

6th grade MATH: Exceptional

Curriculum Guide

To support strong classroom instruction, the TDOE has created instructional focus documents for mathematics. These documents were developed to target the mathematics standards where statewide data indicated students struggled the most and are optional supplements for educators to consider. The purpose of these documents is to provide teachers with examples of learning across all performance levels to help educators determine the depth of a student's conceptual understanding of the Tennessee mathematics standards. You may access these documents using the **Best for All Central** website:

<https://bestforall.tnedu.gov/lessons-and-learning-item?content-id=7321>

Items in RED are 7th grade standards and lessons that should be covered in order to prepare students for 7th grade exceptional math. These lessons and assessments are found in the 7th grade SAVVAS curriculum.

1 st Quarter- 44 days					
Standard(s)	Learning Objective(s)	Savvas Alignment	Assessments	Pacing	
6.NS.B.3	-Add and subtract decimals with precision -Multiply decimals -add, subtract, and multiply decimals to solve real-world problems	Lesson 1-1: Fluently Add, Subtract, and Multiply Decimals		2	
6.NS.B.2 6.NS.B.3	-Use place value structure to divide whole numbers and decimals -Divide whole numbers and decimals to solve real-world problems	Lesson 1-2: Fluently Divide Whole Numbers and Decimals		2	
6.NS.A.1	-Use models to multiply fractions -Multiply the numerators and then the denominators to find the product of two fractions -Multiply mixed numbers	Lesson 1-3: Multiply Fractions		1	
		Page 27	Mid-Topic Checkpoint and Performance Task	1 day	
6.NS.A.1	- Use models to divide with fractions -Use equations to divide with fractions	Lesson 1-4: Understand Division with Fractions		1	
6.NS.A.1	- Use models to divide fractions by fractions -Use an algorithm to divide fractions by fractions	Lesson 1-5: Divide Fractions by Fractions		2	
6.NS.A.1	-Divide with mixed numbers - Estimate the quotient of mixed numbers	Lesson 1-6: Divide Mixed Numbers		2	

6.NS.A.1	Solve multistep problems with fractions and decimals	Lesson 1-7: Solve Problems with Rational Numbers		2	
		Page 61	Topic Assessment and Performance Task	2 days	
6.NS.C.5 6.NS.C.6.a 6.NS.C.6.c 7.NS.A.1	-Identify opposites of integers -Compare and order integers -Use integers to represent real-world quantities and explain the meaning of 0 in each context -Understand how integers and their opposites are related	Lesson 2-1: Understand Integers Lesson 1-1: Relate Integers and Their Opposites	Lesson Quiz 1-1	2	
6.NS.C.6.c 6.NS.C.7.a 6.NS.C.7.b	-Plot rational numbers on a number line -Compare and order rational numbers -use rational numbers to represent real-world quantities	Lesson 2-2: Represent Rational Numbers on the Number Line		2	
6.NS.C.7.c	-Use absolute value to represent a number's distance from 0 -Interpret absolute value in real-world situations	Lesson 2-3: Absolute Values of Rational Numbers		1	
		Page 87	Mid-Topic Checkpoint and Performance Task	1 day	
6.NS.C.6.b 6.NS.C.6.c	- Identify and graph points with rational coordinates on the coordinate plane -Reflect points with rational coordinates across both axes	Lesson 2-4: Represent Rational Numbers on the Coordinate Plane		2	
6.NS.C.8	-Use absolute value to find the distance between two points that lie on the same horizontal or vertical line on a coordinate plane -Solve real-world and mathematical problems involving distances on the coordinate plane	Lesson 2-5: Find Distances on the Coordinate Plane		1	
6.NS.C.8 6.G.A.3	-Find side lengths of polygons on the coordinate plane -Find the perimeter of polygons on the coordinate plane.	Lesson 2-6: Represent Polygons on the Coordinate Plane		1	
7.NS.A.1.a 7.NS.A.1.b 7.NS.A.1.c	-Add positive and negative integers -Model integer addition in real-life application -Understand subtraction of integers as adding the additive inverse	Lesson 1-3: Add Integers Lesson 1-4: Subtract Integers	Lesson Quiz 1-3 Lesson Quiz 1-4	2	
7.NS.A.2.a 7.NS.A.2.b 7.NS.A.2.c	-Multiply positive and negative integers -Apply integer multiplication to real-life application -Understand how to divide integers by applying the rules of multiplying integers -Determine equivalencies among integers quotients.	Lesson 1-6: Multiply Integers Lesson 1-8: Divide Integers	Lesson Quiz 1-6 Lesson Quiz 1-8	2	
		Page 115	Topic Assessment and Performance Task	2 days	

