Colorado

CMAS and CoAlt
Science and Social Studies

Interpretive Guide to Assessment Reports

A Guide for Parents and Educators

2014

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Section A
General Information for Parents and Educators

Background

The Colorado-created Colorado Academic Standards (CAS) were adopted by the State in science and social studies in December of 2009. The CAS outline the concepts and skills, including 21st century skills, that students need in order to be successful in the current grade as well as to make academic progress from year to year. The ultimate goal of the CAS is for all Colorado students to graduate college and career ready. School districts were required to fully implement the CAS in the 2013-14 school year.

In partnership with Colorado educators and Pearson, Inc., the Colorado Department of Education developed new assessments to evaluate student mastery of the CAS in science and social studies. These assessments were given for the first time in the spring of 2014 to students in grades 4 and 7 in social studies, and to students in grades 5 and 8 in science.

Two assessments address the CAS: the Colorado Measures of Academic Success (CMAS) and the Colorado Alternate Assessment (CoAlt). The vast majority of students participate in CMAS while a very small percentage of students with significant cognitive disabilities participate in CoAlt.

Colorado Measures of Academic Success (CMAS)

CMAS is Colorado's standards-based assessment designed to measure the Colorado Academic Standards (CAS) in the content areas of science and social studies. The purpose of the CMAS assessments is to indicate the degree to which students have mastered the CAS in science and social studies at the end of the tested grade level. CMAS results are intended to provide one measure of a student's academic progress relative to the CAS.

CMAS for science and social studies are Colorado's first state-wide computer-based assessments. The online assessments allow for new item types that were not possible under the prior paper-based system, such as science simulations. Online presentation also fosters increased student engagement. The assessments were designed to provide high level content area information (i.e., a science score or social studies score), as well as standard-specific scores. For example, social studies assessment reports include an

overall social studies score as well as subscores in the areas of history, geography, economics and civics. Districts and schools may use scores at this level to compare performance from year to year to monitor the effectiveness of their programs.

Colorado Alternate Assessment (CoAlt)

CoAlt is the standards-based assessment designed specifically for students with significant cognitive disabilities who are unable to participate in CMAS, even with accommodations. Students must meet eligibility requirements to take CoAlt. CoAlt assesses the performance expectations of the CAS for students with significant cognitive disabilities as expressed in the Extended Evidence Outcomes (EEOs) of the Colorado Academic Standards (CAS). The primary purpose of the assessment program is to determine the level at which Colorado students with significant cognitive disabilities meet the EEOs of the CAS in the content areas of science and social studies at the end of the tested grade level.

CoAlt assessments are administered in a one-on-one setting between teachers and students. Teachers use CoAlt scoring rubrics to evaluate student responses before submitting performance results.

Confidentiality and Reporting of Results

The results of individual student performance on CMAS and CoAlt are confidential and may be released only in accordance with the Family Educational Rights and Privacy Act of 1974 (20 U.S.C. Section 1232g). Aggregated student performance data representing 16 or more students is made available to the public. Aggregated reports do not contain the names of individual students or teachers.

Purpose of this Guide

This guide provides information on the reports provided for CMAS and CoAlt at the individual student, school and district levels. Sections B and C can be shared with parents. They display and explain elements of the CMAS and CoAlt science and social studies student performance reports to assist parents in understanding their child's test results. Sections D and E display and explain elements of the CMAS and CoAlt science and social studies school and district reports.

Section B

A Parent and Educator Guide to Understanding the Colorado Measures of Academic Success (CMAS) Student Performance Report

Program Overview

Colorado Measures of Academic Success (CMAS) are Colorado's standards-based assessments designed to measure the Colorado Academic Standards (CAS) in the content areas of science and social studies. The CAS contain the concepts and skills students need to learn in order to be successful in the current grade and to make academic progress from year to year. CMAS science assessments are given to students in grades 5 and 8 while CMAS social studies assessments are given in grades 4 and 7 each spring. **The purpose of the CMAS is to indicate the degree to which students have mastered the CAS in science and social studies at the end of the tested grade level. CMAS results are intended to provide one measure of a student's academic progress relative to the CAS.**

CMAS for science and social studies are Colorado's first state-wide computer-based assessments. The online nature of the assessments allows for new item types that were not possible under the prior paper-based system, such as science simulations. Online assessments also foster increased student engagement. The assessments were designed to provide high level content area information (i.e., a science score or social studies score) as well as standard specific scores (i.e., score for history, geography, economics and civics).

A Student Performance Report is created for each student who takes a CMAS assessment so that parents can understand their child's command over the Colorado Academic Standards in the assessed grade level and content area. This section of the guide explains the elements of the Student Performance Report.

Types of Scores on the CMAS Student Performance Report

To understand each part of the Student Performance Report, 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 and percent correct. State, district and school level information is also provided in relevant

sections of the Student Performance Report to help parents understand how their child's performance compares to other students.

Scale Scores

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 475 on one form of the 7th grade social studies assessment is expected to score a 475 on any form of the assessment. Scale scores maintain their meaning and can be compared across years. A student who scores 650 on 8th grade science in 2015 will demonstrate the same level of mastery of concepts and skills as an 8th grade science student who scores 650 in 2014. For CMAS science and social studies, the 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 social studies).

Scale scores for the CMAS science and social studies assessments range from 300 to 900. Scale Scores are reported for the overall test, content standards and Scientific Inquiry/Nature of Science (referred to as "Reporting Categories"), and Item type.

Performance Levels

Scale Scores are used to determine a student's performance level for the overall assessment. Each performance level describes a range of scores at the overall assessment level (i.e., science or social studies). The range of scores in each performance level were recommended by a group of Colorado educators and adopted by the Colorado State Board of Education. Performance levels describe the concepts and skills that students are expected to demonstrate at each of the levels. The grade level concepts and skills related to each performance level are listed on Page 4 of the Student Performance Report. The four cross-grade and content area performance levels are Distinguished Command, Strong Command, Moderate Command, and Limited Command. Performance Level Descriptors for each grade level and content area are included in Appendix A of this document.

Students in the top two performance levels, Distinguished Command and Strong Command, are considered on track to being college and career ready in the content area of science or social studies. Although the Moderate Command or Limited Command performance levels indicate students in these levels may need academic support to successfully engage in further studies in the content area, it will be important for conversations to occur between parents and educators to determine whether the

school as a whole has made a complete transition to the new standards. Schools that have not fully transitioned to the new standards may have a number of students who score at the lowest two levels. A focus on the school level science or social studies program may be appropriate.

Percent Correct

Percent correct refers to the number of points a student earned out of the total number of points possible within a reporting category. The percent correct 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 correct indicator cannot be compared across groups of items or across school years. Percent correct scores are provided for Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs). PGCs and GLEs are described more fully later in this guide.

Sample CMAS Student Performance Report

A sample grade 8 Student Performance Report is displayed at the end of this section on pages B-9 to B-12. Each page of the sample report is included individually. The sample report includes the same type of information that is included on all of the science and social studies reports. The information below describes each part of the report. To learn more about each part of the Student Performance Report, match the white letters in black circles from the sample report to the information included with the corresponding letters on the following pages.

General Information (Refer to Page 1 of the Student Performance Report)

A. Identification Information
The top of the Student Performance Report lists your child's name, part of the state student identification number (SASID), birthdate, school and district.

B. Test Date
The season and year your child took the assessment is indicated.

C. Subject Area
The subject area of your child's assessment is identified (either science or social studies).

D. Grade Level
The grade level of your child's assessment is indicated.

Overall Assessment Scores (Refer to Page 1 of the Student Performance Report)

E. Explanation of Overall Performance

A brief explanation of the overall assessment results is given to help you understand the information provided in the box below the explanation.

F. Your Child's Overall Scale Score and Performance Level

Your child's overall scale score (the number between 300 and 900) and performance level (Distinguished Command, Strong Command, Moderate Command or Limited Command) are provided. The scale score and performance level included in this part of the report represent your child's overall performance on the assessment in the content area (science or social studies), Grade level, and content area specific performance level descriptors providing the concepts and skills students are typically able to demonstrate at each level may be found on the last page of the report.

G. Graphical Representation of Overall Performance: Scale Score and Performance Level by Student, School, and District

Your child's scale score is indicated by a large diamond on the graph. The arrows to the left and right of the diamond indicate the range of scores your child would likely receive if the assessment was taken multiple times.

The average scale scores at the school, district, and state levels are identified to the left of the graph and are indicated by smaller diamonds on the graph. By comparing the location of the diamonds, you can see how your child performed in comparison to the average student in their school, district, or the state. If your child's score diamond is to the right of the school, district or state average diamond, then your child performed better than that group's average. If your child's diamond is to the left of the school, district or state diamond, then on average, that group performed better than your child.

The dotted lines on the graph show the lowest scores needed to achieve Moderate Command, Strong Command, and Distinguished Command performance levels. The scale scores representing each of those scores are indicated on the bottom of the graph.

SubscalePerformance (Refer to Page 1 of the Student Performance Report)

H. Explanation of Subscale Performance

In this part of the report, your child's performance is presented by individual

reporting categories. Information to help you understand the graphical representation in this section is included.

I. Reporting Category Descriptions

Reporting categories include the standards for social studies (history, geography, economics and civics) and for science (physical science, life science, and earth systems science). Science also includes Scientific Investigation and the Nature of Science as a reporting category. Descriptions of the reporting categories from the Colorado Academic Standards (CAS) are included in this section of the report.

J. Subscale Scores

Subscale scores indicate how your child performed in each reporting category. Like the overall science and social studies scale scores, subscale scores range from 300 to 900 and can be compared across school years. Average subscale scores are also provided for your child's school and district.

K. Graphical Representation of Subscale Performance by Student, School, and District

The graphical representation of subscale performance shows how your child performed in each reporting category. Your child's performance is represented by a large diamond on the graph. The arrows around your child's diamond show the range of scores that your child would likely receive if the assessment was taken multiple times.

The graphical representation also shows how your child performed in comparison to other students in your child's school, district, and the state. Performance of students in the school and district are represented by smaller diamonds. If your child's score diamond is to the right of the school or district average diamond, then your child's scale score was higher than the school or district average scale score. If your child's diamond is to the left, then your child's scale score was lower than the school or district average.

The shaded areas of the graph represent the performance of about 70% of students in the state. If your child's score diamond is to the right of the shaded area, your child's performance is considered relatively strong in that area in comparison to other students in the state. If your child's score diamond is to the left of the shaded area, your child's performance is considered relatively weak in that area in comparison to other students in the state. These categories are based on the state performance for the current year and can change from year to year.

L. Document Process Number

The document number located in the bottom-right corner of the report is a unique

number that is assigned to your child's record by the testing contractor.

Performance by Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs) (Refer to Page 2 of the Student Performance Report)

M. Explanation

Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs) are important parts of the Colorado Academic Standards. PGCs represent the concepts and skills students need to master in order to be college and career ready by the time of graduation. GLEs are grade-specific expectations that indicate that students are making progress toward the PGCs. This section of the report describes performance with percent correct for PGCs and GLEs.

N. Graph Key

The graph key includes the explanatory text for the bars in the Percent Correct graph: student's performance, district average and state average.

O. Standard, PGC, and GLE

Descriptions of the Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs) that were included on the assessment are listed under each standard.

P. Points possible

This number shows the total points possible for each Prepared Graduate Competency (PGC) and Grade Level Expectation (GLE) on the assessment.

Q. Graphical Representation of Percent Correct

The graph shows the percentage of items that were answered correctly out of the total number of items for each Prepared Graduate Competency (PGC) and Grade Level Expectation (GLE). When looking at the shaded bars in the graph, you can compare your child's performance to the average district and state performance. Keep in mind that there are relatively few points associated with each PGC or GLE. A student's bar can look much longer or much shorter based on getting a single correct or incorrect item-response.

The graph for the Grade Level Expectation (GLE) is blank when Prepared Graduate Competencies (PGCs) have only one associated Grade Level Expectation (GLE) because the information is the same for both the GLE and PGC.

Remember, percent correct score information cannot be compared across PGCs, GLEs, or years.

PerformancebyItemType (Refer to Page 3 of the Student Performance Report)

CMAS assessments include selected-response and constructed-response items. Selected-response items require students to choose the correct answer(s) from options provided. Sometimes these are referred to as multiple choice items. In the CMAS computer-based assessments, these can also include technology-enhanced items referred to as drag-and-drop and hot spot. Constructed-response items require students to develop their own answers to questions.

