MCA Mathematics Benchmark Report "How To" Quick Guide

Assessments are designed to provide information about student learning, but there is no single assessment that can provide the full perspective of what a student has learned. These assessments provide one data point that should be considered in the context of additional evidence of student learning.

The MCA Benchmark Report is a guidance tool educators can use to learn about performance at the school or district level on each benchmark from the Minnesota Academic Standards. The Minnesota Academic Standards identify the knowledge and skills that all students are expected to learn in each content area by the end of a grade or grade band. These standards are divided into one or more benchmarks which provide details about what students are taught in that content area.

Benchmark performance is calculated by comparing students' observed performance on test content aligned to a benchmark to the expected performance of the "Meets" achievement level cut score for a benchmark at the school or district.

Report Considerations

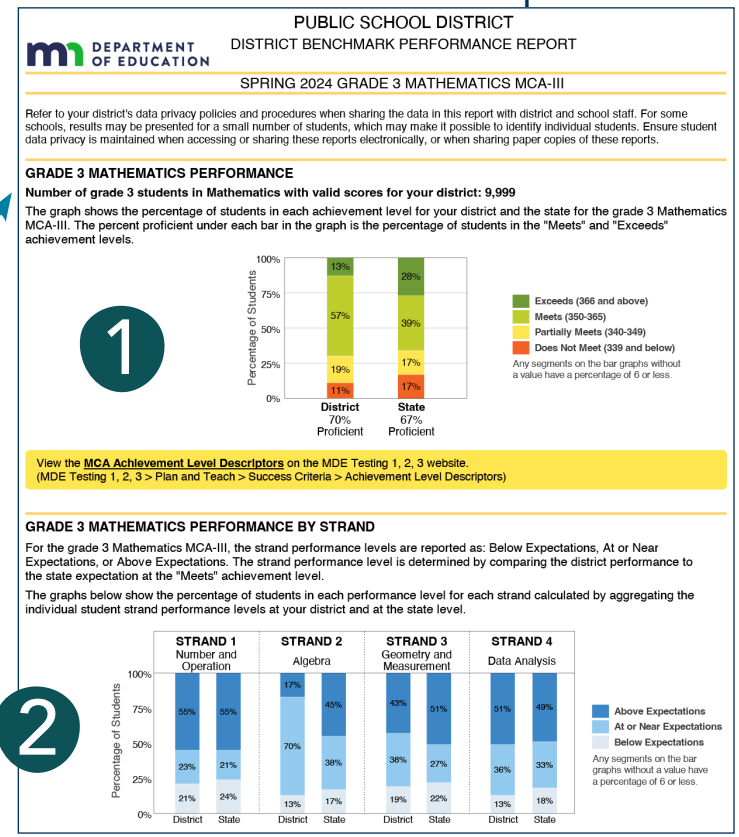
Benchmark reports are created by grade and subject for Reading, Mathematics, and Science MCA.

The Mathematics MCA is an adaptive assessment at the "item" level, meaning test questions (items) are chosen based on the student's responses to the previous items.

- All tests meet the "blueprints" or requirements in the test specifications, which describe how the standards are assessed on the test and in what proportions. However, not all students see items for each benchmark, and other students may see more than one item for the same benchmark.
- Benchmarks not assessed on the MCA are noted on the report.

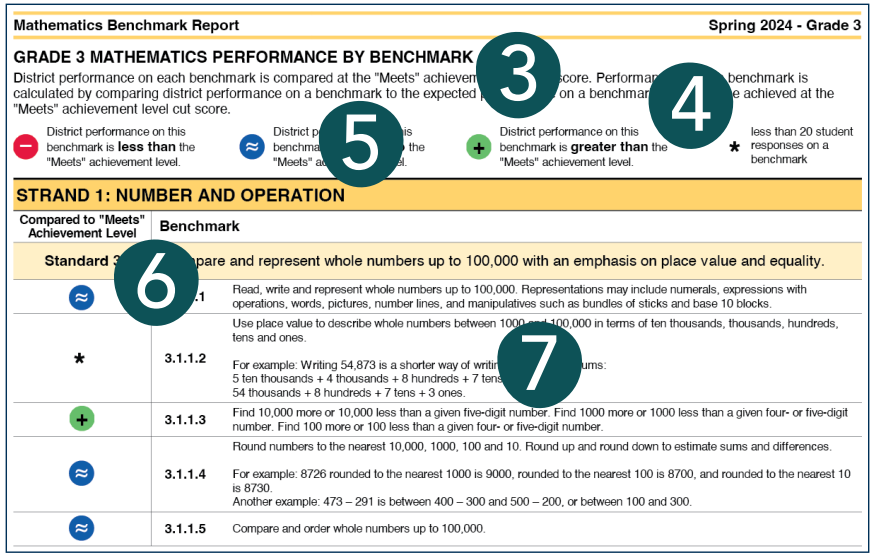
Benchmark reports for 2019 and 2021–2024 are available. No benchmark reports were produced for 2020.

