AQR Scope and Sequence 2025-2026

TEKS Distribution among units

Process Standards

	AQ.1A	AQ.1B	AQ.1C	AQ.1D	AQ.1E	AQ.1F	AQ.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

	AQ.2A	AQ.2B	AQ.2C	AQ.2D	AQ.2E	AQ.2F	AQ.2G	AQ.2H	AQ.3A	AQ.3B	AQ.3C	AQ.3D	AQ.3E	AQ.3F	AQ.3G	AQ.3H	AQ.4A	AQ.4B	AQ.4C	AQ.4D	AQ.4E	AQ.4F	AQ.4G	AQ.4H	AQ.4I	AQ.4J	AQ.4K	AQ.4L	AQ.4M	AQ.4N	AQ.4O	AQ.4P	AQ.4Q	AQ.4R	AQ.4S	AQ.4T
Unit 1	X	X	X	X				X																												
Unit 2					X												X	X	X		X	X	X													
Unit 3									X	X	X	X	X							X																
Unit 4						X																		X	X	X	X	X	X	X	X	X	X	X	X	X
Unit 5						X																														
Unit 6														X	X	X																				
Unit 7								X																												

AQR
Scope and Sequence 2025-2026

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

    AQ.1A Apply mathematics to problems arising in everyday life, society, and the workplace

    AQ.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

    AQ.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

    AQ.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate

    AQ.1E Create and use representations to organize, record, and communicate mathematical ideas

    AQ.1F Analyze mathematical relationships to connect and communicate mathematical ideas

    AQ.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication

Grading Period 1

Unit 1: Numerical Reasoning
Estimated Date Range: Aug. 12- Sept. 12 (23 total school days)
Instructional & Re-engagement Days: 23 days

Assessments

STATE/NATIONAL ASSESSMENT(S)	DISTRICT ASSESSMENT(S)	COMMON FORMATIVE ASSESSMENTS (CFAs)
N/A	N/A	*(administered within designated concept)* N/A

Concepts within the Unit	TEKS
Establishing a Positive Mathematics Community Suggested Days: 4	AQ.1A Apply mathematics to problems arising in everyday life, society, and the workplace AQ.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 AQ.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 AQ.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate

	AQ.1E Create and use representations to organize, record, and communicate mathematical ideas AQ.1F Analyze mathematical relationships to connect and communicate mathematical ideas AQ.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication
Concept #1: Measurement and Indirect Measurement Suggested Days: 6	**Priority Standards** **AQ.2C solve problems involving quantities that are not easily measured using proportionality** Important Standards AQ.2A Use precision and accuracy in real-life situations related to measurement and significant figures AQ.2D Solve geometric problems involving indirect measurement including similar triangles
Concept #2: Ratios and Proportionality Suggested Days: 4	**Priority Standards** **AQ.2C solve problems involving quantities that are not easily measured using proportionality** Important Standards AQ.2A Use precision and accuracy in real-life situations related to measurement and significant figures AQ.2D Solve geometric problems involving indirect measurement including similar triangles
Concept #3: Ratings, Weighted Averages, Indices Suggested Days: 5	**Priority Standards** **AQ.2B apply and analyze published ratings, weighted averages, and indices to make informed decisions** Important Standards AQ.2H select and apply an algorithm of interest to solve real-life problems ~~such as problems using recursion or iteration involving population growth or decline, fractals, and compound interest; the validity in recorded and transmitted data using checksums and hashing~~; sports rankings, weighted class rankings, and search engine rankings; and problems ~~involving scheduling or routing situations using vertex-edge graphs, critical paths, Euler paths, and minimal spanning trees~~ and communicate to peers the application of the algorithm in precise mathematical and nontechnical language.
Unit 2: Probability (Continues in Grading Period 2) Estimated Date Range: Sept. 15 - Oct. 24 (23 total school days) Instructional & Re-engagement Days in Unit: 22 days (19 days in GP1 and 4 days in GP2)

Assessments

STATE/NATIONAL ASSESSMENT(S) PSAT (10/2) 1 day	DISTRICT ASSESSMENT(S) N/A	COMMON FORMATIVE ASSESSMENTS (CFAs) *(administered within designated concept)* N/A

