## ClearSight

## Interim Assessment Scores - November 2020

## 1. INTERPRETATION OF INTERIM REPORTED SCORES: TOTAL TEST

An Interim Assessment in ClearSight is intended to provide student performance information on the content area standards for a particular grade level. In ClearSight, there are three different content areas of Interims: English Language Arts, Reading, and Mathematics. We recommend that each content area Interim Assessment be administered twice in the course of a grade level and with sufficient time between administrations. A student's performance on an Interim Assessment is reported as a scale score and a performance level for the overall test. Students' scores and performance levels are also summarized at the aggregate levels such as roster, school, and district. The next section provides a description of how to interpret these scores.

## 1.2

SCALE SCORE
A scale score, labeled A on Figure A, is an index of how well the student performed on a test and can be interpreted as the degree to which the student has achieved the knowledge and skills measured. The scale score is estimated from item response theory models, which take into consideration the student's response to the item, as well as the difficulty and other characteristics of the item. Low scores indicate that the student demonstrated less achievement of the knowledge and skills measured, while high scores indicate greater achievement of the subject matter. Scale scores can be used to measure student growth within and across school years. Interpretation of scale scores is more meaningful when the scale scores are used along with performance levels, which classify students with respect to how well they have achieved the grade level academic content standards.

Figure A

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### 1.3 STANDARD ERROR OF MEASUREMENT

A scale score is an estimate of the student's true ability. If a student were to take a similar test multiple times, the resulting scale score would vary across administrations, sometimes being a little higher, a little lower, or the same. The standard error of measurement (SEM) represents the precision of the scale score, or the range in which the student would likely score if a similar test was administered multiple times. The precision of the scale score as indexed by the SEM should be taken into consideration when interpreting scale scores.

The " $\pm$ ", labeled B on Figure A, next to the student's scale score provides information about the certainty, or confidence, of the score's interpretation. The boundaries of the score band are one SEM above and below the student's observed scale score, representing a range of score values that is likely to contain the true score. For example, in Figure A, $667 \pm 35$ indicates that if a student were tested again, it is likely that the student would receive a score between 632 and 702. The SEM can be different, between students, for the same scale score, depending on how closely the administered items match each student's ability.

### 1.4 PERFORMANCE LEVELS

Performance levels are used to classify student test scores by the degree to which they have achieved academic content standards. For the ClearSight Interim Assessments, scale scores are mapped into four performance levels (i.e., Below Proficient, Approaching Proficient, Proficient, Highly Proficient), labeled A in Figure B, using three performance standards (i.e., cut scores), labeled B in Figure B. Performance-level descriptors are a description of content area knowledge and skills that examinees at each performance level are expected to possess (see Figure B).

Figure B


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### 1.5 AGGREGATED SCORE

Students' scale scores are aggregated at roster, teacher, school, and district, levels to represent how a group of students performed on a test. When students' scale scores are aggregated, the aggregated scale scores can be interpreted as an estimate of the knowledge and skills that a group of students possess. While the standard errors of measurement for individual students may be quite substantial, the standard error of the group mean becomes very stable with even relatively small group sizes of 10 or more, and is therefore a very reliable index of classroom achievement. In addition to the aggregated scale scores, the percent of students in each performance level for the overall subject is reported at the aggregate level to represent how well a group of students performed overall. Please see Figure C.

Figure C


## 2. INTERPRETATION OF INTERIM REPORTED SCORES: REPORTING CATEGORY

It is recommended that you read the previous section of this document (Interpretation of Interim Reported Scores: Total Test) before reading this section.

### 2.1 REPORTING CATEGORIES

The Interim Assessments each have reporting categories. Reporting categories group items/questions under a similar content topic. For the Interim Math Assessment used as an example in this document, there are five reporting categories: Expressions and Equations, Functions, Geometry, Statistics and Probability, and The Number System.
In addition to a total scaled score, performance on each reporting category is reported. Although the scale scores for each reporting category are on the same scale as the total test scale score, the reporting

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categories do not have enough information to support precise scale score reporting. However, ClearSight does report student performance on the reporting categories with respect to student achievement compared to the proficient level performance standard.

### 2.1.1 PROFICIENT LEVEL PERFORMANCE STANDARD

The proficient level performance standard is the cut point where performance changes from not proficient to proficient. Figure D shows an example of a proficient level performance standard cut.

Figure D

## Performance Levels

## Below Proficient\% (279-446):

Students understand and show facts with two variables. They can identify a function. They can solve simple equations and identify a solution to a set of equations. They can find the value of simple square roots. They can find volumes of cylinders. They know the Pythagorean Theorem.

Approaching Proficient\% (447-498):
Students understand and show facts with two variables. They understand function rules. They solve problems using equations and sets of equations. They solve equations with simple square roots and cube roots. They can find volumes of a cylinder, cone, and sphere. They understand the Pythagorean Theorem. Proficient\% (499-553):
Students understand and study expressions and functions that have two variables. They can describe how aspects of functions are shown in different representations. They create and solve real-world and mathematical problems using equations and sets of equations. They know the difference between rational and irrational numbers and can find simple square roots and cube roots. They find volumes of shapes (e.g., cubes). They understand and apply the Pythagorean Theorem.

