peel District
School Board

Curriculum,
Instruction and
Special Education
Support Services,
Alternative Programs

Routes to Success

A guide for selecting secondary school mathematics courses

A Guide for Selecting High School Mathematics Courses

The Ontario curriculum provides a selection of three Grade 9 math courses. The courses have been designed to address individual student needs and prepare students for their intended post-secondary choices. As educators we want students to choose appropriately to ensure success and at the same time provide flexibility in future course selections.

When considering a Grade 9 mathematics course, it is strongly recommended that students select a course in which they will most likely experience success. The courses are designed to provide a flexible entry point to meet the needs of all Grade 8 students.

Keep in mind that there are many pathways available. Students can move through the Locally Developed Compulsory Credit (LDCC), Applied, or Academic courses and, depending on further course choices, access Workplace, College or University courses. Selecting the appropriate course for Grade 9 to ensure success during the transition from Grade 8 to Grade 9 does not pigeon-hole future course selections.

The type of course chosen depends on many factors: ability, achievement, attitude/motivation, organizational skills, learning styles, future goals, etc. Carefully examine a student's achievement in mathematics and consider the most appropriate learning environment. The grade 8 math teacher should examine each student's achievement in detail and use the information to recommend which course will support success for the student at this point in time.

The ministry courses outlined on the next page have been designed to ensure student success. We encourage you to review them and consider how you can support students to make an appropriate course selection, one which is in their best interest at this time (one in which they are currently ready to experience success).

The selection of type of course should be subject specific; in other words, students may choose a combination of Academic, Applied and Locally Developed Compulsory Credit courses. For example, a student may take Academic English and Applied Math. Parents are advised to review the prerequisite courses required by post secondary programs. Many of these programs do not require academic pathways in mathematics. Current information is available at www.ouac.on.ca , www.ocas.on.ca and www.apprenticesearch.com .
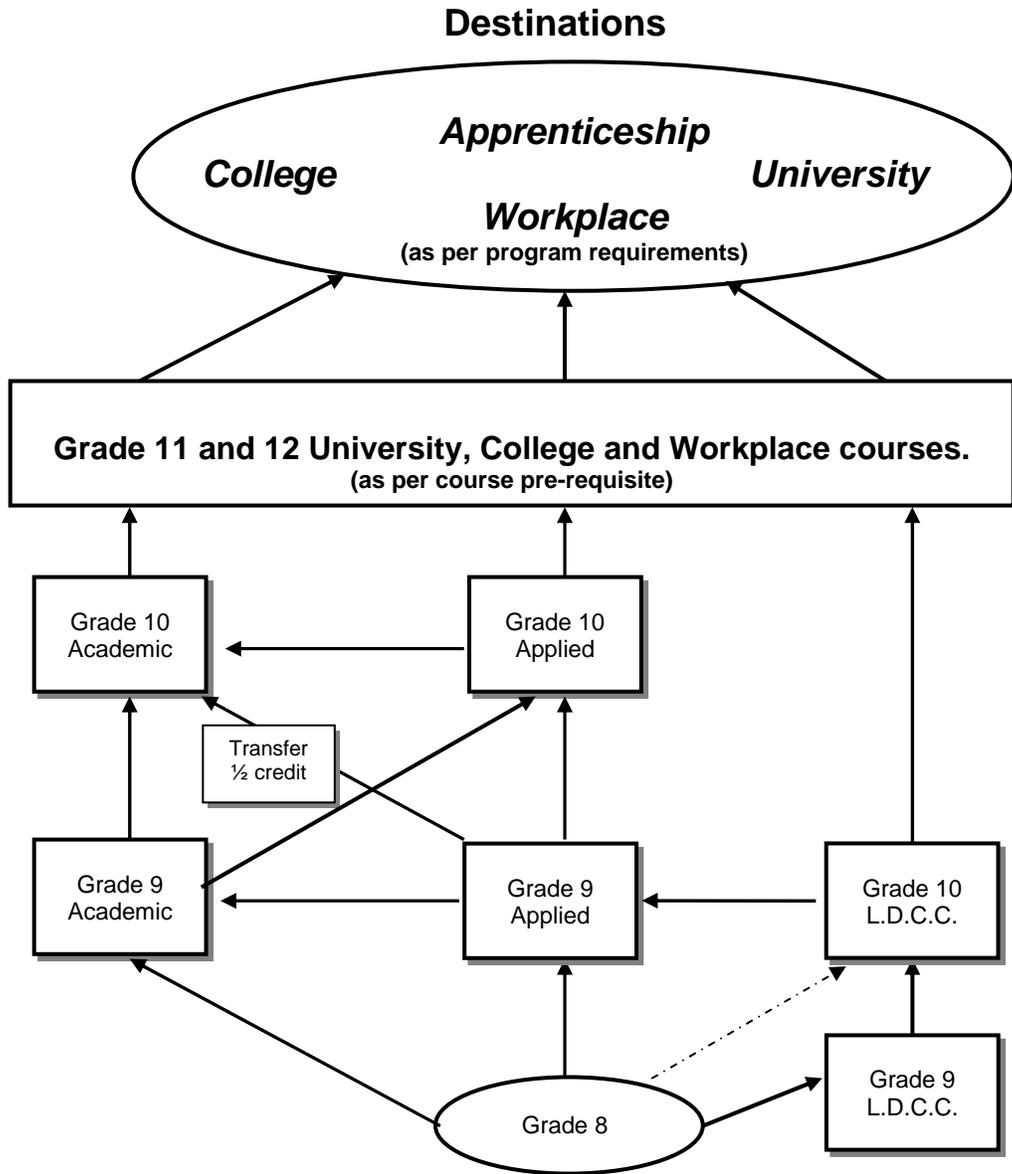
A guide for choosing courses in Grade 9 mathematics

