Grade 7

The following are highlights of student learning in Grade 7. They are provided to give teachers and parents a quick overview of the mathematical knowledge and skills that students are expected to acquire in each strand in this grade. The expectations on the pages that follow outline the required knowledge and skills in detail and provide information about the ways in which students are expected to demonstrate their learning, how deeply they will explore concepts and at what level of complexity they will perform procedures, and the mathematical processes they will learn and apply throughout the grade.

Number Sense and Numeration: representing and ordering decimals (to hundredths), fractions, and integers; representing squares and square roots; dividing whole numbers by simple fractions and decimals; adding and subtracting simple fractions and integers; multiplying and dividing decimal numbers to thousandths by one-digit whole numbers; applying order of operations in expressions with brackets; relating fractions, decimals, and percents; solving problems involving whole-number percents and unit rates

Measurement: converting between metric units, including converting between square centimetres and square metres; developing the area relationship for a trapezoid; developing and applying the formula for the volume of a prism; determining and applying surface-area relationships for prisms; relating millilitres and cubic centimetres

Geometry and Spatial Sense: constructing parallel, perpendicular, and intersecting lines; sorting and classifying triangles and quadrilaterals by geometric properties; constructing angle bisectors and perpendicular bisectors; investigating relationships among congruent shapes; relating enlarging and reducing to similar shapes; comparing similar and congruent shapes; performing and describing dilatations; tiling a plane; plotting points in all four quadrants

Patterning and Algebra: representing linear growing patterns; representing patterns algebraically; modelling real-life relationships involving constant rates graphically and algebraically; translating phrases, using algebraic expressions; finding the term in a pattern algebraically when given any term number; solving linear equations using concrete materials or inspection and guess and check

Data Management and Probability: collecting and organizing categorical, discrete, and continuous data; displaying data in relative frequency tables and circle graphs; identifying bias in data; relating changes in data to changes in central tendency; making inferences based on data; investigating real-world applications of probability; determining the theoretical probability of two independent events