



Start Strong Assessment

Score Interpretation Guide & Test Designs



Fall 2020



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1.0 General Information

1.1 Background

The Start Strong Assessments for English Language Arts (ELA), Mathematics, and Science provide educators and parents with an initial indication of some conceptual or skill gaps that might exist in a student's understanding of the New Jersey Student Learning Standards (NJSLS) and the level of support students may need to inform instruction. The Start Strong Assessments are available for students in 4th through 8th grades and high school (HS).

1.2 Purpose of Start Strong Assessment

The Start Strong Assessments' primary purpose is to provide instructional information for classroom teachers and school and district leaders about student needs for additional support upon returning to school and beginning grade-level instruction. The Start Strong Assessments are **not** a summative assessment of student learning following a period of instruction. It does **not** cover the full breadth and depth of the NJSLS nor does it include all of the same item types. The Start Strong Assessments produce classroom-level information as a standards-based complement to the resources used locally to evaluate the needs of students. They provide an initial indication of some conceptual or skill gaps that might exist in a student's understanding of the NJSLS and the level of support students may need to inform instruction. The information provided by these assessments are only one piece of the puzzle used to holistically understand a student's academic performance. The data should only be used with other supporting evidence (assignments, homework, etc.) when drawing conclusions about a student's overall academic performance.

Because the assessments are intended to be administered at the beginning of the new school year, specific learning standards from the previous grade level (or logical HS course) were selected to construct this brief assessment. For example, the Grade 5 ELA Start Strong Assessment is based on a subset of NJSLS for Grade 4 ELA. Further, the Start Strong Assessment uses test questions and passages that appeared on previous end-of-year (summative) assessments. For example, previously released Grade 4 items and passages were used to create the Grade 5 ELA Start Strong Assessment test. It is important to note that the Start Strong Assessment does not assess all of the learning standards on the summative assessment and therefore does not include all of the same item types, such as constructed-response items. The Start Strong Assessment only includes machine-scored selected-response and technology-enhanced items. Likewise, because the released item pool was used to create the Start Strong forms, there may be examples of types of test questions that are no longer developed for the New Jersey Student Learning Standards Assessment (NJSLA) but were deemed appropriate for the Start Strong Assessment. The Start Strong Assessment is not a replica of or replacement for the NJSLA.

In some cases, the task models used on the summative assessment were broken into component parts to fit the design and time constraints of the Start Strong Assessment. The full bank of released items, including the complete task models, as well as alignment documents, scoring keys, and guides for ELA and Math are available at

<https://resources.newmeridiancorp.org/released-items/>. For Science, please refer to <https://www.measinc.com/nj/science>.

Table 1 shows the assessments available for the Start Strong Assessment.

For ELA/Math: The test codes reflect the grade/course students are starting in School Year 2020-2021. The test content reflects previous grade/course standards.

For Science: The test codes and the test content reflect the grade students were in School Year 2019-2020.

Subject	Test Code	Grade/Course in SY2019 – 2020	Content of the Assessment	
ELA	ELA04	Grade 4	Grade 3	
	ELA05	Grade 5	Grade 4	
	ELA06	Grade 6	Grade 5	
	ELA07	Grade 7	Grade 6	
	ELA08	Grade 8	Grade 7	
	ELA09	Grade 9	Grade 8	
	ELA10	Grade 10	Grade 9	
	Math	MAT04	Grade 4	Grade 3
		MAT05	Grade 5	Grade 4
		MAT06	Grade 6	Grade 5
MAT07		Grade 7	Grade 6	
MAT08		Grade 8	Grade 7	
ALG01		Algebra I	Grade 8	
ALG02		Algebra II	Algebra I	
GEO		Geometry	Grade 8	
Science		SC05	Grade 6	Grade 5
		SC08	Grade 9	Grade 8
		SC11	Grade 12	Grade 11

1.2.a Special Information for High School Start Strong Mathematics Assessment

Students beginning Algebra I, Geometry, and/or Algebra II may have taken different mathematics courses depending on their unique course pathway. When designing Start Strong for Algebra I, the 8th grade learning standards on algebraic concepts were selected for the test blueprint. Because of the limited information Algebra I learning standards would provide to indicate the level of support needed for Geometry, the 8th grade learning standards emphasizing geometry concepts were used to construct the Geometry test. The following chart describes the academic standards and items from which the Algebra I, Geometry, and Algebra II assessments were created. The test blueprints (See Appendix A) describe the range of learning standards from which the Start Strong assessments were built.

Precursor New Jersey Student Learning Standards and Aligned Items	Corresponding Start Strong Assessment
8 th grade mathematics	Algebra I
8 th grade mathematics	Geometry
Algebra I	Algebra II

1.2.b Special Information for Science Start Strong Assessment

Since the Start Strong Science Assessment is intended to be administered at the beginning of the school year, it is administered to students in grades 6, 9 and 12. The NJSLA-Science encompasses standards taught over several years, and therefore the Start Strong Science Assessment does as well. For example, the Start Strong Science Assessment in grade 6 covers material taught in grades 3 through 5. However, since the Start Strong Science Assessment is a shorter test, it does not cover all the standards that the NJSLA-Science does.

