

Tuesday, March 8, 2022

Memorandum to: Directors of Education
Secretary/Treasurers of School Authorities

From: Nancy Naylor
Deputy Minister

Subject: **Winter 2022 Curriculum Updates**

As part of the Ministry of Education's commitment to modernizing education with a renewed focus on science, technology, engineering and math (STEM), the Minister of Education has issued a revised elementary Science and Technology curriculum. This elementary curriculum, and the forthcoming de-streamed Grade 9 Science course (SNC1W), will be implemented in classrooms across the province starting in September 2022.

The ministry is releasing updated elementary report card templates that reflect the new elementary Science and Technology curriculum.

Also being issued today is the addendum to the 2005 Grade 10 Mathematics curriculum, to be implemented in September 2022.

Further details regarding these and other curriculum updates are provided below.

Revised Elementary Science and Technology Curriculum

As you are no doubt aware, Ontario's elementary science and technology curriculum was last updated in 2007 and the Grade 9 course was last updated in 2008. Since then, significant scientific and technological innovations have emerged, and the global economy has changed. The updated curriculum responds to these changes with the goal of positioning Ontario as a leading jurisdiction in STEM.

The revised elementary Science and Technology curriculum includes new learning on the practical applications of science and technology, including mandatory learning on coding and emerging technology, engineering design, food literacy and climate change. The new curriculum makes explicit connections to the skilled trades and technological education and investigates the contributions of people with diverse experiences to science and technology.

The revisions were informed by consultations, current research, and feedback from education stakeholders, STEM, industry and academic experts and Indigenous partners.

The elementary science and technology curriculum is available to all parents, teachers and students on the [Curriculum and Resources website at Ontario.ca/curriculum](https://www.ontario.ca/curriculum).

The ministry is committed to supporting educators through training and resources, including webinars, classroom-ready resources and overview videos.

The Curriculum and Resources website has been updated to provide easy access to curriculum related resources all in one place. The ministry has also partnered with third party organizations to ensure educators have access to a variety of supports throughout the 2022-23 school year.

The ministry will be offering a Technical Briefing for school board staff on the content of the revised elementary science and technology curriculum. This briefing will be held on March 22, 2022 at 11 am to noon and repeated on March 24, 2022 at 4 pm to 5 pm. Please register [here](#).

Grade 9 Science Course

On November 10, 2021, the ministry communicated next steps on de-streaming Grade 9, including a new de-streamed Grade 9 Science course (SNC1W) that will replace the Academic and Applied courses. The new course is in the final stages of development and will be issued in Spring 2022.

The course will build on the elementary Science and Technology curriculum as students continue to develop STEM skills and apply scientific research and experimentation, as well as use engineering design processes to investigate concepts in biology, chemistry, physics, and earth and space science. Implementation supports are also in development and will be available to support educators during Spring-Summer 2022 and throughout the 2022-23 school year.

This course and supporting resources will be available on the Curriculum and Resources website before the end of March 2022.

Elementary Report Card Templates

Elementary report card templates have been updated to reflect the new strand names for the revised elementary Science and Technology curriculum and to remove reference to Social-Emotional Learning Skills in alignment with the direction to pause on the evaluation and reporting of these skills as most recently communicated in the October 29, 2021 memo. Samples of these updated templates will be available at [Ontario.ca/education](https://www.ontario.ca/education) this summer for the next school year.

Please work with your vendor to ensure updates to report cards are made in time for the 2022-23 school year.

Addenda to Grade 10 Mathematics Curriculum

To support the continuum of learning in mathematics, the ministry is issuing an Addendum for each of the Grade 10 Academic and Applied Mathematics courses, to be implemented for the 2022-23 school year.

The addenda outline additional learning expectations to be instructed in Grade 10 that support students in their transition from the new de-streamed Grade 9 Mathematics course (MTH1W) to the current Grade 10 Mathematics courses.

The addenda consist of new expectations for the English and French courses as follows:

1. **Addendum to Principles of Mathematics, Grade 10, Academic, MPM2D (2005)** outlines **three new specific expectations** to be added to MPM2D under an existing overall expectation.
2. **Addendum to Foundations of Mathematics, Grade 10, Applied, MFM2P (2005)** outlines **one new specific expectation** to be added to MFM2P under an existing overall expectation.
3. **Supplément au cours Principes de mathématiques, 10^e année, cours théorique, MPM2D (2005)** outlines **five new specific expectations** to be added to MPM2D under two existing overall expectations.
4. **Supplément au cours Méthodes de mathématiques, 10^e année, cours appliqué, MFM2P (2005)** outlines **two new specific expectations** to be added to MFM2P under two existing overall expectations.

The addenda can be accessed in PDF format on the [Curriculum and Resources website](#).

Thank you for your ongoing support and leadership.

Sincerely,

Nancy Naylor
Deputy Minister

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