Grade 7 Math

Course Overview

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About the Course

In Grade 7 Mathematics there is an underlying focus of proportional thinking, which is taught numerically, algebraically and geometrically. Students will explore linear relationships and learn to write and solve one- and two-step equations.

Students will learn mathematics through a sequence of connected problems in an inquiry-based classroom, using a standards-based and problem-centered curriculum. We will work to develop deep understanding in four mathematical learning strands: Numbers and Operations, Algebra, Geometry and Measurement, and Probability. These learning strands will be covered through seven units of study.

Course Structure

Students in Grade 7 Mathematics work individually, in pairs and in groups to investigate problems and construct algorithms as part of their learning. Through guided investigations the course encourages students to recognize and articulate mathematical questions and meaningful solutions. The course is designed to encourage creative, practical thinking and problem solving, and to build students' confidence in themselves as mathematical learners.

Each student is expected to be an active member of the class who respects each student's right to learn. Students will gain access to classroom calculator use by demonstrating satisfactory computational skills. Students are required to show their work at all times in order to show what they know.

Course text

Connected Mathematics is the text used in class. Other print and online resources will also be used.

Units of study/topics

Units	Focus
What Do You Expect?	Probability
Variables and Patterns	Introduction to Algebra
Stretching and Shrinking	Similarity and Scale Factors
Accentuate the Negative	Operations
Comparing and Scaling	Ratios and Proportions
Filling and Wrapping	Surface Area and Volume
Moving Straight Ahead	Linear Relationships

Assessment
Each unit is designed around a number of learner outcomes (skills and concepts), which are assessed before, during, and at the end of the unit. Test, projects, observations, and other forms of assessment are used to determine how well a student has mastered each skill/concept using the scale below:

Score	Description
4	Demonstrates thorough mastery of the concept/skill/learning goal and can go beyond what was learned in class
3	Demonstrates a high level of mastery of the concept/skill/learning goal, but with minor errors
2	Demonstrates understanding, but with significant gaps
1	Attempts at understanding were made, but with little progress.
0	No attempt