Precursor New Jersey Student Learning Standards and Aligned Items	Corresponding Start Strong Assessment
Science Grade 3 - 5	Grade 6 Science
Science Grade 6 - 8	Grade 9 Science
Science Grade 9 - 11	Grade 12 Science

1.3 Test Administration

The Start Strong Assessment is intended to be administered primarily online using Pearson’s TestNav online test delivery platform. PDFs of the online test are provided for any student requiring a locally printed paper-based form (Note: Any paper attempt must be transcribed into TestNav to be scored and reported). The Start Strong Assessment is available in ELA grades 4 – 10, Mathematics grades 4 – 8, Algebra I, Algebra II, and Geometry, and in Science grade 6, 9, and 12 and is in English, Spanish (Math & Science), and Text to Speech (TTS). It is estimated that the Start Strong Assessment takes a single class period to administer per subject (approximately 45–60 minutes).

In addition, the Start Strong Assessment may be administered at the student’s home or at school. Therefore, the Start Strong Assessment does not have the same security protocols as other high-stakes summative assessments used for accountability purposes. Security protocols and administration instructions are provided to test administrators and parents/guardians in the [Start Strong Test Administrator Guide](#) and the [Start Strong Remote Testing Parent/Guardian Administrator Guide](#). The results inform teachers and school and district leaders which students may need the most support during the 2020–21 school year and in what topics.

1.4 Confidentiality of Reporting Results

Districts may choose to report local data to schools and parents. In doing so, the following should be considered. Individual student performance results on Start Strong assessments are confidential and may be released only in accordance with a number of federal laws as presently amended: the 1946 Richard B. Russell National School Lunch Program Act, the 1974 Family Educational Rights and Privacy Act (FERPA), and the 1975 Individuals with Disabilities Education Act. More specifically, in the reporting of group assessment information, data must be suppressed when it would otherwise be possible to infer the performance of individual students.

In practice, it is common to suppress numbers where a group size is fewer than ten and to suppress totals when it is possible to calculate back to the results of two students. Precautions are also taken when it is possible to infer individual information because all the students in a district, school, or a population group fall into a category or to a level that has negative connotations associated with it. In the method used by the NJDOE to safeguard confidentiality, suppressed numbers in reports are replaced by asterisks. Whenever any data suppression measures are employed, a statement is needed explaining that it was done to protect student confidentiality. To

find more information on access to public records click on the Citizens Guide to the Open Public Records Act at: <https://www.nj.gov/grc/public/citizens/>.

1.5 Purpose of this Guide

This guide provides information on the Start Strong Student Reports, School Reports, and District Reports provided for the Start Strong Assessment results. Section 2.0, which outlines and explains elements of the Start Strong Student Report, may be shared with parents. This section will help parents/guardians understand their Student's test results. Section 3.0 outlines and explains elements of the other Start Strong reports.

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. Sample reports do not include actual data from any test administration.

2.0 Understanding the Start Strong Student Report

2.1 Accessing the Start Strong Assessment Student Reports

Users must have the District Test Coordinator or Report Access Role to view OnDemand Reports. District Test Coordinators and School Test Coordinators with the Report Access role may grant the Report Access Role to other users. In addition, Test Administrators assigned to reporting groups may also view results for student tests that are also assigned to the same reporting group.

To access the Start Strong Assessment Student Reports, please follow these steps.

1. To view the reports, first login to PearsonAccess^{next} at <http://nj.pearsonaccessnext.com>
2. Select the administration from the administration drop down menu on the top of the screen (New Jersey > Start Strong > Start Strong 2020-2021) From the Home page, under Reports, select OnDemand Reports to access the Start Strong Student Report.

To view each report, you must first search and select the students you wish to see. You may search for a specific student name or statewide student identifier. Or use the filters for Organization Name, Test, and/or Group to select the group of students you are interested in. If no students appear, make sure the filters do not conflict with each other. For example, selecting a high school in the Organization Name field and “Grade 4 Mathematics” in the Test field will not display any results if no one in the high school has taken that test. More information about creating reporting groups and assigning students and users to them may be found on the NJSLA Resource Center. <https://nj.mypearsonsupport.com>.

Click on the blue information icon  next to the student’s Statewide Student Identifier to see their Start Strong Student Report. Click on the Print button to create a PDF of this list, or a PDF containing all the Start Strong Student Reports for the students listed. The PDF may be saved to your computer. Users with the appropriate role may also download the reports in Excel and CSV format along with the PDF format.

