

Knowre Math: **Grade 6** Curriculum

Chapter 1 Whole Numbers

Lesson	Topic	GA Standards of Excellence
1-1 Dividing Using the Standard Algorithm	A) Long Division	MGSE6.NS.2
	B) Equivalent Divisions	
	C) Horizontal Division	
1-2 Divisibility Tests	A) Divisibility Tests	MGSE6.NS.2
1-3 Multiples and Factors	A) Multiples	MGSE6.NS.4.a, MGSE6.NS.4.b
	B) Least Common Multiples	
	C) Factors	
	D) Greatest Common Factors	
1-4 Exponents and the Order of Operations	A) Multiplication Symbols	MGSE6.EE.1, MGSE6.EE.4
	B) Defining Powers	
	C) Writing Expressions as Powers	
	D) Evaluating Powers	
	E) Missing Values in Power Equations	
	F) Order of Operations	
1-5 Prime Factorization	A) Prime and Composite Numbers	MGSE6.NS.4.a, MGSE6.NS.4.b, MGSE6.EE.1
	B) Prime Factorization	
	C) Greatest Common Factors	
	D) Least Common Multiples	

Knowre Math: **Grade 6** Curriculum

Chapter 2 Fractions and Decimals

Lesson	Topic	GA Standards of Excellence
2-1 Fractions	A) Fractions on Number Lines	MGSE6.NS.6c
	B) Whole Numbers as Fractions	
	C) Equivalent Fractions	
	D) Comparing Fractions	
	E) Simplifying Fractions	
	F) Mixed Numbers as Improper Fractions	
2-2 Adding and Subtracting Fractions	A) Adding and Subtracting Fractions with Common Denominators	MGSE5.NF.1
	B) Adding and Subtracting Fractions with Different Denominators	
2-3 Multiplying and Dividing Fractions	A) Multiplying Fractions	MGSE6.NS.1, MGSE6.EE.1
	B) Powers of Nonnegative Fractions	
	C) Reciprocals	
	D) Dividing Fractions	
2-4 Adding and Subtracting Decimals	A) Decimals on Number Lines	MGSE6.NS.3, MGSE6.NS.6c, MGSE6.NS.7b
	B) Representing Repeating Decimals	
	C) Ordering Decimals	
	D) Adding Decimals	
	E) Subtracting Decimals	
2-5 Multiplying and Dividing Decimals	A) Multiplying Decimals	MGSE6.NS.3, MGSE6.NS.7b, MGSE6.EE.1
	B) Powers of Nonnegative Decimals	
	C) Dividing Decimals	
2-6 Order of Operations with Rational Numbers	A) Terminating Decimals as Fractions	MGSE6.NS.7b
	B) Order of Operations with Nonnegative Rational Numbers	

Knowre Math: **Grade 6** Curriculum

Chapter 3 Basics of Algebra

Lesson	Topic	GA Standards of Excellence
3-1 Variables and Expressions	A) Parts of Variable Expressions	MGSE6.EE.2a, MGSE6.EE.2b, MGSE6.EE.6
	B) Writing Variable Expressions	
3-2 Operations and Variable Expressions	A) Omitting Multiplication Symbols with Variables	MGSE6.EE.2b, MGSE6.EE.2c, MGSE6.EE.3, MGSE6.EE.4
	B) Understanding Coefficients	
	C) Evaluating Variable Expressions	
3-3 Properties of Operations	A) Commutative Property	MGSE6.EE.3, MGSE6.EE.4
	B) Associative Property	
	C) Using the Properties to Multiply Terms	
	D) Identity Property	
3-4 Distributive Property	A) Distributive Property	MGSE6.NS.4.a, MGSE6.EE.3, MGSE6.EE.4, MGSE6.EE.6
	B) Rewrite Sums and Differences with the Distributive Property	

Knowre Math: **Grade 6** Curriculum

Chapter 4 Equations and Inequalities

Lesson	Topic	GA Standards of Excellence
4-1 Equations	A) Identifying Expressions and Equations	MGSE6.EE.4, MGSE6.EE.5, MGSE6.EE.6, MGSE6.EE.7
	B) Writing Equations	
	C) Solutions of Equations	
4-2 Solving One-Step Equations I	A) Subtraction Property of Equality	MGSE6.EE.6, MGSE6.EE.7
	B) Addition Property of Equality	
4-3 Solving One-Step Equations II	A) Division Property of Equality	MGSE6.EE.6, MGSE6.EE.7
	B) Multiplication Property of Equality	
4-4 Writing and Graphing Inequalities	A) Writing Inequalities from Verbal Expressions	MGSE6.EE.5, MGSE6.EE.8
	B) Solutions of Inequalities	
	C) Writing Inequalities from Number Lines	
	D) Graphing Inequalities	
4-5 Solving One-Step Inequalities	A) Subtraction Property of Inequality	MGSE6.EE.5
	B) Addition Property of Inequality	
	C) Multiplication Property of Inequality	
	D) Division Property of Inequality	

Knowre Math: **Grade 6** Curriculum

Chapter 5 Ratios and Rates

Lesson	Topic	GA Standards of Excellence
5-1 Ratios	A) Writing Ratios	MGSE6.RP.1, MGSE6.RP.2
	B) Simplifying Ratios	
	C) Equivalent Ratios	
5-2 Rates and Conversions	A) Unit Rates	MGSE6.RP.2, MGSE6.RP.3b, MGSE6.RP.3d
	B) Conversion Factors	
	C) Unit Conversions within a System	
	D) Unit Rates and Dimensional Analysis	
5-3 Percents	A) Writing Percents as Fractions	MGSE6.RP.3c
	B) Writing Fractions as Percents	
	C) Writing Percents as Decimals	
	D) Writing Decimals as Percents	
	E) Percent Equations	

