

LEARNERS' CONTEXT

EQAO data are derived mainly from our assessment results and from questionnaires completed by students and educators across the province during the assessments. Respondents' answers on EQAO questionnaires offer valuable contextual information about student learning in mathematics and provide a context for interpreting the province-wide results over time. This information, considered alongside assessment results and data from other sources, **helps build a full understanding of student learning in Ontario.**

Here are some insights into learners' context in Ontario based on EQAO's questionnaires.

- Higher percentages of Grade 3 students like mathematics and see themselves as good at mathematics (57% and 55% respectively) than do Grade 6 students (50% and 52% respectively).
- One-third of Grade 9 students enrolled in the applied mathematics course like mathematics and a similar percentage see themselves as good at mathematics (35% and 32% respectively), while more than half of Grade 9 students enrolled in the academic mathematics course like mathematics and a similar percentage see themselves as good at mathematics (57% and 54% respectively). Grade 9 students enrolled in the academic course have significantly higher perceived self-efficacy in mathematics than students enrolled in the applied course.
- According to responses on EQAO's Teacher Questionnaire, teachers use a variety of mathematics instructional strategies in the classroom. The instructional approaches that most commonly make up teachers' mathematics program are independent practice (91% in Grade 3 and 96% in Grade 6) and direct instruction (91% in Grade 3 and 95% in Grade 6).



ASSESSMENT RESULTS

It is important to **compare results over time** to identify trends in student learning. Such analyses help us to understand achievement within subject areas and course types and among groups of students. EQAO bases its observations on five-year trends for this reason.

Primary Division (Grades 1–3) and Junior Division (Grades 4–6)

Assessments of Reading, Writing and Mathematics: Mathematics Component

The primary- and junior-division Assessments of Reading, Writing and Mathematics measure the reading, writing and mathematics skills *The Ontario Curriculum* expects students to have learned by the end of Grades 3 and 6. The results of the mathematics component of these assessments over a period of five years are featured in the following bar graphs.

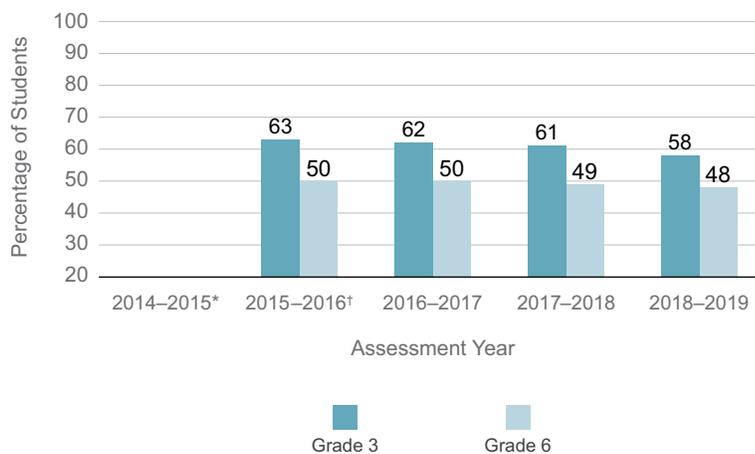
GRADE 3

- There were 131 544 Grade 3 students at the time of the 2018–2019 primary-division assessment.

GRADE 6

- There were 136 124 Grade 6 students at the time of the 2018–2019 junior-division assessment.

Percentage of Grade 3 and Grade 6 Students At or Above the Provincial Standard (Levels 3 and 4)



* Provincial-level results for the English-language school system are not available for 2015. Due to labour disruptions, a significant proportion of schools did not participate in the provincial assessments that school year.

