

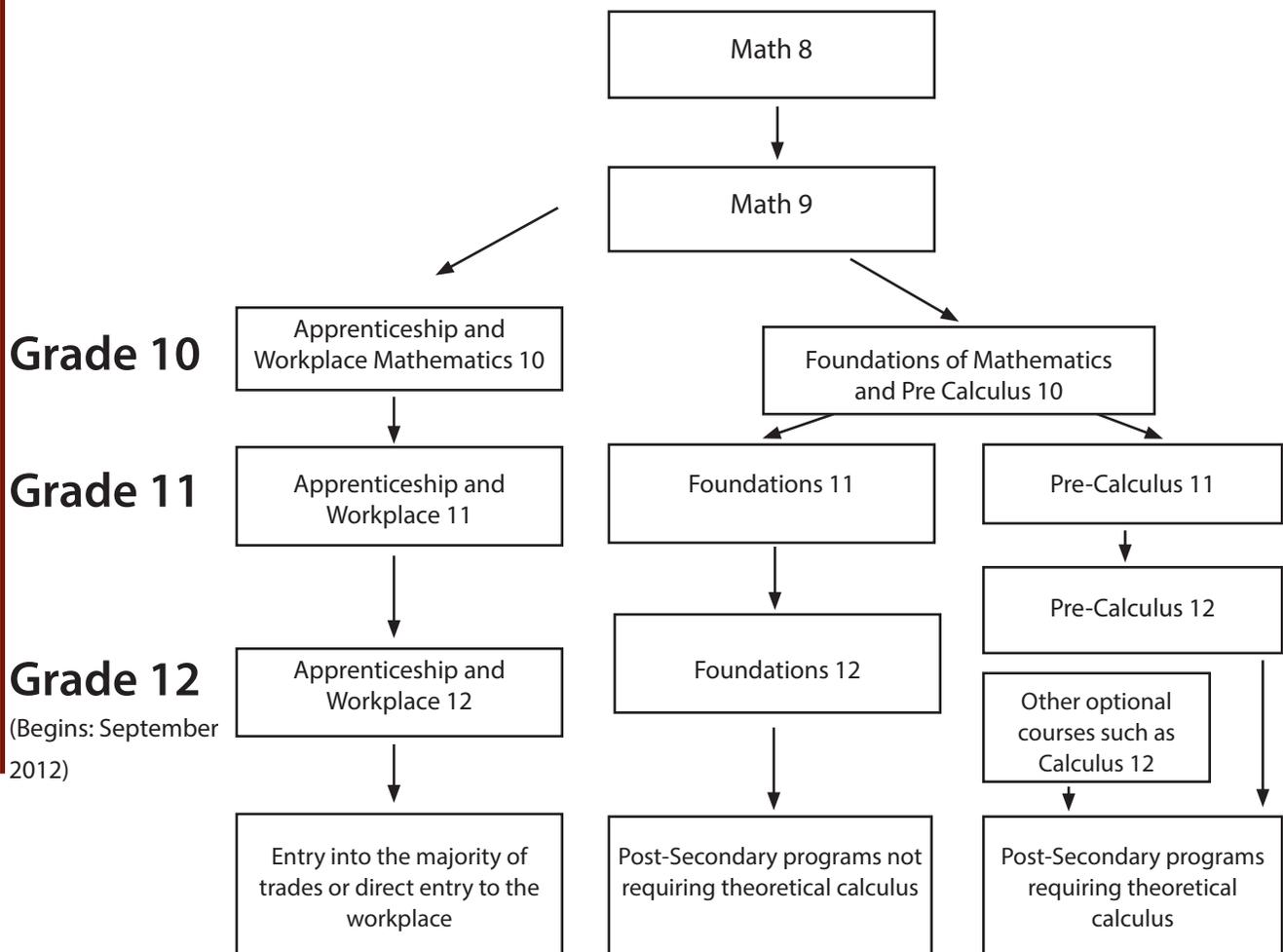
# The Goals of the New Pathways

The goal of the Math pathways is to provide pre-requisite attitudes, knowledge, skills and understanding for specific post-secondary programs or direct entry into the work force.

All three pathways provide students with mathematical understanding and critical thinking skills. It is the choice of topics that vary among pathways. When choosing a pathway, students should consider their interests, both current and future, so that these are engaged in their studies.

The new curriculum includes seven mathematical processes that are crucial to students' learning, doing, and understanding Mathematics. Students are expected to:

- use communication in order to learn and express their understanding.
- make connections among mathematical ideas, other concepts in mathematics, everyday experiences and other disciplines.
- demonstrate fluency with mental mathematics and estimation.
- develop and apply new mathematical knowledge through problem solving.
- develop mathematical reasoning.
- select and use technology as a tool for learning and solving problems.
- develop visualization skills to assist in processing information, making connections and solving problems.



Sample Future Plans	Most Relevant Course Work
Technical College Trade School Direct Entry to Workforce	Apprenticeship of Mathematics 10-12
Math Science Engineering Medicine Commerce	Foundations of Mathematics 10 followed by Pre-Calculus 11-12
Social Sciences Humanities Fine Arts Undecided	Foundation of Mathematics 10 followed by Foundations 11-12

### Graduation Requirements and Post-Secondary Admissions

To graduate, all students MUST complete a Grade 10 mathematics course as well as another math course at the Grade 11 or 12 level. Students might need more than one math course if they plan to continue school beyond Grade 12. Depending on the school, there could be many mathematics options available.

**Students, parents and educators are encouraged to research the admission requirements for post-secondary programs of study as they vary by institution and by year.**

For specific program requirements contact the specific institution you are interested in or search for specific program requirements using the Education Planner's website: [www.educationplanner.ca/](http://www.educationplanner.ca/).

Mathematics courses include three major themes: Measurement, Algebra and Number, and Relations and Functions. The curriculum stresses the need for students to develop the ability to explore, conjecture, reason logically, and use a variety of mathematical models to solve problems, and communicate their results and their thinking. Emphasis is placed on understanding rather than rote learning, and on meaningful real-world applications which connect the various concepts in mathematics and integrate modern technology appropriately.

The Ministry defines two "pathways" beginning in Grade 10: Apprenticeship and Workplace Mathematics, and Foundations of Mathematics and Pre-calculus. Students develop a conceptual knowledge base and skill set that will be useful in whatever pathway they have chosen. The topics covered within a pathway are meant to build upon previous knowledge and to progress from simple to more complex conceptual understandings.