R. Selected-Response Scale Score

Your child's scale score for selected-response items is shown. The arrows to the left and right of diamond indicate the range of scores your child would likely receive if the assessment was taken multiple times. You can compare your child's scale score with the average scale scores for selected-response items for your child's school, district, and the state. Your child's school and district can compare next year's groups of students to this year's students by looking at selected-response scale scores. This information can be used to support school and district program and instructional improvement decisions.

S. Constructed-Response Scale Score

Your child's scale score for constructed-response items is shown. The arrows to the left and right of diamond indicate the range of scores your child would likely receive if the assessment was taken multiple times. You can compare your child's scale score with the average scale scores for constructed-response items for your child's school, district, and the state. Your child's school and district can look at next year's groups of students and compare them to this year on the constructed-response scale score. This information can be used to support schools and district program and instructional improvement decisions.

T. Graphical Representation of Selected-Response and Constructed-Response Scale Scores

A graphical representation of your child's scale score is provided. The large diamond on the graph represents your child's scale score. The arrows around your child's score diamond show the range of scores that your child would likely receive if the assessment was taken multiple times. The smaller diamonds represent the average scale scores of your child's school, district, and the state. If your child's score diamond is to the right of the school, district or state average diamond, then your child performed better than that group's average. If your child's diamond is to the left of the school, district or state diamond, then on average, that group performed better than your child.

Performance Level Descriptions (Refer to Page 4 of the Student Performance Report)

U. Performance Level Descriptions

Specific grade level and content area descriptions have been developed for each of the four CMAS performance levels:

- Distinguished Command
- Strong Command
- Moderate Command
- Limited Command

Your child's report will reflect the performance level descriptions specific to the assessed grade level and content area. These performance level descriptors describe the specific concepts and skills that students in each performance level can typically demonstrate for your child's assessed grade level and content area. Performance level descriptors for each grade level and content area are included in Appendix A of this document.

Students in the top two performance levels, Distinguished Command and Strong Command, are considered on track for being college and career ready in the content area of science or social studies.

Sample CMAS Student Performance Report – Page 1

Student Performance Report

Colorado Measures of Academic Success

Student: **FIRSTNAME LASTNAME** (A)

SASID: *****6789 Birthdate: 05/23/2003
School: **EXAMPLE MS (1234)**
District: **EXAMPLE District (1234)**

(B) Spring 2014

Science (C) (D) **Grade 8**

This score report provides information about your student's performance on the Colorado Measures of Academic Success (CMAS) Science Assessment.

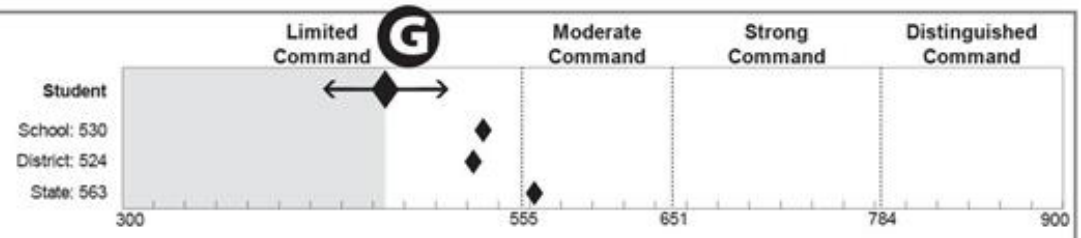
(E)

- Your student's performance is represented by a scale score. Scores are placed on a scale so that student performance can be compared across years.
- School, district and state averages are provided so that you can compare your student's performance to the performance of others.
- Scores are represented by diamonds. The arrows around the student's diamond show the range of scores that your student would likely receive if the assessment was taken multiple times.
- Dotted lines show where the range of scores is divided into performance levels. Descriptions of the performance levels can be found at the end of this report.

(F)

Science

Your Child's Score
468
Limited Command



(G)

The Colorado Academic Standards include expectations for student performance. Your child demonstrates a limited command of 8th grade level concepts and skills in science.

Subscale Performance

(H)

- The shaded areas in the table below represent approximately 70% of student scores across the state.
- Scores outside of the shaded area indicate a weakness or a strength compared to the state.

(I) Reporting Category Description	(J) Subscale Score		Potential Relative Weakness / Typical / Potential Relative Strength (300 – 900)
Physical Science			481 – 715
Students know and understand common properties, forms, and changes in matter and energy.	366	Student	
	533	School	
	502	District	
Life Science			477 – 716
Students know and understand the characteristics and structure of living things, the processes of life, and how living things interact with each other and their environment.	479	Student	
	511	School	
	532	District	
Earth Systems Science			481 – 717
Students know and understand the processes and interactions of Earth's systems and the structure and dynamics of Earth and other objects in space.	516	Student	
	524	School	
	521	District	
Scientific Investigation and the Nature of Science			480 – 718
Students understand the processes of scientific investigation and design, conducting and evaluating, as well as communicating about, such investigations. Students understand that the nature of science involves a particular way of building knowledge and making meaning of the natural world.	488	Student	
	473	School	
	455	District	

(K)

Purpose

This report describes your child's mastery of the Colorado Academic Standards in science.

More information on the CMAS assessment program: www.cde.state.co.us/assessment (L)

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Colorado Measures of Academic Success

Science

Performance by Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs)

- Within each standard, PGCs are identified. PGCs represent the concepts and skills that students need to master in order to be postsecondary and workforce ready.
- GLEs are grade-specific expectations that indicate a student is making progress toward the PGCs.
- The figure below shows the percentage of items that your student answered correctly for each PGC represented in the grade. If there is more than one GLE for a PGC, the percentage of items your student answered correctly by GLE is also provided.

Student's performance
District average
State average

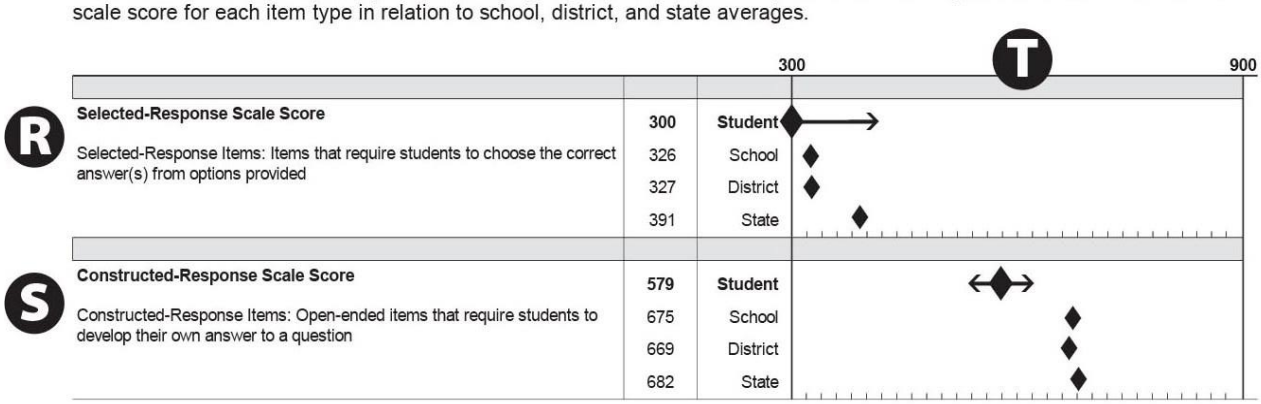
Standard, PGC, and GLE	Points Possible	Percent Correct* (0% 25% 50% 75% 100%)
Physical Science		
PGC 1: Observe, explain, and predict natural phenomena governed by Newton's laws of motion, acknowledging the limitations of their application to very small or very fast objects	7	0
GLE 1: Identify and calculate the direction and magnitude of forces that act on an object, and explain the results in the object's change of motion		
PGC 2: Apply an understanding that energy exists in various forms, and its transformation and conservation occur in processes that are predictable and measurable	14	14
GLE 2: There are different forms of energy, and those forms of energy can be changed from one form to another – but total energy is conserved	7	14
GLE 4: Recognize that waves such as electromagnetic, sound, seismic, and water have common characteristics and unique properties	7	14
PGC 3: Apply an understanding of atomic and molecular structure to explain the properties of matter, and predict outcomes of chemical and nuclear reactions	7	14
GLE 3: Distinguish between physical and chemical changes, noting that mass is conserved during any change	7	14
Life Science		
PGC 1: Explain and illustrate with examples how living systems interact with the biotic and abiotic environment	11	9
GLE 1: Human activities can deliberately or inadvertently alter ecosystems and their resiliency		
PGC 2: Analyze how various organisms grow, develop, and differentiate during their lifetimes based on an interplay between genetics and their environment	13	23
GLE 2: Organisms reproduce and transmit genetic information (genes) to offspring, which influences individuals' traits in the next generation		
Earth Systems Science		
PGC 1: Evaluate evidence that Earth's geosphere, atmosphere, hydrosphere, and biosphere interact as a complex system	13	23
GLE 1: Weather is a result of complex interactions of Earth's atmosphere, land and water, that are driven by energy from the sun, and can be predicted and described through complex models	7	43
GLE 2: Earth has a variety of climates defined by average temperature, precipitation, humidity, air pressure, and wind that have changed over time in a particular location	6	0
PGC 2: Describe and interpret how Earth's geologic history and place in space are relevant to our understanding of the processes that have shaped our planet	14	29
GLE 3: The solar system is comprised of various objects that orbit the Sun and are classified based on their characteristics	7	29
GLE 4: The relative positions and motions of Earth, Moon, and Sun can be used to explain observable effects such as seasons, eclipses, and Moon phases	7	29

* Percent correct scores cannot be compared across years because individual items change from year to year. They also cannot be compared across GLEs and PGCs because the number of items and the difficulty of items may not be the same.

Sample CMAS Student Performance Report – Page 3

Performance by Item Type

CMAS assessments are made up of selected-response and constructed-response items. The figure below shows the student's scale score for each item type in relation to school, district, and state averages.



Science Performance Level Descriptions

Students demonstrate mastery of science concepts and 21st century skills aligned to the Colorado Academic Standards at various performance levels. The performance level descriptors are organized in a manner that assumes students demonstrating higher levels of command have mastered the concepts and skills within the lower levels. For example, a student at moderate command also masters the concepts and skills of limited command.

At Distinguished Command, a student typically can

- design an investigation to predict the movement of an object by examining the forces applied to it;
- use models to predict amounts of energy transferred;
- analyze data and models to support claims about genetic reproduction and traits of individuals;
- use observations and models to develop and communicate a weather prediction; and
- evaluate scientific theories and investigations that explain how the solar system was formed.

At Strong Command, a student typically can

- use mathematical expressions and appropriate information from sources to describe the movement of an object;
- analyze different forms of energy and energy transfer using tools;
- construct an experiment to show mass is conserved;
- investigate the characteristics and behaviors of waves using models, technology, and basic rules of waves;
- analyze human impact on local ecosystems;
- use mathematics to predict the physical traits and genetic makeup of offspring; and
- relate tides, eclipses, lunar phases, and seasons to the motion and positions of the Sun, Earth, and the Moon, using the basic rules of the solar system.

At Moderate Command, a student typically can

- analyze speed and acceleration of moving objects;
- describe different forms of energy and energy transfer;
- use a variety of sources, including popular media and peer-generated explanations, to investigate and describe an environmental issue;
- analyze data and historical research for various weather conditions and compare to historical data for that date and location; and
- investigate and ask testable questions about Earth's different climates using various techniques.

At Limited Command, a student typically can

- distinguish between physical and chemical changes;
- recognize the relationship between pitch and frequency in sound;
- identify human activities that alter the ecosystem;
- recognize that genetic information is passed from one generation to the next;
- compare basic and severe weather conditions and develop an action plan for safety; and
- use tools and simulations to explore the solar system.

