Grade 8 Curriculum Key Topics

**Math**

* Cultural perspectives of First Peoples for locating, measuring, and numbering
* Logic and patterns to solve games and puzzles
* Percents less than 1 and greater than 100
* Perfect squares and cubes
* Square roots and Pythagorean Theorem
* Rates and proportional reasoning, ratio, proportions, and percent
* Operations with fractions
* Expressions and equations, writing and evaluating using substitution
* Two-step equations with integers
* Numerical proportional reasoning
* Surface area and volume of regular solids
* Construction, views, and nets of 3D objects
* Theoretical probability with two indep. events
* Financial literacy - best buys (e.g., coupons, proportions, unit price, products, and services)

**Language Arts**

* Assess and edit writing
* Language constructs personal, social, cultural identity
* Access information and ideas and evaluate their relevance, accuracy, and reliability
* Literary elements, techniques and devices
* Role of story, narrative, and oral tradition in expressing First Peoples’ perspectives, values, beliefs, and points of view
* Elements of non-fiction texts
* Presentation techniques

**Science**

* Characteristics of life
* Cell theory and types of cells
* Photosynthesis and cellular respiration
* The relationship of micro-organisms with living things: basic functions of the immune system, vaccination and antibiotics, impacts of epidemics and pandemics on human populations
* Kinetic molecular theory
* Atomic theory and models: protons, neutrons, and quarks; electrons and leptons
* Electromagnetic radiation
* Light: properties, behaviours, ways of sensing
* Plate tectonic movement
* Major geological events of local significance
* Layers in Earth

**Career Education**

* Connect interests with possible career paths
* Recognize the impact of personal public identity in the world of work
* Goal-setting
* Volunteer in local community
* Factors affecting types of jobs in the community

**Social Studies**

7th Century to 1750

* Social, political, and economic systems and structures, including those of at least one indigenous civilization
* Scientific and technological innovations
* Philosophical and cultural shifts
* Interactions and exchanges of resources, ideas, arts, and culture btwn and among different civilizations
* Exploration, expansion, and colonization
* Changes in population and living standards
* Social, political, and economic systems and structures, including those of at least one indigenous civilization

**Physical and Health Education**

* Daily participation in variety of physical activities
* Physical training principles
* Practices for health and mental well-being,
* Basic principles for responding to emergencies
* Strategies to protect themselves and others from potential abuse, exploitation, and harm
* Bullying, stereotyping, and discrimination
* Signs and symptoms of stress, anxiety, depression
* Changes that occur during puberty and adolescence
* Healthy sexual decision making
* Marketing and advertising tactics aimed at youth
* Media and social influences related to psychoactive substance use and potentially addictive behaviours