2.2 Types of Scores on the Start Strong Student Report

Student performance on the Start Strong Assessment is described on the Start Strong Student Report using overall raw score and a “level of support” classification for the assessment.

2.2.1 Raw Score

Unlike the NJSLA, the Start Strong Assessment provides an overall raw score as opposed to a scale score. A raw score represents the total number of points earned on the assessment. While it can be used to compare students who took the same assessment (e.g., Grade 4 ELA), it cannot be used to compare students from an ELA assessment to students who took the mathematics assessment or science assessment, nor could it be used to compare students in 4th grade to 5th grade.

Raw scores are provided to give information about student points earned out of the total number of points possible on the assessment. Because the Start Strong Assessment is a classroom assessment for gauging where students are in their learning of previous content standards,

converting the raw score to a percent correct for the purpose of assigning a grade is not appropriate.

2.2.2 Support Level

Students are categorized into one of three support levels based on their individual total raw scores. Each support level is defined by a range of overall raw scores for the assessment. There are three support levels for the Start Strong Assessments:

- Level 1: Strong Support May Be Needed
- Level 2: Some Support May Be Needed
- Level 3: Less Support May Be Needed

Students performing at a level 3 may not require additional academic/instructional support in the tested content area while students in level 1 will likely benefit from additional academic/instructional support in the tested content area.

The threshold for determining whether a student is in level 1, 2, or 3 is based on the same thresholds used for the NJSLA.

For ELA/Math, the performance levels 1 and 2 from NJSLA were combined to represent the Start Strong Assessment support level 1. The performance level range from NJSLA for level 3 represents the Start Strong Assessment support level 2. Finally, the performance levels 4 and 5 from NJSLA were combined to represent the Start Strong Assessment support level 3.

For Science, the performance level 1 from NJSLA represents the Start Strong Assessment support 1. The performance level 2 from NJSLA represents the Start Strong Assessment support level 2. Finally, the performance levels 3 and 4 from NJSLA were combined to represent the Start Strong Assessment support level 3.

While the support level thresholds were empirically derived, it is important to note the following:

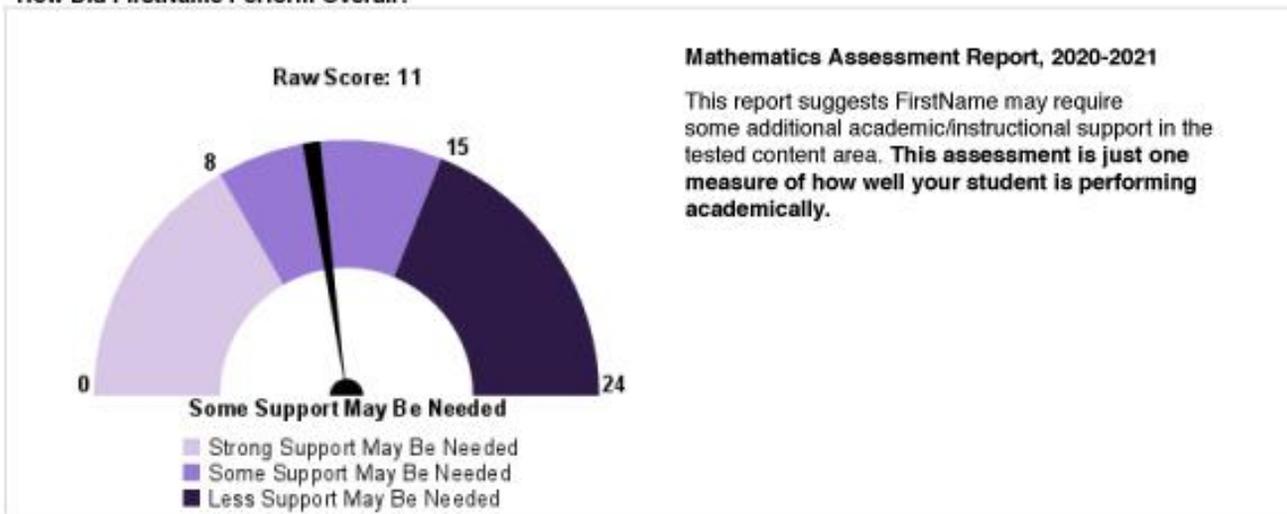
- The Start Strong Assessment does provide initial information about students' levels of support needed upon return to school.
- The Start Strong Assessment does not replace the results from the previous year's summative assessment.
- The Start Strong Assessment does not predict student performance on a future summative assessment.

FirstName LastName (3650000050)

Test Details

Test Name Grade 04 Mathematics	Grade 04	Date of Birth 05/19/2005
Test Date 08/27/2020	Testing District PV BE DISTRICT 500700	Testing School PV BE SCHOOL 509 (500700-509)

How Did FirstName Perform Overall?