2nd Quarter- 42 days					
Standard(s)	Learning Objective(s)	Savvas Alignment	Assessments	Pacing	
6.EE.A.1	-Write expressions using whole-number exponents to represent real-world and mathematical problems -Evaluate expressions with whole-number exponents	Lesson 3-1: Understand and Represent Exponents		1	
6.NS.B.4	-Find the prime factorization of a whole number -Find the GCF and the LCM of two whole numbers -Use the GCF and the Distributive Property to add -Use the GCF and LCM to solve problems	Lesson 3-2: Find Greatest Common Factor and Least Common Multiple		2	
6.EE.A.1 6.EE.A.3	-Evaluate expressions using the order of operations -Insert grouping symbols in a numerical expression to affect the value of the expression	Lesson 3-3: Write and Evaluate Numerical Expressions		1	
		Page 143	Mid-Topic Checkpoint and Performance Task	1 day	
6.EE.A.2.a 6.EE.A.2.b 6.EE.B.6 6.EE.A.2.c	-Write an algebraic expression to model a pattern -Write and algebraic expression from a word phrase -Use precise mathematical language when identifying parts of an expression -Evaluate algebraic expressions, including those with whole numbers, decimals, and fractions	Lesson 3-4: Write Algebraic Expressions Lesson 3-5: Evaluate Algebraic Expressions		2	
6.EE.A.3 6.EE.A.4	-Write equivalent algebraic expressions -Identify equivalent algebraic expressions -Justify whether two expressions are equivalent -Use properties of operations to simplify algebraic expressions by combining like terms	Lesson 3-6: Generate Equivalent Expressions Lesson 3-7: Simplify Algebraic Expressions		2	
7.EE.A.1 7.EE.A.2	-Use the Distributive Property to expand expressions - Understand expanding an expression is the reverse of factoring -Identify the GCF of algebraic terms in expressions.	Lesson 4-4: Expand Expressions Lesson 4-5: Factor Expressions	Lesson Quiz 4-4 Lesson Quiz 4-5	2	
		Page 177	Topic Assessment and Performance Task	2	
6.EE.B.5	-Identify equations and variables -Use substitution to find solutions to equations	Lesson 4-1: Understand Equations and Solutions		2	
6.EE.A.4 6.EE.B.7	-Use properties of equality to keep both sides of an equation equal -Identify which properties of equality are used to write equivalent expressions	Lesson 4-2: Apply Properties of Equality		2	

6.EE.B.7 6.EE.B.6	-Write and solve one-variable addition and subtraction equations -Use inverse relationships and properties of equality to solve one-step addition and subtraction equations. -Write and solve one-variable multiplication and division equations -Use inverse relationships and properties of equality to solve one-step multiplication and division equations.	Lesson 4-3: Write and Solve Addition and Subtraction Equations Lesson 4-4: Write and Solve Multiplication and Division Equations		2	
6.EE.B.7 6.EE.B.6	-Write and solve equations that involve fractions, decimals, and mixed numbers	Lesson 4-5: Write and Solve Equations with Rational Numbers		2	
		Page 217	Mid-Topic Checkpoint and Performance Task	1	
6.EE.B.8 6.EE.B.5	-Understand the symbols required to write an inequality -Write inequalities to describe mathematical or real-world situations	Lesson 4-6: Understand and Write Inequalities		2	
6.EE.B.8 6.EE.B.5	-Describe solutions to an inequality -Represent solutions to an inequality on a number line	Lesson 4-7: Solve Inequalities		2	
6.EE.C.9	-Identify dependent variables. - Identify independent variables. -Analyze the relationships between variables by using tables -Write equations to represent the relationships between variables	Lesson 4-8: Understand Independent and Dependent Variables Lesson 4-9: Use Patterns to Write and Solve Equations		2	
6.EE.C.9	- Analyze the relationship between independent and dependent variables using tables, graphs, and equations	Lesson 4-10: Relate Tables, Graphs, and Equations		2	
		Page 259	Topic Assessment and Performance Task	2	
6.RP.A.1 6.RP.A.3	-Use ratios to describe the relationship between two quantities -Use bar diagrams and double number line diagrams to model ratio relationship	Lesson 5-1: Understand Ratios		1	
6.RP.A.3.a	-Use multiplication and division to find equivalent ratios -Solve problems by finding equivalent ratios -Use ratio tables to compare ratios -Compare ratios to solve problems	Lesson 5-2: Generate Equivalent Ratios Lesson 5-3: Compare Ratios		1	
6.RP.A.3.a	-Represent equivalent ratios on graphs -Use ratio tables and graphs to solve problems	Lesson 5-4: Represent and Graph Ratios		1	
		Page 291	Mid-Topic Checkpoint and Performance Task	1	
6.RP.A.2 6.RP.A.3.a 6.RP.A.3.b	-Use rates to describe ratios in which the terms have different units -Use rates and unit rates to solve problems	Lesson 5-5: Understand Rates and Unit Rates		1	

