



Comprehensive System of Student Assessment (CSSA)



Guide to Test Interpretation for the Grade 4 Reading, Writing, and Mathematics Standards Based Assessments For Parents and Students Spring 2009

Explanation of Examinations and Scoring

The Purpose of Testing

The purpose of the Standards Based Assessments (SBAs) is to (a) determine on a statewide basis the extent to which students are meeting statewide performance standards; (b) produce statewide information that enables sound decision making by policy makers, parents, educators, and the public; and (c) provide a focus in order to improve instruction [4 AAC 06.700].

What the Standards Based Assessments Measure

The SBAs measure what students know and are able to do at their grade level as compared to the Alaska Performance Standards/Grade Level Expectations. For detailed information on the standards, please access the Department of Education & Early Development (EED) publication, *Alaska Standards: Content and Performance Standards for Alaska Students* available on the EED website at: <http://www.eed.state.ak.us/standards/>.

Components of the SBAs

Reading, writing, and mathematics are tested on the SBAs. Each subject area contains multiple-choice questions with four possible answer choices. These answers are machine-scored. Short- and extended-response questions and writing prompts allow students to demonstrate their skills in more complex levels of thinking. Responses are scored by professional staff experienced in providing reliable and consistent hand scoring. Questions requiring a written response allow for full or partial credit.

Reading


Questions for the reading portion of the SBAs are developed from a variety of written sources. After reading each passage, the student answers questions addressing: comprehending the meaning of words in texts, comprehending literal and inferred meaning, restating and summarizing information, understanding main idea, following written directions, analyzing content and structure of genres, analyzing literary elements and devices, differentiating between fact and opinion, and connecting themes.

Writing

Questions for the writing portion of the SBAs take the form of multiple-choice, short answer, and longer written narratives in the form of narrative/informative/descriptive writing. Some multiple-choice questions are based on short fiction or nonfiction passages. The test measures the students' ability to do the following: write using paragraphs that maintain focus; write different types of compositions, such as stories and personal letters; and edit sentences using the spelling, punctuation, and capitalization conventions of Standard English. Students are asked to revise writing by rearranging and/or adding details to writing.

Mathematics

Questions for the mathematics portion of the SBAs assess skills in the areas of: number theory, understanding numbers and mathematical operations, measurement, estimation, computation, number patterns, functions and relationships, solving equations, geometry, organizing and analyzing data, and probability.



ALASKA COMPREHENSIVE SYSTEM OF STUDENT ASSESSMENT (CSSA) STANDARDS BASED ASSESSMENT (SBA) STUDENT REPORT 2009 SPRING

STUDENT NAME : LAST NAME, FIRST NAME MIDDLE NAME DISTRICT : ALASKA DISTRICT GRADE : 04
 BIRTHDATE : 99/99/9999 SCHOOL : ALASKA ELEMENTARY SCHOOL STATE ID NUMBER : 9999999999
 DISTRICT ID NUMBER : 999999999

Your Student's Overall Performance

	Student's Scale Score	Student's Proficiency Level	Proficient Scale Score
Reading	303	Proficient	300
Writing	290	Below Proficient	300
Mathematics	198	Far Below Proficient	300

Your Student's Performance by Standard
PROFICIENCY LEVELS AND PROBABLE SCALE SCORE RANGES*

Subject/Standard	Points Possible	Points Earned	Scale Score Earned	Proficiency Level
Reading	60	27	303	Proficient
R2.1 Word Identification Skills	13	4	242	Below Proficient
R2.2, R2.4, R2.6 Forming a General Understanding	32	17	316	Proficient
R2.7-R2.10 Analysis of Content and Structure	15	6	334	Proficient
Writing	60	25	290	Below Proficient
W2.1, W2.2 Write Using a Variety of Forms	26	11	291	Below Proficient
W2.3 Structures and Conventions	22	8	262	Below Proficient
W2.4 Revise	12	6	334	Proficient
Mathematics	64	15	198	Far Below Proficient
M1.2 Numeration	16	4	176	Far Below Proficient
M2.2 Measurement	8	0	100	Far Below Proficient
M3.2 Estimation & Computation	13	3	194	Far Below Proficient
M4.2 Functions & Relationships	9	2	223	Far Below Proficient
M5.2 Geometry	8	3	262	Below Proficient
M6.2 Statistics/Probability	10	3	244	Far Below Proficient

STANDARDS SKILL PERFORMANCE

This report provides a record of your student's test results on the SBA in reading, writing, and mathematics.

Proficiency Levels
The SBA is designed to measure knowledge and skills against state standards. Scores on these tests are grouped into four proficiency levels. The proficiency level chart shows the scale score ranges associated with each level. Typical characteristics for the proficiency levels can be found at www.eed.state.ak.us/tls/assessment.

