6th grade Math PACING GUIDE

FIRST QUARTER: (44 School Days)

UNIT	PACING	TOPICS	STANDARDS	LEARNING OBJECTIVES
Unit 1: Using Positive Rational Numbers	**7 Days**	**1-1: Add, Subtract, and Multiply Decimals** 1-2:Divide Whole Numbers/Decimals **1-3: Multiply Fractions**	• **6.NS.B.3** • 6.NS.B.2/6.NS.B.3 • **6.NS.A.1**	• Fluently add, subtract, and multiply decimals • Fluently divide whole numbers and decimals. • **Multiply fractions and mixed numbers.**
Unit 1: Using Positive Rational Numbers	**5 Days**	**1-4: Understand Division with Fractions** 1-5: Divide Fractions by Fractions **1-6: Divide Mixed Fractions** 1-7: Solve Problems with Rational Numbers	• **6.NS.A.1** • 6.NS.A.1 • **6.NS.A.1** • 6.NS.A.1	• **Compute quotients with fractions** • Divide fractions by fractions • **Divide with mixed numbers** • Solve multistep problems with fractions and/decimals
Unit 2: Integers and Rational Numbers	**6 Days**	**2-1: Understand Integers** 2-2: Represent Rational Numbers on the Number Line **2-3: Absolute Values of Rational Number**	• **6.NS.C.5/6.NS.C.6.a/6.NS.C.6.c** • 6.NS.C.6.c/6.NS.C.7.a/6.NS.C.7.b • **6.NS.C.7.c**	• **Compare, order, and identify integers** • Explain rational numbers on a number line • **Find and interpret absolute value**
Unit 2: Integers and Rational Numbers	**6 Days**	**2-4: Represent Rational on the Coordinate Plane** 2-5: Find Distance on the Coordinate Plane **2-6: Represent Polygons on the Coordinate Plane**	• **6.NS.C.6.b/6.NS.C.6.c** • **6.NS.C.8** • **6.NS.C.8/6.G.A.3**	• **Graph/reflect points with rational coordinates** • Use absolute value to find the distance • **Find side lengths/perimeter of polygons on the coordinate plane**
Unit 3: Numeric and Algebraic Expressions	**6 Days**	**3-1: Understand and Represent Exponents** 3-2: Find Greatest Common Factor and Least Common Multiple **3-3: Write/Evaluate Numerical Expressions**	• **6.EE.A.1** • 6.NS.B.4 • **6.EE.A.1/6.EE.A.3**	• **Write/evaluate numbers with exponents** • Use prime factorization to find the GCF and LCM of two numbers. • **Use order of operations to evaluate expressions**
Unit 3: Numeric and Algebraic Expressions	**6 Days**	**3-4: Write Algebraic Expressions** 3-5: Evaluate Algebraic Expressions **3-6: Generate Equivalent Expression** 3-7: Simplify Algebraic Expressions	• **6.EE.A.2.a/6.EE.A.2.b/6.EE.B.6** • 6.EE.A.2.c/6.EE.B.6 • **6.EE.A.3/6.EE.A.4** • 6.EE.A.3/6.EE.A.4	• **Use precise mathematical language to write algebraic expression from a word phrase** • Use whole numbers, decimals, and fractions to evaluate algebraic expressions • **Write, identify, and justify equivalent algebraic expressions** • Use properties of operations to simplify algebraic expressions

SECOND QUARTER: (44 School Days)

UNIT	PACING	TOPICS	STANDARDS	LEARNING OBJECTIVES
Unit: 4 Represent and Solve Equations and Inequalities	**10 Days**	**4-1: Understand Equations and Solutions** 4-2: Apply Properties of Equality **4-3: Write/Solve Addition/Subtraction Equations** 4-4: Write/Solve Multiplication/Division Equations **4-5: Write/Solve Equations with Rational Numbers**	• **6.EE.B.5** • 6.EE.A.4/6.EE.B.7 • **6.EE.B.7/6.EE.B.6** • 6.EE.B.7/6.EE.B.6 • **6.EE.B.7/6.EE.B.6**	• **Identify equations and variables using substitution** • Write equivalent expressions using properties of equity • **Write one-variable addition and subtraction equations** • Write one-variable multiplication and division equations • **Write and solve equations using fractions, decimals, and mixed numbers**
Unit: 4 Represent and Solve Equations and Inequalities	**10 Days**	**4-6: Understand and Write Inequalities** 4-7: Solve Inequalities **4-8: Understand Dependent and Independent Variables** 4-9: Patterns to Write and Solve Equations **4-10: Tables, Graphs, and Equations**	• **6.EE.B.5/6.EE.B.8** • 6.EE.B.5/6.EE.B.8 • **6.EE.C.9** • 6.EE.C.9 • **6.EE.C.9**	• **Understand the symbols to write inequality** • Describe and represent solutions to an inequality on a number line • **Identify dependent/independent variables** • Relationships between variables using tables • **Analyze relationship between independent/dependent variables**

