

Mathematics — Secondary 2

Course Plan for 2011-2012

Teacher:	Mr. Roderick S. Cornell
Textbook:	Panoramath , Secondary Cycle 1, Book B (in two volumes), Richard Cadieux, Isabelle Gendron and Antoine Ledoux, Les Éditions CEC Inc.
Required Materials:	Graph paper Binder Pencils and erasers (no pens) Scientific Calculator Geometry Set (including a centre-wheel compass)

Competencies to be evaluated

C1: Solves a situational problem (30%)

Generally speaking, this involves a complex problem involving a number of mathematical concepts where the student will have to devise a method for solving the problem, solve it, and check that the answer makes sense.

C2: Uses mathematical reasoning (70%)

This involves solving a problem involving a limited number of mathematical concepts where the student will use a model to solve the problem and then check that the answer makes sense.

The overarching goal of the Secondary 2 course is to help students to become proficient at solving problems by using step by step procedures to determine what needs to be done, what skills need to be applied and then performing the operations based on the skills learned and practised over the course of the year.

Term 1

Concepts covered:	Panorama 9	<u>From Tables of Values to Graphs</u> Types of representation of a situation, algebra (terms, coefficient, like terms, simplifying), representation of a situation by means of a graph, maximum and minimum values in statistics, switching from one type of representation to another
	Panorama 10	<u>From Area Formulas to Algebra</u> Perimeter and area, choice of unit of measure, area of different geometric shapes, square root, solving equations, monomials and degree of a monomial, simplifying algebraic expressions
Evaluation:	Quizzes and tests	

Term 2

- Concepts covered:
- Panorama 11 From Ratios of Similar Figures
Ratio, rate, equivalent rates, comparison of ratios and rates, proportions, solving a proportional situation, dilatations, similar figures, ratio of similarity, scale drawings
 - Panorama 12 From Polygons to Polyhedrons
Relations between SI units of area, apothems, area of regular polygons, solids, prisms, pyramids, cross section of a solid, various area formulas for the faces of polyhedrons, finding unknown measurements

Evaluation: Quizzes and tests culminating in a mid-year exam which may include a Situational Problem (Competency 1) and will include Problem Solving (Competency 2)

Term 3

- Concepts covered:
- Panorama 13 From the Unknown to Solving Equations
Constructing and solving algebraic equations, transforming equalities, solving equations using the balancing equalities method, choosing an equation solving method appropriate to the situation
 - Panorama 14 From Circles to Curved Bodies
Circle, circumference, central angle, arcs, disk, sector, right circular cylinder (lateral or total area)
 - Panorama 15 From Random Experiments to Games of Chance
Theoretical and experimental probability, compatible and incompatible events, random experiments, dependent and independent events, random event with or without order, even consisting of several simple events
 - Panorama 16 Survey Percentages
Surveys, qualitative and quantitative variables, reading graphs, distribution tables, samples and sampling methods, sources of bias, circle graph

Evaluation: Quizzes and tests culminating in a final exam which will include a Situational Problem (Competency 1) and Problem Solving (Competency 2)

Other Information

Contact: I can be contacted by phone at 514-696-6430 or by email at rscornell@emmanuelchristianschool.qc.ca,
I post homework on a daily basis on my personal website:
<http://pages.videotron.com/rsc/>
The assignments are posted for the date they are due in class.