

6th Grade
Math in Focus

Chapter 1: Positive Numbers and the Number Line				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 The Number Line	<ul style="list-style-type: none"> Represent whole numbers, fractions, and decimals on a number line. Interpret and write statements of inequality for two given positive numbers using the symbols $>$ and $<$ 	6.NS.6 6.NS.7.a	M06.A-N.3.1.2 M06.A-N.3.1.3 M06.B-E.2.1.1	Mastery Provide adequate time for Mastery
Lesson 2 Prime Factorization	<ul style="list-style-type: none"> Express a whole number as a product of its prime factors 	6.NS.4	M06.A-N.2.2.1 M06.A-N.2.2.2 M06.B-E.1.1.3	Mastery Provide adequate time for Mastery
Lesson 3 Common Factors and Multiples	<ul style="list-style-type: none"> Find the common factors and the greatest common factor of two whole numbers Find the common multiples and the least common multiple of two whole numbers 	6.NS.4	M06.A-N.2.2.1 M06.A-N.2.2.2	Mastery Provide adequate time for Mastery
Lesson 4 Squares and Square Roots	<ul style="list-style-type: none"> Find a square of a number Find a square root of a perfect square 	6.EE.1 8.EE.2	M06.B-E.1.1.1	Mastery Provide adequate time for Mastery
Lesson 5 Cubes and Cube Roots	<ul style="list-style-type: none"> Find a cube of a number Find a cube root of a perfect cube Evaluate numerical expressions involving whole number exponents 	6.EE.2.c 8.EE.2	M06.B-E.1.1.4	Exposure Skill must be addressed but not mastered

Chapter 2-Negative Numbers and the Number Line				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Negative Numbers	<ul style="list-style-type: none"> Use negative numbers to represent real-world quantities Represent, compare, and order positive and negative numbers on a number line 	6.NS.6 6.NS.6.a 6.NS.7.a 6.NS.7.b	M06.A-N.3.1.2 M06.A-N.3.2.1 M06.A-N.3.1.1	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Absolute Value	<ul style="list-style-type: none"> Understand the absolute value of a number as its distance from 0 on the number line Interpret absolute value as magnitude for a positive or negative quantity in a real-world situation 	6.NS.7.c 6.NS.7.d	M06.A-N.3.2.2 M06.A-N.3.1.1	Exposure to Mastery Provide adequate time for Mastery

Chapter 3-Multiplying and Dividing Fractions and Decimals				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure

Lesson 1 Dividing Fractions	<ul style="list-style-type: none"> Divide a fraction, whole number, or mixed number by a fraction or a mixed number 	6.NS.1	M06.A-N.1.1.1 M06.C-G.1.1.2	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Multiplying Decimals	<ul style="list-style-type: none"> Multiply a decimal by a decimal 	6.NS.3	M06.A-N.2.1.1 M06.C-G.1.1.2	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Dividing Decimals	<ul style="list-style-type: none"> Divide a whole number or a decimal by a decimal 	6.NS.2 6.NS.3	M06.A-N.2.1.1	Mastery Provide adequate time for Mastery
Lesson 4 Real-World Problems: Fractions and Decimals	<ul style="list-style-type: none"> Solve problems involving fractions and decimals 	6.NS.1 6.NS.3	M06.A-N.1.1.1 M06.A-N.2.1.1	Mastery Provide adequate time for Mastery

Chapter 4-Ratio				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Comparing Two Quantities	<ul style="list-style-type: none"> Write ratios to compare two quantities Interpret ratios given in fraction form Use a ratio to find what fraction one quantity is for another or how many times as great one is as the other. 	6.RP.1 6.RP.3.d	M06.A-R.1.1.1	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Equivalent Ratios	<ul style="list-style-type: none"> Write equivalent ratios Write ratios in simplest form Compare ratios 	6.RP.3.a	M06.A-R.1.1.3	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Real-World Problems: Ratios	<ul style="list-style-type: none"> Solve real-world problems involving ratios 	6.RP.3	M06.A-R.1.1.3 M06.A-R.1.1.4 M06.A-R.1.1.5	Exposure to Mastery Provide adequate time for Mastery

Chapter 5-Rates				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Rates and Unit Rates	<ul style="list-style-type: none"> Solve unit rate problems including unit pricing and constant speed 	6.RP.2 6.RP.3	M06.A-R.1.1.2 M06.A-R.1.1.3 M06.A-R.1.1.4	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Real-World Problems: Rates and Unit Rates	<ul style="list-style-type: none"> Solve problems involving rates and unit rates 	6.RP.3 6.RP.3.b	M06.A-R.1.1.3 M06.A-R.1.1.4 M06.A-R.1.1.5	Exposure to Mastery Provide adequate time for Mastery