Unit 5: Understand and Use Ratio and Rate	**10 Days**	**5-1: Understand Ratios** 5-2: Generate Equivalent Ratios 5-3: **Compare Ratios** 5-4: Represent and Graph Ratios	• **6.RP.A.1/6.RP.A.3** • 6.RP.A.3.a • **6.RP.A.3.a** • 6.RP.A.3.a	• **Ratio relationships between 2 quantities** • Multiplication/division to find equal ratios • **Use ratio tables to compare ratios** • Use table/graph to represent equal ratios
Unit 5: Understand and Use Ratio and Rate	**10 Days**	**5-5 Understand Rates and Unit Rates** 5-6: Compare Unit Rates **5-7: Solve Unit Rate Problems** 5-8: Ratio Reasoning: Convert Customary Units **5-9: Ratio Reasoning: Convert Metric Units**	• **6.RP.A.2/6.RP.A.3.a/6.RP.A.3.b** • 6.RP.A.3.a/6.RP.A.3.b • **6.RP.A.3.b** • 6.RP.A.3.d • **6.RP.A.3.d**	• **Use ratios and rates to solve problems** • Use ratio reasoning to compare unit rates • **Solve unit rate problems using an equation** • Use unit rate to convert customary measurements • **Use unit rate to convert metric measurements**

THIRD QUARTER (45 School Days)

UNIT	PACING	TOPICS	STANDARDS	LEARNING OBJECTIVES
Unit 6: Understand and Use Percent	**6 Days**	**6-1: Understand Percent** 6-2: Relate Fractions, Decimals, and Percent **6-3: Represent Percent Greater than 100 or Less than 1**	• **6.RP.A.3.c** • 6.RP.A.3.c • **6.RP.A.3.c**	• **Find the Percent of A Whole** • Write equivalent values as fractions, decimals, and percent • Write Percent that are greater than 100 or less than 1
Unit 6: Understand and Use Percent	**6 Days**	**6-4: Estimate to Find Percent** 6-5: Find the Percent of a Number **6-6: Find the Whole Given a Part and the Percent**	• **6.RP.A.3.c** • 6.RP.A.3.c • **6.RP.A.3.c**	• **Estimate the percent of a number** • Use decimals to find percent of a number • **Find the whole amount when given a part and the percent**
Unit 7: Solve Area, Surface Area, and Volume Problems	**8 Days**	**7-1: Find Areas of Parallelograms and Rhombuses** 7-2: Solve Triangle Area Problems **7-3: Find Areas of Trapezoids and Kites** 7-4: Find Areas of Polygons	• **6.G.A.1, 6.EE.A.2.c** • 6.G.A.1, 6.EE.A.2.c • **6.G.A.1, 6.EE.A.2.c** • 6.G.A.1, 6.EE.A.2.c, 6.G.A.3, 6.NS.C.6.c, 6.NS.C.8	• **Use formulas to find the areas, height, or base of parallelograms and rhombuses.** • Find the areas, base, and height of triangles • **Find the areas of trapezoids and kites** • Find the areas of composite figures including polygons on the coordinate plane
Unit 7: Solve Area, Surface Area, and Volume Problems	**8 Days**	**7-5: Represent Solid Figures Using Nets** 7-6: Find Surface Areas of Prisms **7-7: Find Surface Area of Pyramids** 7-8: Find Volume with Fractional Edge Lengths	• **6.G.A.4** • 6.G.A.4, 6.EE.A.2.a, 6.EE.A.2.c, 6.EE.B.6 • **6.G.A.4, 6.EE.A.2.a, 6.EE.A.2.c, 6.EE.B.6** • 6.G.A.2, 6.EE.A.2.a, 6.EE.A.2.c, 6.EE.B.6	• **Represent solid figures using a net** • Use a net to find the surface area of a prism • **Find the surface area of square and triangular pyramids** • Find the volume of a rectangular prism

FOURTH QUARTER (43 School Days)

UNIT	PACING	TOPICS	STANDARDS	LEARNING OBJECTIVES
Unit: 8 Display, Describe, and Summarize Data	**8 Days**	**8-1: Recognize Statistical Questions** 8-2: Summarize Data Using Mean, Median. Mode, and Range **8-3: Display Data in Box Plots** 8-4: Display data in Frequency Tables and Histograms	• **6.SP.A.1/6.SP.B.4** • 6.SP.A.3/6.SP.B.5.c • **6.SP.B.4** • 6.SP.B.4/6.SP.B.5	• **Identify statistical and non-statistical questions** • Determine the mean, median, mode, and range of a data set. • **Interpret and analyze a box plot** • Interpret and analyze frequency table or histogram
Unit: 8 Display, Describe, and Summarize Data	**8 Days**	**8-5: Summarize Data Using Measures of Variability** 8-6: Choose Appropriate Statistical Measures **8-7: Summarize Data Distributions**	• **6.SP.B.5.c/6.SP.B.4** • 6.SP.B.5.d/6.SP.B.5.c • **6.SP.A.2, 6.SP.B.5.b, 6.S.B.4, 6.SP.B.5.c**	• **Calculate the interquartile range (IQR) of a data set** • Select the most appropriate measure to describe data sets • **Describe the center, spread, and overall shape of data**
TN Ready Review	**14 Days**	**TN Ready Review**	• **ALL STANDARDS**	• **Major Focus Objectives of TN Ready**
Grade 7 Intro	**13 Days**	**1-3: Adding Integers** 1-4: Subtracting Integers **1-5: Add/Subtract Rational Num.** 1-6: Multiplying Integers **1-8: Dividing Integers** 1-10: Solve Problems w/ Rational Num.	• **7.NS.A.1/7.EE.B.3** • **7.NS.A.2/7.EE.B.3**	• **Adding Integers with the same sign** • **Adding Integers with different signs** • Subtracting Integers • **Applying Add/Subt of Integers** • Multiplying Integers • **Dividing Integers** • Applying Integer Operations