Assessment Instrument Table: STAR READING®

Element	Description	Assessment Instrument Information
Instrument Name	Name of specific instrument (more than vendor name).	Star Reading
	Name of the company or organization that produces the instrument.	Renaissance Learning, Inc.
Purpose (Intended Use)	The described purpose and appropriate uses of the instrument.	Star Reading is a student-based, computer-adaptive assessment for measuring student achievement in reading. Star Reading fulfills a variety of assessment purposes, including interim assessment, screening, standards benchmarking, diagnosing skill gaps, skills-based reporting and instructional planning, and progress monitoring. Star Reading is the most widely used reading assessment in K12 schools. Educators get valid, reliable, actionable data in 15–20 minutes.
Population	Who (which students) could be assessed using the instrument.	Independent readers in grades K through 12
When? How frequently?	How frequently the instrument can be administered in a school year, and recommended or required administration windows.	As an interim assessment, Star Reading was designed for frequent administration. *Educators can administer Star Reading three times per year in fall, winter, and spring.* Educators may also administer Star Reading as a progress monitoring assessment as often as weekly. If a school wants to see a trend line that estimates proficiency on state tests, they administer an additional Star Reading test in late fall.
Content Area (s)	Content area or areas being assessed.	Star Reading is a K–12 test that focuses on measuring student performance with skills in five domains: • Word Knowledge and Skills • Comprehension Strategies and Constructing Meaning • Understanding Author's Craft • Analyzing Literary Text • Analyzing Argument and Evaluating Text

Element	Description	Assessment Instrument Information
Learning Objectives	Specific learning objectives being assessed, at as detailed a level as is provided. This may be "topics" or categories or may be actual learning objective statements.	The table below displays the domains, skill sets, and skill areas assessed by Star Reading. Star Reading's items test 470 grade-specific skills (multiple items are available to measure each skill). Due to the large number of grade-specific skills, they are not listed in the table.

Domain	Skill set	Skill area
Word Knowledge and Skills	Vocabulary Strategies	Use context clues
		Use structural analysis
	Vocabulary Knowledge	Recognize and understand synonyms
		Recognize and understand homonyms and multi-meaning words
		Recognize connotation and denotation
		Understand idioms
		Understand analogies
Comprehension Strategies and Constructing Meaning	Reading Process Skills	Make predictions
		Identify author's purpose
		Identify and understand text features
		Recognize an accurate summary of text
	Constructing Meaning	Understand vocabulary in context
		Draw conclusions
		Identify and understand main ideas
		Identify details
		Extend meaning or form generalizations
		Identify and differentiate fact and opinion
	Organizational Structure	Identify organizational structure
		Understand cause and effect
		Understand comparison and contrast
		Identify and understand sequence
Analyzing Literary Text	Literary Elements	Identify and understand elements of plot
		Identify and understand setting
		Identify characters and understand characterization
		Identify and understand theme

Element	Description	Assessment Instrument Information		
				Identify the narrator and point of view
			Genre Characteristics	Identify fiction and nonfiction, reality, and fantasy
				Identify and understand characteristics of genres
		Understanding Author's Craft	Author's Choices	Understand figurative language
				Understand literary devices
				Identify sensory detail
		Analyzing Argument and Evaluating Text	Analysis	Identify bias and analyze text for logical fallacies
				Identify and understand persuasion
			Evaluation	Evaluate reasoning and support
				Evaluate credibility
Individual Metrics	The scores provided at the individual (student) level.	All the results of Star Reading tests across grade levels are converted to a common scale using an item-response theory model; these **scaled scores** range from 0 to 1400. Scaled scores are useful in comparing student performance over time and in identifying performance and all criterion and norms associated with that scale.		

The scores provided at the individual (student) level.

All the results of Star Reading tests across grade levels are converted to a common scale using an item-response theory model; these **scaled scores** range from 0 to 1400. Scaled scores are useful in comparing student performance over time and in identifying performance and all criterion and norms associated with that scale.

The following scores which include comparison points in the score are also provided:

Norm-referenced scores:

- The **grade-equivalent** represents how a student's test performance compares with other students nationally. It ranges from 0.0 to 12.9+. For example, a student with a grade-equivalent of 7.6 performed as well as a typical seventh-grader in the sixth month of the school year.
- A **percentile rank** provides the best measure of a student's level of achievement compared to other students in the same grade nationally. A percentile rank ranges from 1–99, and it indicates the percentage of a student's peers whose scores were equal to or lower than the student's score. For example, a student who has a percentile rank of 85 performed as well as or better than 85 percent of students in the same grade.
- A **normal curve equivalent** is similar to the percentile rank, but it is based on an equal-interval scale. This means the difference between any two successive scores on the normal curve equivalent scale has the same meaning throughout the scale. Normal curve equivalents range from 1–99. Normal curve equivalents are primarily used for research; they are useful in making

Element	Description	Assessment Instrument Information

comparisons between different achievement tests and for statistical computations, such as for determining an average score for a group of students.

