# Rhode Island Alternate Assessment (RIAA)

# Technical Report 2013–14

March 2015

Prepared by Measured Progress in Collaboration with the
Rhode Island Department of Education

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# SECTION I ASSESSMENT DEVELOPMENT

## CHAPTER 1 PURPOSE AND OVERVIEW OF THE REPORT

The purpose of this report is to document the technical aspects of the Rhode Island Alternate Assessment (RIAA) 2013–14 operational implementation in mathematics, reading, writing, and science. Information is provided on technical quality, specifically on the procedures used in development, administration, scoring, and analyzing the results.

One goal of documenting the technical aspects of the RIAA is to contribute to the evidence supporting the validity of RIAA score interpretations. Since the interpretations of test scores—not the test itself—are evaluated for validity, this documentation is meant to substantiate intended interpretations (AERA, APA, & NCME, 2014). Each report section contributes important information to the validity argument by addressing one or more of the following aspects of the RIAA: test development, test alignment, test administration, scoring, reliability, achievement levels, and reporting.

The RIAA is based on, and aligned to, the New England Common Assessment Program (NECAP) Grade Level/Span Expectations (GLEs/GSEs) and the Rhode Island Alternate Assessment Grade Span Expectations (AAGSEs) in mathematics, reading, writing, and science. The inferences intended from RIAA results are about student achievement on Rhode Island's content standards and AAGSEs for mathematics, reading, writing, and science. These achievement inferences are meant to be useful, in turn, for program and instructional improvement and as a component of school accountability.

The *Standards for Educational and Psychological Testing* (1999) provides a framework for describing sources of evidence that should be considered when constructing an argument for assessment validity. These evidence sources include those in five general areas: test content, response processes, internal structure, relationship to other variables, and consequences of testing. Although each of these sources may speak to a different aspect of validity, the sources are not distinct types of validity. Instead, each contributes to a body of evidence about the comprehensive validity of score interpretations.

### 1.1 PURPOSE OF THE RIAA

The mission of the Rhode Island Department of Education (RIDE) is to guide and support schools and communities in ensuring that all students achieve at the high level needed to lead fulfilling and productive lives, compete in academic and employment settings, and contribute to society. RIDE believes that each individual has equal intrinsic worth as a human being and that all children can and want to learn, and do so in

a variety of ways. Rhode Island's Comprehensive Education Strategy is focused on producing outstanding results for all students, including those with the most significant cognitive disabilities. This includes providing alternative paths to learning in which all students have available to them the full variety of instructional strategies, differentiated curriculum materials, multifaceted assessments, and individualized supports to succeed in the 21st century. Rhode Island's commitment to meeting the assessment needs of students with the most significant cognitive disabilities is long established, being one of the first states in the nation to develop an alternate assessment.

Consistent with the state's general assessment (NECAP), the purposes of the RIAA are to provide: 1) data on student achievement in mathematics, reading, writing, and science to meet the requirements of the No Child Left Behind Act of 2001 (NCLB); 2) information to support program evaluation and improvement; 3) parents and the public with information on the performance of students and schools; and 4) data to guide instruction.

Federal special education law, specifically the Individuals with Disabilities Education Improvement Act of 2004 (IDEA), requires that students with disabilities be involved in the general education curriculum with supplementary aides and supports when necessary. IDEA further requires that students with disabilities be included in all general and district-wide assessment programs, with appropriate accommodations or alternate assessments when necessary, as determined by their individualized education program (IEP) teams. In addition, Title I of the NCLB requires that all students participate in state tests in reading, writing, mathematics, and science, and that performance results be reported. This federal legislation supports Rhode Island's Article 31, the Rhode Island Student Investment Initiative. Participation in the Rhode Island Assessment Program, which includes the RIAA, is an important means of ensuring that each student has the opportunity to acquire the knowledge and skills addressed in the NECAP GLEs/GSEs. The majority of students with disabilities learn in general education classrooms, participate in the general education curriculum, and take the content area assessments of NECAP. However, students with significant cognitive disabilities require an alternate method of assessment. The small number of students who cannot participate in the large-scale assessments, even with accommodations, participate in the RIAA. The RIAA is based on the AAGSEs, which are extensions of the NECAP GLEs/GSEs.

## 1.2 Current Year Updates

Only minor changes were implemented to the RIAA in 2013–14; therefore, the process was mostly consistent with the previous operational assessments.

## 1.3 Organization of the Report

The organization of this report is based on the conceptual flow of an assessment's life span. It begins with the initial test specifications and addresses all the intermediate steps that lead to final score reporting.

Section I covers the development of the assessment, including the purpose of the RIAA, participation guidelines and criteria, AAGSE and test development, and test design/format. Section II describes steps for administering the RIAA, assessment components, and the implementation schedule. Section III covers the development and reporting of scores. Finally, Section IV covers the technical characteristics of the RIAA, reliability, and the validity of the assessment. References and appendices are included as appropriate. All information provided in this report will be updated appropriately for each subsequent year.

# CHAPTER 2 THE STUDENTS

In effective learning environments, assessment and instruction are always linked. High-quality assessment practices provide information on which to base ongoing development of a curriculum that is responsive to student needs. As discussed in previous RIAA technical reports, models of learning link cognition to assessment observation to interpretation in a continuous cycle. In alternate assessment, models of learning—and subsequently the linkages between curriculum, instruction, and assessment—are deeply impacted by the characteristics of the students themselves. Knowing who these students are and how they learn is critical to the design and development of effective instruction and assessment.

