Math Grade 8 Scope and Sequence 2025-2026

TEKS Distribution Among Units

Process Standards

	8.1A	8.1B	8.1C	8.1D	8.1E	8.1F	8.1G
Unit 1	X	X	X	X	X	X	X
Unit 2	X	X	X	X	X	X	X
Unit 3	X	X	X	X	X	X	X
Unit 4	X	X	X	X	X	X	X
Unit 5	X	X	X	X	X	X	X
Unit 6	X	X	X	X	X	X	X
Unit 7	X	X	X	X	X	X	X

Content Standards

	8.2A	8.2B	8.2C	8.2D	8.3A	8.3B	**8.3C**	8.4A	8.4B	**8.4C**	8.5A	8.5B	8.5C	8.5D	8.5E	8.5F	8.5G	8.5H	**8.5I**	8.6A	8.6B	8.6C	8.7A	**8.7B**	**8.7C**	8.7D	8.8A	8.8B	**8.8C**	8.8D	8.9A	8.10A	8.10B	**8.10C**	8.10D	**8.11A**	8.11B	8.11C	8.12A	8.12B	8.12C	8.12D	8.12E	8.12F	8.12G
Unit 1	X	X	X	X																		X			X	X																				
Unit 2																											X	X	X		X															
Unit 3								X	X	X	X	X			X	X	X	X	X												X															
Unit 4					X	X	X																			X				X		X	X	X	X										
Unit 5																				X	X		X	X			X		X	X																
Unit 6													X	X																						X	X	X								
Unit 7																																							X	X	X	X	X	X	X

The standards below are color coded to the MAP categories listed below. In addition, the number in parentheses represents the frequency the standard has been tested on STAAR/EOC since 2017.

Numerical Representations and Probability
Computations and Algebraic Relationships
Geometry and Measurement
Data Analysis

Math Grade 8
Scope and Sequence 2025-2026

Mathematical Process Standards: The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:

8.1A Apply mathematics to problems arising in everyday life, society, and the workplace
8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution
8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems
8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate
8.1E Create and use representations to organize, record, and communicate mathematical ideas
8.1F Analyze mathematical relationships to connect and communicate mathematical ideas
8.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Grading Period 1

Unit 1: Represent and Apply Real Numbers

Estimated Date Range: Aug. 12 – Sept. 12 (23 total school days)
Instructional & Re-engagement Days in Unit: 19 days

Assessments

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS (CFAs)
N/A	NWEA MAP BOY (3 days) Testing Window Sept. 9 – Sept. 11	Unit 1, 8.2D & 8.7C (1 day) Testing Window Aug. 28 – Sept. 19

Concepts within the Unit	TEKS
Establishing a Positive Mathematics Community Suggested Days: 2	<u>Process Standards:</u> 8.1A Apply mathematics to problems arising in everyday life, society, and the workplace 8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution 8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems 8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate 8.1E Create and use representations to organize, record, and communicate mathematical ideas

	8.1F Analyze mathematical relationships to connect and communicate mathematical ideas 8.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication
Concept #1: Representing Real Numbers Suggested Days: 6	**Priority Standards** **8.2D (14) order a set of real numbers arising from mathematical and real-world contexts** Important Standards 8.2A (3) extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of real numbers 8.2B (5) approximate the value of an irrational number, including π and square roots of numbers less than 225, and locate that rational number approximation on a number line 8.2C (5) convert between standard decimal notation and scientific notation
Concept #2: Application of Pythagorean Theorem Suggested Days: 9 **CFA 8.2D & 8.7C** **(Aug. 28 – Sept. 19)**	**Priority Standards** **8.7C (12) use the Pythagorean Theorem and its converse to solve problems.** Important Standards 8.6C (3) use models and diagrams to explain the Pythagorean theorem 8.7D (5) determine the distance between two points on a coordinate plane using the Pythagorean Theorem

Unit 2: Equations and Inequalities Estimated Date Range: Sept. 15 – Oct. 10 (18 total school days) Instructional & Re-engagement Days: 16 days		
Assessments		
STATE/NATIONAL ASSESSMENTS PSAT (1 day) Oct. 2	**DISTRICT ASSESSMENTS** N/A	**COMMON FORMATIVE ASSESSMENTS (CFAs)** Unit 2, 8.8C (1 day) Testing Window Sept. 29 – Oct. 24

Concepts within the Unit	**TEKS**
Concept #1: Representing Equations and Inequalities Suggested Days: 5	Important Standards 8.8A (6) write one-variable equations or inequalities with variables on both sides that represent problems using rational number coefficients and constants 8.8B (3) write a corresponding real-world problem when given a one-variable equation or inequality with variables on both sides of the equal sign using rational number coefficients and constants

