math>y = x + b</math>, <math>y = mx</math>, and <math>y = mx + b</math>, and graph, interpreting slope and y-intercept.</p> <p>A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.</p> <p>A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationships; cubics; roots, and exponentials; using tables, graphs, and equations.</p>	Leveled work	
12-2 Slope of a Line	<p>A.PA.07.03 Given a directly proportional or other linear situation, graph and interpret the slope and intercept(s) in terms of the original situation.</p> <p>A.PA.07.04 For directly proportional or linear situations, solve applied problems using graphs and equations.</p> <p>A.PA.07.06 Calculate the slope from the graph of a linear function as the ratio of “rise/run” for a pair of points on the graph, and express the answer as a fraction and a decimal;</p>	Leveled work	

<p>12-3 Using Slopes and Intercepts</p>	<p>understand that linear functions have slope that is a constant rate of change.  A.PA.07.07 Represent linear functions in the form <math>y = x + b</math>, <math>y = mx</math>, and <math>y = mx + b</math>, and graph, interpreting slope and y-intercept.  A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.</p> <p>A.PA.07.03 Given a directly proportional or other linear situation, graph and interpret the slope and intercept(s) in terms of the original situation.  A.PA.07.04 For directly proportional or linear situations, solve applied problems using graphs and equations.  A.PA.07.06 Calculate the slope from the graph of a linear function as the ratio of “rise/run” for a pair of points on the graph, and express the answer as a fraction and a decimal; understand that linear functions have slope that is a constant rate of change.  A.PA.07.07 Represent linear functions in the form <math>y = x + b</math>, <math>y = mx</math>, and <math>y = mx + b</math>, and graph, interpreting slope and y-intercept.  A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations  A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationships; cubics; roots, and exponentials; using tables, graphs, and equations.</p>	<p>Leveled work  Technology Lab</p>	<p>Graphing calculator</p>
<p>12-4 Point-Slope Form</p>	<p>A.PA.07.04 For directly proportional or linear situations, solve applied problems using graphs and equations.  A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.  A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationships; cubics; roots, and exponentials; using tables, graphs, and equations.</p>	<p>Leveled work</p>	

12-5 Direct Variation	<p>A.PA.07.01 Recognize when information given in a table, graph, or formula suggests a directly proportional or linear relationship.</p> <p>A.PA.07.04 For directly proportional or linear situations, solve applied problems using graphs and equations.</p> <p>A.PA.07.05 Recognize and use directly proportional relationships of the form <math>y = mx</math>, and distinguish from linear relationships of the form <math>y = mx + b</math>, <math>b</math> non-zero; understand that in a directly proportional relationship between two quantities one quantity is a constant multiple of the other quantity.</p> <p>A.RP.07.02 Represent directly proportional and linear relationships using verbal descriptions, tables, graphs, and formulas, and translate among these representations.</p>	Leveled work	
12-6 Graphing Inequalities in Two Variables	<p>A.PA.07.04 For directly proportional or linear situations, solve applied problems using graphs and equations.</p> <p>A.FO.08.12 Solve linear inequalities in one and two variables, and graph the solution sets.</p>	Leveled work	
12-7 Lines of Best Fit	<p>D.AN.07.02 Create and interpret scatter plots and find line of best fit; use an estimated line of best fit to answer questions about the data.</p> <p>A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationships; cubics; roots, and exponentials; using tables, graphs, and equations.</p>	Leveled work	

Section	Outcomes	Modifications	Resources
13-1 Terms of Arithmetic Sequences	N.FL.07.07 Solve problems involving operations with integers. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition.	Leveled work	
13-2 Terms of Geometric Sequences	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. A.FO.08.07 Recognize and apply the common formulas.	Leveled work	
13-3 Other Sequences	N.FL.07.08 Add, subtract, multiply, and divide positive and negative rational numbers fluently. A.FO.08.07 Recognize and apply the common formulas.	Leveled work	
13-4 Linear Functions	N.FL.07.07 Solve problems involving operations with integers. A.PA.07.07 Represent linear functions in the form $y = x + b$ , $y = mx$ , and $y = mx + b$ , and graph, interpreting slope and y-intercept. A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition. A.PA.08.03 Recognize basic functions in problem context and represent them using tables, graphs, and formulas. A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationship; cubics; roots, and exponentials; using tables, graphs, and equations.	Leveled work	
13-5 Exponential Functions	A.PA.08.02 For basic functions, e.g., simple quadratics, direct and indirect variation, and population growth, describe how changes in one variable affect the others. A.PA.08.03 Recognize basic functions in problem context and represent them using tables, graphs, and formulas. A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationship; cubics; roots, and exponentials; using tables, graphs, and equations.	Leveled work	

13-6 Quadratic Functions	<p>A.FO.08.08 Factor simple quadratic expressions with integer coefficients, verify solutions by evaluation.</p> <p>A.FO.08.09 Solve applied problems involving simple quadratic equations.</p> <p>A.PA.08.02 For basic functions, e.g., simple quadratics, direct and indirect variation, and population growth, describe how changes in one variable affect the others.</p> <p>A.PA.08.03 Recognize basic functions in problem context and represent them using tables, graphs, and formulas.</p> <p>A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationship; cubics; roots, and exponentials; using tables, graphs, and equations.</p>	<p>Leveled work</p> <p>Cubic Functions Technology Lab</p>	<p>Graphing Calculators</p>
13-7 Inverse Variations	<p>A.PA.07.09 Recognize inversely proportional relationships in contextual situations; know that quantities are inversely proportional if their product is constant.</p> <p>A.RP.07.10 Know that the graph of <math>y = k/x</math> is not a line, know its shape, and know that it crosses neither the x nor the y-axis.</p> <p>A.PA.08.02 For basic functions, e.g., simple quadratics, direct and indirect variation, and population growth, describe how changes in one variable affect the others.</p> <p>A.PA.08.03 Recognize basic functions in problem context and represent them using tables, graphs, and formulas.</p> <p>A.RP.08.01 Identify and represent linear functions, quadratic functions, and other simple functions including inversely proportional relationship; cubics; roots, and exponentials; using tables, graphs, and equations.</p>	<p>Leveled work</p>	

Subject: Math

Grade: 7

Chapter/Outcome: Polynomials (14) Date Revised: February 2010

Section	Outcomes	Modifications	Resources
14-1 Polynomials	<p>N.FL.07.07 Solve problems involving operations with integers.</p>	<p>Leveled work</p>	
14-2 Simplifying Polynomials	<p>A.FO.07.12 Add, subtract, and multiply simple algebraic expressions of the first degree.</p>	<p>Leveled work</p>	

14-3 Adding Polynomials	A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition.	Leveled work	
14-4 Subtracting Polynomials	A.PA.07.11 Understand and use basic properties of real numbers: additive and multiplicative identities, additive and multiplicative inverses, commutativity, associativity, and the distributive property of multiplication over addition.	Leveled work	
14-5 Multiplying Polynomials by Monomials	N.FL.07.07 Solve problems involving operations with integers.	Leveled work	
14-6 Dividing Polynomials by Monomials	<b>NCTM Standards:</b> Develop and evaluate inferences and predictions that are based on data; Understand and apply basic concepts of probability; Recognize and apply mathematics in contexts outside of mathematics.		