

## Understanding Student Progress on the MCA

One topic that the Minnesota Department of Education (MDE) often receives questions on is calculating student academic progress, or “growth,” on the Minnesota Comprehensive Assessments (MCAs). This document provides some historical context on score reporting and offers recommendations for successfully using MCA data to look at student progress.

The MCA is not designed to offer a detailed picture of student academic growth from one grade to the next. Rather, the MCA is designed to assess what students know and can do, relative to Minnesota’s grade-specific academic standards. For this reason, MDE recommends observing academic achievement levels across grades if there is an interest in gaining a general sense of a student’s progress in a subject over time.

### Discontinuation of Reporting Z-Scores

Prior to 2019, state legislation required reporting student growth data (referred to as “Minnesota Growth”) using specific calculations, called z-score calculations, to categorize student progress on the MCA. Students were assigned a growth category of high, medium, or low based on how they performed compared to “similar” peers during the prior year’s test administration. In 2019, this legislation changed and MDE was no longer required to use z-scores in determining student growth.

MDE made the decision to remove z-score calculations to categorize student growth because these scores were often misinterpreted and did not provide actionable information for districts to use at the individual student level. Research indicates that z-scores are not reliable indicators of individual student growth. A growth measure that relies on comparisons to other students’ performances (which is a norm-referenced interpretation) is not appropriate for the MCA, a test designed to measure individual student performance against a set of criteria (which is a criterion-referenced interpretation).

For more information about the removal of growth scores using z-score calculations, refer to the [Growth Changes](#) document, which has been archived, as many of the changes related to removing these data are complete.

### Supporting Criterion-Referenced Interpretations with the MCA

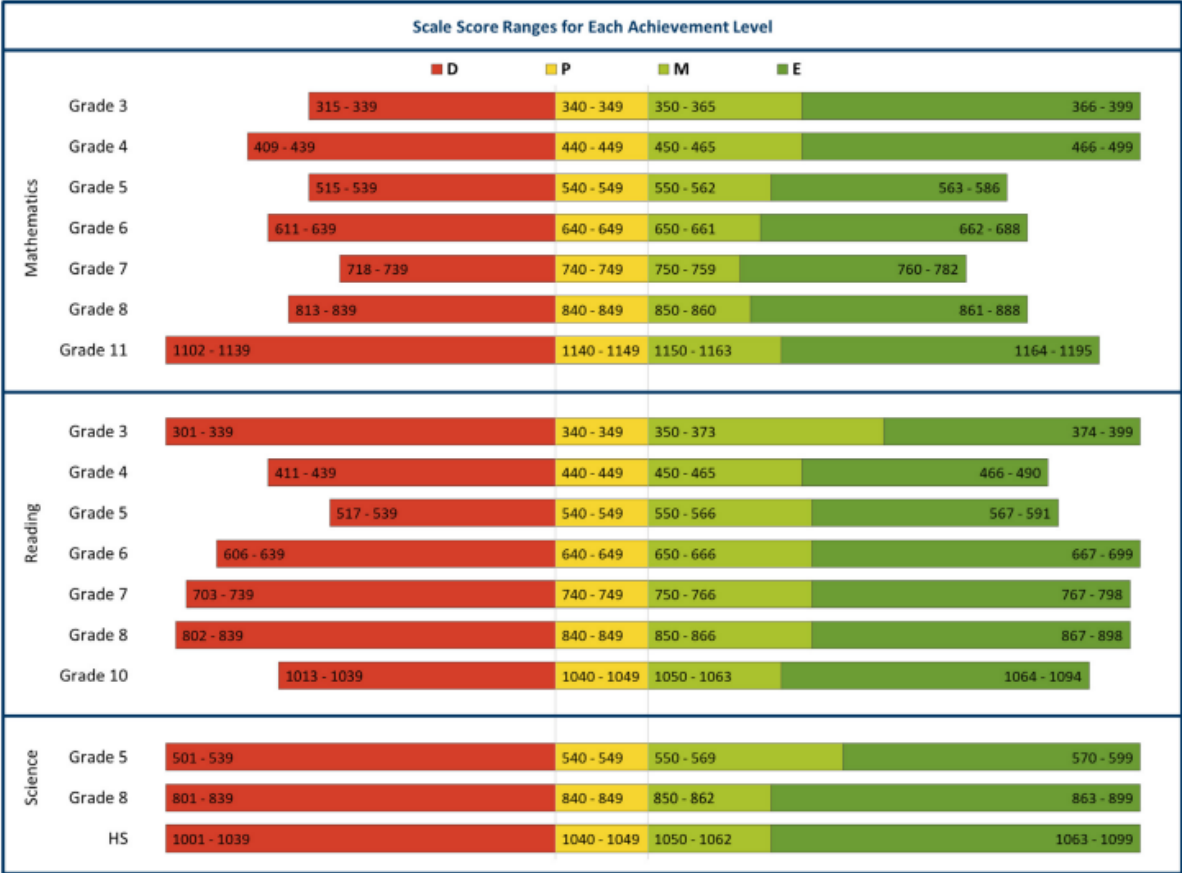
The MCAs are designed to support criterion-referenced interpretations because they measure an individual student’s demonstrated knowledge and skills on grade-specific academic standards (the [Minnesota Academic Standards](#)). Providing grade-specific academic standards is important, not just because it is required by federal legislation, but because understanding students’ knowledge and skills provides relevant information to schools and districts. Being able to identify the quality of learning systems and the successes of student groups allows educators to help students meet state standards-based learning expectations—a critical role in school