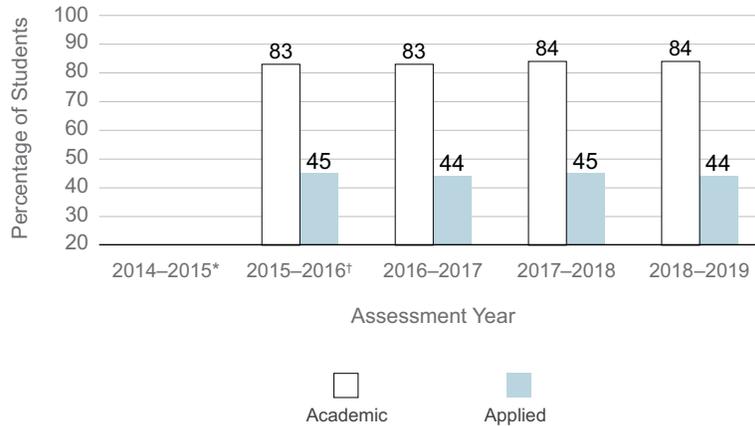
† In 2016, elementary schools in the Toronto Catholic District School Board did not participate in the assessments, due to labour issues.

Grade 9 Assessment of Mathematics

The Grade 9 Assessment of Mathematics measures the mathematics skills *The Ontario Curriculum* expects students to have learned by the end of Grade 9. Separate versions of the assessment are administered to students in the academic and applied courses.

- There were 100 425 Grade 9 students enrolled in the academic course and 33 573 in the applied course at the time of the 2018–2019 assessment.

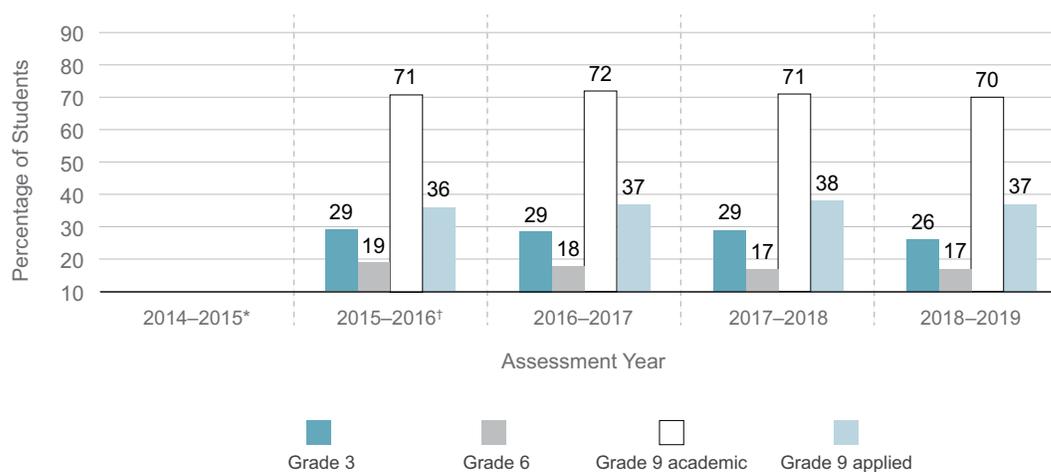
Percentage of Grade 9 Students At or Above the Provincial Standard (Levels 3 and 4)



* Provincial results for the Grade 9 Assessment of Mathematics are not available for 2015. Due to labour disruptions, not all schools participated that school year.
 † In 2016, secondary schools in the Trillium Lakelands District School Board did not participate in the assessments, due to labour issues.

Grades 3, 6 and 9: Students with Special Education Needs (Excluding Gifted)

- During the 2018–2019 school year, there were 24 362 students with special education needs enrolled in Grade 3, 29 692 students with special education needs enrolled in Grade 6, 8782 students with special education needs enrolled in the academic Grade 9 mathematics course, and 13 644 students with special education needs enrolled in the applied Grade 9 mathematics course.
- The following bar graphs show, for a five-year period, the percentages of students with special education needs who met the provincial mathematics standard on the primary- and junior-division assessments or on the Grade 9 Assessment of Mathematics.