The Mathematics Content Standards that the Start Strong Assessment measures are considered major content clusters within the New Jersey Student Learning Standards (NJSLS). The NJSLS concentrates on a clear set of math skills and concepts that students should understand and be able to do in any given year.

For more information, please refer to the NJ Start Strong Score Interpretation Guide in the Start Strong section at the [NJSLA Resource Center, https://nj.mypearsonsupport.com](https://nj.mypearsonsupport.com).

Student reports provide the overall raw score which represents the total number of points earned on the assessment. In this example, the student scored an 11 out of a possible 24 points. This places the student in the *Some Support May Be Needed* category. A raw score less than 8 would place a student in the *Strong Support May Be Needed* category, and a score over 14 places them in the *Less Support May Be Needed* category. As a reminder, this is a single assessment; educators are encouraged to triangulate data from other informal assessments or notes from last year’s teacher(s) to guide your work.

Scores on this assessment cannot be compared to student scores on other assessments or to student performance in other grades. Rather, you can review how students fall into categories across a classroom or within grade. For example, if all students fall into one category educators may adjust whole-class instruction to support them at their reported level.

These categories should serve as a guide; remember that the assessment measures a subset of the ELA, mathematics, or science standards from last year. Students may have forgotten content or not used these skills for several months and therefore did not demonstrate the skills on the assessment. As a result, some students might need just a quick refresher. Another possibility is that students may not have had an opportunity to learn those skills at all or were instructed in a less optimal environment and will need to learn them.

Use this data to inform a starting place. As a next step, educators may want to organize results by their school grade levels or classrooms. Then, collect additional information and organize the results to inform decision-making.

Next Steps for Data Analysis

After downloading the .csv or excel file from the Student List, you may sort the data to determine how many students' scores are in each category. Are most in one of the three categories? Or are scores spread among them?

While not likely, educators may find that most of their students' scores fall into one category, and the starting place will be simplified. For example, if most students are in the *Less Support May Be Needed* category, a quick overview of last year's material may be all that is needed before moving on to this year's grade/course material. Similarly, if most students are in the *Some Support May Be Needed* category, a review to refresh students' memories may be enough. However, in some cases, additional or new instruction may be needed. Educators can use multiple informal assessments to determine if understanding is occurring quickly (students need a refresh) or slowly (students need to learn). In a final example, if most students are in the *More Support May Be Needed* category, educators may want to review the previous grade standards and prepare lessons to address them. Again, a variety of informal and formal assessments can be used to let educators know when students are ready to move on to new content.

The likeliest result is that you will find student scores in all three categories. In this case, it may be helpful to identify common areas of need. To do this, you may need to look at the question-by-question results to identify any standards the missed items might converge around. To do that, you might develop a quick check-in on last year's standards. The New Jersey Student Learning Assessments Resource Center (<https://nj.mypearsonsupport.com>) is a great source for content and assessment items that could be adapted for whole class or small group instruction.

3.0 Other Start Strong Reports

In addition to the Start Strong Student Report, teachers, school and district leaders will have access to other reports that provide question-level information. Data files will be available under the Published Reports section of PearsonAccess^{next}.

3.1 Accessing the Results by Question and Student Performance Item Level Reports

To access the Start Strong Assessment Student Reports, please follow these steps.

1. To view the reports, first login to PearsonAccess^{next} at <http://nj.pearsonaccessnext.com>
2. Select the administration from the administration drop down menu on the top of the screen (New Jersey > Start Strong > Start Strong 2020-2021) From the Home page, under Reports, select the Results by Question Report or the Performance Item Level Report.

3.2 Results by Question Report

The Results by Question report provides users with group-level information about student performance on specific items or test questions. Note that in some cases, test questions align to more than one NJSL. The standards to which the items are aligned are provided, as well as the reporting category the item is associated with and the number and percent of students who answered the items correctly, incorrectly, and partially correctly (for those items that are worth more than 1 point).

Question	Standards	Reporting Concepts	Correct	Incorrect	Partial
Question 1	8.EE.A.1	Radicals, Integer Exponents, Proportional Relationships, and Lines	3 (100%)	0 (0%)	0 (0%)
Question 2	8.EE.A.4	Radicals, Integer Exponents, Proportional Relationships, and Lines	3 (100%)	0 (0%)	0 (0%)
Question 3	8.EE.A.2	Radicals, Integer Exponents, Proportional Relationships, and Lines	3 (100%)	0 (0%)	0 (0%)
Question 4	8.EE.A.2	Radicals, Integer Exponents, Proportional Relationships, and Lines	3 (100%)	0 (0%)	0 (0%)
Question 5	8.EE.C.8.a	Linear Equations	3 (100%)	0 (0%)	0 (0%)
Question 6	8.EE.C.7.b	Linear Equations	3 (100%)	0 (0%)	0 (0%)
Question 7	8.EE.C.8.b	Linear Equations	3 (100%)	0 (0%)	0 (0%)
Question 8	8.EE.C.8.a	Linear Equations	3 (100%)	0 (0%)	0 (0%)
Question 9	8.F.A.1	Functions	3 (100%)	0 (0%)	0 (0%)
Question 10	8.F.A.3	Functions	3 (100%)	0 (0%)	0 (0%)
Question 11	8.F.A.1	Functions	3 (100%)	0 (0%)	0 (0%)

By clicking on the **i** icon to the right of the question number, users can view the item. By clicking the **i** icon to the right of the standard name, users can view the full text of the standard(s) associated with the item. This interactivity is not available in the PDF version of the report, should the users click “Print.” In the PDF version of this report, however, the standard text for all standards to which the assessment is aligned is provided at the bottom of the report.

