

## 3.0 Understanding the Colorado School and District Reports

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### 3.1 Purpose and Use of Colorado Assessment Results

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The primary purpose of CMAS and CoAlt is to provide high-quality assessments that align to the Colorado Academic Standards (CAS). Assessment results are a helpful tool in evaluating educational programs and student progress. These reports:

- Summarize and report on the status and progress of student achievement
- Describe student performance relative to meeting standards
- Gauge school, district, and state year-to-year progress
- Support improvement planning (e.g., prioritize professional learning and resource decisions, advise program alignment with academic standards, reflect on the effectiveness of school initiatives)

Standardized assessments are a valuable tool for evaluating programs. However, any assessment can provide only one part of the picture. CMAS and CoAlt assessment results are not able to identify, let alone measure, every factor that contributes to the success or failure of a program. Assessment results can be most helpful if considered as one component of an evaluation system.

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### 3.2 School and District Reports

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In addition to individual Student Performance Reports, schools and districts receive the following reports:

| School and District Reports     |   |
|---------------------------------|---|
| All content areas               | Performance Level Summaries, Content Standards Rosters (school level only), District Summary of Schools (district level only), Participation Summary Report |
| CMAS Science                    | Item Analysis Reports   |
| CMAS Mathematics, ELA, and CSLA | Evidence Statement Analysis Reports   |

These reports summarize how students in the school or district performed and are described later in this section. School and district reports are not for public distribution and are only to be viewed by individuals authorized to access student level data.

**Note:** Sample reports included in this guide are for illustration purposes only. They are provided to show the basic layout and information on the reports. Sample reports do not include actual data from any administration.

### 3.2.1 Types of Scores on the Colorado School and District Reports

To understand each part of the Colorado assessment school and district reports, it is important to become familiar with the types of assessment scores that are included on the report. At varying levels, student performance is described by scale scores, performance levels, subclaim performance indicators, and percent earned. State, district, and school level information is provided in relevant sections of the reports so that performance at these levels can be compared. A dash (–) appears on the report when there are too few students in a school or district to maintain student privacy, therefore, results are not reported. Information about appropriate comparisons of scores appears in Section 3.3.

### 3.2.2 Scale Scores

A scale score is a numerical value that summarizes student performance. When the points a student earns on an assessment are placed on a common scale, the student's score becomes a scale score. Scale scores adjust for slight differences in difficulty on versions of the assessment that can vary slightly from student to student within a year (referred to as forms of the assessment) or between school years (referred to as administrations). Scale scores allow for comparisons of assessment scores, within a particular grade and subject area, across administrations. As an example, a student who receives a score of 700 on one form of the 7th grade mathematics assessment is expected to score a 700 on any form of the assessment. A student who scored 650 on the 8th grade science assessment in 2021 demonstrated the same level of mastery of concepts and skills as an 8th grade student who scored 650 on the science test in 2017. Scale scores cannot be used to compare student performance across grades (e.g., grade 4 to grade 7) or subject areas (e.g., science to mathematics).

Mathematics, ELA, and CSLA scale scores for the overall test range from 650 to 850. ELA and CSLA reports also provide separate scale scores for reading. Reading scale scores range from 110 to 190.

CMAS science scale scores range from 300 to 900. Science scale scores are reported for the overall test, content standards and Scientific Inquiry/Nature of Science (referred to as reporting categories), and item type.

CoAlt science scale scores are reported for the overall test and range from 0 to 250.

### 3.2.3 Performance Levels

Scale scores are used to determine a student's performance level for the overall assessment. Performance levels describe the concepts and skills students are expected to demonstrate within a certain range of scores at the overall assessment level (i.e., ELA, mathematics, or science). Descriptors for each grade level and content area are included in **Appendix B** of this document.

### CMAS Performance Levels

There are five cross-grade and content area performance levels for CMAS mathematics, ELA, and CSLA assessments. There are four cross-grade and content area performance levels for CMAS science assessments.

| CMAS Performance Levels                       |  |
|---|--|
| CMAS Mathematics, ELA, and CSLA               | CMAS Science                               |
| <b>Level 5:</b> Exceeded Expectations*        | <b>Level 4:</b> Exceeded Expectations*     |
| <b>Level 4:</b> Met Expectations*             | <b>Level 3:</b> Met Expectations*          |
| <b>Level 3:</b> Approached Expectations       | <b>Level 2:</b> Approached Expectations    |
| <b>Level 2:</b> Partially Met Expectations    | <b>Level 1:</b> Partially Met Expectations |
| <b>Level 1:</b> Did Not Yet Meet Expectations |  |

\*Students in the top two performance levels met or exceeded the expectations of the CAS and are considered on track to being college and career ready in the content areas of language arts, mathematics, or science. Students in the remaining performance levels may need academic support to successfully engage in further studies in the content area.

### CoAlt Performance Levels

CoAlt science assessments include four performance levels.

| CoAlt Performance Levels |
|--------------------------|
| Science                  |
| Advanced*                |
| At Target*               |
| Approaching Target       |
| Emerging                 |

\*The top two performance levels indicate that with appropriate supports, the student is prepared for further study in the content area.