In the RIAA, each datafolio-based assessment is individualized so that the learning needs of each unique student can be met with instruction that effectively promotes academic growth. The carefully designed common structure underlying the development of every RIAA datafolio provides a basis for comparison of performance patterns across students. The structure of the RIAA datafolio assessment system illustrates both student performance and the student's academic program. In effect, this assessment prioritizes observation of the dynamic links between the AAGSEs, curriculum, and instruction, and relates these observations to actual student outcomes. The design of the datafolio reflects the belief that those particular assessment events will allow students to demonstrate their understanding in a given domain, based on a particular view of learning that takes into account important individual student differences.

## 2.1 PARTICIPATION GUIDELINES

The decision as to how a student with disabilities participates in the state's accountability system is made by the student's individualized education program (IEP) team. When considering whether students with disabilities should participate in the RIAA, the IEP team is required to use the criteria developed by the state of Rhode Island (see Figure 2-1). Because the NECAP provides full access to the vast majority of students, less than 1% of assessed students participated in the 2013–14 RIAA.

## 2.2 CRITERIA FOR PARTICIPATION IN THE RIAA

The IEP team, including parents/guardians, determines on an individual basis how a student with an IEP participates in state assessment. This determination should be made at every annual IEP review. For some students, the determination is that the student will participate in the state assessment with accommodations.

If the team determines that the general assessment (NECAP), even with accommodations, may not be the most appropriate means of assessment for a particular student, the team must discuss the participation criteria for alternate assessment. Only those students who meet all the criteria and factors participate in the RIAA. If team members cannot answer "yes" to all the criteria and factors (see Figure 2-1), they must

determine what accommodations are necessary for the student to take the NECAP assessment. The team may refer to the NECAP Accommodations Guide for further information in this area. Contact:

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IEP teams must document assessment decisions on the IEP form. If a student is not participating in the state general assessment but in the alternate assessment, the reason(s) for the decision must be stated on the student's IEP.

IEP teams should review decisions about students' participation in the state assessment system on a yearly basis. Student participation decisions must be made by September 15 of each school year. This ensures that the student participates in the state assessment system in the most meaningful and appropriate manner. Students who meet the participation criteria for alternate assessment will be assessed in grades 2 through 8, 10, and 11. It should be noted that "Current Grade" on the IEP front page is the grade of the student at the time of the IEP meeting and should be considered a reference when determining assessment participation. For example, if a student's IEP team meeting is held in May, and the student is a fifth grader at the time of the meeting, that grade designation is written on the front of the IEP. The student advances to the sixth grade the following academic year unless he or she is retained by a district's retention policy.

To verify that a student should participate in the RIAA, the IEP team must review all important information about the student over the years and in a variety of settings (e.g., home, school, community), and determine and document that the student meets the team decision-making criteria and factors (see Figure 2-1). The IEP team must inform the parents/guardians of students who participate in the RIAA that their child's performance will be measured based on alternate academic achievement standards. In addition, the IEP team must inform parents/guardians of implications, including any effects of state or local policies, on the student's education resulting from taking an alternate assessment based on alternate achievement standards.

The RIAA participation criteria were revised by RIDE in early spring 2013. The revised criteria in Figure 2-1 were posted on RIDE's Web site and incorporated into the teacher training workshops.

**Figure 2-1. 2013–14 RIAA: Participation Criteria**

## Participation Criteria for the Rhode Island Alternate Assessment (RIAA) Form

*Updated June, 2013. This form should be completed, signed, attached to the IEP, and placed in the student's file.*

Student Name: _____ DOB: _____

State-Assigned Student ID (SASID): 1000-_____ IEP Meeting Date: _____

| Participation Criteria | Documentation Description *(must be provided for each criteria or attach Documentation of Evidence Worksheet)* | Decision* |
|---|---|---|
| 1. Student has a disability that significantly impacts cognitive function and adaptive behavior. | | ☐ YES ☐ NO |
| 2. The student's instruction is aligned to the RI Alternate Assessment Grade Span Expectations, including academic skills and short-term objectives/benchmarks. | | ☐ YES ☐ NO |
| 3. The student is unable to apply academic skills in home, school, and community without intensive, frequent, and individualized instruction in multiple settings. | | ☐ YES ☐ NO |

**If any of the criteria decisions are "no", the student cannot participate in the RIAA. Instruction and curriculum for this student should be aligned to the GLEs/GSEs (or CCSS/CCCs) appropriate for their grade level and they should participate in the NECAP assessments required for their grade level with appropriate accommodations.*

**Additional Factors:** The list below contains other factors that should **not** be used in on their own to make a decision about a student's eligibility status for the RIAA. Descriptions of each are on the following pages.

1. the student has a cognitive or specific learning disability, visual or auditory disabilities, or emotional-behavioral disabilities.
2. that the student's instructional reading or general performance level is below grade level.
3. that the student is also considered an English Language Learner (ELL).

**IEP Team Assurance:** The IEP team has thoroughly discussed the evidence gathered to determine eligibility for the RIAA. No one factor was used to make the determination (Additional Factors 1-3 above). The IEP team has informed the parent(s) of the implications of their child's participation in the RIAA, namely that:

1. Their child's achievement will be measured based on alternate academic achievement standards;
2. Beginning with the 2014 graduating class, the RIAA cannot be used to meet the state assessment requirement for receiving a diploma since the RIAA is based on alternate grade level and grade span expectations (L-6-3.3; Guidance for 2011 Secondary Regulations, p. 16). Additional guidance regarding graduation requirements for students taking the RIAA can be found here: http://www.ride.ri.gov/StudentsFamilies/RIPublicSchools/DiplomaSystem.aspx. District regulations and guidance should also be available through the district office.
3. They have been informed of any other implications, including any effects of local policies on the student's education resulting from taking an alternate assessment based on alternate academic standards.
4. The IEP team *does/does not (circle one)* find this student eligible to participate in the RIAA.