Concepts within the Unit	TEKS
Concept #1: Calculate and Represent Probabilities Suggested Days: 6	**Priority Standards** **AQ.4D interpret-conditional probabilities and probabilities of compound events by analyzing representations to make decisions in problem situations** Important Standards AQ.4A use a two-way frequency table as a sample space to identify whether two events are independent and to interpret the results AQ.4B use the Addition Rule, $P(A$ or $B) = P(A) + P(B) - P(A$ and $B)$, in mathematical and real-world problems; AQ.4C calculate conditional probabilities and probabilities of compound events using tree diagrams, Venn diagrams, area models, and formulas
Concept #2: Probability Applications Suggested Days: 7	**Priority Standards** **AQ.4D interpret-conditional probabilities and probabilities of compound events by analyzing representations to make decisions in problem situations** Important Standards AQ.4A use a two-way frequency table as a sample space to identify whether two events are independent and to interpret the results AQ.4B use the Addition Rule, $P(A$ or $B) = P(A) + P(B) - P(A$ and $B)$, in mathematical and real-world problems; AQ.4C calculate conditional probabilities and probabilities of compound events using tree diagrams, Venn diagrams, area models, and formulas AQ.4E use probabilities to make and justify decisions about risks in everyday life; AQ.4F calculate expected value to analyze mathematical fairness, payoff, and risk AQ.4G determine the validity of logical arguments that include compound conditional statements by constructing truth tables
Concept #3: Combinatorics Suggested Days: 6	Important Standards AQ.2E solve problems involving large quantities using combinatorics
Grading Period 2	
Unit 2: Probability (Continues in Grading Period 2) Estimated Date Range: Sept. 15 - Oct. 24 (23 total school days) Instructional & Re-engagement Days in Unit: 22 days (19 days in GP1 and 4 days in GP2) See Grading Period 1 for details	

Unit 3: Algebraic Reasoning with Mathematical Models
Estimated Date Range: Oct. 27 – Dec. 2 (22 total school days)
Instructional and Re-engagement Days in Unit: 22 days

Assessments		
STATE/NATIONAL ASSESSMENT(S) N/A	**DISTRICT ASSESSMENT(S)** N/A	**COMMON FORMATIVE ASSESSMENTS (CFAs)** *(administered within designated concept)* N/A

Concepts within the Unit	TEKS
Concept #1: Linear Models Suggested Days: 3	**Priority Standards** **AQ.3A collect numerical bivariate data to create a scatterplot, select a function to model the data, justify the model selection, and use the model to interpret results and make predictions** Important Standards AQ.3B describe the degree to which uncorrelated variables may or may not be related and analyze situations where correlated variables do or do not indicate a cause-and-effect relationship AQ.3C determine or analyze an appropriate growth or decay model for problem situations, including linear, exponential, and logistic functions
Concept #2: Exponential Models Suggested Days: 4	**Priority Standards** **AQ.3A collect numerical bivariate data to create a scatterplot, select a function to model the data, justify the model selection, and use the model to interpret results and make predictions** Important Standards AQ.3B describe the degree to which uncorrelated variables may or may not be related and analyze situations where correlated variables do or do not indicate a cause-and-effect relationship AQ.3C determine or analyze an appropriate growth or decay model for problem situations, including linear, exponential, and logistic functions
Concept #3: Logistic Models Suggested Days: 2	**Priority Standards** **AQ.3A collect numerical bivariate data to create a scatterplot, select a function to model the data, justify the model selection, and use the model to interpret results and make predictions** Important Standards

	AQ.3C determine or analyze an appropriate growth or decay model for problem situations, including linear, exponential, and logistic functions
Concept #4: Piecewise Functions Suggested Days: 4	**Priority Standards** **AQ.3A collect numerical bivariate data to create a scatterplot, select a function to model the data, justify the model selection, and use the model to interpret results and make predictions** Important Standards AQ.3E determine or analyze an appropriate piecewise model for problem situations;
Concept #5: Cyclical Functions Suggested Days: 6	**Priority Standards** **AQ.3A collect numerical bivariate data to create a scatterplot, select a function to model the data, justify the model selection, and use the model to interpret results and make predictions** Important Standards AQ.3D determine or analyze an appropriate cyclical model for problem situations that can be modeled with periodic functions