Sections of the Benchmark Report


PUBLIC SCHOOL DISTRICT
DISTRICT BENCHMARK PERFORMANCE REPORT
DEPARTMENT OF EDUCATION
SPRING 2024 GRADE 3 MATHEMATICS MCA-III
Refer to your district's data privacy policies and procedures when sharing the data in this report with district and school staff. For some schools, results may be presented for a small number of students, which may make it possible to identify individual students. Ensure student data privacy is maintained when accessing or sharing these reports electronically, or when sharing paper copies of these reports.
GRADE 3 MATHEMATICS PERFORMANCE
Number of grade 3 students in Mathematics with valid scores for your district: 9,999
The graph shows the percentage of students in each achievement level for your district and the state for the grade 3 Mathematics MCA-III. The percent proficient under each bar in the graph is the percentage of students in the "Meets" and "Exceeds" achievement levels.
1
Percentage of Students
100%
75%
50%
25%
0%
13%
57%
19%
11%
28%
39%
17%
17%
District 70% Proficient
State 67% Proficient
Exceeds (366 and above)
Meets (350-365)
Partially Meets (340-349)
Does Not Meet (339 and below)
Any segments on the bar graphs without a value have a percentage of 6 or less.
View the MCA Achievement Level Descriptors on the MDE Testing 1, 2, 3 website.
(MDE Testing 1, 2, 3 > Plan and Teach > Success Criteria > Achievement Level Descriptors)
GRADE 3 MATHEMATICS PERFORMANCE BY STRAND
For the grade 3 Mathematics MCA-III, the strand performance levels are reported as: Below Expectations, At or Near Expectations, or Above Expectations. The strand performance level is determined by comparing the district performance to the state expectation at the "Meets" achievement level.
The graphs below show the percentage of students in each performance level for each strand calculated by aggregating the individual student strand performance levels at your district and at the state level.
2
STRAND 1 Number and Operation
STRAND 2 Algebra
STRAND 3 Geometry and Measurement
STRAND 4 Data Analysis
Percentage of Students
100%
75%
50%
25%
0%
55% 23% 21%
55% 21% 24%
17% 70% 13%
45% 38% 17%
43% 38% 19%
51% 27% 22%
51% 36% 13%
49% 33% 18%
District State
Above Expectations
At or Near Expectations
Below Expectations
Any segments on the bar graphs without a value have a percentage of 6 or less.

1. Overall performance, including:
   - The number of students with a valid, reportable score at the organization level for the grade and subject combination of the report.
   - An achievement level bar graph at the school, district, and state level, with the percentage of students at each achievement level.
   - The percent proficient, shown under each bar graph, is the combined percent of students at the "Meets" and "Exceeds" achievement levels.
2. Substrand performance, including:
   - Content area strand names and performance level percentages at the school, district, and state level.
   - Performance level categories include:
     Below Expectations, At or Near Expectations, and Above Expectations.
     Expectation is defined as the school's performance on each strand compared to the "Meets" performance level cut score.

For more information about benchmark reports, refer to the *MCA Benchmark Report Interpretive Guide* or *Understanding the MCA Benchmark Report Video*, available on PearsonAccess Next (PearsonAccess Next > Reporting Resources > Additional Reporting Resources).



Mathematics Benchmark Report — Spring 2024 - Grade 3

GRADE 3 MATHEMATICS PERFORMANCE BY BENCHMARK

District performance on each benchmark is compared at the "Meets" achievem[3]core. Performa[4] benchmark is calculated by comparing district performance on a benchmark to the expected p[5] on a benchmar[4]e achieved at the "Meets" achievement level cut score.

− District performance on this benchmark is **less than** the "Meets" achievement level.

≈ District p[5]is benchma[5] the "Meets" ac[5]el.

+ District performance on this benchmark is **greater than** the "Meets" achievement level.