By clicking on the “Show Students” checkbox within the filters on the left, users can view individual student results by question. Users may also search by standard code to isolate those results for a particular standard. While School Test Coordinators and District Coordinators will be able to view all student results, test administrators will be limited to only the students to which they administered the Start Strong assessment.

Results by Question Report

Student Name	Test Date	Question 5	Question 6	Question 7	Question 8
Standard: 8.EE.B.5		6 (60%)	3 (30%)	5 (50%)	7 (70%)
Arizona, StudentA (1234567890)	10/01/2020	✔	✔	✔	✔
Bismark, StudentB (2348911230)	10/15/2020	◐	◐	◐	◐
Duluth, StudentC (5468615118)	11/01/2020	✔	◐	◐	✔
Kansas, StudentD (9879878978)	01/01/2021	✔	◐	✔	✔
Loveland, StudentE (7787555775)	10/15/2020	◐	◐	◐	◐
Montana, StudentF (3456789012)	11/01/2020	○	○	○	○
Queens, StudentG (4891123016)	10/15/2020	✔	✔	✔	✔
Tulsa, StudentH (6151182347)	01/01/2021	◐	◐	◐	✔
Vermont, StudentI (8798789786)	01/01/2021	✔	○	✔	✔
Washington, StudentJ (0787555775)	10/15/2020	✔	✔	✔	✔

To understand the icons in these reports, please refer to this key:

✔	Correct Response
◐	Partially Correct Response
○	Incorrect Response
---	No Response Received
n/a	Response to a question type other than single/multiple choice

3.2.a Scoring Rules

The scoring rules and maximum number of points dictate if a student's response is correct, partially correct, or incorrect. For specific information on the scoring rules for ELA and math, visit: https://resources.newmeridiancorp.org/released-items/?fwp_document_type_facet=document-type-scoring-rules

3.3. Student Performance Item Level Report

The Student Performance Item Level Report allows users to analyze and compare the support level assigned to individual students within a group. School and District Test Coordinators have access to all students within the school or district; test administrators have access to the students to which they are assigned.

You may use the filters on the left side of the screen to filter to the group of students that you are interested in. The number of total students selected is displayed at the top. If students tested more than once, they will only appear once on this report. Selected students are listed by last name, first name, middle name, and their Statewide Student Identifier.

Student Performance Item Level

Filters Clear Hide

Organization Name*

PV BE SCHOOL 508 (5... ✕)

Subject

Test Name

Select one

Reporting Group

Select one or more

Support Level

Select one or more

Test Date (yyyy-mm-dd) Starts with

Starts with

Total Students Reported: 223

Print Displaying 25

Student	Test Name	Test Date	Support Level
PV BE SCHOOL 508			
AACZPVL, AACZPVF IVUCTMNV (1010101092) ⓘ	Grade 09 Science	08/27/2020	Less Support May Be Needed
ADDINL, ADDINF GRIYM (1010102263) ⓘ	Grade 12 Science	08/24/2020	Strong Support May Be Needed
AJPVL, AJPVF IVUCTMNV (1010101786) ⓘ	Grade 12 Science	08/24/2020	Less Support May Be Needed
BDPVL, BDPVF IVUCTMNV (1010101783) ⓘ	Grade 12 Science	08/24/2020	Less Support May Be Needed
BNOAILEY, BBDARBIE GRIYM (1010101775) ⓘ	Grade 12 Science	08/24/2020	Strong Support May Be Needed
BODINL, BODINF IVUCTMNV (1010102256) ⓘ	Grade 12 Science	08/24/2020	Strong Support May Be Needed
BSDINL, BSDINF IVUCTMNV (1010102261) ⓘ	Grade 12 Science	08/24/2020	Strong Support May Be Needed
CCPVL, CCPVF IS (1010101787) ⓘ	Grade 12 Science	08/24/2020	Less Support May Be Needed
CDPVL, CDPVF GRIYM (1010101785) ⓘ	Grade 12 Science	08/24/2020	Less Support May Be Needed
CEDBPVL, CEDBPVF GRIYM (1010101189) ⓘ	Grade 09 Science	08/27/2020	Some Support May Be Needed
CFPVL, CFPVF IVUCTMNV (1010101087) ⓘ	Grade 09 Science	08/27/2020	Strong Support May Be Needed
CIPVL, CIPVF IVUCTMNV (1010101781) ⓘ	Grade 12 Science	08/24/2020	Strong Support May Be Needed
CPPVL, CPPVF IQ (1010101774) ⓘ	Grade 12 Science	08/24/2020	Strong Support May Be Needed