Name of LEA Representative (print): _____ Date: _____

Signature of LEA Representative: _____

According to the Rhode Island special education census, students who participated in the RIAA during 2013-14 academic year were included in at least one of the following 13 disability categories. Three of the categories accounted for the primary disability of most eligible students: approximately 69.89% of students had an identification code of Intellectual Disability, 30.90% of students for Autism, and 18.01% for multiple disabilities. The remainder of students were identified as eligible under the following disability categories: Other Health Impaired 5.47%, Learning Disabled 3.17%, Developmentally Delayed 2.38%, Emotional Disturbance 2.22%, Speech and Language Impairment 1.27%, Traumatic Brain Injury 1.11%, Hearing Impairment 0.55%, Orthopedically Impaired 0.55%, Visual Impairment Including Blindness 0.32%, Deaf-Blind 0.08%.

# CHAPTER 3 RIAA DEVELOPMENT PROCESS

## 3.1 ALTERNATE ASSESSMENT GRADE SPAN EXPECTATION EXPANSIONS

### 3.1.1 Process

The RIAA was developed as a collaborative project between Measured Progress, the Sherlock Center on Disabilities, Rhode Island College, Rhode Island's University Centers on Excellence and Developmental Disabilities, and RIDE's Offices of Assessment and Accountability and Special Education. A Project Leadership Team (PLT) was formed and remained intact for the 2013–14 RIAA program. This group comprised a program manager, program assistant, and assistant director or director of special education from Measured Progress; the Sherlock Center staff members directly involved in training for the RIAA; and RIDE staff, including an assessment director, assessment specialist, and education specialist. The role of this group was to consider recommendations from all of the stakeholder groups throughout the RIAA process. The PLT utilized the stakeholder information to make final decisions and to move the process forward at each step along the way.

### 3.1.2 Stakeholder Involvement and Decision-Making Process

An advisory committee representing the perspectives of parents, teachers, and administrators provided input during the development and implementation of the assessment (see Appendix A). The advisory committee met three times a year to provide input and recommendations for improvements to the RIAA program.

In addition, teacher work groups were formed at several points in the development, redesign, and implementation processes. Mathematics, reading, writing, and science Rhode Island Alternate Assessment Grade Span Expectations (AAGSEs) work groups were composed of general and special education teachers. Initially, these teachers reviewed the NECAP Grade Level/Span Expectations (GLEs/GSEs) and expanded those concepts and skills to develop AAGSEs, which are the basis of the skills evidenced for this assessment. Another group of teachers worked to develop the Structured Performance Tasks (SPTs) for the pilot assessment. A fourth group of special education teachers participated in the pilot testing and scoring of the assessment, providing valuable feedback about the test design.

### 3.1.3 Development of the Reading, Writing, Mathematics, and Science AAGSEs

The AAGSEs were developed using the NECAP GLEs/GSEs for reading, writing, mathematics, and science. Measured Progress curriculum and special education specialists developed preliminary drafts of the AAGSEs, which were brought to educator committees for review and revisions. The committees and RIDE staff provided input and numerous recommendations for changes. Their recommendations were reviewed by the state; revisions were made to the science AAGSEs in July 2008, implemented during the following administration windows, and posted to the RIDE Web site. Note: The NECAP GLEs/GSEs and the AAGSEs are not included in this manual because of the length of each document. Contact:

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As part of the peer-review process, external alignment studies were conducted by the National Center for the Improvement of Educational Assessment (NCIEA) to meet the requirements of the NCLB and to inform the continuous improvement model embedded in the RIAA's overall design. These studies were used to make recommendations about the AAGSEs' clarity, grain size, and academic rigor.

Working from the recommendations, in 2007–08 RIDE staff and staff from the Paul V. Sherlock Center at Rhode Island College revised the AAGSEs for mathematics and science. These content areas were selected because they were identified as needing the most improvement. Once the draft revisions were completed, they were sent to districts for their review and comment. During summer 2008, final revisions were made to the mathematics and science AAGSEs. The revised AAGSEs were in place prior to the production of RIAA materials for the 2008–09 and 2009–10 academic years, implemented those years, and posted to the RIDE Web site.

Tables 3-1 and 3-2 outline the development steps and procedures beginning in 2004 through operational year 2010. Detailed information regarding the RIAA AAGSE development process, pilot testing, and implementation may be found in the 2005–07, 2007–08, 2008–09, and 2009–10 RIAA Technical Reports at www.ride.ri.gov/assessment/Altassessment.aspx.

