CENTENNIAL REGIONAL HIGH SCHOOL

COURSE OUTLINE
2021-2022

Subject: Mathematics **Level:** Secondary 2

Course Content:

- Arithmetic and Algebra
  - Ratio & rate
  - Proportional situations
  - Direct or inverse variations
  - Ordered pairs in a Cartesian plane
  - Representing situations using a graph
  - Algebraic expressions (equivalency, numerical evaluation, & manipulation)
  - Equalities, equations, & unknowns
  - First-degree equations with one unknown ($ax+b=cx+d$)
- Statistics and Probability
  - Random experiment
  - Event
  - Enumerating possible outcomes
  - Theoretical & experimental probability
  - Arithmetic mean
  - Range
  - Population, sample
  - Conducting a survey or a census
  - Data
  - Using various tools to present data (table, graphs, etc.)
- Geometry
  - Plane figures (Surface area)
  - Solids
  - Congruent & similar figures
  - Circles
  - Geometric constructions
  - Geometric transformations
  - Finding unknown measurements

Evaluation Methods

Under the Quebec Education Program (QEP), students will be evaluated according to two Mathematical competencies (see chart).

Term Weighting:

Each term will be weighted.

TERM 1: 40% TERM 2: 60%

EVALUATING WITH COMPETENCIES

C1: Solves a Situational Problem 30%	C2: Uses Mathematical Reasoning 70%
A situational problem . . . ▪ Has not previously been presented in the learning process ▪ Involves using a new combination of rules or principles, that the student may or may not have previously learned, to create a solution ▪ Has a solution that has not been encountered before *The student will . . .* ▪ Decode the elements of the problem that can be processed mathematically ▪ Represent the problem by using a mathematical model ▪ Work out a mathematical solution ▪ Validate the solution ▪ Share information related to the solution *Evaluation Criteria* CR1 Oral or written indication that the student has an appropriate understanding of the situational problem CR2 Mobilization of mathematical knowledge appropriate to the situational problem CR3 Development of a solution appropriate to the situational problem	*A reasoning problem . . .* ▪ Requires organization & application of mathematical concepts & processes in a clearly defined context ▪ Could be one of three different subtypes: - *Application*: Choose & apply the appropriate mathematical concepts - *Validation*: Justify a statement, check a result/procedure, take a position, provide a critical assessment, or convince using mathematical arguments - *Conjecture*: Uses inductive reasoning to make a proposition or a conjecture. The goal is to generalize. *The student will . . .* ▪ Form & apply networks of mathematical concepts & processes ▪ Establish conjectures ▪ Construct proofs *Evaluation Criteria* CR3 Proper application of mathematical reasoning suited to the situation CR2 Correct application of concepts and processes suited to the situation CR4 Proper organization of the steps in an appropriate procedure CR5 Correct justification of the steps in an appropriate procedure CR1 Formulation of a conjecture appropriate to the situation

Please note that every student is responsible for any and ALL classes missed and is required to communicate with their teacher ASAP for any work, information, and notes.

Please refer to the Faculty & Staff Directory at http://www.crhs.rsb.qc.ca/ for your teacher's email/website address

Revised: August 2021