	-Use ratio reasoning to compare rates and solve problems	Lesson 5-6: Compare Unit Rates			
6.RP.A.3.b	-Use unit rates to solve problems involving constant speed -Use unit rates to solve problems involving unit price -Solve unit rate problems using an equation	Lesson 5-7: Solve Unit Rate Problems		1	
6.RP.A.3.d	-Use ratio reasoning and conversion factors to convert customary units of measure - Use ratio reasoning and conversion factors to convert metric units of measure - Use ratio reasoning and conversion factors to convert between customary and metric units of measure	Lesson 5-8: Ratio Reasoning: Convert Customary Units Lesson 5-9: Ratio Reasoning: Convert Metric Units Lesson 5-10: Relate Customary and Metric Units		2	
		page 339	Topic Assessment and Performance Task	2	
3rd Quarter- 45 days					
Standard(s)	Learning Objective(s)	Savvas Alignment	Assessments	Pacing	
7.RP.A.2.a	-Determine whether quantities are proportional by testing for equivalent ratios	Lesson 2-3: Understand Proportional Relationships: Equivalent Ratios		2	
7.RP.A.2.b 7.RP.A.2.c	-Use the constant of proportionality to write equations that represent proportional relationships -Use equations to solve problems involving proportional relationships	Lesson 2-4: Describe Proportional Relationships: Constant of Proportionality		2	
7.RP.A.1.a 7.RP.A.2 7.RP.A.3	- Use a graph to recognize proportionality -Identify a constant of proportionality from a graph -Interpret a point on a graph of a proportional relationship -Explain whether a situation represents a proportional relationship -Use representations to find entry points into problems	Lesson 2-5: Graph Proportional Relationships Lesson 2-6: Apply Proportional Reasoning to Solve Problems		3	
		Page 135	Topic Assessment and Performance Task	2	
6.RP.A.3.c	- Represent the percent of a whole -Find the percent of a whole	Lesson 6-1: Understand Percent		2	

6.RP.A.3.c	-Write equivalent values as fractions, decimals, and percents -Write fractions as decimals and percents when the denominator of the fraction is not 100	Lesson 6-2: Relate Fractions, Decimals, and Percents		2	
6.RP.A.3.c	- Write percents that are greater than 100 -Write percents that are less than 1	Lesson 6-3: Represent Percents Greater than 100 or Less Than 1		2	
		Page 365	Mid-Topic Checkpoint and Performance Task	2	
6.RP.A.3.c	Estimate the percent of a number	Lesson 6-4: Estimate to Find Percent		2	
6.RP.A.3.c	- Use the decimal form of a percent to find the percent of a number. -Write an equation to solve a percent problem	Lesson 6-5: Find the Percent of a Number		2	
6.RP.A.3.c	Find the whole amount when given a part and the percent	Lesson 6-6: Find the Whole Given a Part and the Percent		2	
		Page 393	Topic Assessment and Performance Task	2	
6.G.A.1 6.EE.A.2.c	-Use a formula to find the areas of parallelograms and rhombuses -Find the base or height of a parallelogram or rhombus when the area and the height or base are known	Lesson 7-1: Find Areas of Parallelograms and Rhombuses		2	
6.G.A.1 6.EE.A.2.c	-Find the areas of triangles, including right triangles -Find the coresponding base or height of a triangle	Lesson 7-2: Solve Triangle Area Problems		2	
6.G.A.1 6.EE.A.2.c	-Find the areas of trapezoids -Find the areas of kites	Lesson 7-3: Find Areas of Trapezoids and Kites		2	
6.G.A.1 6.EE.A.2.c 6.G.A.3 6.NS.C.6.c 6.NS.C.8	-Find the areas of polygons by composing and decomposing shapes, including polygons on the coordinate plane	Lesson 7-4: Find Areas of Polygons		2	
		Page 425	Mid-Topic Checkpoint and Performance Task	2	
6.G.A.4	-Classify solid figures -Identify solid figures from nets -Draw nets of solid figures	Lesson 7-5: Represent Solid Figures Using Nets		2	