Unit 4: Data and Statistics (Continues in Grading Period 3)
Estimated Date Range: Dec. 3 – Feb. 12 (38 total school days)
Instructional & Re-engagement Days in Unit: 34 days (9 days in GP1 and 25 days in GP2)

Assessments

STATE/NATIONAL ASSESSMENT(S) N/A	DISTRICT ASSESSMENT(S) N/A	COMMON FORMATIVE ASSESSMENTS (CFAs) *(administered within designated concept)* N/A	Semester Exams (4 days) Testing Window (12/16 – 12/19)

Concepts within the Unit	TEKS
Concept #1: Questions and Study Design Suggested Days: 6	Important Standards AQ.4H identify limitations and lack of relevant information in studies reporting statistical information, especially when studies are reported in condensed form; AQ.4J identify potential misuses of statistics to justify particular conclusions, including assertions of a cause-and-effect relationship rather than an association, and missteps or fallacies in logical reasoning AQ.4L determine the need for and purpose of a statistical investigation and what type of statistical analysis can be used to answer a specific question or set of questions AQ.4N identify the variables to be used in a study;

	AQ.4O determine possible sources of statistical bias in a study and how bias may affect the validity of the results; AQ.4S justify the design and the conclusion(s) of statistical studies, including the methods used
Concept #2: Collection of Data Suggested Days: 6	Important Standards AQ.4K Describe strengths and weaknesses of sampling techniques, data and graphical displays, and interpretations of summary statistics and other results appearing in a study, including reports published in the media Important Standards AQ.4M identify the population of interest for a statistical investigation, select an appropriate sampling technique, and collect data AQ.4O determine possible sources of statistical bias in a study and how bias may affect the validity of the results; AQ.2G analyze various voting and selection processes to compare results in given situations;
Concept #3: Representations of Data Suggested Days: 7	Important Standards AQ.4K Describe strengths and weaknesses of sampling techniques, data and graphical displays, and interpretations of summary statistics and other results appearing in a study, including reports published in the media Important Standards AQ.4O determine possible sources of statistical bias in a study and how bias may affect the validity of the results; AQ.4P create data displays for given data sets to investigate, compare, and estimate center, shape, spread, and unusual features of the data AQ.4R report results of statistical studies to a particular audience, including selecting an appropriate presentation format, creating graphical data displays, and interpreting results in terms of the question studied AQ.4T communicate statistical results in oral and written formats using appropriate statistical and nontechnical language.
Concept #4: Analysis of Data Suggested Days: 7	**Priority Standards** **AQ.4K Describe strengths and weaknesses of sampling techniques, data and graphical displays, and interpretations of summary statistics and other results appearing in a study, including reports published in the media** Important Standards AQ.4H identify limitations and lack of relevant information in studies reporting statistical information, especially when studies are reported in condensed form; AQ.4I interpret and compare statistical results using appropriate technology given a margin of error

AQ.4J identify potential misuses of statistics to justify particular conclusions, including assertions of a cause-and-effect relationship rather than an association, and missteps or fallacies in logical reasoning
AQ.4L determine the need for and purpose of a statistical investigation and what type of statistical analysis can be used to answer a specific question or set of questions
AQ.4O determine possible sources of statistical bias in a study and how bias may affect the validity of the results;
AQ.4Q analyze possible sources of data variability, including those that can be controlled and those that cannot be controlled
AQ.4R report results of statistical studies to a particular audience, including selecting an appropriate presentation format, creating graphical data displays, and interpreting results in terms of the question studied
AQ.4T communicate statistical results in oral and written formats using appropriate statistical and nontechnical language.