By clicking on the ⓘ icon users can see individual student performance on the Start Strong Assessment. This includes the following information:

- Question number
- Correct response (for multiple-choice and multiple-select item types only)
- Student response (for multiple-choice and multiple-select item types only)
- Points earned
- Points possible
- Standard(s) to which the question is aligned
- Reporting category to which the standard is aligned

Teachers can use the correct response and student response with the item shown in the Results by Question report by clicking on the ⓘ next to the question number. Using these two reports in combination allows teachers to identify potential misconceptions students may have and provides cues for adjusting instruction.

RAUPVSTRONGSLN, RAUPVSTRONGSFN N (5089999206)

Student Code 5089999206	Test Name Grade 10 ELA	Subject ELA
District PV BE DISTRICT 500700 (500700)	School PV BE SCHOOL 508 (500700-508)	Test Date 08/30/2020

Question	Correct Response	Student Response	Performance	Points Earned	Points Possible	Standards	Reporting Concepts
Grade 10 ELA			Some Support May Be Needed				
1	B : D	B : D	✔	2	2	RL.9-10.1:RL.9-10.2	Literature
2	n/a	n/a	✔	2	2	RL.9-10.1:RL.9-10.2	Literature
3	B : C	B : C	✔	2	2	RL.9-10.1:RL.9-10.2:RL.9-10.3	Literature
4	C : AF	C : AF	✔	2	2	RL.9-10.1:RL.9-10.3:RL.9-10.6	Literature
5	A : B	A : B	✔	2	2	RI.9-10.1:L.9-10.4:RI.9-10.4	Informational
6	B : B	A : A	○	0	2	RI.9-10.1:RI.9-10.5	Informational
7	A : D	B : D	○	0	2	RI.9-10.1:RI.9-10.4	Informational
8	C : B	A : A	○	0	2	RI.9-10.1:RI.9-10.5	Informational
9	n/a	n/a	○	0	2	RI.9-10.1:RI.9-10.2	Informational
10	C : D	A : A	○	0	2	RI.9-10.1:RI.9-10.6	Informational

- ✔ Correct Response
- ◐ Partially Correct Response
- Incorrect Response
- No Response Received
- n/a Response to a question type other than single/multiple choice

Reporting Concepts Descriptions

Informational	In this reporting category, students should be able to demonstrate knowledge of key ideas and details, craft and structure, and integration of knowledge and ideas when reading informational texts from the prior grade-level. Students should also be able to quote accurately from a text when explaining what the text says explicitly and when drawing inferences from readings from the prior grade-level.
Literature	In this reporting category, students should be able to demonstrate knowledge of key ideas and details, craft and structure, and integration of knowledge and ideas when reading literary texts from the prior grade-level. Students should also be able to quote accurately from a text when explaining what the text says explicitly and when drawing inferences from readings from the prior grade-level.

For information on New Jersey Student Learning Standards (NJSLs) for English Language Arts, please visit <https://www.nj.gov/education/aps/cccs/lal/>.

It is important to note that the correct response and student responses are not available for technology-enhanced item types as the correct response for these items are embedded in the coding within the item that is not accessible to be read into this report.

Appendix A

1.0 Start Strong Blueprints

These tables describe information about how the 2020 Start Strong assessments were designed. Note that information about standard alignment for specific items will be available in the Start Strong reports.

1.1 English Language Arts

Grade 4 based on Previous Grade's Learning Standards

Passage Type	# of Passages	Reporting Category	Points from EBSR/TECR items
Literary	1	Reading: Literary Text	10
Informational	1	Reading: Informational Text	8
Total	2		18

Grades 5, 6, 7, 9 &10 based on Previous Grade's Learning Standards

Passage Type	# of Passages	Reporting Category	Points from EBSR/TECR items
Literary	1	Reading: Literary Text	8
Informational	1	Reading: Informational Text	12
Total	2		20

Grade 8 based on Previous Grade's Learning Standards

Passage Type	# of Passages	Reporting Category	Points from EBSR/TECR items
Literary	1	Reading: Literary Text	10
Informational	1	Reading: Informational Text	10
Total	2		20