Scale Score
The scale score earned by the student determines the student's performance level of proficient or not proficient on the SBA. The points earned are converted into a scale score that takes into consideration the fact that some items that make up a standard on the test are more difficult than others. Therefore, a student can earn the same raw score on two standards and end up with two different scale scores. For this reason, you cannot divide the points earned by the points possible for a standard to derive the scale score.

Skills Performance
Reading, writing, and mathematics are composed of different skills. The chart on the right shows how your student did on these skills.

Interpretation of Chart
Scale scores are represented by the diamond (♦). Twelve scale score values map to a single diamond location. For each subject, the chart displays where the proficient cut score lies within the possible scale score range (100 - 600). Scores in the shaded area indicate not proficient, whereas scores in the non-shaded area indicate proficient.

For example, your student's scale score in reading is 303. Note that the diamond representing this score falls in the proficient scale score range. If your student were to take a similar test multiple times, the range of these scores would fall between 280 and 326 (as represented by the line) 80% of the time.

99-999999 99/99/99 99:99

Reading the Student Report

- A** Presents student demographics.
- B** Indicates the student's scale score and proficiency level in reading, writing, and mathematics. In order to be considered proficient, the student must score on or above the Alaska Proficient Scale Score.

- C** Describes the proficiency levels reported in section B. Scores on the SBAs are grouped into four proficiency levels. The skills necessary for a student to be proficient are described on the back of the Student Report, along with the range of scale scores associated with each level.
- D** Describes the scale scores reported in section B. The scale score earned by the student determines the student’s performance level of advanced, proficient, below proficient, or far below proficient on the SBA. The points earned are converted into a scale score that takes into consideration the fact that some items that make up a standard on the test are more difficult than others. Therefore, a student can earn the same raw score on two standards and end up with two different scale scores. For this reason, you cannot divide the points earned by the points possible for a standard to derive the scale score.
- E** Lists the Performance Standard categories grouped by the three subject-area tests.
- F** Lists the total points possible for the Performance Standard categories on the subject-area tests.
- G** Lists the points earned by the student for the Performance Standards in each test. Points earned are not valid for comparisons across grades, subjects, and/or standards due to variations among tests. The same raw score on two standards usually results in two different scale scores depending on the number of questions and the difficulty of the questions. For this reason, you cannot divide the points earned by the points possible to determine meaningful percentages.
- H** Lists the scale score equivalent for points earned.
- I** Explains the information found in the probable scale score range chart (J).
- J** Graphically illustrates the student’s scale score (◆), the student’s 80% confidence interval, and the proficiency cut score for Performance Standards and tests.

Frequently Asked Questions

Subject/Standard		Points Possible	Points Earned	Scale Score Earned
Reading		60	60	600
R1.1	Word Identification Skills	16	16	554
R1.2, R1.4–R1.6	Forming a General Understanding	31	31	592
R1.7, R1.8, R1.10	Analysis of Content or Structure	13	13	572

Question:

In 3rd grade reading, the maximum *overall* scale score is 600. However, the three maximum subject/standard scale scores are 554, 592, and 572. How can these three numbers combine into a higher number (600) than any of the three numbers?

Answer:

It is necessary to understand the relationship between raw scores and scale scores to appreciate the seeming anomaly.

Range:

Two things, the number of items and the difficulty of the items that make up a standard, determine the *range* of possible scale scores.

- The longer the test, the wider the range of scale scores.
- The easier the test, the lower the maximum scale score.
- For any given person, the raw score for the total test is the sum of the raw scores for the standards, BUT the total scale score is not the sum, nor the average of the standard scale scores.
- There is no mathematical relationship between the average of the scale scores for the standards and the average overall scale score.

Impact of hard and easy items:

The relationship between raw scores and scale scores is designed to eliminate the effect of taking a hard test or an easy test, or the fact that the items from one standard may be easier than the items from another standard.

- Students would need fewer correct responses on a “harder” standard to achieve the same scale score they would get by having more correct responses on an “easier” standard.
- OR**
- Answering 70% of the items correctly on a “harder” standard represents a higher level of ability than answering 70% of the items correctly on an “easier” standard.
 - The raw score to scale score conversion levels the playing field, removing the impact of harder items or easier items in a given standard.
 - The total test scale score is not a simple average of the standard scale scores.
 - The relationship is much too complex to be described by an average that ignores the number of items in each test and the average difficulty of the items making up that standard.

Question:

Is it possible for a student to answer all of the items correctly in a standard and not get the highest possible scale score (600)?

Answer:

Yes.

- A perfect score in a standard with easier items will translate into a lower scale score than a perfect score in a standard with harder items.
 - Both maximum scores may be less than the maximum score for the overall test.
 - This is due to the distribution of item difficulties and the number of items.
 - It is easier to answer 11 of 11 items correctly in a single standard than it is to answer 64 of 64 items correctly on the entire test.
 - The scale score for answering all of the items correctly on a standard will necessarily represent less ability than answering all of the items correctly on the overall test.
 - Although the scale score span goes from 100 to 600, it does not mean it is possible to get the highest or lowest scale score on every standard or even the overall test.

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