**Table 3-1. 2013–14 RIAA: Mathematics, Reading, and Writing Development Process Overview**

| *Development Step* | *Procedure of the Step* |
|---|---|
| Measured Progress Draft Expansion<br>Part 1 was presented for review, December 2004.<br>Part 2 was presented for review, January 2005.<br>Part 3 was presented for review, March 2005.<br>Part 4 was presented for review, April 2005. | • Measured Progress curriculum and special education staff expanded the GLE document to create AAGSEs.<br>• Work groups in mathematics, reading, and writing were convened over four sessions to review the AAGSE documents and make further recommendations. |
| AAGSE drafts were finalized, April 2005. | • Measured Progress made revisions based on |

| *Development Step* | *Procedure of the Step* |
|---|---|
| | work group recommendations.<br>• RIDE gave initial approval for the documents. |
| AAGSE drafts were sent to school districts for input, May to June 2005. | • Using a format created by RIDE, school districts provided feedback on the draft AAGSEs. |
| AAGSEs were finalized, October 2005. | • Measured Progress made revisions requested by RIDE staff.<br>• Documents were posted to the RIDE Web site. |
| Full RIDE approval of the AAGSEs was given, November 2006. | • The Rhode Island Board of Regents for Elementary and Secondary Education approved the AAGSEs. |
| An alignment study was performed, 2006. | • The National Center for the Improvement of Educational Assessment conducted an alignment study. |
| AAGSE revisions were made, August 2007. | • RIDE made minor revisions to the AAGSEs to clarify content, equalize grain size, and strengthen the depth of knowledge levels as needed per the 2006 alignment study. |
| AAGSEs were finalized for use in 2007–08 and 2008–09. | • Operational assessments were administered. |
| Additional Mathematics AAGSE revisions were made in 2007–08 for use in Fall 2008. | • RIDE made revisions to the Mathematics AAGSEs to clarify content, equalize grain size, and strengthen the depth of knowledge levels as needed per the 2006 alignment study.<br>• Operational assessments were administered. |
| Reading and Writing AAGSEs were revised and finalized for use in Fall 2009. | • Operational assessments were administered. |

**Table 3-2. 2013–14 RIAA: Science Development Process Overview**

| *Development Step* | *Procedure of the Step* |
|---|---|
| Measured Progress Draft expansion.<br>Part 1 was presented for review February 8 and 9, 2006.<br>Part 2 was presented for review March 22 and 23, 2006.<br>Part 3 was presented for review April 25 and 26, 2006 | • Measured Progress curriculum and special education staff<br>expanded the GSE document to create AAGSEs.<br>• A work group was convened over three sessions to review<br>and make further recommendations. |
| AAGSE drafts were finalized May 2006. | • Measured Progress made revisions based on work group<br>recommendations.<br>• RIDE gave initial approval for the documents. |
| AAGSE drafts were rolled out to school districts for input, May to June 2006. | • Using a format created by RIDE, school districts provided<br>feedback on the draft AAGSEs. |
| AAGSEs were finalized, October 2006. | • Measured Progress made revisions requested by RIDE staff.<br>• Documents were posted to RIDE Web site. |
| Full RIDE approval of the AAGSEs was given, November 2006. | • The Rhode Island Board of Regents for Elementary and<br>Secondary Education approved the AAGSEs. |
| A Science Alignment Study was performed, May and August 2008. | • The National Center for the Improvement of Educational<br>Assessment conducted an alignment study for |

| *Development Step* | *Procedure of the Step* |
|---|---|
| | science. |
| AAGSE revisions were made, August 2008. | • RIDE made revisions to the AAGSEs to clarify content, equalize grain size, and strengthen the depth of knowledge levels as needed per the alignment study. |
| AAGSEs were finalized for use in 2008–09 and 2009–10. | • The operational assessment was administered. |

### 3.1.4 State-Level AAGSE Review

In 2005 and 2006, district teams were asked to review the AAGSEs using a format provided by RIDE. The form requested comments on whether each AAGSE was clear, was appropriately placed in a grade span, allowed for multiple means of demonstration, and captured the concept of the NECAP GLE/GSE. Each school or district team commented as a group and then sent a summary to the state.

The state reviewed all comments and made final determinations for revisions to the AAGSEs. The documents were finalized, and the AAGSEs were presented to and accepted by the Rhode Island Board of Regents for Elementary and Secondary Education.

In response to subsequent alignment studies, the state developed a plan to revise the AAGSEs to clarify content, ensure equal grain size, and strengthen the depth of knowledge levels. The mathematics, reading, and writing AAGSEs, under each of the SPTs, were updated based on changes due to the alignment studies performed in 2006–07. Further mathematics and science AAGSEs were updated in August 2008 after teacher input and an alignment study. The updated SPT and targeted AAGSE lists can be found in Appendix B.

## 3.2 TEST DESIGN

The RIAA is a collection of student work in the form of a datafolio. The RIAA test blueprint, seen in Table 3-3, outlines the content to be assessed at each grade span. Each content area contains two entries: a required strand and a choice strand. Teachers select AAGSEs for each SPT/strand. This flexibility allows individualization while maintaining the content consistency of the alternate assessment. Consistency is further ensured across grade spans and content areas by adherence to strict administration requirements for datafolios.