1.2 Mathematics

Grade 4 based on Previous Grade's Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Operations and Algebraic Thinking	Represent and solve problems involving multiplication and division (3.OA.A.1 - 3.OA.A.4)	Operations and Algebraic Thinking: Understand Multiplication and Division	5	5
Operations and Algebraic Thinking	Understand properties of multiplication and the relationship between multiplication and division (3.OA.B.5 - 3.OA.B.6)	Operations and Algebraic Thinking: Understand Multiplication and Division	1	1
Operations and Algebraic Thinking	Multiply and divide within 100 (3.OA.C.7)	Operations and Algebraic Thinking: Use Operations	2	2
Operations and Algebraic Thinking	Solve problems involving the four operations, and identify and explain patterns in arithmetic (3.OA.D.8 - 3.OA.D.9)	Operations and Algebraic Thinking: Use Operations	2	4
Number and Operations - Fractions	Develop understanding of fractions as numbers (3.NF.A.1 - 3.NF.A.3)	Number and Operations – Fractions	6	6
Measurement and Data	Solve problems involving measurement and estimation (3.MD.A.1 - 3.MD.A.2)	Measurement and Data	3	4
Measurement and Data	Geometric measurement: understand concepts of area and relate area to multiplication and to addition (3MD.C.5 - 3.MD.C.7)	Measurement and Data	2	2

Grade 5 based on Previous Grade's Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Operations and Algebraic Thinking	Use the four operations with whole numbers to solve problems (4.OA.A.1 - 4.OA.A.3)	Operations and Algebraic Thinking	6	6
Number and Operations in Base Ten	Generalize place value understanding for multi-digit whole numbers (4.NBT.A.1 - 4.NBT.A.3)	Number and Operations: Base Ten	3	3
Number and Operations in Base Ten	Use place value understanding and properties of operations to perform multi-digit arithmetic (4.NBT.B.4 - 4.NBT.B.6)	Number and Operations: Base Ten	4	4
Number and Operations - Fractions	Extend understanding of fraction equivalence and ordering (4.NF.A.1 - 4.NF.A.2)	Number and Operations: Understand Fractions	4	5
Number and Operations - Fractions	Understand decimal notation for fractions, and compare decimal fractions (4.NF.C.5 - 4.NF.C.7)	Number and Operations: Understand Fractions	1	1
Number and Operations - Fractions	Build fractions from unit fractions (4.NF.B.3 - 4.NF.B.4)	Number and Operations: Build Fractions	5	6

Grade 6 based on Previous Grade's Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Number and Operations in Base Ten	Understand the place value system (5.NBT.A.1 - 5.NBT.A.4)	Number and Operations: Base Ten	5	5
Number and Operations in Base Ten	Perform operations with multi-digit whole numbers and with decimals to hundredths (5.NBT.B.5 - 5.NBT.B.7)	Number and Operations: Base Ten	2	2
Number and Operations - Fractions	Use equivalent fractions as a strategy to add and subtract fractions (5.NF.A.1 - 5.NF.A.2)	Number and Operations: Equivalent Fractions	5	6

Number and Operations - Fractions	Apply and extend previous understandings of multiplication and division (5.NF.B.3 - 5.NF.B.7)	Number and Operations: Multiply and Divide Fractions	6	6
Measurement and Data	Geometric measurement: understand concepts of volume (5.MD.C.3 - 5.MD.C.5)	Measurement and Data	5	6

Grade 7 based on Previous Grade's Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Ratios and Proportional Reasoning	Understand ratio concepts and use ratio reasoning to solve problems (6.RP.A.1 - 6.RP.A.3)	Ratios and Proportional Reasoning	6	7
The Number System	Apply and extend previous understandings of multiplication and division to divide fractions by fractions (6.NS.A.1)	The Number System	2	2
The Number System	Apply and extend previous understandings of numbers to the system of rational numbers (6.NS.C.5 - 6.NS.C.8)	The Number System	4	4
Expressions and Equations	Apply and extend previous understandings of arithmetic to algebraic expressions (6.EE.A.1 - 6.EE.A.4)	Algebraic Expressions	6	6
Expressions and Equations	Reason about and solve one-variable equations and inequalities (6.EE.B.5 - 6.EE.B.8)	Equations and Inequalities	3	4
Expressions and Equations	Represent and analyze quantitative relationships between dependent and independent variables (6.EE.C.9)	Equations and Inequalities	1	2

Grade 8 based on Previous Grade's Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Ratios and Proportional Reasoning	Analyze proportional relationships and use them to solve real-world and mathematical problems (7.RP.A.1 - 7.RP.A.3)	Ratios and Proportional Reasoning	9	9
The Number System	Apply and extend previous understandings of operations with fractions (7.NS.A.1 - 7.NS.A.3)	The Number System	6	6
Expressions and Equations	Use properties of operations to generate equivalent expressions (7.EE.A.1 - 7.EE.A.2)	Expressions and Equations	1	1
Expressions and Equations	Solve real-life and mathematical problems using numerical and algebraic expressions and equations (7.EE.B.3 - 7.EE.B.4)	Expressions and Equations	4	7