For more information about the standards included in this assessment, please visit the Colorado Department of Education s website at www.cde.state.co.us/standardsandinstruction

Section C

A Parent and Educator Guide to Understanding the Colorado Alternate Assessment (CoAlt) Student Performance Report

Program Overview

CoAlt is the standards-based assessment designed specifically for students with significant cognitive disabilities who are unable to participate in CMAS, even with accommodations. Students must meet participation requirements to take CoAlt. CoAlt assesses the performance expectations of the CAS for students with significant cognitive disabilities as expressed in the Extended Evidence Outcomes (EEOs) of the Colorado Academic Standards (CAS). The primary purpose of the assessment program is to determine the level at which Colorado students with significant cognitive disabilities meet the EEOs of the CAS in the content areas of science and social studies at the tested grade level. CoAlt results are intended to provide one measure of a student's academic progress relative to the EEOs of the CAS. CoAlt science assessments are given to students in grades 5 and 8, while CoAlt social studies assessments are given in grades 4 and 7 each spring

CoAlt assessments are administered in a one-on-one setting between teachers and students. Teachers use CoAlt scoring rubrics to evaluate student responses before submitting performance results.

A Student Performance Report is created for each student who takes a CoAlt assessment. This section of the guide explains the elements of the Student Performance Report.

Types of Scores on the CoAlt Student Performance Report

To understand each part of the Student Performance Report, it is important to become familiar with the types of assessment scores that are included on the report. Student performance is described by a scale score, performance level and percent of points earned. State level information is also provided in relevant sections of the Student Performance Report to help parents understand how their child's performance compares to other students.

Scale Scores

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). The scale score allows for a comparison of assessment scores, within a particular grade and subject area, across administrations. As an example, a student who receives a score of 125 on one form of the 7th grade social studies assessment is expected to score a 125 on any form of the assessment. Scale scores maintain their meaning and can be compared across years. For example, a student who scores 125 on 8th grade science in 2015 will demonstrate the same level of mastery of concepts and skills as an 8th grade science student who scores 125 in 2014. For CoAlt science and social studies, the scale scores cannot be used to compare students' performance across grades (ex. grade 4 to grade 7) or subject areas (ex. science to social studies).

Scale scores for the CoAlt science and social studies assessments range from 0 to 250. Scale Scores are reported for the overall test.

Performance Levels

Scale Scores are used to determine a student's performance level for the overall assessment. Each performance level describes a range of scores at the overall assessment level (i.e., science or social studies). The range of scores in each performance level were recommended by a group of Colorado educators and adopted by the Colorado State Board of Education. Performance levels describe the concepts and skills students are expected to demonstrate at each of the levels. The grade level concepts and skills related to each performance level are listed on Page 2 of the Student Performance Report. The four cross-grade and content area performance levels are Novice, Developing, Emerging, and Exploring. Performance Level Descriptors are included in Appendix B.

Students who do not respond to any items on the assessment receive an inconclusive designation.

The top two Performance Levels indicate that with the appropriate supports, the student is prepared for further study in the content area.

Percent of Points Earned

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 social studies, the standards are history, geography, economics, and civics. For science, the standards are physical science, life science and earth systems science.

Sample CoAlt Student Performance Report

A sample grade 7 social studies Student Performance Report is displayed at the end of this section on pages C-6 to C-7. The sample report includes the same type of information that is included on all of the science and social studies reports. The information below describes each part of the report. To learn more about each part of the Student Performance Report, match the white letters in black circles from the sample report to the information included with the corresponding letters on the following pages.

General Information (Refer to Page 1 of the Student Performance Report)

A. Identification Information
The top of the Student Performance Report lists your child's name, part of the state student identification number (SASID), birthdate, school and district.

B. Test Date
The season and year your child took the assessment is indicated.

C. Subject Area
The subject area of your child's assessment is identified (either science or social studies).

D. Grade Level
The grade level of your child's assessment is indicated.

Overall Assessment Scores (Refer to Page 1 of the Student Performance Report)

E. Explanation of Overall Performance
A brief explanation of the overall assessment results is given to help you

understand the information provided in the box below the explanation.

F. Your Child's Overall Scale Score and Performance Level

Your child's overall scale score (the number between 0 and 250) and performance level (Exploring, Emerging, Developing or Novice) are provided. An inconclusive designation is given to students who did not respond to any items on the assessment. The scale score and performance level included in this part of the report represent your child's overall performance on the assessment in the content area (science or social studies). Grade level and content area-specific performance level descriptors providing the concepts and skills students are typically able to demonstrate at each level may be found on the second page of the report.

G. Graphical Representation of Overall Performance: Scale Score and Performance Level by Student, School, and District

Your child's scale score is indicated by a large diamond on the graph. The arrows to the left and right of the diamond indicate the range of scores your child would likely receive if the assessment was taken multiple times.

The average scale score at the state level is identified to the left of the graph and is indicated by a smaller diamond on the graph. By comparing the location of the diamonds, you can see how your child performed in comparison to the average student at the state level. If your child's score diamond is to the right of the state average diamond, then your child performed better than the state average. If your child's diamond is to the left of the state diamond, then on average, the state performed better than your child.

The dotted lines on the graph show the lowest scores needed to achieve Emerging, Developing, and Novice performance levels. The scale scores representing each of those scores are indicated on the bottom of the graph.

Content Standard Performance (Refer to Page 1 of the Student Performance Report)

H. Content Standard Descriptions

This section of the report provides descriptions for social studies (history, geography, economics and civics) and for science (physical science, life science, and earth systems science).

I. Points Earned

Points earned indicates how many points your child earned for each content standard.

J. Points Possible

Points possible indicates the total number of points possible for each content standard.

K. Graphical Representation of Subscale Performance by Student, School, and District

The graphical representation of content standard performance shows how your child performed in each standard. Your child's performance is represented by a large diamond on the graph. The arrows around your child's diamond show the range of scores that your child would likely receive if the assessment was taken multiple times.

The graphical representation also shows how your child performed in comparison to other students in the state. Performance of students in the state is represented by smaller diamonds. If your child's score diamond is to the right of the state average diamond, then your child's percent of points earned was higher than the state average. If your child's diamond is to the left, then your child's percent of points earned was lower than the state average.

L. Graph Key

The graph key indicates the bar color for your student's score and the average score for students in the state.

M. Document Process Number

The document number found in the bottom-left corner of the report is a unique number, per administration, that is assigned to your child's record by the testing contractor.

Performance Level Descriptions (Refer to Page 2 of the Student Performance Report)

N. Performance Level Descriptions

Specific grade level and content area descriptions have been developed for each of the four CoAlt performance levels:

- Novice
- Developing
- Emerging
- Exploring

Your child's report will reflect the performance level descriptions specific to the assessed grade level and content area. These performance level descriptors describe the specific concepts and skills that students in each performance level can typically demonstrate for your child's assessed grade level and content area. Performance level descriptors are located in Appendix B.

Sample CoAlt Student Performance Report – Page 1

Student Performance Report

Colorado Alternate Assessment

Student: **FIRSTNAME LASTNAME** (A)

SASID: *****6789 Birthdate: **06/06/2002**
School: **EXAMPLE ES (1234)**
District: **EXAMPLE ISD (1234)**

(B) **Spring 2014**

Social Studies (C) (D) **Grade 7**

This score report provides information about your student's performance on the Colorado Alternate (CoAlt) Social Studies Assessment.

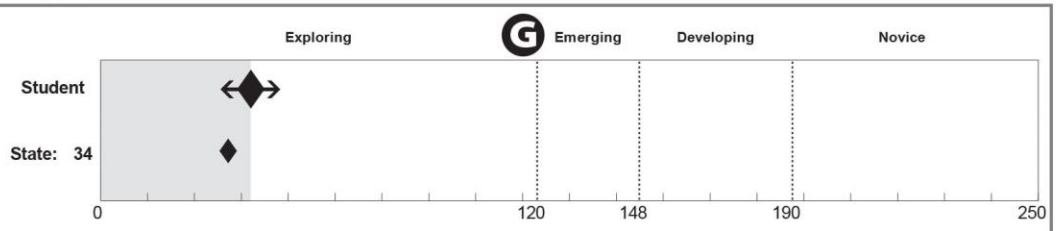
- Your student's performance is represented by a scale score. Scores are placed on a scale so that student performance can be compared across years.
- State averages are provided so that you can compare your student's performance to the performance of others. (E)
- Scores are represented by diamonds. The arrows around the student's diamond show the range of scores that your student would likely receive if the assessment was taken multiple times.
- Dotted lines show where the range of scores is divided into performance levels. Descriptions of the performance levels can be found at the end of this report.

Social Studies

Your Child's Score

(F) **40**

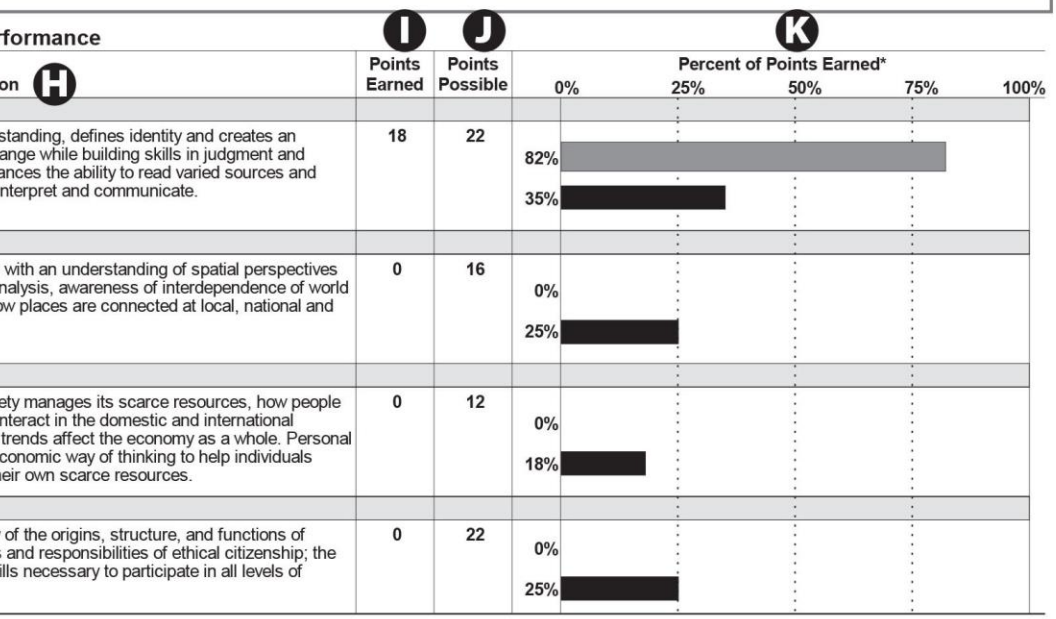
Exploring Command



The Colorado Academic Standards include expectations for student performance. Your child demonstrate an exploring command of 7th grade level concepts and skills in Social Studies.

Content Standard Performance

Content Standard Description (H)	(I) Points Earned	(J) Points Possible	(K) Percent of Points Earned*
History			
History develops moral understanding, defines identity and creates an appreciation of how things change while building skills in judgment and decision-making. History enhances the ability to read varied sources and develop the skills to analyze, interpret and communicate.	18	22	82% 35%
Geography			
Geography provides students with an understanding of spatial perspectives and technologies for spatial analysis, awareness of interdependence of world regions and resources and how places are connected at local, national and global scales.	0	16	0% 25%
Economics			
Economics teaches how society manages its scarce resources, how people make decisions, how people interact in the domestic and international markets, and how forces and trends affect the economy as a whole. Personal financial literacy applies the economic way of thinking to help individuals understand how to manage their own scarce resources.	0	12	0% 18%
Civics			
Civics teaches the complexity of the origins, structure, and functions of governments; the rights, roles and responsibilities of ethical citizenship; the importance of law; and the skills necessary to participate in all levels of government.	0	22	0% 25%



*The percent of points earned cannot be compared across years because individual items change from year to year. They also cannot be compared across Standards because the number of items and the difficulty of items may not be the same.

Student's Score State Average (L)

Purpose

This report describes your child's mastery of the Extended Evidence Outcomes of the Colorado Academic Standards in Social Studies.

More information on the CoAlt assessment program: www.cde.state.co.us/assessment/coaltassess

(M) 08132014-ZCOALT99-1195-7890 - 0002137

Social Studies Performance Level Descriptions (N)

Students demonstrate social studies concepts and skills aligned to the Grade Level Expectations and Extended Evidence Outcomes contained in the Colorado Academic Standards.