**Table 3-3. 2013–14 RIAA: Rhode Island Alternate Assessment Blueprint**

| *Content Area* | *Title of Content Strand* | *Grade(s) Assessed* |
|---|---|---|
| Mathematics | Numbers and Operations (NO) - **REQUIRED** | 2–7 and 10 |
| | Geometry and Measurement (GM) | 2–5 |
| | Data, Statistics, and Probability (DSP) | 6–7 |
| | Functions and Algebra (FA) | 10 |
| Reading | Word Identification Skills and Strategies (WID) | 2–7 and 10 |
| | Vocabulary Strategies and Breadth of Vocabulary (V) - REQUIRED | 2–7 and 10 |
| | Early Reading Strategies (ER) of Literary Text<br>OR<br>Early Reading Strategies (ER) of Informational Text | 2 |
| | Initial Understanding, Analysis, and Interpretation of Literary Text (LT)<br>OR<br>Initial Understanding, Analysis, and Interpretation of Informational Text (IT) | 3–7 and 10 |
| Writing | Structures of Language (SL) | 4, 7, and 10 |
| | Writing Conventions (WC) - **REQUIRED** | 4, 7, and 10 |
| Writing | Response to Literary (LT) or Informational Text (IT) | 4 |
| | Narratives (N) | 7 |
| | Informational Writing (IW) | 10 |
| Science | Inquiry Construct Questioning and Life Science (LS), Earth and Space Science (ESS), and Physical Science (PS)<br>OR<br>Inquiry Construct Conducting and Life Science (LS), Earth and Space Science (ESS), and Physical Science (PS) | 4 |
| | Inquiry Construct Planning and Life Science (LS), Earth and Space Science (ESS), and Physical Science (PS)<br>OR<br>Inquiry Construct Conducting and Life Science (LS), Earth and Space Science (ESS), and Physical Science (PS) | 8 |
| | Inquiry Construct Analyzing and Life Science (LS), Earth and Space Science (ESS), and Physical Science (PS)<br>OR<br>Inquiry Construct Conducting and Life Science (LS), Earth and Space Science (ESS), and Physical Science (PS) | 11 |

# SECTION II TEST ADMINISTRATION PROCESS

The test administration section of this report focuses on activities during the 2013–14 operational year of the RIAA. The section describes the training and information provided to teachers for ensuring accuracy and consistency in the collection and evidencing of student work.

# CHAPTER 4 RIAA ADMINISTRATION

## 4.1 RIAA ADMINISTRATOR TRAINING

In September 2013, teachers were provided with four training sessions. Sessions 1 and 2 included two half-day trainings for teachers new to the RIAA. These training sessions covered the following: a review of the *2013–14 RIAA Administration Manual & Resource Guide (RIAA Administration Manual)*; student instruction and how it relates to assessment; requirements of the datafolio; taking data and collecting student evidence; activities to reinforce the requirements; a review of the ProFile software; and a review of the scoring dimensions and their application to collected evidence.

Sessions 3 and 4 consisted of half-day update sessions for teachers already trained in the RIAA administration. These sessions focused on topics such as clarification of selected AAGSEs for reading, writing, mathematics, and science. Teachers and administrators were asked to attend either a morning or afternoon session; however, many educators attended for a full day, which allowed them to participate in multiple workshops.

Training to properly prepare teachers to administer the RIAA and collect student evidence is crucial to the validity of the datafolio. Participants were provided with the *RIAA Administration Manual*, training PowerPoints, student samples, and access to ProFile (an online tool used to register students and assist in the collection and recording of student evidence). Table 4-1 displays the training and drop-in sessions, topics, and numbers of participants.

**Table 4-1. 2013–14 RIAA: Teacher Trainings and Participation**

| *Date* | *Session* | *Number of Participants* |
|---|---|---|
| September 19, 2013 | Introduction to RIAA (RWM) | 99 |
| September 19, 2013 | Introduction to RIAA (Science) | 58 |
| September 26, 2013 | RIAA Updates – Session 1 | 140 |
| September 26, 2013 | RIAA Updates – Session 2 | 100 |

## 4.2 STEPS FOR RIAA ADMINISTRATION

The *RIAA Administration Manual*, a step-by-step guide, was provided to all RIAA educators assessing students through the RIAA. It presented the nine steps of pre-administration, administration, and post-administration activities necessary for collecting data and submitting evidence. The same nine steps have remained consistent since the 2006–07 assessment year. Enhancements to the RIAA program are outlined in the following sections.

### 4.2.1 Pre-Administration Activities

Pre-administration activities are important for teachers to understand as they make decisions regarding the identification and eligibility of students who will participate in the RIAA. The RIAA assessment design is specific to students with significant cognitive disabilities and is not a valid assessment for students who do not meet these criteria. Therefore, it is important that these steps be fully understood by those making participation decisions.

**Step 1:** Determine student eligibility for participation in the RIAA. The eligibility criteria were updated in March 2008 for purposes of clarity and remain consistent. The updated criteria can be found in Section 2.2 of this technical report.

**Step 2:** Determine the composition of the instructional team that will assess the student and fully inform all participants about the alternate assessment.

**Step 3:** Determine the student's grade. (The student's assessment grade must match the grade in eRIDE, the state's data management system.) Identify the required strands and Structured Performance Tasks (SPTs) in each content area.

**Step 4:** Select AAGSEs for each SPT.

### 4.2.2 Administration Activities

Administration procedures are the focus of the *RIAA Administration Manual* and the training provided to teachers. It is vital that teachers understand how and when to collect the data and evidence required by the RIAA to ensure proper administration. Teachers further need to understand the requirements of the documentation process so that fully scorable datafolios are submitted. Proper fulfillment of all requirements and use of forms ensures that the submitted datafolios are valid and reliable reflections of the

skills a student knows and is able to demonstrate. Drop-in sessions, shown in Table 4-1, were provided during the collection periods for teachers to review their documentation and ask questions of other, more experienced professionals.

**Step 5:** Review the requirements for documentation of the RIAA (see Table 4-2). The required documentation for all components of the RIAA remained essentially the same as that described in previous RIAA technical reports.