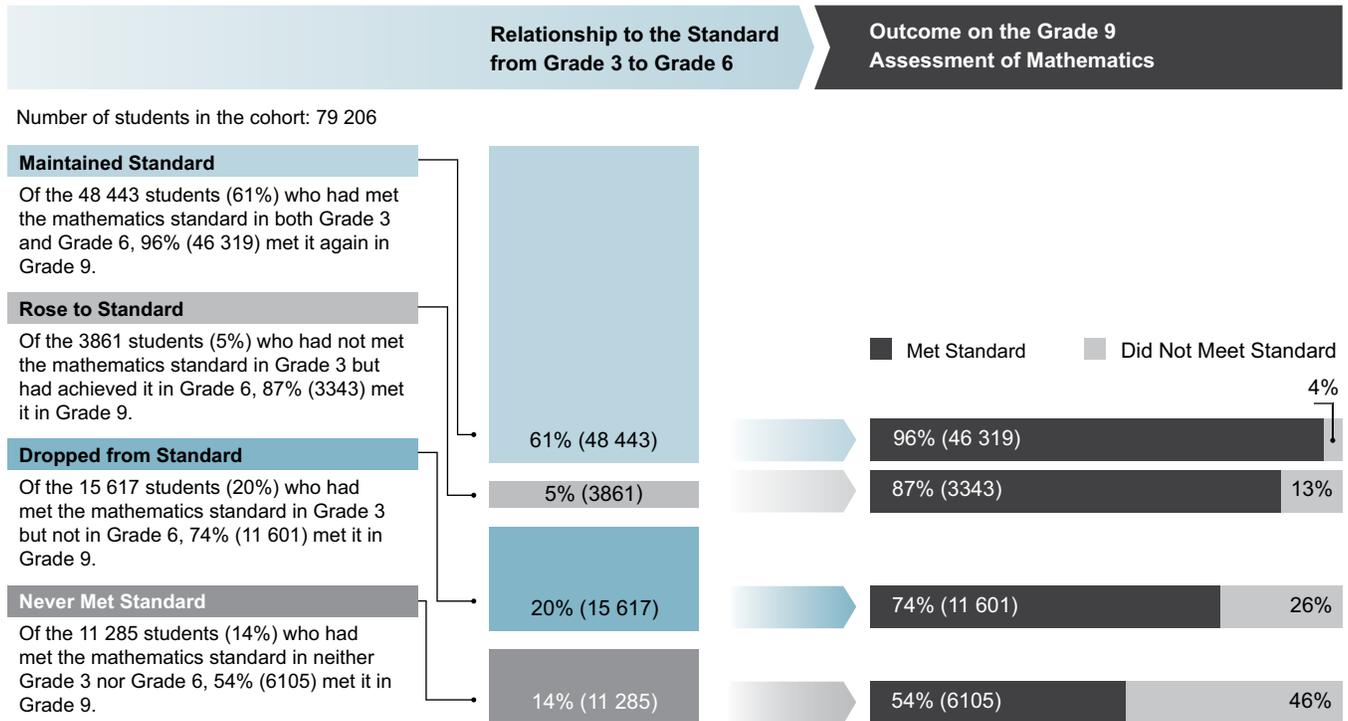
* Provincial-level results for the English-language school system are not available for 2015. Due to labour disruptions, a significant proportion of schools did not participate in the provincial assessments that school year.

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Tracking Student Progress: Grade 3 to Grade 6 to Grade 9