* less than 20 student responses on a benchmark

STRAND 1: NUMBER AND OPERATION

Compared to "Meets" Achievement Level	Benchmark	
Standard 3[6]		pare and represent whole numbers up to 100,000 with an emphasis on place value and equality.
≈	[6].1	Read, write and represent whole numbers up to 100,000. Representations may include numerals, expressions with operations, words, pictures, number lines, and manipulatives such as bundles of sticks and base 10 blocks.
*	3.1.1.2	Use place value to describe whole numbers between 1000 and 100,000 in terms of ten thousands, thousands, hundreds, tens and ones. For example: Writing 54,873 is a shorter way of writi[7]ums: 5 ten thousands + 4 thousands + 8 hundreds + 7 tens + 3 ones. 54 thousands + 8 hundreds + 7 tens + 3 ones.
+	3.1.1.3	Find 10,000 more or 10,000 less than a given five-digit number. Find 1000 more or 1000 less than a given four- or five-digit number. Find 100 more or 100 less than a given four- or five-digit number.
≈	3.1.1.4	Round numbers to the nearest 10,000, 1000, 100 and 10. Round up and round down to estimate sums and differences. For example: 8726 rounded to the nearest 1000 is 9000, rounded to the nearest 100 is 8700, and rounded to the nearest 10 is 8730. Another example: 473 – 291 is between 400 – 300 and 500 – 200, or between 100 and 300.
≈	3.1.1.5	Compare and order whole numbers up to 100,000.

3. Benchmark performance description
4. Three performance symbols specific to the benchmark report are used to represent school or district performance on each benchmark, including less than, similar to, or greater than the "Meets" achievement level.
   An asterisk (*) indicates there were less than 20 student responses for that benchmark and results are not available.
5. Strand number and title.
6. Minnesota Academic Standards code reference and description
7. Benchmark, performance, benchmark code reference, and description.
   For mathematics, the four-digit code (such as, 3.1.1.3) lists, in order, the grade (3), strand (1), standard (1), and benchmark (3).

Note: Refer to the Minnesota Academic Standards for exact formatting of the math benchmarks and examples, as slight adjustments were made to fit the report.

Cautions When Interpreting the Benchmark Report

- For Mathematics MCA, the number of items for each benchmark will vary because the test is adaptive at the "item" level.
- The data displayed on the report are based on the student responses to the items from a particular benchmark that were administered to students in a school or district.
- Benchmark performance symbols do not correspond to overall achievement levels for Mathematics MCA (Does Not Meet, Partially Meets, Meets, or Exceeds the Standards), and the color/shape of each symbol does not reflect benchmark difficulty.

New Minnesota Academic Standards are being implemented for all subjects. Take your district's plan into consideration, and interpret these reports within the context of your school or district environment. The timeline for the first administration of the mathematics assessment is anticipated to be school year 2027–28.

Using the Benchmark Report in Your Classroom, School, or District

The MCA Benchmark Reports are an additional resource educators can use to evaluate and compare performance on benchmarks at the school, district, and state levels on the current year's test. Teachers and district staff can use benchmark report data as a starting point for discussions about strengths and gaps in curriculum.

Guiding questions when reviewing and discussing benchmark reports:

1. Are the students who completed the assessment representative of the total student population at your school or district?
2. Where and how are specific benchmarks taught in a course's scope and sequence?
3. What do you notice about the benchmark data? What surprises you?
4. How does the data compare with what you saw in the classroom?
5. What additional information do you have about student learning of the benchmarks?
6. What may be some reasons for the benchmarks that have symbols indicating performance above the "Meets" achievement levels?
7. What may be some underlying causes for benchmarks below the "Meets" achievement level?
8. Are there additional emerging themes in all the information?
9. What are your next steps after reviewing your benchmark data?

Additional Benchmark Resources

View the **Minnesota Academic Standards** (MDE website > Districts, Schools and Educators > Teaching and Learning > Academic Standards (K-12))

View the ***2007 Mathematics Standards Progression Across Grades*** resource on the MDE Testing 1, 2, 3 website (MDE Testing 1, 2, 3 > Plan and Teach > Standards Based Learning Goals > Resources)

View the **MCA test specifications** (MDE website > Districts, Schools and Educators > Teaching and Learning > Statewide Testing > Test Specifications)

View the **Frameworks for the Minnesota Science & Math Standards** (www.scimathmn.org > Minnesota STEM Teacher Center)

View the ***Benchmark Achievement Level Descriptors*** on the Testing 1, 2, 3 website. (Testing 1, 2, 3 site > Plan and Teach > Success Criteria)

View the **Testing 1, 2, 3** educator website (https://testing123.education.mn.gov)

View the **Minnesota Questions Tool** for released items from MCA test. (MDE Testing 1, 2, 3 > Assess > Minnesota Questions Tool)

View *Appendix A: Benchmark Report Calculations Resource* in the ***Technical Manual for Minnesota's MCA and MTAS Assessments*** (MDE website > Districts, Schools and Educators > Teaching and Learning > Statewide Testing > Technical Reports > Technical Manual).