

Math Cycle 1

GENERAL INFORMATION

- Mathematics 100 and 200.
- Classes will occur during six periods in the student timetable of 9 days.

COURSE DESCRIPTION

The goal of the Cycle 1 mathematics program is to prepare students to live and be productive in an ever-increasing mathematical world. In order to accomplish this goal, the program will follow the Quebec Educational Program. Students will be encouraged to develop competencies in the following two areas during the two-year cycle one program.

Competency 1: Solving Situational Problems - students will be expected to give oral or written explanations showing that they understand a situational problem, to use appropriate mathematical knowledge to solve a situational problem, and to develop an appropriate solution to a problem.

Competency 2: Using Mathematical Reasoning – students will be expected to formulate conjectures appropriate to a situation, to use the correct concepts and processes appropriate to a situation, to use reasoning that is appropriate to a situation, and to justify the steps taken or reasoning taken to reach a particular solution.

Students are expected to communicate clearly their mathematical knowledge by interpreting mathematical representations and producing clear work using proper mathematical language. Mathematics plays a role in everyday life, not only as consumers but it allows students to expand their world view. Each level in high school examines the different branches of mathematics: arithmetic and algebra, geometry, and probability and statistics.

It is with this goal in mind that the content of the Cycle 1 Mathematics curriculum is divided into themes for the two-year cycle.

Term	Year 1 (Grade 7)	Year 2 (Grade 8)
1	Number Theory Decimals	Algebra Algebraic Equations
2	Fractions Percents Statistics	Modes of Representation Proportions Percents
3	Integers Perimeter & Area Geometry	Polygons and Circles Solid Geometry Probabilities & Statistics

*Concepts from year 1 are built upon in year 2.

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STUDENT LEARNING OUTCOMES:

By the end of Cycle 1, students will have achieved competencies in solving situational problems and using mathematical reasoning. Students' success in their other subject areas will be enhanced as students become proficient at using reasoning to solve problems.

TEACHING STRATEGIES:

Teaching strategies will be based on the needs of the students in the class and can include: whole class lectures, group and individual discovery activities, use of hands on manipulatives, use of technologies, and use of the smartboard.

SCHEDULE

- Students will be given evaluations at the end of the class study of each of the topics. Students will have reasoning (skill) type tests as well as application tests and situational problem tests.

COURSE MATERIALS

- Course packages are used and will be distributed throughout the year as needed. Teachers will provide students with notes on mathematical concepts.
- Students should have a geometry set and a calculator .

EVALUATION:

•Students are evaluated each term on the two competencies mentioned above. The term marks are determined by taking 30% of the situational problem mark and 70% of the reasoning mark.

Students final grades will be based on 20% of the Term 1 mark, 20% of the Term 2 mark, and 60% of the Term 3 mark as for all other courses.

Final Exams count for 25% of the Term 3 mark per competency.

Paths for your son or daughter: The 15+ program is a 1-year academic project designed to prepare students to enter a vocational training program. Students must complete secondary three mathematics successfully in this path. The 2 4 U program is an academic project designed to help students continue working towards earning their Secondary School Diploma while at the same time beginning to work towards a Diploma of Vocational Studies. It requires secondary three to enter the program. The academic secondary path requires secondary four mathematics to graduate. *Students are sometimes promoted from one level to the next without having successfully completed the course. This does not mean that they passed. The passing mark in Quebec is 60%.

Year 1 Teachers	Year 2 Teachers
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