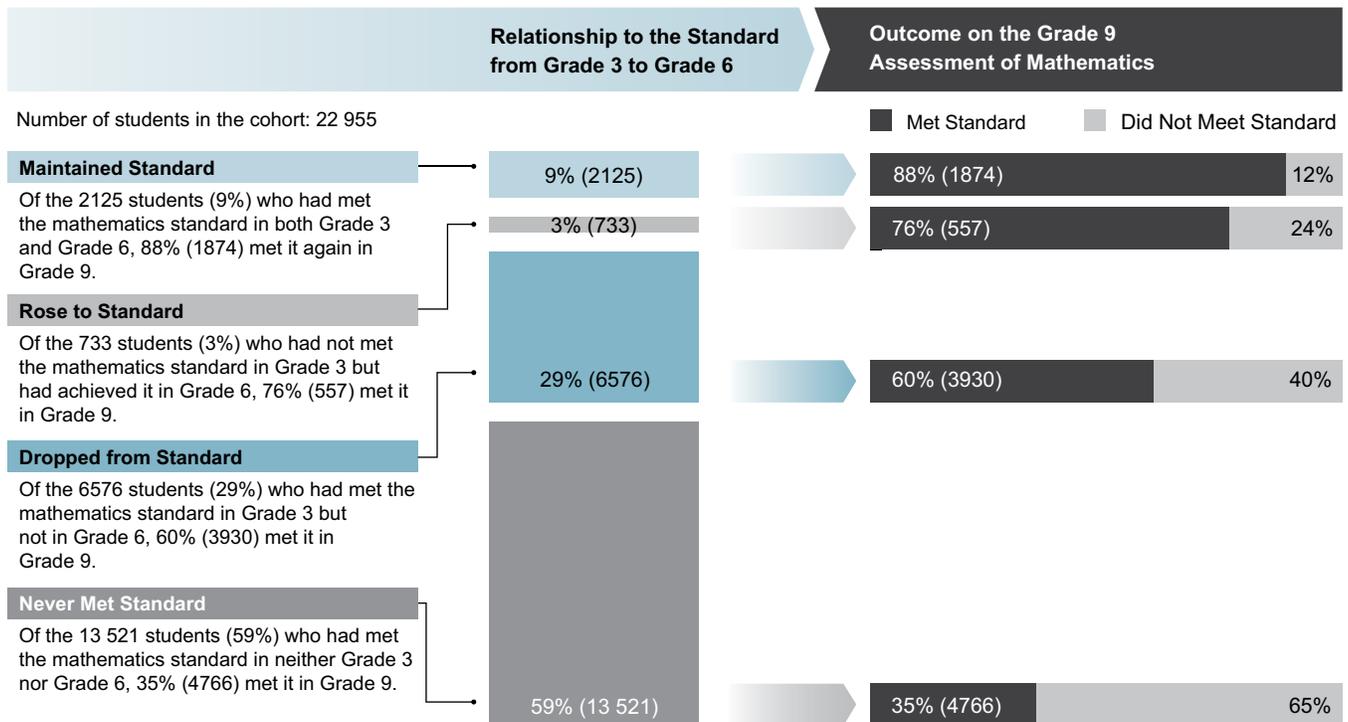
EQAO tracked the progress of students by linking their results on EQAO's elementary school assessments to their Grade 9 Assessment of Mathematics results. The percentages displayed in the following charts are based on the number of students in the cohort who participated in the Grade 9 Assessment of Mathematics and for whom EQAO has primary- and junior-division assessment results (including those students who participated, were exempted or provided no work to be scored).

ACADEMIC MATHEMATICS COURSE



Note: Because percentages in graphs are rounded, they may not add up to 100.

APPLIED MATHEMATICS COURSE



Note: Because percentages in graphs are rounded, they may not add up to 100.

DATA OBSERVATIONS

Taking into account EQAO results and insights about learners in Ontario, we note some trends in mathematics achievement that may benefit from further inquiry.

- For several years, EQAO has noted the achievement gap between students in academic and applied courses. It is encouraging that data show the percentage of Grade 9 students enrolled in the academic mathematics course has increased by two percentage points since 2016.
- The persistent discrepancy in achievement between students with special education needs and those without requires attention.
- [Previous EQAO research shows](#) that Ontario students in Grades 3 and 6 have stronger knowledge and understanding of fundamental math skills than they have the ability to apply their skills and to think critically about them. The challenge with mathematics in Ontario may be less about students “knowing” math and more about their ability to apply math knowledge and to engage in related critical thinking.

Please visit www.eqao.com for more information.

About EQAO

EQAO's tests measure student achievement in reading, writing and mathematics in relation to *Ontario Curriculum* expectations. The resulting data provide accountability and a gauge of quality in Ontario's publicly funded education system. By providing this important evidence about learning, EQAO acts as a catalyst for increasing the success of Ontario students.

The objective and reliable results from EQAO's tests complement the information obtained from classroom and other assessments to provide students, parents, teachers and administrators with a clear and comprehensive picture of student achievement and a basis for targeted improvement planning at the individual, school, school board and provincial levels. EQAO helps build capacity for the appropriate use of data by providing resources that educators, parents, policy-makers and others in the education community can use to improve learning and teaching. EQAO distributes an individual report to each student who writes a test, and posts school, school board and provincial results on its website.

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