6.G.A.4 6.EE.A.2.a 6.EE.A.2.c 6.EE.B.6	-Find the surface area of rectangular prisms, including cubes -Find the surface area of triangular prisms	Lesson 7-6: Find Surface Areas of Prisms		2	
6.G.A.4 6.EE.A.2.a 6.EE.A.2.c 6.EE.B.6	-Find the surface areas of square and triangular pyramids	Lesson 7-7: Find Surface Areas of Pyramids		2	
6.G.A.2 6.EE.A.2.a 6.EE.A.2.c 6.EE.B.6	-Use cubes and a formula to find the volume of a rectangular prism or a cube with fractional edge lengths	Lesson 7-8: Find Volume with Fractional Edge Lengths		2	
		Page 461	Topic Assessment and Performance Task	2	

4th Quarter-44 days

Standard(s)	Learning Objective(s)	Savvas Alignment	Assessments	Pacing	
6.SP.A.1 6.SP.B.4	-Identify statistical questions -Write statistical questions and display the collected data	Lesson 8-1: Recognize Statistical Questions		1	
6.SP.A.3 6.SP.B.5.c	-Determine the mean, median, mode and range of a data set	Lesson 8-2: Summarize Data Using Mean, Median, and Mode		2	
6.SP.B.4	-Display data in a box plot -Interpret and analyze a box plot	Lesson 8-3: Display Data in Box Plots		1	
6.SP.B.4 6.SP.B.5.a	-Organize data into equal intervals and display data in a frequency table or histogram -Interpret and analyze a histogram	Lesson 8-4: Display Data in Frequency Tables and Histograms		1	
		Page 495	Mid-Topic Checkpoint and Performance Task	1	
6.SP.B.5.c 6.SP.B.4	-Calculate the mean absolute deviation and interquartile range of a data set -Summarize data using measures of variability	Lesson 8-5: Summarize Data Using Measures of Variability		2	
6.SP.B.4	-Use proportional reasoning to construct and display data in pie charts -Use proportional reasoning to interpret data in pie charts	TN-1*: Display Data Using Pie Charts		1	
6.SP.B.4	-Construct and display stem plots -Interpret the data in stem plots	TN-2*: Display Data Using Stem Plots		1	

6.SP.A.2 6.SP.B.5.c	-Select the most appropriate measure of center and variability for a data set -Use measures to describe data sets	Lesson 8-6: Choose Appropriate Statistical Measures		2	
6.SP.B.4 6.SP.B.5.c	-Describe the center, spread, and overall shape of a data set -Summarize numerical data sets using measures of center and related measures of variability	Lesson 8-7: Summarize Data Distributions		2	
		Page 523 *TN standards assessed online and the very back of Volume 2	Topic Assessment and Performance Task	2	
Focus: Major Work standards	TNREADY REVIEW	<ul style="list-style-type: none"> Standards Practice sheets Assessment Readiness Practice Tests 		20	
7.SP.A.1 7.SP.A.2 7.RP.A.2.c	-Distinguish between a population and a sample -Establish whether a sample is representative of its population -Generate random samples -Make qualitative inferences from a sample data set -Make quantitative inferences from a sample data set -Make estimates about a population based on a sample data set, and assess whether the inferences are valid	Lesson 6-1: Populations and Samples Lesson 6-2: Draw Inferences from Data		4	
7.SP.B.3 7.SP.B.4	-Use box plots to compare and make inferences about populations -Use the median and IQR of datasets to informally compare and make inferences about two populations	Lesson 6-3: Make Comparative Inferences About Populations		3	
		Page 361	Topic Assessment and Performance Task	1	