## Highly Proficient\% (554-667):

Students formulate and reason about equations and expressions with two variables. They create, study, and solve real-world and mathematical problems using equations and sets of equations. They work with the concept of functions and use them to describe relationships. They solve problems about volumes of shapes (e.g., cubes). They explain and use the Pythagorean Theorem.

## The cut that

determines whether a
score is not proficient or proficient.
This is also referred to as the proficient level performance
standard

Figure E illustrates the scale score ranges for the total test, compared to the standard cut. Notice that both the Below Proficient (279-446) and Approaching Proficient (447-498) ranges are combined to represent the Not Proficient scores (279-498), and likewise, the Proficient (499-553) and Highly Proficient (554-667) ranges are combined to represent the Proficient scores (499-667).

Figure $E$


### 2.2 REPORTING CATEGORY PERFORMANCE LEVELS

To take into account the imprecision of the reporting category scale scores, a standard error of measurement is computed for each student's reporting category score, creating an error band around the

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scale score. To illustrate this, assume that the SEM for a reporting category score is $\pm X$. The SEM is placed around the standard cut as we recognize that a reporting category score, including a score at the standard cut may be $\pm X$. Please see Figure F.

Figure F


This range of $\pm X$ around the standard cut score is designated as At/Near Standard. The range below is considered Below Standard, and the range above is considered Above Standard. Please see Figure G.

Figure $G$


As a result, for the reporting categories, there are three performance levels instead of the four that are on the total test: 1) Below Standard, 2) At/Near Standard, and 3) Above Standard.

Figure H shows an example of the reporting category performance level results for a student on an Interim report. The enlarged portion labeled A shows a representation of Figure G overlaid onto the Expressions and Equations results for this student (not to scale). This student's score (the black dot) and the error band $(\longmapsto)$ is completely above the standard cut, so the score portrays that student is proficient or Above Standard. This student scored Above Standard in each reporting category of the test.

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Figure H


If the lower bound of the error band is above the proficient level performance standard, the student is classified as above the proficient standard (as shown in Figure H). If the upper bound of the student's scale score is below the proficient level performance standard, the student is classified as below the proficient standard. And finally, if the student's error band overlaps the proficient level performance standard cut, the student is classified as performing near the proficient standard.

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## 3. INTERPRETATION OF INTERIM REPORTED SCORES: LONGITUDINAL TREND CHART

If a student has taken the same Interim Assessment more than once and/or has taken a Math or ELA Interim Assessment in more than one grade, there will be a Longitudinal Trend Chart available that displays the total test scores for the student over time. The information will be presented in a graphic and in a table. Please see Figure I.

Figure I


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## 4. INTERPRETATION OF INTERIM REPORTED SCORES: TEST QUESTION RESULTS AREA OF REPORT

For each reporting category on the Interim Assessment, the report will show the question number (A), the standard that the question measures (B), and the number of points the student earned out of total points possible per item (C). The report continues to show the overall test performance at the top of each page (D). Please see Figure J.

Figure J

| Isaacson, Brynne |  | Interim: Math Grade 8 2020-2021 |
| :---: | :---: | :---: |
| Student ID: AI-9990-9999990906 \| Student DOB: 3/8/2007 | Enrolled Grade: $8 \quad$ ClearSight M |  |  |
| Date Taken: $8 / 21 / 2020$ ClearSight Middle School |  |  |
| Performace: Highly Proficient |  |  |
| How Did Your Child Perform on Each Test Question? |  |  |
| Expressions and Equations |  |  |
| Question \# | B Standard | Points Earned/Points Possible |
| 15 | Analyze and solve pairs of simultaneous linear equations. c. Solve real-world and mathematical problems leading to two linear equations in two variables. For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair. | 1/1 |
| 16 | Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. | 1/1 |
| 20 | Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. | 1/1 |
| 21 | Use square root and cube root symbols to represent solutions to equations of the form $x^{\wedge} 2=p$ and $x^{\wedge} 3=p$, where $p$ is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that sqri2 is irrational. | 1/1 |
| 24 | Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed. | 1/1 |
| 29 | Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. | 1/1 |
| 34 | Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology. | 0/1 |

## 5. INTERPRETATION OF INTERIM REPORTED SCORES: HOW CAN THEY BE USED?

Interim Assessment results provide an indicator of student achievement of grade level academic content standards. At the individual student level, the assessment results show where students are with respect to achievement of grade level standard for each subject area, as well as performance with respect to each of the reporting categories, providing educators and parents not only with progress toward achievement of content standards, but also relative strengths and weaknesses that can inform individualized instruction. At the aggregate level, educators can evaluate the overall progress of their classrooms and schools toward achievement of grade level academic content standards, and can drill down to examine relative strengths and weaknesses for each of the assessed content standards, providing powerful information about where instruction is working and where further instruction would be most useful. When interim assessments are administered on multiple occasions, educators can monitor student progress toward achievement of grade level academic content standards to identify which students are making satisfactory progress toward achieving proficiency, and which students may need more individualized interventions.


[^0]:    *Test Reasons are used according to test administrators' choices; they do not influence a student's score in any way.