**Table 4-2. 2013–14 RIAA: Documentation Requirements**

| *Strand*<br>*Structured Performance Task* | | | | | |
|---|---|---|---|---|---|
| *AAGSE 1*<br>*Data Summary Sheet* | | | *AAGSE 2*<br>*Data Summary Sheet* | | |
| *Collection Period 1* | *Collection Period 2* | *Collection Period 3* | *Collection Period 1* | *Collection Period 2* | *Collection Period 3* |
| Student Documentation Form | Student Documentation Form | Student Documentation Form | Student Documentation Form | Student Documentation Form | Student Documentation Form |

**Step 6:** Determine the data collection system for documentation of student performance (accuracy, assistance, and independence).

**Step 7:** Collect and record student data for each collection period.

The RIAA ProFile web-based software tool (ProFile), used to assist in the collection and recording of student evidence, was updated based on test administrator feedback. Teachers were able to access ProFile from any computer with Internet access. The web-based software also permitted automatic updates to ProFile or forms if needed.

### 4.2.3 Post-Administration Activities

Post-administration activities focus on the importance of reviewing each datafolio prior to submission. During this phase, teachers check to ensure that no required documentation is missing or incomplete.

**Step 8:** Assemble the student's datafolio in the RIAA binder, following instructions provided by Measured Progress to test administrators in mid-April.

**Step 9:** Submit the completed RIAA on May 3, 2014, via UPS mandatory one-day pickup.

## 4.3 RIAA COMPONENTS

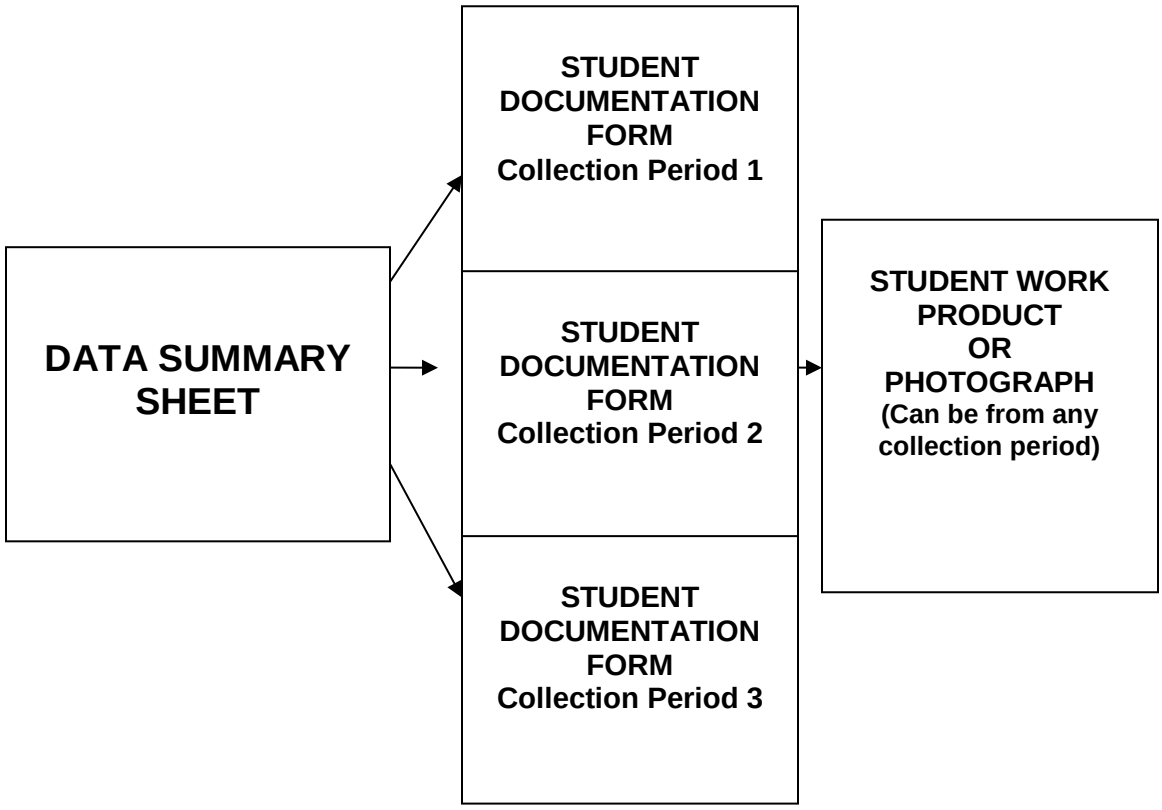
The RIAA requires that specific evidence be documented in compiling a datafolio for each student.

- **Table of Contents Checklist:** This tool acts as a guide for the organization of the datafolio.

- **Notice Under the Family Educational Rights and Privacy Act of 1974:** This form allows RIDE or its contractor, Measured Progress, to use the student's datafolio to train educators and parents and to compile and/or score alternate assessment datafolios.
- **Affirmation of Test Security:** This form provides documentation that the school staff members who assist in facilitating the administration of test materials have read, understood, and followed test security expectations. Principals are required to sign the Affirmation form and provide assurances that, to the best of their knowledge, the test security procedures and test administration guidelines and procedures set forth in the *RIAA Administration Manual* have been followed.
- **Data Summary Sheet (DSS):** A DSS must be used for each AAGSE documented within the assessed content area strands. The DSS is used to record student performance on each AAGSE being assessed for each content area. The student's scores for student progress, level of accuracy, and level of independence for each AAGSE will be determined based on the percentages recorded on the DSS.
- **Student Documentation Form (SDF):** This form must be submitted for each collection period of each assessed AAGSE. Each SDF should document the student's application of the AAGSE in a distinct standards-based activity. One of the three SDFs must have an acceptable piece of student work attached to it.
- **Photograph Evidence Documentation Form:** This is an optional form to assist teachers in providing all information required for photographic evidence in student work products.