Concept #2: Model and Solve Equations Suggested Days: 9 **CFA 8.8C** **(Sept. 29 – Oct. 24)**	**Priority Standards** **8.8C (14) model and solve one-variable equations with variables on both sides of the equal sign that represent mathematical and real-world problems using rational number coefficients and constants** Important Standards 8.8A (6) write one-variable equations or inequalities with variables on both sides that represent problems using rational number coefficients and constants

Grading Period 2

Unit 3: Foundations for Linear Functions
Estimated Date Range: Oct. 21 -Dec. 19 (39 total school days)
Instructional & Re-engagement Days in Unit: 38 days

Assessments

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS (CFAs)
N/A	N/A	Unit 3, 8.4B, 8.4C, & 8.5I (1 day) Testing Window Dec. 8 – Dec. 19

Concepts within the Unit	TEKS
Concept #1: Determining a Function Suggested Days: 3	**Priority Standards** **8.5G (14) identify functions using sets of ordered pairs, tables, mappings, and graphs.**
Concept #2: Developing and Finding Slope Suggested Days: 7	**Priority Standards** **8.4C (14) use data from a table or graph to determine the rate of change or slope ~~and y-intercept~~ in mathematical and real-world problems** Important Standards 8.4A (5) use similar right triangles to develop an understanding that slope, *m*, given as the rate comparing the change in *y*-values to the change in *x*-values, is the same for any two points (x_1, y_1) and (x_2, y_2) on the same line
Concept #3: Representing Proportional Relationships Suggested Days: 8	**Priority Standards** **8.4B (14) graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.**

	8.4C (14) use data from a table or graph to determine the rate of change or slope and *y*-intercept in mathematical and real-world problems Important Standards 8.5A (6) represent linear proportional situations with tables, graphs, and equations in the form of *y=kx* 8.5E (4) solve problems involving direct variation
Concept #4: Representing Non-Proportional Relationships Suggested Days: 8 **CFA 8.4B, 8.4C, & 8.5I** **(Dec. 8 – Dec. 19)**	**Priority Standards** **8.5I (14) write an equation in the form y = mx + b to model a linear relationship between two quantities using verbal, numerical, tabular, and graphical representations.** **8.4C (14) use data from a table or graph to determine the rate of change or slope and *y*-intercept in mathematical and real-world problems** Important Standards 8.5B (4) represent linear non-proportional situations with tables, graphs, and equations in the form of *y=mx+b*, where b≠0
Concept #5: Proportional vs. Non-Proportional Linear Relationships Suggested Days: 6	Important Standards 8.5E (4) solve problems involving direct variation 8.5F (5) distinguish between proportional and non-proportional situations using tables, graphs, and equations in the form *y=kx* or *y=mx+b*, where b≠0; 8.5H (4) identify examples of proportional and non-proportional functions that arise from mathematical and real-world problem. 8.9A (4) identify and verify the values of *x* and *y* that simultaneously satisfy two linear equations in the form *y = mx + b* from the intersections of the graphed equations.

Grading Period 3

Unit 4: Transformations and Similar Figures
Estimated Date Range: Jan. 8 – Feb. 6 (21 total school days)
Instructional & Re-engagement Days: 17 days

Assessments

STATE/NATIONAL ASSESSMENTS	DISTRICT ASSESSMENTS	COMMON FORMATIVE ASSESSMENTS (CFAs)
N/A	NWEA MAP BOY (3 days)	Unit 4, 8.10C & 8.3C (1 day)

	Testing Window Jan. 27 – Jan. 29	Testing Window Jan. 28 – Feb. 18
Concepts within the Unit	**TEKS**	
Concept #1: Translations, Rotations, and Reflections Suggested Days: 7	**Priority Standards** **8.10C (14) explain the effect of translations, reflections over the *x*- or *y*-axis, and rotations limited to 90°, 180°, 270°, and 360° as applied to two-dimensional shapes on a coordinate plane using an algebraic representation.** Important Standards 8.10A (4) generalize the properties of orientation and congruence of rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plan 8.10B (3) differentiate between transformations that preserve congruence and those that do not	
Concept #2: Dilations Suggested Days: 7 **CFA 8.10C & 8.3C** **(Jan. 28 – Feb. 18)**	**Priority Standards** **8.3C (14) Use an algebraic representation to explain the effect of a given positive rational scale factor applied to two-dimensional figures on a coordinate plane with the origin as the center of dilation** Important Standards 8.3A (6) generalize that the ratio of corresponding sides of similar shapes are proportional, including a shape and its dilation 8.3B (3) compare and contrast the attributes of a shape and its dilation(s) on a coordinate plane 8.8D (5) use informal arguments to establish facts about ~~the angle-sum and exterior angle of triangles, the angles created when parallel lines are cut by a transversal, and~~ the angle-angle criterion for similarity of triangle	
Concept #3: Effects of Dilation Suggested Days: 2	Important Standards 8.10D (2) model the effect on linear and area measurements of dilated two-dimensional shapes	

