# Grade 7 Math

At the Grade 7 level, students use seven critical processes to build their understanding of math and support lifelong learning:

- ➢ **Communication** - showing learning orally, through diagrams, and in writing.
- ➢ **Connections** - making connections to everyday situations, other subject areas, and mathematics concepts.
- ➢ **Estimation/Mental Mathematics** - developing understanding of numbers and quantities.
- ➢ **Problem Solving** - investigating problems, including those with multiple solutions.
- ➢ **Reasoning** - justifying thinking.
- ➢ **Technology** - using technology to enhance problem solving and encourage discovery of number patterns.
- ➢ **Visualization** - drawing on mental images to clarify concepts.

Below are the 4 strands of the curriculum your child will be working in and the main topics that will be covered.

- ➢ **Number:**
  - o Uses divisibility rules, addition, subtraction, multiplication, and division of decimals, and percents to solve problems.
  - o Shows understanding of the addition and subtraction of fractions and integers in a variety of ways.
  - o Compares and orders fractions, decimals, and integers.

- ➢ **Patterns and Relations:**
  - o Connects patterns to expressions and equations, graphs patterns and analyses the results.
  - o Applies preservation of equality to model and solve equations.
  - o Evaluates expressions.
  - o Solves a problem with a variable in one or two steps.

- ➢ **Shape and Space:**
  - o Determines the relationships among the properties of circles.
  - o Solves problems involving the area of triangles, parallelograms and circles, parallel and perpendicular lines, and bisectors.
  - o Draws and describes the motion of a 2-D shape.
  - o Solves problems involving the coordinate plane.

- ➢ **Statistics and Probability:**
  - o Constructs and solves problems using circle graphs.
  - o Determines and judges the appropriateness of mean, median, mode, and range.
  - o Solve problems using probabilities and represents experimental and theoretical probability as ratios, fractions and percents.