The RIAA requires two forms of documentation for each AAGSE entry: the DSS and the SDF. Figure 4-1 illustrates the requirements for each AAGSE entry.

**Figure 4-1. 2013–14 RIAA: AAGSE Entry Components**




## 4.4 2013–14 RIAA Implementation Schedule

The schedule for the 2013–14 RIAA began with trainings in September 2013, continued with three distinct collection periods that spanned the period of September 2013–April 2014, and culminated with the return of RIAA datafolios to Measured Progress on May 2, 2014. An additional step was added to each collection period this year. Teachers still assessed their students during each collection period window. However, at the close of each window, teachers had another two to four weeks to finish entering and reviewing assessment narratives and data for that collection period in ProFile. Once the review window ended, that collection period was locked in ProFile. Table 4-3 outlines this timeline.

**Table 4-3. 2013–14 RIAA: Timeline for RIAA Events**

| | |
|---|---|
| **Training Dates** | |
| September 19, 2013 | Introduction to the RIAA – Math, Reading, & Writing (half day session) |
| September 19, 2013 | Introduction to the RIAA – Science (half day session) |
| September 26, 2013 | Update Training (morning and afternoon sessions) |
| **Drop-In Sessions** | |
| October 9, 10<br>January 15, 16<br>March 13 | Winman Jr. High, Library<br>Warwick, RI |
| **Assessment Dates** | |
| **Collection Period 1** | |
| September 30–November 12 | Collection Period 1: Assessment |
| November 13–November 30 | Wrap-Up and Administrative Review |
| December 1 | ProFile Locks Collection Period 1 |
| **Collection Period 2** | |
| January 6–31 | Collection Period 2 |
| February 1–21 | Wrap-Up and Administrative Review |
| February 21 | ProFile Locks Collection Period 2 |
| **Collection Period 3** | |
| March 3–April 4 | Collection Period 3 |
| April 7–May 2 | Wrap-Up and Administrative Review |
| May 2 | ProFile Locks |

## 4.5 RIAA REGISTRATION

Registration opened on September 16, 2013; beginning this year, the registration process was handled through ProFile. During the September trainings, teachers were shown how to create their own accounts and how to register their students. Student demographic data, which included the student's name, district, school, grade, and state-assigned student identification number (SASID), were loaded into ProFile.

Each teacher created an account and registered students to that account by entering the student's SASID number. The software checked for a valid SASID number and verified that the student was registered to only one teacher. Then the teacher verified that the student name and grade were correct.

The registration process triggered a roster of registered RIAA students and a corresponding number of binders were sent to each RIAA school. Binders were initially shipped in December for RIAA students who were registered by November 30, 2013 and a second shipment for those students who were registered between December 1, 2013 and January 10, 2014.

Data generated from the RIAA student registration process were used to produce RIAA student barcode labels for the April 7, 2014, return material shipment. In addition, the student registration data

provided Measured Progress with a list of RIAA students and schools for the May 2, 2014, UPS datafolio pickup.

Table 4-4 indicates the number of completed RIAA datafolios, by grade level, received by Measured Progress for the 2013–14 school year.

**Table 4-4. 2013–14 RIAA: RIAA Students by Grade**

| *Grade* | *Number Received* |
|---|---|
| 2 | 106 |
| 3 | 134 |
| 4 | 120 |
| 5 | 117 |
| 6 | 123 |
| 7 | 138 |
| 8 | 109 |
| 10 | 138 |
| 11 | 102 |
| Total | 1,087 |

# SECTION III DEVELOPMENT AND REPORTING OF SCORES

Section III of this report describes scoring information for the 2013–14 RIAA, including scorer qualifications, steps taken to train scorers, and quality control procedures related to double-blind scoring and read-behind monitoring.

# CHAPTER 5 SCORING THE RIAA

## 5.1 SAMPLE PULLING

Prior to the start of scoring for the 2013–14 RIAA, members of the PLT met to review, discuss, and select sample student datafolios to use as scoring exemplars. A number of datafolio entries representing a range of grades, content areas, and SPTs from the previous year were reviewed. Entries were reviewed to determine their usefulness for training and qualifying. The selected entries had been previously scored by the Project Leadership Team (PLT) members. The entries were updated as needed, and the order for their usage during scoring and qualifying was changed. The rules to be applied during scoring were also reviewed. A full datafolio ("Emma Scoring") including mathematics, reading, writing, and science, which was prepared for scoring training in 2009–10, was reviewed. Three sets of qualifiers consisting of two entries each were selected for mathematics, reading, and writing combined, and three sets of qualifiers consisting of two entries each were selected for science.

## 5.2 RIAA SCORING RUBRIC

The RIAA scoring rubrics presented in Tables 5-1 to 5-4 are used to determine student performance on four dimensions—connection to content strand, student progress, level of accuracy, and level of independence—which are detailed on the following pages. These dimensions are used to determine a student's score for each content area entry in his or her datafolio. The entries are then combined to create the total dimension score for each content area.

For the RIAA, a two-stage process is used post-scoring to award overall scores based on students' scores on the four dimensions above. Specifically, for each content area (reading, writing, mathematics, and science), students are scored on each of the four dimensions for each of two content area–specific content strands. The one exception is science, for which all four dimensions are assessed for the inquiry content strand, but only three are assessed for the knowledge content strand.