At Novice Level, with appropriate support, a student can typically:

- Determine appropriate questions to ask in order to learn about specific historical events
- Compare information from multiple sources related to a significant historical event
- Identify the best source of information regarding a historical event and use a historical event to match a source with a particular perspective
- Match natural resources with ancient communities and their dwellings
- Use a map to determine where to go for a specific purpose and to determine the direction in which to travel from one point to another
- Estimate the total purchase price of an item with sales tax included
- Recognize how supply and demand can affect price
- Recognize rights and responsibilities of citizens

At Developing Level, with appropriate support, a student can typically:

- Match artifacts with their ancient culture or location within the Eastern Hemisphere
- Select the appropriate source of information to answer questions surrounding historical events
- Recognize that sources have different purposes
- Use map symbols and directionality words to locate places on a map
- Recognize that communities were built near natural resources
- Identify the environmental resources that influenced settlement in the Eastern Hemisphere
- Recognize that the total purchase price of an item will increase because of sales tax
- Identify community needs or services that are paid for by taxes
- Differentiate between laws and rules
- Identify the positive and negative consequences of obeying laws and rules

At Emerging Level, with appropriate support, a student can typically:

- Recognize significant artifacts related to ancient civilizations of the Eastern Hemisphere
- Select the appropriate source of information to answer social studies questions
- Identify the appropriate questions to ask in order to learn more about an event or era
- Use symbols to identify a location on a map
- Identify reasons goods and services might go on sale
- Identify ways in which countries and nations resolve differences
- Recognize local laws, state laws, and federal laws and identify examples of following these laws/rules

At Exploring Level, with explicit modeling, a student can typically:

- Recognize artifacts
- Identify part(s) of a map (e.g., title, key, compass rose, scale)
- Recognize there are different types of informational resources
- Recognize that areas have different natural resources
- Recognize that many items have a sales tax
- Recognize that all countries have laws

An Inconclusive designation is given to students who did not respond to any items on the assessment.

For more information about the standards included in this assessment, please visit the Colorado Department of Education's website at **www.cde.state.co.us/standardsandinstruction**

Section D

An Educator Guide to Understanding the Colorado Measures of Academic Success School and District Reports

Program Overview

CMAS are Colorado's standards-based assessments designed to measure the Colorado Academic Standards (CAS) in the content areas of science and social studies. The CAS contain the concepts and skills students need to learn in order to be successful in the current grade and to make academic progress from year to year. CMAS science assessments are given to students in grades 5 and 8 while CMAS social studies assessments are given in grades 4 and 7 each spring.

The science and social studies CMAS assessments are Colorado's first state-wide computer-based assessments. The online assessments allows for new item types that were not possible under the prior paper-based system such as science simulations. Online assessments also foster increased student engagement. The assessments were designed to provide high level content area information (i.e., a science score or social studies score) as well as standard specific scores (i.e., scores for history, geography, civics and economics).

Purpose and Use of CMAS Results

- Report on the status and progress of student achievement
- Make judgments about student learning relative to standards
- Gauge school, district, and state year-to-year progress
- Improvement planning (e.g., prioritize professional learning and resource decisions, consider program alignment with academic standards, reflect on effectiveness of school initiatives)

Standardized assessments are a valuable tool for evaluating programs. However, any assessment can furnish only one part of the picture. CMAS science and social studies 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.

CMAS School and District Reports

In addition to individual Student Performance Reports, schools and districts receive Performance Level Summaries, Content Standards Rosters and Item Analysis Summaries. These reports summarize how students in the school or district performed and are described later in this section.

Note that the sample reports included in this guide are for illustration purposes only. They are provided to show the basic layout of the reports and the information they provide.

Types of Scores on the CMAS School and District Reports

To understand each part of the CMAS 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 and percent correct. State, district and school level information is provided in relevant sections of the reports so that performance at these levels can be compared.

Scale Scores

When the points a student earns on a test 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). The scale score allows for a comparison of assessment scores, within a particular grade and subject area, across administrations. As an example, a student who receives a score of 475 on one form of the 7th grade social studies assessment is expected to score a 475 on any form of the assessment. Scale scores maintain their meaning and can be compared across years. A student who scores 650 on 8th grade science in 2015 will demonstrate the same level of mastery of concepts and skills as an 8th grade science student who scores 650 in 2014. For CMAS science and social studies, the scale scores cannot be used to compare students' performance across grades (e.g., grade 4 to grade 7) or subject areas (e.g., science to social studies).

Scale scores for the CMAS science and social studies assessments range from 300 to 900. Scale Scores are reported for the overall assessment, content standards and Scientific Inquiry/Nature of Science (referred to as "Reporting Categories") and Item type.

Performance Levels

Scale Scores are used to determine a student's performance level for the overall

assessment. Each performance level describes a range of scores at the overall assessment level (i.e., science or social studies). The range of scores in each performance level were recommended by a group of Colorado educators and adopted by the Colorado State Board of Education. The performance levels describe the concepts and skills students are expected to demonstrate at each of the levels. The grade level concepts and skills related to each performance level are listed on Page 4 of the Student Performance Report. The four cross grade and content area performance levels are Distinguished Command, Strong Command, Moderate Command and Limited Command. Performance level descriptors for each grade level and content area are included in Appendix A.

Students in the top two performance levels, Distinguished Command and Strong Command, are considered on track to being college and career ready in the content area of science or social studies. Although the Moderate Command and Limited Command performance levels indicate students in performing in these levels may need academic support to successfully engage in further studies in the content area, it will be important for conversations to occur between parents and educators to determine whether the school as a whole has made a complete transition to the new standards. Schools that have not fully transitioned to the new standards may have a number of students who score at the lowest two levels. A focus on the school level science or social studies program may be appropriate.

Percent Correct

Percent correct refers to the number of points a student earned out of the total number of points possible within a reporting category. The percent correct 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 correct indicator cannot be compared across groups of items or across school years. Percent correct scores are provided for Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs).

Percent correct information can be useful in helping schools identify areas in which further diagnosis is warranted. As with all assessments given at a single point in time, the data generated from this snapshot should be used in conjunction with other evaluations of performance to provide an in-depth portrait of student achievement. Once an area of possible weakness has been identified, supplementary data should be gathered to further define which instructional intervention would be most effective.

Percent correct will also be used on the Item Analysis Summary reports. For these reports, the percent of students getting an item correct by school, district and state will be provided. In this case, the percent correct will be an indicator of how difficult students at the school, district and school levels found specific items

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, some (e.g., percent correct) do not. In addition, the reliability of the comparisons or conclusions made vary depending on the size of the group (e.g., number of points contributing to a particular score or the number of students included in a comparison group). In general, the larger the group is 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 can and cannot be made by particular types of scores.

Score Comparisons

	Compare an individual student's performance to a target group's performance (ex. student to school, district, or state) within the same year	Compare a group's performance to another group's performance (ex. 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 (ex. 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 (These are content and grade specific)
Scale Scores	YES	YES	YES	YES	NO (These are content and grade specific)
Percent Correct	YES	YES	NO (These are specific to the year of the assessment.)	NO (These are specific to the year of the assessment.)	NO (These are specific to the PGC/GLE.)
Relative Strengths and Weaknesses (Subscale Reporting Categories)*	YES	YES	NO (These are specific to the year of the assessment.)	NO (These are specific to the year of the assessment.)	NO (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 for science (grades 5 and 8) and social studies (grades 4 and 7) 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 Strong Command, the highest percentage achieving Moderate Command, 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.

CMAS Performance Level Summary Report

The Performance Summary Report is available for each grade assessed at each school or district. It contains aggregated performance level information across the school, district and state. It also contains disaggregated performance level data by student demographic and program categories and subgroups for either the school or the district. Page 1 of a sample report is included on page D-8.

General Information

A. Identification Information
The report identifies the names and codes of the school and district.

B. Test Date
The administration season and year is indicated.

C. Subject Area
The subject area of the report is identified (either science or social studies).

D. Grade Level
The grade level of the assessment is indicated.

Performance Level Distribution Data

E. Demographic and Program Categories and Subgroups
Demographic and program categories with subgroups are listed on the left side of the table. Results for students for whom no demographic or program information was coded are included in the “not indicated” subgroups.

F. Total Number Tested
The number of students who should have been assessed is provided.

G. Average Scale Score
The average scale score is displayed for state, district, school and each demographic or program subgroup. The average does not include students with no scores.

H. Performance Level Results
The number and percentage of students who achieved Limited Command, Moderate Command, Strong Command, and Distinguished Command, as well as aggregated Strong and Distinguished Command, are displayed for each demographic or program subgroup

I. No Scores Reported

This is the number of students registered to take the CMAS who did not receive scores. They are not included in the denominator for the Performance Level percentages.

J. Process number

The process number found in the bottom-right corner of the report is a unique number, per administration, that is assigned to the report by the testing contractor.

Sample CMAS Performance Level Summary Report

District Performance Level Summary

Colorado Measures of Academic Success (B) **Spring 2014**

District: **EXAMPLE DISTRICT (1234)** (A)

Science (C) — (D) Grade 8

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Purpose: This report describes group achievement in terms of performance levels.

(E)	(F) Total Number Tested	(G) Average Scale Score	Performance Levels								Strong and Distinguished		No Scores Reported (I)
			Limited Command		Moderate Command		Strong Command		Distinguished Command				
			#	%	#	%	#	%	#	%	#	%	#
State	**63,282**	**595**	**19,943**	**32%**	**22,149**	**36%**	**18,496**	**30%**	**1,471**	**2%**	**19,967**	**32%**	**1,223**
District	205	456	9	82%	1	9%	1	9%	0	0%	1	9%	194
Gender													
Female	93	431	4	100%	0	0%	0	0%	0	0%	0	0%	89
Male	112	470	5	71%	1	14%	1	14%	0	0%	1	14%	105
Ethnicity/Race													
Hispanic or Latino	56	420	5	100%	0	0%	0	0%	0	0%	0	0%	51
American Indian or Alaska Native	4	0	0	0%	0	0%	0	0%	0	0%	0	0%	4
Asian	4	0	0	0%	0	0%	0	0%	0	0%	0	0%	4
Black or African-American	18	0	0	0%	0	0%	0	0%	0	0%	0	0%	18
White	85	585	1	50%	0	0%	1	50%	0	0%	1	50%	83
Native Hawaiian or Other Pacific Islander	3	0	0	0%	0	0%	0	0%	0	0%	0	0%	3
Two or more races	5	0	0	0%	0	0%	0	0%	0	0%	0	0%	5
Not Indicated	30	436	3	75%	1	25%	0	0%	0	0%	0	0%	26
Language Background													
English	137	566	3	75%	0	0%	1	25%	0	0%	1	25%	133
Spanish	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0
Other	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0
Not Indicated	42	393	6	86%	1	14%	0	0%	0	0%	0	0%	35
Language Proficiency													
Not Applicable	155	495	5	83%	0	0%	1	17%	0	0%	1	17%	149
NEP	2	0	0	0%	0	0%	0	0%	0	0%	0	0%	2
LEP	2	0	0	0%	0	0%	0	0%	0	0%	0	0%	2
FEP	8	0	0	0%	0	0%	0	0%	0	0%	0	0%	8
PHLOTE	1	0	0	0%	0	0%	0	0%	0	0%	0	0%	1
FELL	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0
Not Indicated	37	409	4	80%	1	20%	0	0%	0	0%	0	0%	32

(J) 12345678-CMASSTA3-0000-999-9999999

CMAS Content Standards Roster

The Content Standards roster is available for each grade assessed at each school. It lists every student for whom an answer document or online record was submitted. This report provides the overall performance level, reporting category, and PGC/GLE data for each student. It also provides the same information aggregated at the state, district and school levels. A sample report is included on pages D12-D13.

General Information (Refer to Page 1 of the Content Standards Roster)

A. Identification Information
The report identifies the school and district name and code.

B. Test Date
The administration season and year is indicated.

C. Subject Area
The subject area of the report is identified (either science or social studies).

D. Grade Level
The grade level of the assessment is indicated.

The general information is repeated on page 2 of the report.

Performance Level and Content Standards Information (Refer to Page 1 of the Content Standards Roster)

E. Key
The key indicates the ranges of scale scores for each performance level for the overall test. It also explains the symbols used to identify the performance indicators for content standard performance (potential relative strength, typical, or potential relative weakness).

F. Student Information
Students are identified by first, last, and middle initial. Expelled students are included only in the district version of the roster and their status is indicated in this section.

G. Content Standards Performance School Summary
The percentage and number of students in a school who show potential relative strength (filled in circle), typical performance (half filled in circle), and potential relative weakness (empty circle) for the reporting categories are provided for each standard. At the state level, the distribution is approximately 15%/70%/15%.