- **Student growth percentile (SGP)** is a measure of growth between a pre- and post-test relative to the growth made by other students in the same grade with the same pre-test score. It is a simple and effective way for educators to interpret a student's growth rate relative to that of his or her academic peers nationwide. SGPs for Star Reading are calculated using an approach similar to the Colorado Growth Model.

Specialty scores

- **Estimated oral reading fluency (Est. ORF)** is reported as an estimated number of words a student can read correctly within a one-minute time span on grade-level-appropriate text. It is an estimate of a student's ability to read words quickly and accurately to comprehend text efficiently. Students with oral reading fluency demonstrate accurate decoding, automatic word recognition, and appropriate use of the rhythmic aspects of language (for example, intonation, phrasing, pitch, and emphasis).

- **Instructional reading level** is a criterion-referenced score that indicates the highest reading level at which a student is at least 80 percent proficient at recognizing words and understanding material with instructional assistance.

- **Lexile® measure** is the highest reading level at which a student is at least 75 percent proficient in recognizing words and understanding material. The Lexile scale is a common scale for both text measure (readability or text difficulty) and reader measure (reading achievement scores); in the Lexile Framework, both text difficulty and person reading ability are measured on the same scale.

- **Zone of Proximal Development (ZPD)** is an individualized range of readability levels based on a student's results from a Star Reading assessment. Books students choose to read within their ZPD range should neither be too difficult nor too easy and should allow students to experience optimal growth. A Lexile ZPD range is also available, which is a student's ZPD Range converted to the MetaMetrics® Lexile scale of the readability of text.

Element	Description	Assessment Instrument Information
Individual Comparison Points (cut scores)	Information provided regarding how good is good enough	Star Reading provides maps of scaled score ranges to: • Grade-level equivalent scores (from 0.0 to 12.9+) • Percentile ranks (associated with Grade Placements)

Element	Description	Assessment Instrument Information
	performance on the instrument.	• Instructional Reading Level conversions These maps provide comparison points for scaled scores by grade level. Districts can set performance categories based on their own cut scores for the Star Reading scaled score to color-coded individual and group performance by category, such as: At Benchmark, On Watch, Intervention, and Urgent Intervention. Once cut scores have been set, Star Reading reports categorize individual students' scaled scores according to these color-coded performance categories. All but the Star Reading scaled score include comparison points as part of the metric definition.
Aggregate Metrics	Scores provided at the group level. The groups for which scores are reported. The group could be a grade level, school, district, or disaggregated groups (e.g. race/ethnicity, gender, IEP status, FRL status) Specify the group(s) and the score(s) provided.	When districts set cut scores for individual student scaled scores to establish performance categories, these categories are used to provide aggregate metrics, including the percent and number of students by district benchmark category (available by grade at the district, school levels) across years of available data. These metrics can be calculated using cross-sectional data (same grade year to year) or for the same students over multiple years. The following additional aggregate metrics are also provided: • Median Student Growth Percentile: the middle student growth percentile within the included group. This metric is reported for different time periods (fall to spring, spring to spring) by grade level within school, grade level within the district, and by class. • Average scores at the school by grade level and classroom levels of the following individual metrics: scaled score, grade equivalent, percentile rank, normal curve equivalent, instructional reading level, and estimated oral reading fluency. • Percent of students in or above the estimated mastery range for reading standards (Colorado Academic Standards) by school and by class within the school: Star Reading provides an estimate of the students' mastery of standards by aligning them to the same 1400-point difficulty scale used to report Star Reading scores. The estimated mastery range identifies a band of scores where the student is just below or above mastery. The percentage of students who score in or above this range indicates overall progress toward standards mastery.

Element	Description	Assessment Instrument Information
Aggregate Comparison Points (vendor)	Information provided regarding how good is good enough performance at the group level.	Because most of the individual metrics provided for Star Reading are norm-referenced scores, almost all of the aggregate metrics provided by this vendor also include a comparison point within the metric definition. This includes the following metrics (described on the previous page): • Percent/number scoring at district-determined performance levels (note districts determine the comparison points used in these metrics when they set their own cut scores for different performance levels) • Median growth percentiles • Average grade equivalent • Average percentile rank • Average normal curve equivalent • Average instructional reading level • Average estimated oral reading fluency • Percentage of students in or above estimated mastery range for reading standards

Element	Description	Assessment Instrument Information
Aggregate Comparison Points (CDE)	Cut scores identified by CDE for requests to reconsider	The table below provides aggregate metrics for cut scores identified for the 50th percentile. CDE-provided comparison points include Fall and Spring Mean Scale Scores and Median Growth Percentiles for each grade level.