Chapter 6-Percent				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Understanding Percent	<ul style="list-style-type: none"> Understand percent notation Write equivalent fractions, decimals, and percents 	6.RP.3 6.RP.3.c	M06.A-R.1.1.5	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Fractions, Decimals, and Percents	<ul style="list-style-type: none"> Write more equivalent fractions, decimals, and percents 	6.RP.3.c	M06.A-R.1.1.5	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Percent of Quantity	<ul style="list-style-type: none"> Find the percent of a number 	6.RP.3.c	M06.A-R.1.1.5	Exposure to Mastery Provide adequate time for Mastery
Lesson 4 Real-World Problems: Percent	<ul style="list-style-type: none"> Solve problems involving percent 	6.RP.3.c 7.RP.3	M06.A-R.1.1.5	Exposure to Mastery Provide adequate time for Mastery
Lesson 5 Percent of Change	<ul style="list-style-type: none"> Solve problems involving percent increase and decrease 	6.RP.3.c 7.RP.3	M06.A-R.1.1.5	Exposure to Mastery Provide adequate time for Mastery

Chapter 7-Algebraic Expressions				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Writing Algebraic Expressions	<ul style="list-style-type: none"> Use variables to write algebraic expressions 	6.EE.2.a 6.EE.2.b	M06.B-E.1.1.1 M06.B-E.1.1.2 M06.B-E.1.1.3 M06.B-E.2.1.1	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Evaluating Algebraic Expressions	<ul style="list-style-type: none"> Evaluate algebraic expressions for given values of the variable 	6.EE.2 6.EE.2.c	M06.B-E.1.1.2 M06.B-E.1.1.3 M06.B-E.1.1.4 M06.B-E.2.1.1	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Simplifying Algebraic Expressions	<ul style="list-style-type: none"> Simplify algebraic expressions in one variable Recognize that the expression obtained after simplifying is equivalent to the original expression 	6.EE.3 6.EE.4 6.EE.6	M06.B-E.1.1.5 M06.B-E.2.1.2 M06.B-E.2.1.1 M06.A-N.2.2.2	Exposure to Mastery Provide adequate time for Mastery
Lesson 4 Expanding and Factoring Algebraic Expressions	<ul style="list-style-type: none"> Expand simple algebraic expressions Factor simple algebraic expressions 	6.EE.2 6.EE.3 6.EE.4	M06.B-E.1.1.2 M06.B-E.1.1.3 M06.B-E.1.1.4 M06.B-E.1.1.5 M06.B-E.2.1.1 M06.A-N.2.2.2	Exposure to Mastery Provide adequate time for Mastery
Lesson 5 Real-World Problems:	<ul style="list-style-type: none"> Solve real-world problems involving algebraic expressions 	6.EE.6	M06.B-E.2.1.2 M06.B-E.2.1.1	Exposure to Mastery Provide adequate

Algebraic Expressions				time for Mastery
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Chapter 8-Equations and Inequalities				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Solving Algebraic Equations	<ul style="list-style-type: none"> Solve equations in one variable 	6.EE.2.c 6.EE.5	M06.B-E.1.1.4 M06.B-E.2.1.1	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Writing Linear Equations	<ul style="list-style-type: none"> Express the relationship between two quantities as a linear equation Use a table or graph to represent a linear equation 	6.EE.7 6.EE.9	M06.B-E.2.1.3 M06.B-E.3.1.1 M06.B-E.3.1.2	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Solving Simple Inequalities	<ul style="list-style-type: none"> Use substitution to determine whether a given number is a solution of an inequality Represent the solutions of an inequality on a number line 	6.EE.5 6.EE.7	M06.B-E.2.1.1 M06.B-E.2.1.3	Exposure to Mastery Provide adequate time for Mastery
Lesson 4 Real-World Problems: Equations and Inequalities	<ul style="list-style-type: none"> Solve real-world problems by writing equations Solve real-world problems by writing inequalities 	6.EE.7 6.EE.8	M06.B-E.2.1.3 M06.B-E.2.1.4	Exposure to Mastery Provide adequate time for Mastery

Chapter 9-The Coordinate Plane				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Points on the Coordinate Plane	<ul style="list-style-type: none"> Name and locate points on the coordinate plane Draw and identify polygons on the coordinate plane 	6.NS.6 6.NS.6.c 6.G.3	M06.A-N.3.1.2 M06.A-N.3.1.3 M06.A-N.3.2.3 M06.C-G.1.1.4	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Length of Line Segments	<ul style="list-style-type: none"> Find lengths of horizontal and vertical line segments on the coordinate plane Solve real-world problems involving coordinates and a coordinate plane 	6.NS.8 6.EE.2.c 6.G.3	M06.A-N.3.2.3 M06.C-G.1.1.4	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Real-World Problems: Graphing	<ul style="list-style-type: none"> Solve real-world problems involving equations and a coordinate plane 	6.RP.3.a 6.RP.3.b 6.NS.8 6.G.3	M06.A-R.1.1.3 M06.A-R.1.1.4 M06.A-N.3.2.3 M06.C-G.1.1.4	Exposure to Mastery Provide adequate time for Mastery