### 3.2.4 Percentile Ranking

Because of the reduced tested population in spring 2021 for some tests, a percentile ranking is not available for the 2021 CMAS individual student performance reports. The percentile ranking shows how well the student performed in comparison to other students in the state. For example, a student in the 75th percentile performed better than 75 percent of students in the state.

### 3.2.5 Additional Performance Indicators

In addition to scale scores and performance levels, individual student performance reports include other indicators to help parents and educators understand their student's performance. These performance indicators are described below for each assessment.

#### CMAS Mathematics, ELA, and CSLA

CMAS mathematics, ELA, and CSLA student reports include subclaim performance graphics comparing the performance of the student, their district, and the state. ELA student reports include a reading scale score with a proficiency indicator based on the cut score for the overall test.

Subclaim performance on the assessments is reported as the percent of points earned for overall writing and for each of the writing, reading, and mathematics subclaims. Percent earned refers to the number of points earned out of the total number of points possible within a reporting category. The percent earned indicator can only be used to compare performance of the individual student to the average district and average state performance on the specific set of items being considered. Some groups of items may be more difficult than other sets of items, so unlike the scale score, the percent earned indicator cannot be compared across groups of items or across school years.

For the overall writing claim and each subclaim, a marker indicates the average performance on that claim or subclaim of students who just crossed into the Met Expectations performance level on the overall test.

#### CMAS Science

CMAS science reports include percent earned indicators for Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs)\* in elementary and middle school and for PGCs in high school. Percent earned refers to the number of points earned out of the total number of points possible within a reporting category. The percent earned indicator can only be used to compare performance of the individual student to the average district and average state performance on the specific set of items being considered. Some groups of items may be more difficult than other sets of items, so unlike the scale score, the percent earned indicator cannot be compared across groups of items or across school years.

For each PGC or GLE, a marker indicates the average performance on that subscore of students who just crossed into the Met Expectations performance level on the overall test.

\*PGCs and GLEs are described more fully in **Appendix C**.

#### CoAlt Science

CoAlt science reports include the percent of points earned. The percent of points earned refers to the number of points a student earned out of the total number of points possible within a reporting category. The percent of points earned indicator can only be used to compare performance of the individual student to the average state performance on the specific set of items being considered. Some groups of items may be more difficult than other sets of items; so, unlike the scale score, the percent of points earned indicator cannot be compared across groups of items or across school years. Percent of points earned are provided at the standard level. For science, the standards are physical science, life science, and earth systems science.

### 3.3 Appropriate Score Comparisons and Uses

The types of comparisons that can be made differ by the scores being compared. Some scores (e.g., performance levels and scale scores) allow for cross year comparisons, while some (e.g., percent earned) do not. In addition, the reliability of the comparisons or conclusions made vary depending on the size of the group (i.e., number of points contributing to a particular score or the number of students included in a comparison group) and representativeness of the testers. In general, the larger the group and representativeness of the testers, the more reliable the comparison or conclusions made will be. The smaller the group, the less reliable the comparison or conclusions made will be. High-stakes decisions should not be based on scores of small groups of students or on scores with a low number of points contributing to them. The following table provides some of the comparisons that typically can and cannot be made by particular types of scores.

**Score Comparisons**

|  | Compare an individual student's performance to a target group's performance (e.g., student to school, district, or state) within the same year | Compare a group's performance to another group's performance (e.g., one school to another school, a district to the state, students of one race/ethnicity group to students in another race/ethnicity group) within the same year | Compare an individual student's performance to a target group's performance (e.g., school, district, or state) across years | Compare a group's performance to the same group's performance across years | Compare to other scores of the same type in a different subject or grade |
|--|--|---|---|--|--|
| Performance Levels   | YES  | YES   | YES   | YES  | NO<br>(These are content and grade specific.)                            |
| Scale Scores   | YES  | YES   | YES   | YES  | NO<br>(These are content and grade specific.)                            |
| Percent Earned   | YES  | YES   | NO<br>(These are specific to the year of the assessment.)   | NO<br>(These are specific to the year of the assessment.)                  | NO<br>(These are specific to the PGC/GLE or subclaim.)                   |
| Relative Strengths and Weaknesses (Subscale Reporting Categories)* | YES  | YES   | NO<br>(These are specific to the year of the assessment.)   | NO<br>(These are specific to the year of the assessment.)                  | NO<br>(These are specific to the reporting category.)                    |

\*Potential relative strengths or weaknesses provide information about a student's performance in the reporting category compared to all students in the state. The potential relative strengths and weaknesses are based on the state average performance. They are not based on the standards and should not be interpreted in the same way as the overall performance levels.

Some assessment scores can be used to compare the performance of different demographic or program groups. All CMAS scores can be analyzed within the same grade and subject area for any single administration to determine which demographic or program group had the highest average scale score, the lowest percentage achieving Exceeded Expectations, the highest percentage achieving Approached Expectations, etc.

Other scores can be used to help evaluate the academic performance of demographic or program groups. For example, aggregations of reporting category data can help districts and schools identify areas of potential academic weakness for a group of students. This same methodology can be applied to an entire school or district.

In addition, all assessment scores can be compared to district and statewide performance within the same subject area for any administration.