Grading Period 3

Unit 4: Data and Statistics (Continued)
Estimated Date Range: Dec. 3 – Feb. 12 (38 total school days)
Instructional & Re-engagement Days in Unit: 33 days (9 days in GP1 and 25 days in GP2)
See Details in Grading Period 2

Unit 5: Large Collections of Data
Estimated Date Range: Feb. 17 – Mar. 13 (18 total school days)
Instructional & Re-engagement Days in Unit: 17 days

Assessments

STATE/NATIONAL ASSESSMENT(S)	DISTRICT ASSESSMENT(S)	COMMON FORMATIVE ASSESSMENTS (CFAs)
K-12 TELPAS WINDOW (2/17 – 3/27) SAT (3/4) 1 day	N/A	*(administered within designated concept)* N/A

Concepts within the Unit	TEKS
Concept #1: Arrays and Matrices Suggested Days: 15	<u>Important Standards</u> AQ.2F use arrays to efficiently manage large collections of data and add, subtract, and multiply matrices to solve applied problems, including geometric transformations

Grading Period 4

Unit 6: Mathematical Models in Finance
Estimated Date Range: Mar. 23 – Apr. 28 (26 total school days)
Instructional & Re-engagement Days in Unit: 26 days

Assessments

STATE/NATIONAL ASSESSMENT(S) K-12 TELPAS WINDOW (2/17 – 3/27)	DISTRICT ASSESSMENT(S) N/A	COMMON FORMATIVE ASSESSMENTS (CFAs) *(administered within designated concept)* N/A

Concepts within the Unit	TEKS
Concept #1: Income Suggested Days: 6	Important Standards AQ.3F create, represent, and analyze mathematical models for various types of income calculations to determine the best option for a given situation;
Concept #2: Expenditures Suggested Days: 6	Important Standards AQ.3G create, represent, and analyze mathematical models for expenditures, including those involving credit, to determine the best option for a given situation
Concept #3: Loans and Investments Suggested Days: 11	**Priority Standards** **AQ.3H create, represent, and analyze mathematical models and appropriate representations, including formulas and amortization tables, for various types of loans and investments to determine the best option for a given situation.**

Unit 7: Paths and Circuits
Estimated Date Range: April 29 – May 28 (21 total school days)
Instructional & Re-engagement Days in Unit: 17 days

Assessments

STATE/NATIONAL ASSESSMENT(S) N/A	DISTRICT ASSESSMENT(S) N/A	COMMON FORMATIVE ASSESSMENTS (CFAs) *(administered within designated concept)* N/A	Semester Exams (4 days) Testing Window (5/22 – 5/28)

Concepts within the Unit	TEKS
Concept #1: Paths and Circuits Suggested Days: 4	Important Standards AQ.2H select and apply an algorithm of interest to solve real-life problems such as problems using recursion or iteration involving population growth or decline, fractals, and compound interest; validity in recorded and transmitted data using checksums and hashing; sport rankings, weighted class rankings, and search engine

	ranking; and problems involving scheduling or routing situations using vertex-edge graphs, critical paths, Euler paths, and minimal spanning trees and communicate to peers the application of the algorithm in precise mathematical and nontechnical language
Concept #2: Minimal Spanning Trees Suggested Days: 3	Important Standards AQ.2H select and apply an algorithm of interest to solve real-life problems such as problems using recursion or iteration involving population growth or decline, fractals, and compound interest; validity in recorded and transmitted data using checksums and hashing; sport rankings, weighted class rankings, and search engine ranking; and problems involving scheduling or routing situations using vertex-edge graphs, critical paths, Euler paths, and minimal spanning trees and communicate to peers the application of the algorithm in precise mathematical and nontechnical language
Concept #3: Graph Coloring Suggested Days: 2	Important Standards AQ.2H select and apply an algorithm of interest to solve real-life problems such as problems using recursion or iteration involving population growth or decline, fractals, and compound interest; validity in recorded and transmitted data using checksums and hashing; sport rankings, weighted class rankings, and search engine ranking; and problems involving scheduling or routing situations using vertex-edge graphs, critical paths, Euler paths, and minimal spanning trees and communicate to peers the application of the algorithm in precise mathematical and nontechnical language
Concept #4: PERT Charts Suggested Days: 4	Important Standards AQ.2H select and apply an algorithm of interest to solve real-life problems such as problems using recursion or iteration involving population growth or decline, fractals, and compound interest; validity in recorded and transmitted data using checksums and hashing; sport rankings, weighted class rankings, and search engine ranking; and problems involving scheduling or routing situations using vertex-edge graphs, critical paths, Euler paths, and minimal spanning trees and communicate to peers the application of the algorithm in precise mathematical and nontechnical language