Note: The CDE comparison points for Star Reading for the 2017-18 Request-to-Reconsider process have been revised from previous years.

READING – Scale Scores by Grade Level			
	Fall Scale Scores	Spring Scale Scores	Scale Score Growth (Fall to Spring)
Grade	50th Percentile Scale Score	50th Percentile Scale Score	Median Growth Percentile Meets Rating
1	75	139	50
2	219	317	50
3	362	435	50
4	465	522	50
5	570	640	50
6	684	795	50
7	811	895	50
8	921	994	50
9	1026	1116	50
10	1124	1167	50
11	1172	1204	50
12	1224	1244	50

Element	Description	Assessment Instrument Information
Data Reports	Description of data reports that are provided/available at the individual and aggregate level(s).	Scores are displayed on a variety of reports that educators can choose to run at the classroom, grade, school, or district level. In addition, administrators can customize many of the Star Reading reports to view information about participation and performance across the district and by various demographic subgroups (for example, students receiving free and reduced lunch, English language learners, etc.). On the following page, we describe key Star Reading reports, including levels for which the report is available.

Element	Description	Assessment Instrument Information
		Growth Proficiency Chart (student, class, grade, district) plots SGP and proficiency on a quadrant graph so that educators can easily see whether students are challenged and growing every year, regardless of their academic starting point. **Growth Report (student, class, grade, school)** shows educators whether students are reaching their growth expectations. The Growth Report includes median student growth percentiles and averages for the following metrics: scaled score, grade equivalent, percentile rank, normal curve equivalent, instructional reading level, and estimated oral reading fluency. **State Performance Report (student, class, grade, school, district)** predicts student performance on high-stakes tests. Predictions account for growth that typically occurs between the date of the last Star Reading test taken and the date of the state test. At the school, grade, and district levels, this report lists the percentage and number of students projected to be at each performance level assessed by the state test when the test is administered. At the class level, the report shows the average scores for the class. **State Standards Report (student, class, grade, district)** gauges students' current and projected mastery according to the Colorado Academic Standards. At the student level, these reports measure an individual student's performance on the state standards via scaled score; at the class level, the report shows the percentage of students demonstrating mastery of the standards; and at the district level, the report shows how each grade level within a school or the district is performing. For additional information please see _Key Report Samples_ for the Star assessments.
Alignment	Information provided by the vendor about alignment of this instrument to other instruments, standards, etc.	Star Reading features rigorously calibrated items that test 470 discrete skills, all designed to align to national and state curriculum standards in reading and language arts. Star Reading is aligned to the Colorado Academic Standards and is placed on the Colorado-specific learning progression for reading. Star Reading is specifically aligned to the Colorado Academic Standards reading domains, including Reading Literature, and Informational Text and Reading Foundational Skills. It is also aligned to the vocabulary standards included within the Language domain. The relationship between Star Reading scores with other standardized reading assessments has been psychometrically studied and documented. Detailed information is provided in the _Star Reading Technical Manual_.

Element	Description	Assessment Instrument Information
Technical Quality	Information about the technical quality of the instrument. Reference to technical analysis if available electronically.	Star Reading has met the highest standards of reliably and validity set forth by the U.S. Department of Education's National Center on Response to Intervention (NCRTI), the most trusted source for unbiased evaluation of screening and progress-monitoring tools for Response to Intervention. NCRTI has found the Star assessments deserving of the highest rating of "Convincing Evidence" for screening and progress-monitoring. For details, please visit *http://www.rti4success.org/resources/tools-charts/screening-tools-chart*.

Star Reading also met the highest psychometrics standards for progress monitoring by the U.S. Department of Education's National Center on Intensive Intervention. For details, please visit *http://www.intensiveintervention.org/chart/progress-monitoring*.

Star Reading is extremely reliable as evidenced through analyses of generic reliability, split-half reliability, test-retest reliability, and standard error of measurement. Details are available on pages 46–59 of the *Star Reading Technical Manual*.

The assessment is also a valid measure of independent reading achievement. Data can be used to diagnose early reading deficiencies and predict children's later reading development. Evidence of the assessment's concurrent, predictive, and construct validity is presented on pages 60–93 of the *Star Reading Technical Manual*. The Star Reading blueprints and the alignment study of both assessments with the Colorado Academic Standards provide additional evidence of the tests' construct validity. |