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Subject: PROTECTED TIME FOR DAILY MATHEMATICS INSTRUCTION,
GRADES 1 TO 8

Application: Directors of Education
Supervisory Officers and Secretary-Treasurers of School Authorities
Principals of Elementary Schools

INTRODUCTION

As part of the vision for education articulated in *Achieving Excellence: A Renewed Vision for Education in Ontario, 2014*, the Ministry of Education is acting on its commitment to help all students gain the mathematical knowledge and skills they will need to thrive in an information- and technology-based society. Dedicated to collaborative professionalism, Ontario's education partners are working together to realize this commitment. Together, the ministry, school boards, and schools are building on the successes of the past decade, which have made Ontario's education system a world leader, to further improve outcomes for all learners.

The purpose of this memorandum is to set out the ministry's expectation that school boards across Ontario will provide focused daily mathematics instruction for students in Grades 1 through 8¹ during *protected blocks of time*, as specified below. Protected time for mathematics instruction will allow for a more sustained period of effective instruction and assessment every day, providing additional support for students in achieving better results in mathematics.

Provincial and international assessments show that, although the majority of Ontario students understand basic math concepts, improvement is needed in their ability to apply their knowledge and skills to solve problems. Acknowledging the work that education professionals have done to help students become confident and competent mathematical thinkers, the ministry believes that additional time for focused learning will support student achievement and engagement.

Research has identified a variety of factors that are important in supporting improved student achievement in mathematics and student well-being, including the following:

- effective instruction
- positive student engagement
- extended blocks of time for mathematics learning, appropriate to the students' age

1. This memorandum refers to students in Grades 1 to 8. In Kindergarten, mathematics instruction is integrated into children's play and inquiry throughout the school day.

According to the research, the optimum amount of time for mathematics learning and teaching is four to six hours per week. In many Ontario classrooms, this is already the norm.

Working together with school boards and schools, the ministry will continue to focus on all the factors identified through research and will provide resources to support teachers in providing engaging, effective instruction in mathematics.

THE DIRECTION

School boards² are expected to protect a block of time during every school day for teachers in Grades 1 to 8 to focus on effective mathematics instruction that supports students in achieving the expectations set out in *The Ontario Curriculum, Grades 1 to 8: Mathematics*. Starting this school year, 300 minutes per five-day cycle – preferably in daily blocks of sixty minutes, with a minimum of forty minutes per block – will be protected for this purpose.

This focused instructional time will provide the opportunity for educators to nurture a community and culture of math practice and problem solving, both of which help students develop their skills.

In addition, educators are expected to continue to embed mathematics skills across all areas of the curriculum, as they have done in the past.

IMPLEMENTATION

Staffing

To optimize conditions for learning and assessment, one teacher should be assigned to provide instruction in the full elementary mathematics curriculum to a given class.

Effective Instruction

Ontario's teachers know that effective instruction requires time and focus. Moreover, instructional approaches emphasizing problem solving require additional time for deep learning of mathematics concepts and skills. Additional learning time also allows teachers to provide focused attention to students individually and in small groups. This kind of focus is known to increase student engagement.

Both the mathematics curriculum and *Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools, 2010* promote an approach to mathematics teaching, learning, and assessment that includes problem solving, direct instruction, investigation, self- and peer-assessment, and practice.

2. In this document, *school board(s)* and *board(s)* refer to district school boards and school authorities.

In planning effective mathematics assessment and instruction, educators begin by examining the mathematics curriculum expectations for the grade level and assessing individual students' knowledge to determine the appropriate approach for each student. Educators support students' well-being and so promote their ability to learn by differentiating and personalizing instruction, by providing developmentally appropriate student learning, and by using culturally responsive pedagogy (e.g., by incorporating Indigenous world views, by using resources that reflect the diversity of students).

For students with special education needs, educators must provide any accommodations and/or modifications described in these students' Individual Education Plans (IEPs).

Support and Resources

The ministry, in collaboration with teachers' federations, principals' associations, and other partners, will support educators, schools, and school boards by providing a variety of differentiated professional learning opportunities. Educators' professional learning will be based on the identified needs of students, and flexibility will be offered in the method of delivery (e.g., through opportunities for face-to-face or virtual learning).

Reporting and Accountability

The following ongoing activities will play an important role in the successful implementation of the direction set out in this memorandum and will help inform the focus of future professional learning opportunities:

- School boards and schools will continue to prepare and use school board and school improvement plans. These plans, and the interim and final reports of these plans, will provide important information for monitoring progress throughout the school year.
- The ministry and school boards will continue to review the Education Quality and Accountability Office (EQAO) teachers' questionnaire for information regarding mathematics instruction time.
- The ministry and school boards will continue to collect additional evidence that could inform implementation decisions and the choice of further supports.

SOURCES

The Ontario Ministry of Education's series of "Guides to Effective Instruction" in mathematics. Available at www.beta.edugains.ca/newsite/lms/capacitybuildingseries.html.

Bodovski, K., & Farkas, G. (2007). Mathematics growth in early elementary school: The roles of beginning knowledge, student engagement, and instruction. *The Elementary School Journal*, 108(2), 115–130.

Mattox, K., Hancock, D. R., & Queen, J. A. (2005). The effect of block scheduling on middle school students' mathematics achievement. *NASSP Bulletin*, 89(642), 3–13.

Organisation for Economic Co-operation and Development. (2011). Relationships between students' learning time and performance. In *Quality time for students: Learning in and out of school*. Paris: OECD Publishing.

Organisation for Economic Co-operation and Development. (2015, August). Is spending more hours in class better for learning? *PISA in Focus* (54). Paris: OECD Publishing.