accountability. Additionally, criterion-referenced assessments are a cornerstone when developing balanced, comprehensive assessment systems designed to examine equitable access to high-quality standards-based instruction.

On the MCA, student performance is categorized into four achievement levels: Exceeds, Meets, Partially Meets, and Does Not Meet the expectations of the grade-level standards. The MCA [achievement level descriptors](#) (ALDs) explain the general knowledge, skills, and abilities from the grade-level standards demonstrated by students across each level of achievement. The ALDs also allow educators to determine if students have successfully met learning goals defined in the standards.

Because each subject’s grade-level MCA is based on a different set of standards and essentially different content, inferences cannot be made about student progress by comparing numerical scores from one grade to another. Comparing score digits, subtracting scores, or conducting other similar comparisons do not work because each grade-level test has its own unique score scale ([see Figure 1](#)). It is also not appropriate to compare the scores of different subject’s tests within a grade. A grade 5 reading score, for example, cannot be compared to a grade 5 mathematics score because the content of each test is independently designed without reference to the other.

**Figure 1. MCA Scale Score Ranges for Each Achievement Level**



The [Interpret Statewide Assessment Scores](#) page of the Testing 1, 2, 3 website provides more information on interpreting and using MCA scores.

## Appropriate Ways to Look at Student Progress

Rather than compare numerical scores across grades, the achievement levels (Exceeds, Meets, Partially Meets, and Does Not Meet the standards) can be used to gain a general sense of a student's level of knowledge in a subject over time for individual students. Since the academic standards become more complex as grade levels increase, students who remain in the same achievement level or move up in achievement level from one grade to the next are demonstrating progress. The expectation is for all students to meet state academic standards in each grade.

The goal for students who meet academic standards is for them to continue to build upon their knowledge and skills as they strive toward the target of exceeding the standards. For students who have not yet met the academic standards for a given grade level, as determined in context with additional evidence of student learning, districts and educators can take local action and make decisions around student supports and acceleration opportunities within their learning systems to ensure students meet or exceed academic standards in subsequent grades. However, it is difficult to make claims about growth and progress for students who remain in the Does Not Meet achievement level or move down in achievement level between grades without additional evidence of academic growth in a subject. MCAs are a snapshot of student's performance on a given day, month, and time. A student's classwork and classroom assessments can be used to gain additional information to determine whether their performance on the MCA is consistent with what the student is showing they know and are able to do in the classroom.

At an aggregate (group) level, the only growth calculation that MDE provides for the MCA/MTAS is the academic progress indicator, which is part of Minnesota's North Star accountability system. This indicator focuses on movement between achievement levels as an indicator of progress and is a criterion-referenced growth model in that students are compared to themselves and to the Minnesota academic standards. The indicator can therefore be used to determine whether students' performance relative to grade-specific skills and knowledge has increased across grades. (For more information about the academic progress indicator, refer to the [Accountability Indicators](#) section of the MDE website.)

## Important Reminders

When reviewing MCA student results, it is important to remember the following:

- Results should be used at the **system level** (across student groups, grades, school buildings, and districts) to help provide systemic approaches to identify improvements, support decision-making, align resources, and identify underlying inequities and highlight best practices in instruction. Do not use results at the individual student level for decisions like placement, grading, or goal-setting.
- Results provide an **estimate** of what students know and can do across a broad range of grade-specific content standards and expectations. Results are based on a sample of questions and tasks and thus do not provide a clear, detailed picture from a full year of student learning.
- Data from any source **should not be used alone** for data-based decision making. A balanced and comprehensive assessment system is essential when identifying a student's educational success. This balanced assessment system needs to include formative assessments, which provide evidence of student learning, feedback, remediation, and access to content-specific information.