Chapter 10-Area of Polygons				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Area	<ul style="list-style-type: none"> Use a formula to find the area of a 	6.EE.2.c	M06.B-E.1.1.4	Exposure to

of Triangles	triangle	6.G.1	M06.C-G.1.1.1 M06.C-G.1.1.2	Mastery Provide adequate time for Mastery
Lesson 2 Area of Parallelograms and Trapezoids	<ul style="list-style-type: none"> Use a formula to find the area of a parallelogram, given its base and height Use a formula to find the area of a trapezoid, given its bases and height 	6.G.1 6.G.3	M06.C-G.1.1.1 M06.C-G.1.1.2 M06.C-G.1.1.4	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Area of Other Polygons	<ul style="list-style-type: none"> Divide polygons into triangles Find the area of a regular polygon by dividing it into smaller shapes 	6.G.1	M06.C-G.1.1.1 M06.C-G.1.1.2	Exposure to Mastery Provide adequate time for Mastery
Lesson 4 Area of Composite Figures	<ul style="list-style-type: none"> Recognize that a plane figure is made up of polygons Solve problems involving areas of composite figures 	6.G.1	M06.C-G.1.1.1 M06.C-G.1.1.2	Exposure to Mastery Provide adequate time for Mastery

Chapter 11-Circumference and Area of a Circle				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Radius, Diameter, and Circumference	<ul style="list-style-type: none"> Identify parts of a circle Recognize that a circle's diameter is twice its radius Use formulas to find the circumference of a circle Identify semicircles and quarter circles, and find the distance around them 	7.G.1	M06.C-G.1.1.1 M06.C-G.1.1.2	
Lesson 2 Area of a Circle	<ul style="list-style-type: none"> Use formulas to calculate the areas of circles, semicircles, and quadrants 	6.EE.1 7.G.4	M06.B-E.1.1.1	
Lesson 3 Real-World Problems: Circles	<ul style="list-style-type: none"> Solve real-world problems involving area and circumference of circles Solve real-world problems involving semicircles, quadrants, and composite figures 	6.EE.2.c 7.G.4	M06.B-E.1.1.4	

Chapter 12-Surface Area and Volume of Solids				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Nets of Solids	<ul style="list-style-type: none"> Identify the nets of a prism and a pyramid Identify the solid formed by a given net 	6.G.4	M06.C-G.1.1.5 M06.C-G.1.1.6	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Surface Area of Solids	<ul style="list-style-type: none"> Find the surface area of a prism and a pyramid 	6.EE.1 6.G.4	M06.C-G.1.1.5 M06.C-G.1.1.6	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Volume of	<ul style="list-style-type: none"> Find the volume of a prism 	6.EE.1 6.G.2	M06.C-G.1.1.3	Mastery Provide adequate

Prisms				time for Mastery
Lesson 4 Real-World Problems: Surface Area and Volume	<ul style="list-style-type: none"> Solve problems involving surface area and volume of prisms 	6.Ee.2.c 6.G.2	M06.C-G.1.1.3	Exposure to Mastery Provide adequate time for Mastery

Chapter 13-Introduction to Statistics				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Collecting and Tabulating Data	<ul style="list-style-type: none"> Collect, organize, and tabulate data 	6.SP.1 6.SP.2 6.SP.5 6.SP.5.a 6.SP.5.b	M06.D-S.1.1.1	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Dot Plots	<ul style="list-style-type: none"> Display and analyze data using a dot plot 	6.SP.4 6.SP.5d	M06.D-S.1.1.1 M06.D-S.1.1.4	Mastery Provide adequate time for Mastery
Lesson 3 Histograms	<ul style="list-style-type: none"> Display and analyze data using a histogram 	6.SP.4 6.SP.5.d	M06.D-S.1.1.1 M06.D-S.1.1.4	Exposure to Mastery Provide adequate time for Mastery

Chapter 14-Measure of Central Tendency				
Lesson	Objective	Common Core	PA Core	Mastery/Exposure
Lesson 1 Mean	<ul style="list-style-type: none"> Find the mean of a set of data Use the mean of a set of data to solve problems 	6.SP.2 6.SP.5 6.SP.5.a 6.SP.5.c 6.SP.5.d	M06.D-S.1.1.2 M06.D-S.1.1.3 M06.D-S.1.1.4	Exposure to Mastery Provide adequate time for Mastery
Lesson 2 Median	<ul style="list-style-type: none"> Find the median of a set of data Use the median of a set of data to solve problems 	6.SP.3 6.SP.5.d	M06.D-S.1.1.2 M06.D-S.1.1.4	Exposure to Mastery Provide adequate time for Mastery
Lesson 3 Mode	<ul style="list-style-type: none"> Find the mode of a set of data Use the mode of a set of data to solve problems 	6.SP.4 6.SP.5.d	M06.D-S.1.1.1 M06.D-S.1.1.2 M06.D-S.1.1.4	Exposure to Mastery Provide adequate time for Mastery
Lesson 4 Real-World Problems: Mean, Median, and Mode	<ul style="list-style-type: none"> Solve problems that are related to the concepts of mean, median, and mode, including the selection of the measure of central tendency to be used for problems. 	6.SP.3 6.SP.5.d	M06.D-S.1.1.2 M06.D-S.1.1.3 M06.D-S.1.1.4	Exposure to Mastery Provide adequate time for Mastery