H. State, District, and School Average
For comparison purposes, the average overall scale score and content standard (reporting category) scale score are shown for the state, district, and school.

I. Overall Performance Level
The overall performance level is indicated for each student on the roster.

J. Overall Scale Score
The overall scale score is indicated for each student on the roster.

K. SEM Range
The standard error of measurement (SEM) is related to the reliability of the assessment. It can vary across the range of scale scores, especially at the very high and low ends where there typically are fewer items measuring that level of achievement. The SEM represents the range of overall scores the student would be likely to earn if the assessment was taken again.

L. Results for Each Content Standard (Reporting Category): Scale Score and Performance Indicator
For each content standard (reporting category), the student's scale score (SS) and performance indicator (PI) of potential relative strength, typical performance, or potential relative weakness is shown.

M. Process number
The process number found in the bottom-right corner of the report is a unique number, per administration, that is assigned to the report by the testing contractor.

Prepared Graduate Competencies and Grade Level Expectations Performance (Refer to Page 2 of the Content Standards Roster)

N. Student information
Students are identified by first, last, and middle initial.

O. State, District, and School Average
For comparison purposes, the average percentage correct is shown for the Prepared Graduate Competencies (PGC) at the state, district, and school levels. If there are two or more Grade Level Expectations under a PGC, percent correct is shown for these as well.

P. Prepared Graduate Competencies and Grade Level Expectations
Prepared Graduate Competencies (PGCs) and Grade Level Expectations (GLEs) are important parts of the Colorado Academic Standards. PGCs represent the concepts and skills students need to master in order to be college and career

ready by the time of graduation. The GLEs are grade-specific expectations that indicate that students are making progress toward the PGCs.

Q. Points Possible

The number of points possible for each PGC and GLE is identified.

R. Performance for Prepared Graduate Competencies and Grade Level Expectations

This section of the report describes performance with percent correct for PGCs and GLEs. The percentage correct for each PGC is presented. If there is more than one GLE within a PGC, then the percentage correct by GLE is also provided. The PGCs and GLEs are listed in the same order using the same number references as they appear on the second page of the student performance report. The order and text for each PGC and GLE is included in Appendix C.

Sample CMAS Content Standards Roster

Content Standards Roster

Colorado Measures of Academic Success (B) Spring 2014

School: **SAMPLE SCHOOL (4444)** (A)
District: **SAMPLE DISTRICT (1234)**

Science (C) (D) Grade 8

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Purpose: This report presents each student's performance on the overall test, content standards, prepared graduate competencies and grade level expectations for your school or district.

Performance Levels (PL)	Scale Score Ranges
Distinguished Command	785-900
Strong Command	652-784
Moderate Command	556-651
Limited Command	300-555

● = Potential Relative Strength (PRS)
◒ = Typical
○ = Potential Relative Weakness (PRW)

(E)

(G) **Content Standards Performance School Summary**

	Physical Science			Life Science			Earth Systems Science		
	●	◒	○	●	◒	○	●	◒	○
# of Students in school	22	131	14	0	34	135	8	157	3 (L)
% of Students in school	13%	78%	8%	0%	20%	80%	5%	93%	2%

(F) Student	(I) Overall Performance Level	(J) Overall Scale Score	(K) SEM Range	Content Standard Scale Score (SS) and Performance Indicator (PI)					
				SS	PI	SS	PI	SS	PI
(H) State Average		563		541		584		553	
(H) District Average		547		551		545		527	
(H) School Average		547		552		546		525	
1 LAST NAME, FIRST NAME MI	Strong Command	621	594-648	555	◒	642	◒	689	●
2 LAST NAME, FIRST NAME MI	Moderate Command	555	524-586	510	◒	611	◒	556	◒

Note: Students with no scores are not included in summary calculations.

(M) 09022014- CMASSAMP-1234-4444 - 0000067

Content Standards Roster

Colorado Measures of Academic Success — Spring 2014

School: **SAMPLE SCHOOL (4444)**
District: **SAMPLE DISTRICT (1234)**

Science — Grade 8

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Purpose: This report presents each student's performance on the prepared graduate competencies and grade level expectations for your school or district. Percent correct for each PGC is presented. If there is more than one GLE within a PGC then percent correct by GLE is also provided.

P Prepared Graduate Competencies (PGC) and Grade Level Expectations (GLE) Performance

	Physical Science					Life Science		Earth Systems Science					
Q Points Possible	7	15	8	7	7	11	13	13	7	6	14	7	7
N Student / **O**	PGC1 GLE1	PGC2	GLE2	GLE4	PGC3 GLE3	PGC1 GLE1	PGC2 GLE2	PGC1	GLE1	GLE2	PGC2	GLE3	GLE4
State Average	23%	30%	25%	34%	37%	26%	40%	36%	29%	44%	37%	36%	37%
District Average	29%	29%	24%	35%	37%	18%	36%	29%	28%	31%	32%	27%	37%
School Average	28%	29%	25%	34%	37%	18%	37%	28%	27%	31%	32%	28%	36%
1 LAST NAME, FIRST NAME MI **EXPELLED**	29%	29%	0%	57%	43%	36%	54%	46%	29%	67%	71%	7%	71%
2 LAST NAME, FIRST NAME MI	29%	7%	0%	14%	43%	36%	38%	46%	43%	50%	29%	7%	14%

Note: Students with no scores are not included in summary calculations.

CMAS Item Analysis Report

A CMAS Item Analysis Report is available at the district and school levels for each assessed grade level and content area. The report includes item level score information at the school, district and state levels. The back of the report includes item map information.

Information included on the Item Analysis Report can be used to identify patterns of items where a school(s) is performing better or worse than the district or state or where a district is performing better or worse than the state. For example, within a particular GLE, a school within a district may be out-performing the district and the state while the school may be performing worse than the district and the state in another GLE. In combination with other evidence and data, schools and districts can use the information in the CMAS Item Analysis Report to identify patterns across standards and GLEs that may be indicative of potential areas of strength or weakness. A sample Item Analysis Report is included on pages D16-D17.

General Information (Refer to Page 1 of the Item Analysis Report)

A. Identification Information
The report identifies the school and district name and code.

B. Test Date
The administration season and year is indicated.

C. Subject Area
The subject area of the report is identified (either science or social studies).

D. Grade Level
The grade level of the assessment is indicated.

The general information is repeated on page 2 of the report.

Item Analysis Information (Refer to Page 1 of the Item Analysis Report)

E. Number of students with valid scores
The number of students with valid scores is indicated.

F. Graph Key
The graph key includes explanatory text for the symbols and lines in the bars in the graph: State, District and School.

G. Percent of Average Points Earned

The percent of average points earned is included to the left of the graphical representation of state, district and school performance by item. Items that were more difficult for students across the state have a lower percent of average points earned. For 1-point selected response items, the percent of students who correctly responded is recorded. For 2- and 3-point constructed response items, the average points earned is divided by 2 or 3 respectively in creating the percentage.

H. Numbered Items

Items are identified by numbers in blue text at the bottom of the graph and are ordered from most difficult to least difficult, such that the easiest item is labeled as 1.

I. Standard and Grade Level Expectation (GLE)

Below each item number, the standard and Grade Level Expectation (GLE) for that item is listed.

J. Graphical Representation of State, District, and School Level Performance by Item

The graphical representation shows how the state, district, and school performed on each operational item. The state is represented as a red line with triangles, the district is represented as a blue line with circles, and the school is represented by a green line with squares.

K. Document Process Number

The document number located in the bottom-right corner of the report is a unique number that is assigned by the testing contractor.

Item Map Information (Refer to page 2 of the Item Analysis Report)

L. Item Map Information

Page 2 of the Item Analysis Report includes information for all of the operational items that were included on the assessment. Items are ordered from most to least difficult. For each item, the following information is included:

- Difficulty Order Most to Least (matches page 1)
- Standard and Grade Level Expectation (GLE) Numbers
- Location on the test (section number and item number)
- Standard by Name
- Prepared Graduate Competency (PGC)
- Grade Level Expectation (GLE)
- Item Type (Selected Response (SR); 2-point Constructed Response (CR-2); 3-point constructed Response (CR-3)

Sample Item Analysis Report – Page 1

School Item Analysis Report

Colorado Measures of Academic Success (B) **Spring 2014**

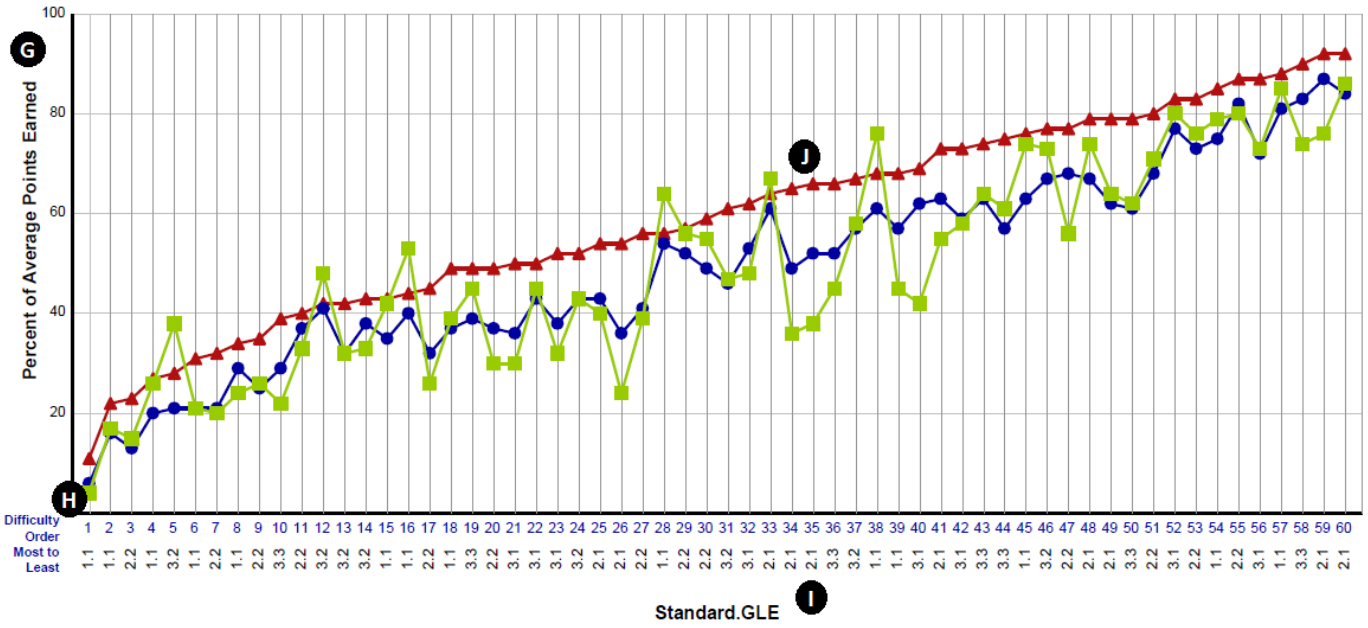
School: **SAMPLE SCHOOL (4444)** (A)
District: **SAMPLE DISTRICT (1234)**

Science (C) CONFIDENTIAL - DO NOT DISTRIBUTE (D) **Grade 5**

Students with Valid Scores (66) (E)

Students testing on paper are not included.

State
District
School (F)



This report is NOT for public review. Distribution within your school/district must be in accordance with state and federal privacy laws, and local school board policy.

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Item Analysis Report Detail

Colorado Measures of Academic Success — Spring 2014

This report shows the operational items for the given grade and subject sorted by difficulty.