Knowre Math: Grade 6 Curriculum

Chapter 6 Integers

Lesson	Topic	GA Standards of Excellence
6-1 Introduction to Integers	A) Classifying Numbers	MGSE6.NS.5, MGSE6.NS.7a, MGSE6.NS.7b
	B) Representing Situations as Integers	
	C) Integers on Number Lines	
	D) Comparing Integers	
	E) Distance on a Number Line	
6-2 Opposites and Absolute Value	A) Opposites	MGSE6.NS.6a, MGSE6.NS.7a, MGSE6.NS.7c, MGSE6.NS.7d
	B) Absolute Values	
6-3 Adding and Subtracting Integers on a Number Line	A) Adding Integers on Number Lines	MGSE7.NS.1.b
	B) Subtracting Integers on Number Lines	

Chapter 7 Coordinate Plane and Two Variable Equations

Lesson	Topic	GA Standards of Excellence
7-1 Coordinate Plane	A) Identifying Quadrants and Axes of Coordinate Planes	MGSE6.NS.6b, MGSE6.NS.6c, MGSE6.NS.8, MGSE6.G.3
	B) Graphing Points	
	C) Writing the Coordinates of Points	
	D) Identifying Quadrants and Axes from Coordinates	
7-2 Distance and Reflections on a Coordinate Plane	A) Counting to Find the Distance Between Points	MGSE6.NS.6b, MGSE6.NS.8, MGSE6.G.3
	B) Using Absolute Value to Find the Distance Between Points	
	C) Reflections Over the x-axis	
	D) Reflections Over the y-axis	
7-3 Relations	A) Representing Relations in Different Forms	MGSE6.RP.3a, MGSE6.RP.3b, MGSE6.EE.9.b
	B) Input and Output	
	C) Independent and Dependent Variables	
7-4 Two-Variable Equations	A) Evaluating Functions	MGSE6.RP.3a, MGSE6.EE.9.a, MGSE6.EE.9.b
	B) Graphing Linear Functions	
	C) Writing Linear Functions	

Knowre Math: Grade 6 Curriculum

Chapter 8 Two- and Three-Dimensional Geometry

Lesson	Topic	GA Standards of Excellence
8-1 Area of Rectangles and Squares	A) Areas of Rectangles	MGSE6.G.1, MGSE6.G.3
	B) Areas of Squares	
8-2 Area of Triangles	A) Bases and Heights of Triangles	MGSE6.G.1
	B) Areas of Triangles	
8-3 Area of Parallelograms and Trapezoids	A) Areas of Parallelograms	MGSE6.G.1, MGSE6.G.3
	B) Areas of Trapezoids	
8-4 Surface Area of Prisms and Pyramids Using Nets	A) Nets of Solids	MGSE6.G.4
	B) Surface Areas of Prisms and Pyramids from Nets	
	C) Surface Areas of Prisms	
8-5 Volume of Rectangular Prisms	A) Volume from Cubic Units	MGSE6.G.2
	B) Volumes of Right Prisms	

Chapter 9 Displays of Data

Lesson	Topic	GA Standards of Excellence
9-1 Introduction to Statistics	A) Statistical Questions	MGSE6.SP.1, MGSE6.SP.5.a, MGSE6.SP.5.b
	B) Characteristics of Data Sets	
	C) Frequency Tables	
	D) Characteristics of Tables	
9-2 Dot Plots	A) Characteristics of Dot Plots	MGSE6.SP.4, MGSE6.SP.5.a, MGSE6.SP.5.b
	B) Dot Plots, Data Sets, and Frequency Tables	
	C) Finding the Number of Observations within a Range of Numbers	
	D) Finding the Minimum and Maximum Values	
	E) Finding the Mode	
9-3 Histograms	A) Characteristics of Histograms	MGSE6.SP.4, MGSE6.SP.5.a, MGSE6.SP.5.b
	B) Bins	
	C) Histograms, Data Sets, and Frequency Tables	
	D) Finding the Number of Observations within a Range of Numbers	
	E) Values in a Histogram	

Knowre Math: **Grade 6** Curriculum

Chapter 10 Distributions of Data

Lesson	Topic	GA Standards of Excellence
10-1 Measures of Center	A) Mean	MGSE6.SP.2, MGSE6.SP.3, MGSE6.SP.5.b
	B) Median	
	C) Mean and Median of Same Data Set	
10-2 Measures of Variation	A) Range	MGSE6.SP.2, MGSE6.SP.3, MGSE6.SP.5.b
	B) MAD	
	C) Quartiles	
	D) IQR	
10-3 Box Plots	A) Five-Number Summary	MGSE6.SP.4
	B) Measures of Variation	
	C) Box Plots, Five-Number Summaries, and Data Sets	
	D) Distribution of Data in a Dot Plot	
10-4 Shapes of Distributions	A) Shapes of Histograms	MGSE6.SP.2, MGSE6.SP.3, MGSE6.SP.5.b
	B) Shapes of Dot Plots	
	C) Shape and Measure of Center	
	D) Measure of Center and Measure of Variation	
	E) Outliers and Measures of Center	