The Grade 9 **Locally Developed Compulsory Credit Course** is designed for those students who need additional time to consolidate skills from earlier grades. This course emphasizes further development of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, in the Grade 10 LDCC course, and in Mathematics Grade 11 and Grade 12 Workplace Preparation courses. The course is organized in three strands, related to money sense, measurement, and proportional reasoning. In all strands, the focus is on developing and consolidating key concepts and skills by solving authentic, everyday problems. Students have opportunities to further develop their mathematical literacy and problem-solving skills and to continue developing their skills in reading, writing, and oral language through relevant and practical activities.
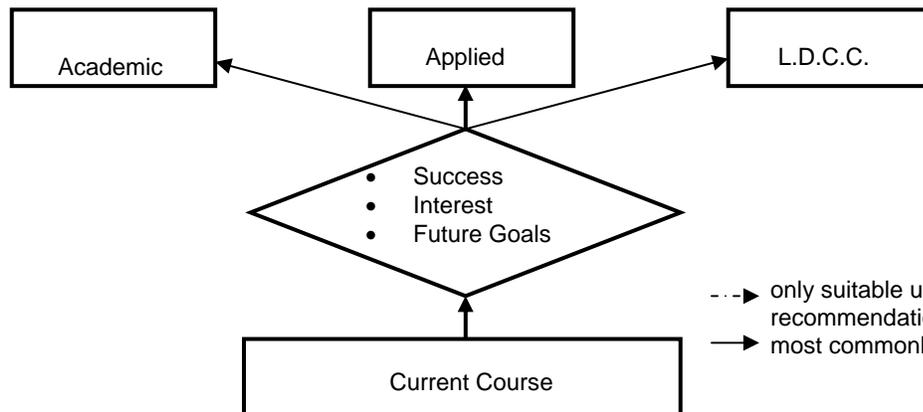
The Grade 9 **Applied Course** is intended for the learner who has experienced some degree of success in most areas of the Grade 8 mathematics program, who would benefit from more time consolidating key concepts and skills in mathematics, as well as learning through hands-on activities and the use of concrete examples. This course enables students to develop understanding of mathematical concepts related to introductory algebra, proportional reasoning, and measurement and geometry through investigation, the effective use of technology, and hands-on activities. Students will investigate real-life examples to develop various representations of linear relationships, and will determine the connections between representations. They will also explore certain relationships that emerge from the measurement of three-dimensional objects and two-dimensional shapes. Students will consolidate their mathematical skills as they solve problems and communicate their thinking. This course leads to the Grade 10 Applied course. A transfer course is required for those who choose to take the Grade 10 Academic course.

The Grade 9 **Academic Course** is intended for those students who are ready to learn through abstract reasoning. The course provides more opportunities to develop a higher level of algebraic skills. This course enables students to develop understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines and will determine the connections between different representations of a relationship. They will also explore relationships that emerge from the measurement of three-dimensional objects and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multistep problems. This course leads to the Grade 10 Academic course.

Create Your Own Pathway - One Step/Course at a time
Possible Pathways in Mathematics

Destinations

Apprenticeship

College   *University*

Workplace

(as per program requirements)

Grade 11 and 12 University, College and Workplace courses.
(as per course pre-requisite)

Grade 10 Academic		Grade 10 Applied	

Transfer
½ credit

Grade 9 Academic		Grade 9 Applied		Grade 10 L.D.C.C.

Grade 8

Grade 9 L.D.C.C.

Decision Process:

Academic	Applied	L.D.C.C.

- Success
- Interest
- Future Goals

A first Grade 9 Math Course should be based on a student's likelihood of being successful in that course.

- - -▶ only suitable under Principal's recommendation
──▶ most commonly recommended

Current Course