Science — CONFIDENTIAL - DO NOT DISTRIBUTE — **Grade 5**

Difficulty Order Most to Least	Standard.GLE	Section-Item Number	Standard	Prepared Graduate Competencies (PGCs)	Grade Level Expectations (GLEs)	Item Type Selected Response (SR) Constructed Response (CR)
1	1.1	3-22	Physical Science	PGC2	GLE1	CR-2
2	1.1	3-8	Physical Science	PGC2	GLE1	CR-2
3	2.2	3-5	Life Science	PGC1	GLE2	SR
4	1.1	3-9	Physical Science	PGC2	GLE1	CR-2
5	3.2	1-6	Earth Systems Science	PGC2	GLE2	CR-2
6	1.1	2-13	Physical Science	PGC2	GLE1	CR-3
7	2.2	1-13	Life Science	PGC1	GLE2	CR-3
8	1.1	1-23	Physical Science	PGC2	GLE1	SR
9	2.2	1-11	Life Science	PGC1	GLE2	SR
10	3.3	3-13	Earth Systems Science	PGC2	GLE3	CR-3
11	2.2	1-18	Life Science	PGC1	GLE2	SR
12	3.2	1-8	Earth Systems Science	PGC2	GLE2	SR
13	3.2	1-9	Earth Systems Science	PGC2	GLE2	CR-2
14	3.2	3-14	Earth Systems Science	PGC2	GLE2	SR
15	1.1	3-15	Physical Science	PGC2	GLE1	SR
16	1.1	2-3	Physical Science	PGC2	GLE1	CR-2
17	2.2	3-21	Life Science	PGC1	GLE2	SR
18	1.1	1-12	Physical Science	PGC2	GLE1	SR
19	3.3	2-24	Earth Systems Science	PGC2	GLE3	SR
20	2.2	3-18	Life Science	PGC1	GLE2	CR-2
21	3.1	2-16	Earth Systems Science	PGC3	GLE1	CR-2
22	3.1	2-19	Earth Systems Science	PGC3	GLE1	SR
23	3.1	3-6	Earth Systems Science	PGC3	GLE1	SR
24	3.2	3-17	Earth Systems Science	PGC2	GLE2	CR-2
25	2.1	1-19	Life Science	PGC3	GLE1	CR-2
26	2.1	1-20	Life Science	PGC3	GLE1	SR
27	2.2	1-22	Life Science	PGC1	GLE2	CR-2
28	1.1	2-15	Physical Science	PGC2	GLE1	SR
29	2.2	2-20	Life Science	PGC1	GLE2	SR
30	2.2	2-5	Life Science	PGC1	GLE2	SR
31	3.2	3-10	Earth Systems Science	PGC2	GLE2	SR
32	3.1	2-22	Earth Systems Science	PGC3	GLE1	CR-2
33	2.1	1-17	Life Science	PGC3	GLE1	CR-2
34	2.1	3-12	Life Science	PGC3	GLE1	SR
35	2.1	2-18	Life Science	PGC3	GLE1	CR-2
36	3.3	3-16	Earth Systems Science	PGC2	GLE3	SR
37	3.2	2-21	Earth Systems Science	PGC2	GLE2	SR
38	1.1	3-7	Physical Science	PGC2	GLE1	SR
39	1.1	3-20	Physical Science	PGC2	GLE1	SR
40	3.1	1-7	Earth Systems Science	PGC3	GLE1	SR
41	2.1	1-15	Life Science	PGC3	GLE1	SR
42	3.1	2-23	Earth Systems Science	PGC3	GLE1	SR
43	3.3	1-5	Earth Systems Science	PGC2	GLE3	SR
44	3.3	1-24	Earth Systems Science	PGC2	GLE3	SR
45	1.1	1-14	Physical Science	PGC2	GLE1	SR
46	3.2	2-12	Earth Systems Science	PGC2	GLE2	SR
47	2.2	2-14	Life Science	PGC1	GLE2	SR
48	2.1	3-11	Life Science	PGC3	GLE1	SR
49	2.1	3-23	Life Science	PGC3	GLE1	SR
50	3.3	3-24	Earth Systems Science	PGC2	GLE3	SR
51	2.2	2-4	Life Science	PGC1	GLE2	SR
52	3.1	1-10	Earth Systems Science	PGC3	GLE1	SR
53	2.2	1-16	Life Science	PGC1	GLE2	SR
54	1.1	2-17	Physical Science	PGC2	GLE1	SR
55	2.2	2-11	Life Science	PGC1	GLE2	SR
56	3.1	3-4	Earth Systems Science	PGC3	GLE1	SR
57	1.1	1-21	Physical Science	PGC2	GLE1	SR
58	3.3	2-10	Earth Systems Science	PGC2	GLE3	SR
59	2.1	1-4	Life Science	PGC3	GLE1	SR
60	2.1	3-19	Life Science	PGC3	GLE1	SR

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Section E

An Educator Guide to Understanding the Colorado Assessments (CoAlt) Science and Social Studies School and District Reports

Program Overview

CoAlt is the standards-based assessment designed specifically for students with significant cognitive disabilities who are unable to participate in CMAS, even with accommodations. Students must meet eligibility requirements to take CoAlt. CoAlt assesses the performance expectations of the CAS for students with significant cognitive disabilities as expressed in the Extended Evidence Outcomes (EEOs) of the Colorado Academic Standards (CAS). The primary purpose of the assessment program is to determine the level at which Colorado students with significant cognitive disabilities meet the EEOs of the CAS in the content areas of science and social studies at the tested grade level. CoAlt results are intended to provide one measure of a student's academic progress relative to the CAS. CoAlt science assessments are given to students in grades 5 and 8 while CoAlt social studies assessments are given in grades 4 and 7 each spring.

CoAlt assessments are administered in a one-on-one setting between teachers and students. Teachers use CoAlt scoring rubrics to evaluate student responses before submitting performance results.

This section of the guide explains the elements of the CoAlt school and district reports.

Purpose and Use of CoAlt Results

- Report on the status and progress of student achievement
- Make judgments about student learning relative to standards
- Gauge school, district, and state year-to-year progress
- Improvement planning (e.g., prioritize professional learning and resource decisions, consider program alignment to academic standards, reflect on effectiveness of school initiatives)

Standardized assessments are a valuable tool for evaluating programs. However, any

assessment can furnish only one part of the picture. CoAlt science and social studies 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.

CoAlt School and District Reports

In addition to individual Student Performance Reports, districts receive Performance Level Summaries and schools and districts receive Content Standards Rosters. These reports summarize how students in the school or district performed and are described later in this section.

Note that the sample reports included in this guide are for illustration only. They are provided to show the basic layout of the reports and the information they include.

Types of Scores on the CoAlt School and District Reports

To understand each part of the Student Performance Report, it is important to become familiar with the types of assessment scores that are included on the report. Student performance is described by a scale score, performance level and percent of points earned.

Scale Scores

When the points a student earns on a test 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). The scale score allows for a comparison of assessment scores, within a particular grade and subject area, across administrations. As an example, a student who receives a score of 125 on one form of the 7th grade social studies assessment is expected to score a 125 on any form of the assessment. Scale scores maintain their meaning and can be compared across years. A student who scores 125 on 8th grade science in 2015 will demonstrate the same level of mastery of concepts and skills as an 8th grade science student who scores 125 in 2014. For CoAlt science and social studies, 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 social studies).

Scale scores for the CoAlt science and social studies assessments range from 0 to 250.

Scale Scores are reported for the overall test.

Performance Levels

Scale Scores are used to determine a student's performance level for the overall assessment. Each performance level describes a range of scores at the overall assessment level (i.e., science or social studies). The range of scores in each performance level were recommended by a group of Colorado educators and adopted by the Colorado State Board of Education. Performance levels describe the concepts and skills students are expected to demonstrate at each of the levels. The grade level concepts and skills related to each performance level are listed on Page 2 of the Student Performance Report. The four cross-grade and content area performance levels and there are Novice, Developing, Emerging and Exploring. Performance level descriptors are included in Appendix B of this document.

Students who do not respond to any items on the assessment receive an inconclusive designation.

The top two Performance Levels indicate that with the appropriate supports, the student is prepared for further study in the content area.

Percent of Points Earned

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 correct 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 social studies, the standards are history, geography, economics, and civics. For science, the standards are physical science, life science and earth systems science.

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, some (e.g., percent of points earned) do not. In addition, the reliability of the comparisons or conclusions made vary depending on the size of the group (e.g., number of points contributing to a particular score or the number of students included in a comparison group). In general, the larger the group is 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 below table provides some of the comparisons that can and cannot be made by particular types of scores.

SCORE COMPARISONS

	Compare an individual student's performance to a target group's performance (ex. student to state) within the same year	Compare a group's performance to another group's performance (ex. one district to another district, 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 (ex. 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 (These are content and grade specific)
Scale Scores	YES	YES	YES	YES	NO (These are content and grade specific)
Percent of points earned	YES	YES	NO (These are specific to the year of the assessment.)	NO (These are specific to the year of the assessment.)	NO (These are specific to the standards.)

Some assessment scores can be used to compare the performance of different demographic or program groups. All CoAlt scores in science (grades 5 and 8) and in social studies (grades 4 and 7) 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 Novice, the highest percentage achieving Developing, 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.

CoAlt Performance Level Summary Report

The Performance Level Summary Report is available for each grade assessed in a district. It contains aggregated performance level information across the district and state. It also contains disaggregated performance level data by student demographic and program categories and subgroups for the district. A sample Performance Level Summary Report is included on page E-7.

General Information

A. Identification Information
The report identifies the school and district name and code.

B. Test Date
The administration season and year is indicated.

C. Subject Area
The subject area of the report is identified (either science or social studies).

D. Grade Level
The grade level of the assessment is indicated.

Performance Level Distribution Data

E. Demographic and Program Categories and Subgroups
Demographic and program categories with subgroups are listed on the left side of the table. Results for students for whom no demographic or program information was coded are included in the “not indicated” subgroups.

F. Total Number Tested
The number of students who should have been assessed is provided.

G. Average Scale Score
The average scale score is displayed for state and district and for each demographic or program subgroup. The average does not include students with no scores.

H. Performance Level Results

The number and percentage of students who achieved Exploring, Emerging, Developing and Novice, as well as aggregated Developing and Novice, are displayed for each demographic or program subgroup

I. No Scores Reported

The number of students registered to take the CoAlt who did not receive scores or meet the Inconclusive criterion is included. They are not included in the denominator for the Performance Level percentages.

J. Process number

The process number found in the bottom-right corner of the report is a unique number, per administration, that is assigned to the report by the testing contractor.

Sample CoAlt Performance Level Summary Report

District Performance Level Summary

Colorado Alternate Assessment (B) **Spring 2014**

(A)

District: **EXAMPLE DISTRICT (1234)**

Science (C) (D) **Grade 8**

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Purpose: This report describes group achievement in terms of performance levels.

(E)	(F) Total Number Tested	(G) Average Scale Score	(H) Performance Levels										Developing and Novice		(I) No Scores Reported
			Inconclusive		Exploring		Emerging		Developing		Novice				
			#	%	#	%	#	%	#	%	#	%	#	%	#
State	**644**	**151**	**13**	**2%**	**68**	**11%**	**274**	**46%**	**214**	**36%**	**30**	**5%**	**244**	**41%**	**45**
District	32	161	0	0%	0	0%	14	48%	15	52%	0	0%	15	52%	3
Gender															
Female	14	159	0	0%	0	0%	6	50%	6	50%	0	0%	6	50%	2
Male	18	162	0	0%	0	0%	8	47%	9	53%	0	0%	9	53%	1
Ethnicity/Race															
Hispanic or Latino	17	161	0	0%	0	0%	7	50%	7	50%	0	0%	7	50%	3
American Indian or Alaska Native	1	185	0	0%	0	0%	0	0%	1	100%	0	0%	1	100%	0
Asian	1	143	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0
Black or African-American	1	156	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0
White	12	160	0	0%	0	0%	5	42%	7	58%	0	0%	7	58%	0
Native Hawaiian or Other Pacific Islander	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Two or more races	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Not Indicated	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Language Background															
English	25	162	0	0%	0	0%	10	43%	13	57%	0	0%	13	57%	2
Spanish	6	157	0	0%	0	0%	3	60%	2	40%	0	0%	2	40%	1
Other	1	143	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%	0
Not Indicated	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Language Proficiency															
Not Applicable	25	162	0	0%	0	0%	10	43%	13	57%	0	0%	13	57%	2
NEP	7	155	0	0%	0	0%	4	67%	2	33%	0	0%	2	33%	1
LEP	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
FEP	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
PHLOTE	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
FELL	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Not Indicated	0	0	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0

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CoAlt Content Standards Roster

The Content Standards roster is available for each grade assessed at each school. It lists every student for whom an online record was submitted. This report provides the overall and standards level data for each student. It also provides the same information aggregated at the state level. A sample Content Standards Roster is included on page E-10.