Unit 5: Geometric Applications of Equations (Continues in Grading Period 4) Estimated Date Range: Feb. 9 – Mar. 30 (27 total school days) Instructional & Re-engagement Days in Unit: 25 days		
Assessments		
STATE/NATIONAL ASSESSMENTS TELPAS (2 days) Testing Window Feb. 16 – Mar. 27	**DISTRICT ASSESSMENTS** N/A	**COMMON FORMATIVE ASSESSMENTS (CFAs)** Unit 5, 8.7A & 8.7B (1 day) Testing Window Mar. 11 – Apr. 7
Concepts within the Unit	**TEKS**	
Concept #1: Angles of Triangles Suggested Days: 3	Important Standards 8.8D (5) use informal arguments to establish facts about the angle sum and exterior angle of triangles, the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles	
Concept #2: Parallel Lines Suggested Days: 3	Important Standards 8.8D (5) use informal arguments to establish facts about the angle sum and exterior angle of triangles, the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles	
Concept #3: Surface Area Suggested Days: 9	**Priority Standards** **8.7B (14) use previous knowledge of surface area to make connections to the formulas for lateral and total surface area and determine solutions for problems involving rectangular prisms, triangular prisms, and cylinders**	
Concept #4: Volume Suggested Days: 7 **CFA 8.7A & 8.7B** **(Mar. 11 – Apr. 7)**	**Priority Standards** **8.7A (14) solve problems involving the volume of cylinders, cones, and spheres** Important Standards 8.6A (7) describe the volume formula $V = Bh$ of a cylinder in terms of its base area and its height; 8.6B model the relationship between the volume of a cylinder and a cone having both congruent bases and heights and connect that relationship to the formulas	
Grading Period 4		
Unit 5: Geometric Applications of Equations (Continued) Estimated Date Range: Feb. 9 – Mar. 30 (27 total school days) Instructional & Re-engagement Days in Unit: 25 days		

See grading period 3 for details	
Unit 6: Making Predictions from Data Estimated Date Range: Mar. 31 – May 5 (25 total school days) Instructional & Re-engagement Days in Unit: 23 days	
Assessments	
STATE/NATIONAL ASSESSMENTS STAAR (3 days) Testing Window Apr. 21 – Apr. 23	**DISTRICT ASSESSMENTS** N/A
COMMON FORMATIVE ASSESSMENTS (CFAs) N/A	
Concepts within the Unit	**TEKS**
Concept #1: Mean Absolute Deviation and Random Samples Suggested Days: 5	Important Standards 8.11B (2) determine the mean absolute deviation and use this quantity as a measure of the average distance data are from the mean using a data set of no more than 10 data points 8.11C simulate generating random samples of the same size from a population with known characteristics to develop the notion of a random sample being representative of the population from which it was selected
Concept #2: Scatter Plots and Making Predictions Suggested Days: 7	**Priority Standards** **8.5D (14) use a trend line that approximates the linear relationship between bivariate sets of data to make predictions** Important Standards 8.5C (3) contrast bivariate sets of data that suggest a linear relationship with bivariate sets of data that do not suggest a linear relationship from a graphical representation 8.11A (4) construct a scatterplot and describe the observed data to address questions of association such as linear, non-linear, and no association between bivariate data;
Unit 7: Financial Literacy Estimated Date Range: May 6 – May 28 (16 total school days) Instructional & Re-engagement Days in Unit: 13 days	
Assessments	
STATE/NATIONAL ASSESSMENTS N/A	**DISTRICT ASSESSMENTS** NWEA MAP EOY (3 days) Testing Window May 12 – May 14
COMMON FORMATIVE ASSESSMENTS (CFAs) N/A	
Concepts within the Unit	**TEKS**
Concept #1: Saving Suggested Days: 4	**Priority Standards** **8.12D (14) calculate and compare simple interest and compound interest earnings** Important Standards

	8.12C (2) explain how small amounts of money invested regularly, including money saved for college and retirement, grow over time 8.12G (4) estimate the cost of a two-year and four-year college education, including family contribution, and devise a periodic savings plan for accumulating the money needed to contribute to the total cost of attendance for at least the first year of college
Concept #2: Borrowing Money Suggested Days: 2	Important Standards 8.12A (3) solve real-world problems comparing how interest rate and loan length affect the cost of credit 8.12B calculate the total cost of repaying a loan, including credit cards and easy access loans, under various rates of interest and over different periods using an online calculator
Concept #3: Methods of Payment Suggested Days: 2	Important Standards 8.12E identify and explain the advantages and disadvantages of different payment methods
Concept #4: Financially Responsible Decisions Suggested Days: 2	Important Standards 8.12F analyze situations to determine if they represent financially responsible decisions and identify the benefits of financial responsibility and the costs of financial irresponsibility