Algebra 1 based on Grade 8 Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Expressions and Equations	Work with radicals and integer exponents (8.EE.A.1 - 8.EE.A.4)	Expressions and Equations: Radicals, Integer Exponents, Proportional Relationships, Lines, and Linear Equations	4	4
Expressions and Equations	Understand the connections between proportional relationships, lines and linear equations (8.EE.B.5 - 8.EE.B.6)	Expressions and Equations: Radicals, Integer Exponents, Proportional Relationships, Lines, and Linear Equations	3	3
Expressions and Equations	Analyze and solve linear equations and pairs of simultaneous linear equations (8.EE.C.7 - 8.EE.C.8)	Expressions and Equations: Lines, and Linear Equations	5	6
Functions	Define, evaluate and compare functions (8.F.A.1 - 8.F.A.3)	Functions	6	6
Geometry	Understand congruence and similarity using physical models, transparencies or geometry software (8.G.A.1 - 8.G.A.4)	Geometry	2	2
Geometry	Solve real-world and mathematical problems involving volume of cylinders, cones and spheres (8.G.C.9)	Geometry	2	4

Geometry based on Grade 8 Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Expressions and Equations	Work with radicals and integer exponents (8.EE.A.1 - 8.EE.A.4)	Expressions and Equations: Radicals, Integer Exponents, Proportional Relationships, Lines, and Linear Equations	3	3
Expressions and Equations	Understand the connections between proportional relationships, lines and linear equations (8.EE.B.5 - 8.EE.B.6)	Expressions and Equations: Radicals, Integer Exponents, Proportional Relationships, Lines, and Linear Equations	3	3
Expressions and Equations	Analyze and solve linear equations and pairs of simultaneous linear equations (8.EE.C.7 - 8.EE.C.8)	Expressions and Equations: Lines, and Linear Equations	4	6
Functions	Define, evaluate and compare functions (8.F.A.1 - 8.F.A.3)	Functions	6	6
Geometry	Understand congruence and similarity using physical models, transparencies or geometry software (8.G.A.1 - 8.G.A.4)	Geometry	4	4
Geometry	Solve real-world and mathematical problems involving volume of cylinders, cones and spheres (8.G.C.9)	Geometry	3	6

Algebra II based on Algebra I Learning Standards

Content Domain	Major Content Cluster	Reporting Category	Number of items	Reporting Category # of points
Seeing Structure in Expressions	Interpret the structure of expressions (A-SSE.A.1 - A-SSE.A.2)	Seeing Structure in Expressions	5	6
Polynomials, Rational Expressions, and Equations	Perform arithmetic operations on polynomials (A-APR.A.1)	Polynomials, Rational Expressions, and Equations	2	2
Polynomials, Rational Expressions, and Equations	Create equations that describe numbers or relationships (A-CED.A.3 - A-CED.A.4)	Polynomials, Rational Expressions, and Equations	4	4
Reasoning with Equations and Inequalities	Solve equations and inequalities in one variable (A-REI.B.3 - A-REI.B.4)	Reasoning with Equations and Inequalities	3	3
Reasoning with Equations and Inequalities	Represent and solve equations and inequalities graphically (A-REI.D.10 - A-REI.D.12)	Reasoning with Equations and Inequalities	3	3
Interpreting Functions	Understand the concept of a function and use function notation (F-IF.A.1 - F-IF.A.2 & F-IF.A.Int.1)	Interpreting Functions	3	4
Interpreting Functions	Interpret functions that arise in applications in terms of the context (F-IF.B.4 - F-IF.B.6)	Interpreting Functions	4	5

1.3 Science

Grade 6 based on Grades 3-5 Learning Standards

Content Domain	SEP Reporting Category	Number of items
Earth and Space Science	Sensemaking	6
Earth and Space Science	Investigating	1
Earth and Space Science	Critiquing	1
Physical Science	Sensemaking	3
Physical Science	Investigating	5
Physical Science	Critiquing	2
Life Science	Sensemaking	1
Life Science	Investigating	3
Life Science	Critiquing	3

Grade 9 based on Middle School Learning Standards

Content Domain	SEP Reporting Category	Number of items
Earth and Space Science	Sensemaking	2
Earth and Space Science	Investigating	4
Earth and Space Science	Critiquing	2
Physical Science	Sensemaking	3
Physical Science	Investigating	4
Physical Science	Critiquing	2
Life Science	Sensemaking	5
Life Science	Investigating	1
Life Science	Critiquing	1

Grade 12 based on High School Learning Standards

Content Domain	SEP Reporting Category	Number of items
Earth and Space Science	Sensemaking	5
Earth and Space Science	Investigating	3
Earth and Space Science	Critiquing	2
Physical Science	Sensemaking	2
Physical Science	Investigating	5
Physical Science	Critiquing	1
Life Science	Sensemaking	4
Life Science	Investigating	0
Life Science	Critiquing	3