General Information (Refer to Page 1 of the Content Standards Roster)

A. Identification Information
The report identifies the school and district name and code.

B. Test Date
The administration season and year are indicated.

C. Subject Area
The subject area of the report is identified (either Science or Social Studies).

D. Grade Level
The grade level of the assessment is indicated.

Performance Level and Content Standards Information (Refer to Page 1 of the Content Standards Roster)

E. Key
The key indicates the ranges of scale scores for each performance level for the overall test.

F. Student Information
Students are identified by first, last, and middle initial. Expelled students are included only in the district version of the roster and their status is indicated in this section.

G. Overall Performance Level
The overall performance level is indicated for each student on the roster.

H. State, District, and School Average Scale Score
The average scale score is shown for the state, district, and school. Below, the scale score for each student is shown. Students with an Inconclusive designation do not have a scale score.

I. Points Possible

The number of points possible for each content standard is shown.

J. Percentage of Points Earned

This section of the report describes performance with percent of points earned by content standard. The average percentage of points earned for the state, district, and school are shown. Below, the percent points earned for each student is shown. These fields are blank for students with an Inconclusive designation.

K. Process number

The process number found in the bottom-right corner of the report is a unique number, per administration, that is assigned to the report by the testing contract.

Sample CoAlt Content Standards Roster

Content Standards Roster

Colorado Alternate Assessment **B Spring 2014**

School: **SAMPLE SCHOOL (5098)** A
District: **SAMPLE DISTRICT (1080)**

Social Studies C

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D Grade 7

Purpose: This report presents each student's performance on the overall test and content standards for your school or district.

Performance Level	Scale Score Ranges
Novice	191 - 250
Developing	163 - 190
Emerging	134 - 162
Exploring	1 - 133

E

	Overall Scale Score	Content Standards Performance			
		History	Geography	Economics	Civics
I Points Possible		22	16	12	22
J Percent of Points Earned					
H State Average	151	73%	75%	74%	77%
District Average	172	86%	94%	83%	91%
School Average	172	86%	94%	83%	91%
F STUDENT NAME	G Overall Performance Level				
LASTNAME, FIRSTNAME M.	Developing	172	86%	94%	83%	91%
LASTNAME, FIRSTNAME M.	No Score					

Note: Students with no scores are not included in summary calculations.

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Section F
Appendices

Appendix A
CMAS Performance Level Descriptors

Colorado Measures of Academic Success: Grade 4 Social Studies
Performance Level Descriptors (PLDs)

Students demonstrate mastery of social studies concepts and 21st century skills aligned to the Colorado Academic Standards at various performance levels. The performance level descriptors are organized in a manner that assumes students demonstrating higher levels of command have mastered the concepts and skills within the lower levels. For example, a student at moderate command also masters the concepts and skills of limited command.

At Distinguished Command, a student typically can

- analyze primary source documents and connect the various eras and events in Colorado history to events in U.S. and World History;
- use geographic tools to investigate and analyze settlement patterns, how people adapt to and modify the physical environment, and how places in Colorado have changed over time;
- analyze opportunity costs and ways to reduce financial risk to make financial decisions; and
- analyze multiple perspectives on an issue and provide solutions.

At Strong Command, a student typically can

- explain cause-and-effect relationships present in Colorado history using historical tools such as organizing and sequencing events and reading primary sources;
- create and investigate questions about Colorado in relation to other places and examine the connections between the physical environment and human activities such as migration;
- explain how the natural, human, and capital resources of Colorado have influenced the types of goods and services provided;
- analyze opportunity costs and risk to make financial decisions;
- compare arguments for both sides of a public policy debate; and
- explain the origins, structure, and functions of the Colorado government and its relationship with local and federal governments.

At Moderate Command, a student typically can

- describe how the people and cultures who have lived in Colorado have interacted with each other and have affected the development of Colorado;
- describe how Colorado's political structure developed, including the Colorado Constitution and the relationship between state and national government;
- compare the physical geography of Colorado with that of neighboring states and describe how places in Colorado are connected by technology and the movement of goods and services;
- identify and define types of economic incentives, choices, opportunity costs, and risks that individuals face;
- connect goods and services produced throughout Colorado's history to economic incentives; and
- provide examples of civic and political issues faced by the state.

At Limited Command, a student typically can

- recognize that major political and cultural groups have affected the development of Colorado;
- use maps, grids, and other geographic tools to answer questions about Colorado;
- describe various technological developments, including those that affect Colorado industries;
- identify goods and services produced in Colorado; and
- identify the structure and functions of the Colorado government and the services it provides.

Colorado Measures of Academic Success: Grade 7 Social Studies
Performance Level Descriptors (PLDs)

Students demonstrate mastery of social studies concepts and 21st century skills aligned to the Colorado Academic Standards at various performance levels. The performance level descriptors are organized in a manner that assumes students demonstrating higher levels of command have mastered the concepts and skills within the lower levels. For example, a student at moderate command also masters the concepts and skills of limited command.

At Distinguished Command, a student typically can

- analyze historical sources while formulating historical questions and defending a thesis;
- use geographic tools to investigate and analyze data to make inferences and predictions regarding regional issues and perspectives in the Eastern Hemisphere;
- demonstrate how supply and demand influence changes in equilibrium price and quantity;
- evaluate how various governments interact and investigate examples of global collaboration; and
- apply various definitions of good government to evaluate the actions of different governments.

At Strong Command, a student typically can

- explain the historical time periods, individuals, groups, ideas, perspectives, themes, and how people are interconnected within regions of the Eastern Hemisphere;
- summarize the development of early civilizations, including Greece, Rome, China, Africa, and the medieval world;
- describe how the physical environment influences economy, culture, and trade patterns;
- explain how resources, production, choices, supply, demand, price, profit, and taxes are related;
- analyze how national and international government policies influence the global community; and
- compare the rights, roles, and responsibilities of citizens in various governments.

At Moderate Command, a student typically can

- describe the contributions of various peoples and cultures in the Eastern Hemisphere;
- compare different physical systems and cultural patterns to describe how different regions and places are interconnected;
- examine multiple points of view and issues in various regions in the Eastern Hemisphere;
- recognize how supply and demand influence price, profit, and production in a market economy;
- compare how taxes affect individual income and spending;
- compare different forms of government in the world and their sources of authority; and
- explain the rights and roles of citizens in various governments.

At Limited Command, a student typically can

- recognize the contributions of various peoples and cultures to the Eastern Hemisphere;
- use geographic tools to answer questions and identify patterns in the Eastern Hemisphere;
- identify factors that cause changes in supply, demand, and price;
- define resources and identify trade patterns based on the distribution of resources; and
- list the responsibilities and roles of citizens in various governments.

Colorado Measures of Academic Success: Grade 5 Science
Performance Level Descriptors (PLDs)

Students demonstrate mastery of science concepts and 21st century skills aligned to the Colorado Academic Standards at various performance levels. The performance level descriptors are organized in a manner that assumes students demonstrating higher levels of command have mastered the concepts and skills within the lower levels. For example, a student at moderate command also masters the concepts and skills of limited command.

At Distinguished Command, a student typically can

- evaluate and provide feedback on scientific evidence and reasoning about the separation of mixtures and how separation affects the total weight/mass;
- develop hypotheses about why similarities and differences exist between the body systems and parts of humans, plants, and animals;
- evaluate scientific claims about natural resources, in terms of reasonability and validity; and
- assess and provide feedback, through reasoning based on evidence, on scientific explanations about weather and factors that change Earth's surface.

At Strong Command, a student typically can

- explain why certain procedures that are used to separate simple mixtures work and discuss any unexpected results;
- evaluate evidence and models of the structure and functions of human, plant, and animal organs and organ systems;
- investigate and generate evidence that human systems are interdependent;
- analyze and interpret data to explore concerns associated with natural resources; and
- formulate testable questions and scientific explanations around weather and factors that change Earth's surface.

At Moderate Command, a student typically can

- discuss how the mass/weight of a mixture is a sum of its parts and design a procedure to separate simple mixtures based on physical properties;
- create models of human, plant, and animal organ systems, and compare and contrast similarities and differences between the organisms;
- explore and describe the origins and usage of natural resources in Colorado; and
- interpret data about Earth, including weather and changes to Earth's surface.

At Limited Command, a student typically can

- select appropriate tools and follow procedures to separate simple mixtures;
- identify how humans, plants, and animals address basic survival needs;
- identify the functions of human body systems;
- distinguish between renewable and nonrenewable resources; and use appropriate tools and resources to gather data regarding weather conditions and Earth processes.

Colorado Measures of Academic Success: Grade 8 Science
Performance Level Descriptors (PLDs)

Students demonstrate mastery of science concepts and 21st century skills aligned to the Colorado Academic Standards at various performance levels. The performance level descriptors are organized in a manner that assumes students demonstrating higher levels of command have mastered the concepts and skills within the lower levels. For example, a student at moderate command also masters the concepts and skills of limited command.

At Distinguished Command, a student typically can

- design an investigation to predict the movement of an object by examining the forces applied to it;
- use models to predict amounts of energy transferred;
- analyze data and models to support claims about genetic reproduction and traits of individuals;
- use observations and models to develop and communicate a weather prediction; and
- evaluate scientific theories and investigations that explain how the solar system was formed.

At Strong Command, a student typically can

- use mathematical expressions and appropriate information from sources to describe the movement of an object;
- analyze different forms of energy and energy transfer using tools;
- construct an experiment to show mass is conserved;
- investigate the characteristics and behaviors of waves using models, technology, and basic rules of waves;
- analyze human impact on local ecosystems;
- use mathematics to predict the physical traits and genetic makeup of offspring; and
- relate tides, eclipses, lunar phases, and seasons to the motion and positions of the Sun, Earth, and the Moon, using the basic rules of the solar system.

At Moderate Command, a student typically can

- analyze speed and acceleration of moving objects;
- describe different forms of energy and energy transfer;
- use a variety of sources, including popular media and peer-generated explanations, to investigate and describe an environmental issue;
- analyze data and historical research for various weather conditions and compare to historical data for that date and location; and
- investigate and ask testable questions about Earth's different climates using various techniques.

At Limited Command, a student typically can

- distinguish between physical and chemical changes;
- recognize the relationship between pitch and frequency in sound;
- identify human activities that alter the ecosystem;
- recognize that genetic information is passed from one generation to the next;
- compare basic and severe weather conditions and develop an action plan for safety; and
- use tools and simulations to explore the solar system.

Appendix B
CoAlt Performance Level Descriptors

Colorado Alternate Grade 4 Social Studies Performance Level Descriptors (PLDs)

Students demonstrate social studies concepts and skills aligned to the Grade Level Expectations and Extended Evidence Outcomes contained in the Colorado Academic Standards.

At Novice Level, with appropriate support, a student can typically:

- Identify historical eras, groups (e.g., miners, settlers and farmers), ideas, and themes in Colorado history
- Identify the cause and effect of growth in Colorado during various key events in U.S. history
- Integrate historical knowledge with geographical skills
- Recognize that particular dwellings, tools, and modes of transportation are specific to certain geographic areas and cultures in Colorado's history
- Identify regions and activities of Colorado based on specific physical features and label a map
- Identify choice and opportunity cost and compare the difference between the two
- Identify a specific perspective on an issue
- Identify the origins and structures of government

At Developing Level, with appropriate support, a student can typically:

- Sequence Colorado historical events
- Identify the locations of specific activities or events in Colorado's history
- Identify specific factors that affected the growth of Colorado
- Match tools, modes of transportation, and products to natural resources or locations in Colorado
- Label a map using given map symbols
- Identify ways in which Colorado communities and markets were (and are) connected
- Identify the approximate value of goods
- Identify the functions of different levels of government
- Identify how people respond to positive and negative consequences

At Emerging Level, with appropriate support, a student can typically:

- Match historical Colorado cultures with related artifacts, modes of transportation, and resources
- Match physical, natural, and geographic features on a map to their appropriate symbols
- Identify types of goods, services and resources native to Colorado
- Recognize that items vary in their value
- Recognize that there are different levels of governance

At Exploring Level, with explicit modeling, a student can typically:

- Identify artifacts (e.g., tools, housing, modes of transportation and clothing) related to Colorado history
- Identify features on a map of Colorado
- Recognize that items have value
- Recognize emergency situations and appropriate responses that affect members of the Colorado community
- Recognize that there are laws and rules

An Inconclusive designation is given to students who did not respond to any items on the assessment.

