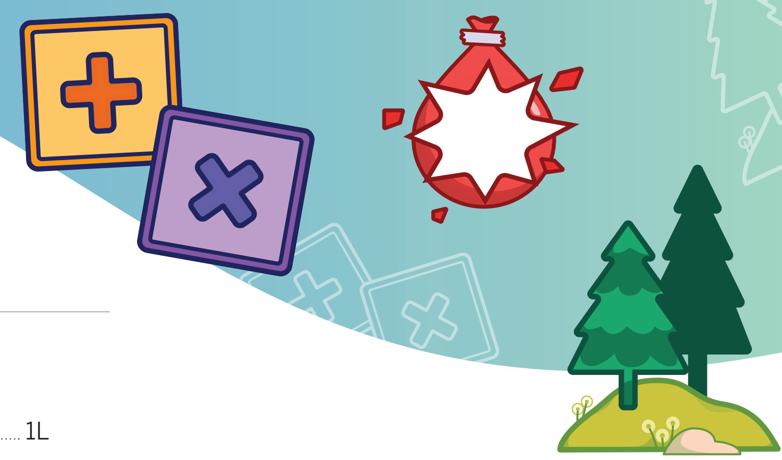
Unit 1 Patterns and Sequences

Students model, compare, and contrast arithmetic and geometric sequences using tables, recursive de!nitions, expressions, and graphs.



Unit 2 Linear Equations and Inequalities

Students revisit strategies for solving one-variable equations and inequalities and extend their knowledge to make sense of multi-variable equations and two-variable inequalities.

Unit 3 Describing Data

Students analyze one-variable and two-variable data sets. They use dot plots, histograms, box plots, and measures of center and spread to compare one-variable data sets. They use scatter plots, correlation coefficients, and lines of best fit to describe two-variable data sets.

Unit 4 Describing Functions

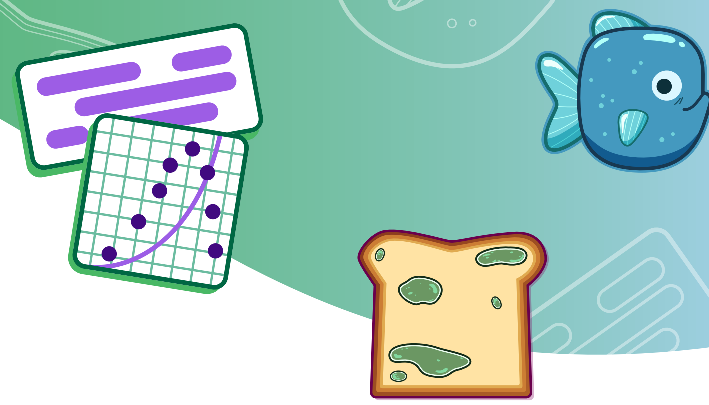
Students make sense of functions represented as graphs, tables, equations, and situations. They interpret statements in function notation and describe functions using their key features, including average rate of change, domain, and range. They also explore piecewise-defined and absolute value functions.

Unit 5 Systems of Linear Equations and Inequalities

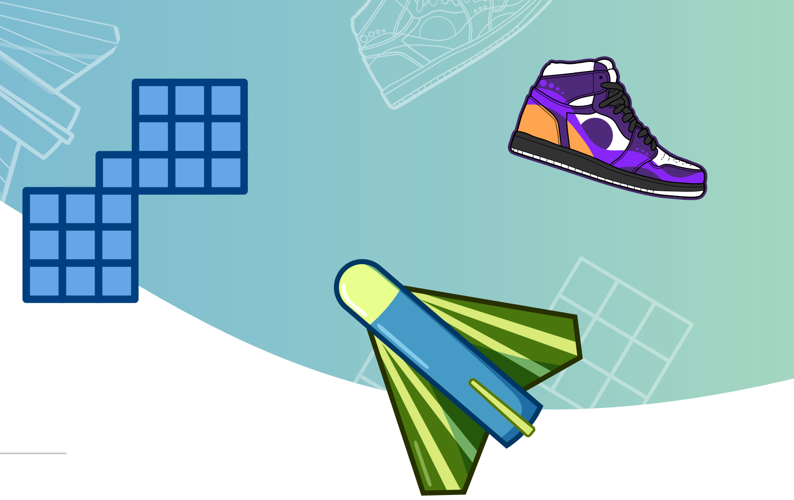
Students write and solve systems of linear equations and inequalities, interpreting their solutions in context. They explore the connections between solving systems symbolically and graphically and discuss how they can strategically choose solving strategies for specific systems.

Unit 6 Exponential Functions

Students use exponential functions to make sense of how changing by a small percentage can make a big impact over time. They distinguish between linear and exponential relationships and create equations to represent them. Students model situations that increase or decrease by a percentage, and model data and compound interest with exponential functions.

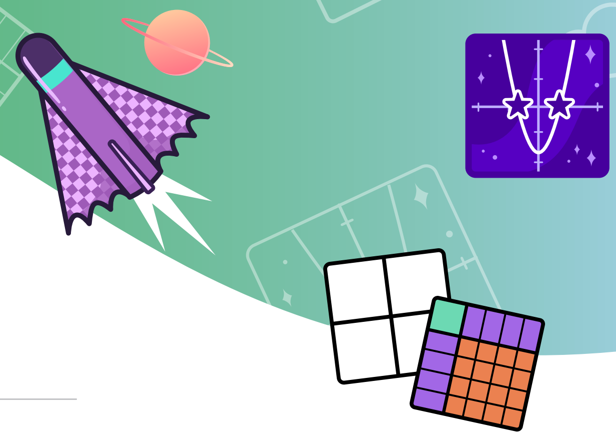


Unit 7 Quadratic Functions



Students are introduced to quadratic relationships and compare them to linear and exponential relationships. They analyze graphs, tables, and equations in three forms to identify and interpret key features of quadratic functions. Students will model situations with quadratic functions and make predictions and decisions based on these models.

Unit 8 Quadratic Equations



Students solve quadratic equations and systems of equations using reasoning, factoring, the zero-product property, completing the square, and the quadratic formula. They convert expressions between factored, standard, and vertex form to support them in solving equations and identifying key features of functions.