Colorado Alternate Grade 7 Social Studies Performance Level Descriptors (PLDs)

Students demonstrate social studies concepts and skills aligned to the Grade Level Expectations and Extended Evidence Outcomes contained in the Colorado Academic Standards.

At Novice Level, with appropriate support, a student can typically:

- Determine appropriate questions to ask in order to learn about specific historical events
- Compare information from multiple sources related to a significant historical event
- Identify the best source of information regarding a historical event and use a historical event to match a source with a particular perspective
- Match natural resources with ancient communities and their dwellings
- Use a map to determine where to go for a specific purpose and to determine the direction in which to travel from one point to another
- Estimate the total purchase price of an item with sales tax included
- Recognize how supply and demand can affect price
- Recognize rights and responsibilities of citizens

At Developing Level, with appropriate support, a student can typically:

- Match artifacts with their ancient culture or location within the Eastern Hemisphere
- Select the appropriate source of information to answer questions surrounding historical events
- Recognize that sources have different purposes
- Use map symbols and directionality words to locate places on a map
- Recognize that communities were built near natural resources
- Identify the environmental resources that influenced settlement in the Eastern Hemisphere
- Recognize that the total purchase price of an item will increase because of sales tax
- Identify community needs or services that are paid for by taxes
- Differentiate between laws and rules
- Identify the positive and negative consequences of obeying laws and rules

At Emerging Level, with appropriate support, a student can typically:

- Recognize significant artifacts related to ancient civilizations of the Eastern Hemisphere
- Select the appropriate source of information to answer social studies questions
- Identify the appropriate questions to ask in order to learn more about an event or era
- Use symbols to identify a location on a map
- Identify reasons goods and services might go on sale
- Identify ways in which countries and nations resolve differences
- Recognize local laws, state laws, and federal laws and identify examples of following these laws/rules

At Exploring Level, with explicit modeling, a student can typically:

- Recognize artifacts
- Identify part(s) of a map (e.g., title, key, compass rose, scale)
- Recognize there are different types of informational resources
- Recognize that areas have different natural resources
- Recognize that many items have a sales tax
- Recognize that all countries have laws

An Inconclusive designation is given to students who did not respond to any items on the assessment.

Colorado Alternate Grade 5 Science Performance Level Descriptors (PLDs)

Students demonstrate science concepts and skills aligned to the Grade Level Expectations and Extended Evidence Outcomes contained in the Colorado Academic Standards.

At Novice Level, with appropriate support, a student can typically:

- Demonstrate that the weight of a mixture is the same before and after separation
- Distinguish between healthy choices and unhealthy choices for the human body
- Compare and contrast characteristics between groups of plants and groups of animals
- Sort animals by observable characteristics
- Identify ways to conserve resources
- Identify landforms that are created by Earth's forces
- Identify forms of precipitation by physical characteristics

At Developing Level, with appropriate support, a student can typically:

- Determine the weight of an individual component of a mixture after separation
- Identify the function of the internal organs of the human body
- Recognize a relationship between healthy choices and a healthy body
- Understand how plants and animals get the food they need to survive
- Compare the physical characteristics of plants to plants and animals to animals
- Distinguish between renewable and nonrenewable resources
- Identify forces that create common landforms
- Use weather condition symbols to recognize different types of weather based on observable characteristics

At Emerging Level, with appropriate support, a student can typically:

- Identify physical properties of matter
- Select appropriate tools to separate simple mixtures based on physical properties
- Separate simple mixtures based on physical properties
- Identify the functions of the sensory organs, stomach, lungs and heart
- List ways to maintain a healthy body
- List observable characteristics of animals
- Match animals to animals and plants to plants based on similar physical characteristics
- List basic survival needs for plants and animals
- List Earth's resources
- Identify a source of energy as renewable or nonrenewable
- Label basic landforms of Earth
- Compare forms of precipitation

At Exploring Level, with explicit modeling, a student can typically:

- Recognize physical properties of matter
- Identify observable parts of the human body
- Recognize basic survival needs for plants and animals
- Identify basic Earth resources
- Recognize basic landforms of Earth
- Identify common forms of precipitation (e.g., rain and snow)
- Recognize sources of daily/weekly weather information

An Inconclusive designation is given to students who did not respond to any items on the assessment.

Colorado Alternate Grade 8 Science Performance Level Descriptors (PLDs)

Students demonstrate science concepts and skills aligned to the Grade Level Expectations and Extended Evidence Outcomes contained in the Colorado Academic Standards.

At Novice Level, with appropriate support, a student can typically:

- Match an object to itself before and after a physical or chemical change
- Compare and contrast different water or sound waves using wave characteristics
- Determine if different materials can absorb, reflect, or refract light
- Predict the effect of a human activity on a local ecosystem
- Identify why the appearances of the Sun and the moon change in the sky, including phases of the moon and eclipses

At Developing Level, with appropriate support, a student can typically:

- Determine an object's directionality and compare the speeds of moving objects
- Determine sources for light and heat
- Determine if an object has undergone a physical or chemical change
- Identify sources of waves
- Identify human activities that have an effect on local ecosystems
- Identify traits that are passed down from parent to child
- Compare safe and unsafe practices during severe weather conditions
- Use models and simulations to explore the motions of Earth, the moon, and the Sun

At Emerging Level, with appropriate support, a student can typically:

- Recognize that the speed and direction of a force can change moving objects
- Compare different forms of energy
- Label chemical and physical changes
- Label different types of waves
- Recognize the effect of human activity on the local ecosystem
- Identify similarities and differences in parents and children
- Identify severe weather conditions and follow a simple action plan for severe weather
- Recognize facts and fiction in regards to space exploration

At Exploring Level, with explicit modeling, a student can typically:

- Identify objects changing speed while moving
- Recognize that heat, light, and electricity are forms of energy
- Identify different types of waves
- Recognize stages of human aging
- Recognize different weather conditions
- Identify different climates
- Identify scientific tools related to weather and space exploration
- Acknowledge that celestial objects have patterns of movement

An Inconclusive designation is given to students who did not respond to any items on the assessment.

Appendix C
Prepared Graduate Competency and Grade Level Expectation Ordering

Prepared Graduate Competency and Grade Level Expectation Ordering CMAS Social Studies Grade 4	
1	**History**
PGC 1	Develop an understanding of how people view, construct, and interpret history
GLE 1	Organize and sequence events to understand the concepts of chronology and cause and effect in the history of Colorado
PGC 2	Analyze key historical periods and patterns of change over time within and across nations and cultures
GLE 2	The historical eras, individuals, groups, ideas and themes in Colorado history and their relationships to key events in the United States
2	**Geography**
PGC1	Develop spatial understanding, perspectives, and personal connections to the world
GLE 1	Use several types of geographic tools to answer questions about the geography of Colorado
PGC 2	Examine places and regions and the connections among them
GLE 2	Connections within and across human and physical systems are developed
3	**Economics (PFL)**
PGC 1	Understand the allocation of scarce resources in societies through analysis of individual choice, market interaction, and public policy
GLE 1	People respond to positive and negative incentives
PGC 2	Acquire the knowledge and economic reasoning skills to make sound financial decisions (PFL)
GLE 2	The relationship between choice and opportunity cost (PFL)
4	**Civics**
PGC 1	Analyze and practice rights, roles, and responsibilities of citizens
GLE 1	1. Analyze and debate multiple perspectives on an issue
PGC 2	Analyze the origins, structure, and functions of governments and their impacts on societies and citizens
GLE 2:	The origins, structure, and functions of the Colorado government

Prepared Graduate Competency and Grade Level Expectation Ordering CMAS Social Studies Grade 7	
1	**History**
PGC 1	Develop an understanding of how people view, construct, and interpret history
GLE 1	Seek and evaluate multiple historical sources with different points of view to investigate a historical question and to formulate and defend a thesis with evidence
PGC 2	Analyze key historical periods and patterns of change over time within and across nations and cultures
GLE 2	The historical eras, individuals, groups, ideas and themes within regions of the Eastern Hemisphere and their relationships with one another
2	**Geography**
PGC 1	Develop spatial understanding, perspectives, and personal connections to the world
GLE 1	Use geographic tools to gather data and make geographic inferences and predictions
PGC 2	Examine places and regions and connections among them
GLE 2	Regions have different issues and perspectives
3	**Economics (PFL)**
PGC 1	Understand the allocation of scarce resources in societies through analysis of individual choice, market interaction, and public policy
GLE 1	Supply and demand influence price and profit in a market economy
PGC 2	Acquire the knowledge and economic reasoning skills to make sound financial decisions (PFL)
GLE 2	The distribution of resources influences economic production and individual choices (PFL)
4	**Civics**
PGC 1	Analyze and practice rights, roles, and responsibilities of citizens
GLE 1	Compare how various nations define the rights, responsibilities, and roles of citizens
PGC 2	Analyze the origins, structure, and functions of governments and their impacts on society and citizens
GLE 2	Different forms of government and international organizations and their influence in the world community

	Prepared Graduate Competency and Grade Level Expectation Ordering CMAS Science Grade 5
1	**Physical Science**
PGC 1	Apply an understanding of atomic and molecular structure to explain the properties of matter, and predict outcomes of chemical and nuclear reactions
GLE 1	Mixtures of matter can be separated regardless of how they were created; all weight and mass of the mixture are the same as the sum of weight and mass of its parts
2	**Life Science**
PGC 1	Analyze how various organisms grow, develop and differentiate during their lifetimes based on an interplay between genetics and their environment
GLE 1	All organisms have structures and systems with separate functions
PGC 2	Analyze how the relationship between structure and function in living systems at a variety of organizational levels, and recognize living systems' dependence on natural selection
GLE 2	Human body systems have basic structures, functions, and needs
3	**Earth Systems Science**
PGC 1	Describe how humans are dependent on the diversity of resources provided by Earth and Sun
GLE 1	Earth and sun provide a diversity of renewable and nonrenewable resources
PGC 2	Evaluate evidence that Earth's geosphere, atmosphere, hydrosphere, biosphere interact as a complex system
GLE 2	Earth’s surface changes constantly through a variety of processes and forces
GLE 3	Weather conditions change because of the uneven heating of Earth’s surface by the Sun’s energy. Weather changes are measured by differences in temperature, air pressure, wind, and water in the atmosphere and type of precipitation

Prepared Graduate Competency and Grade Level Expectation Ordering CMAS Science Grade 8	
1	**Physical Science**
PGC 1	Observe, explain, and predict natural phenomena governed by Newton's laws of motion, acknowledging the limitations of their application to very small or very fast objects
GLE 1	Identify and calculate the direction and magnitude of forces that act on an object, and explain the results in the object's change of motion
PGC 2	Apply an understanding that energy exists in various forms, and its transformation and conservation occur in processes that are predictable and measurable
GLE 2	There are different forms of energy, and those forms of energy can be changed from one form to another – but total energy is conserved
GLE 4	Recognize that waives such as electromagnetic, sound, seismic, and water have common characteristics and unique properties
PGC 3	Apply an understanding of atomic and molecular structure to explain the properties of matter, and predict outcomes of chemical and nuclear reactions
GLE 3	Distinguish between physical and chemical changes, noting that mass is conserved during any change
2	**Life Science**
PGC 1	Explain and illustrate with examples how living systems interact with the biotic and abiotic environment
GLE 1	Human activities can deliberately or inadvertently alter ecosystems and their resiliency
PGC 2	Analyze how various organisms grow, develop, and differentiate during their lifetimes based on an interplay between genetics and their environment
GLE 2	Organisms reproduce and transmit genetic information (genes) to offspring, which influences individuals' traits in the next generation
3	**Earth Systems Science**
PGC 1	Evaluate evidence that Earth's geosphere, atmosphere, hydrosphere, and biosphere interact as a complex system
GLE 1	Weather is a result of complex interactions of Earth's atmosphere, land and water, that are driven by energy from the sun, and can be predicted and described through complex models
GLE 2	Earth has a variety of climates defined by average temperature, precipitation, humidity, air pressure, and wind that have changed over time in a particular location
PGC 2	Describe and interpret how Earth's geologic history and place in space are relevant to our understanding of the processes that have shaped our planet
GLE 3	The solar system is comprised of various objects that orbit the Sun and are classified based on their characteristics
GLE 4	The relative positions and motions of Earth, Moon, and Sun can be used to explain observable effects such as seasons, eclipses, and Moon phases