In the first stage of the process, a two-way contingency table is used to obtain the student's initial achievement level classification. Specifically, accuracy and independence scores are summed and then taken, in combination with the progress score, to the content area–specific contingency table to look up a student's achievement level. In the second stage of the scoring process, the student's connection to the content strand is considered and may be used to adjust the student's achievement level. Complete details on the process of assigning students to achievement levels can be found in Section 7.2.

### 5.2.1 Connection to Content Strand

In the rubric dimension connection to content strand, standards-based activities must show evidence of instruction toward the application of the Rhode Island Alternate Assessment Grade Span Expectations (AAGSE). For the Inquiry Construct entry in science, standards-based activities must show evidence of instruction toward the application of the inquiry construct. In addition, though entries may evidence the AAGSE/Inquiry Construct, student scores will be lower if student work does not show application of the academic skill in a distinct standards-based activity connected to the Structured Performance Task (SPT).

**Table 5-1. 2013–14 RIAA: Scoring Rubric**

| *Dimension* | *0 points* | *2 points* | *4 points* | *6 points* | *8 points* |
|---|---|---|---|---|---|
| Connection to Content Strand | There is insufficient evidence of a connection to the SPT and/or the AAGSE. | There is evidence of a connection to the AAGSE/Inquiry Construct but no application of the AAGSE/Inquiry Construct in a distinct standards-based science investigation connected to the SPT. (SCIENCE ONLY) | There is evidence of a connection to the AAGSE and applying the AAGSE in at least one distinct standards-based activity connected to the SPT in one out of three collection periods. | There is evidence of a connection to the AAGSE and applying the AAGSE in at least two distinct standards-based activities connected to the SPT in two out of three collection periods. | There is evidence of a connection to the AAGSE and applying the AAGSE in at least three distinct standards-based activities connected to the SPT in three out of three collection periods. |

Each level of this rubric dimension is scored in the following manner with additional requirements for science in parentheses:

**8—**The student work included for the AAGSE entry provides evidence of the connection to the AAGSE (AAGSE/Inquiry Construct) and application of the AAGSE in three distinct standards-based activities connected to the SPT per collection period.

**6—**The student work included for the AAGSE entry provides evidence of the connection to the AAGSE (AAGSE/Inquiry Construct) and application of the AAGSE in two distinct standards-based activities connected to the SPT in two out of three collection periods.

**4—**The student work included for the AAGSE entry provides evidence of the connection to the

AAGSE (AAGSE/Inquiry Construct) and application of the AAGSE in one distinct standards-based activity connected to the SPT in one out of three collection periods.

**2—** The student work included for the AAGSE/Inquiry Construct entry provides evidence of the connection to the AAGSE (AAGSE/Inquiry Construct) but no application of the AAGSE/Inquiry Construct in standards-based science investigation connected to the SPT. (SCIENCE ONLY)

**0—**Insufficient information was given. There was no student work included for the AAGSE entry, or the student work submitted was not connected to the correct AAGSE (AAGSE/Inquiry Construct).

### 5.2.2 Student Progress

*Progress* is defined as growth that can be demonstrated across the collection periods. Student progress is documented by an increase in accuracy, independence, and/or a change in levels of assistance between data collection periods. Progress is shown between data collection periods 1 and 2, as well as periods 2 and 3. The scoring rubric representing progress is shown in Table 5-2 below.

In science, student progress can only be assessed in the Inquiry Construct. It is not possible to assess student progress in the knowledge entry, because different AAGSEs and science domains are assessed in each collection period.

**Table 5-2. 2013–14 RIAA: Scoring Rubric—Progress Across Collection Period**

| *Dimension* | *0 points* | *4 points* | *8 points* |
|---|---|---|---|
| Student Progress | No progress is shown across any data collection periods. | Progress is shown across two data collection periods. | Progress is shown across three data collection periods. |

Each level of this rubric dimension is scored in the following manner:

**8—**Progress has been documented across each of the three data collection periods.

**4—**Progress has been documented across two out of the three data collection periods.

**0—**Insufficient information was given to determine student progress.

### 5.2.3 Level of Accuracy

Accuracy is defined as the number of times the student was correct out of the number of opportunities the student had to demonstrate the AAGSE skill (e.g., the student was accurate six of ten opportunities, for an accuracy score of 60%). The scoring rubric representing the level of accuracy is shown in Table 5-3.

**Table 5-3. 2013–14 RIAA: Scoring Rubric—Scoring Level of Accuracy**

| *Dimension* | *0 points* | *1 point* | *2 points* | *3 points* | *4 points* |
|---|---|---|---|---|---|
| Level of Accuracy | Entry contains insufficient information to determine a score OR 0% accuracy. | Student performance of skills based on AAGSE demonstrates a minimal understanding of concepts; 1%–25% accuracy. | Student performance of skills based on AAGSE demonstrates a limited understanding of concepts; 26%–50% accuracy. | Student performance of skills based on AAGSE demonstrates some understanding of concepts; 51%–75% accuracy. | Student performance of skills based on AAGSE demonstrates a high level understanding of concepts; 76%–100% accuracy. |

Each level of this rubric dimension is scored in the following manner:

**4—**The Data Summary Sheet indicates that the student provided an accurate answer or response by the third collection period 76%–100% of the time.

**3—**The Data Summary Sheet indicates that the student provided an accurate answer or response by the third collection period 51%–75% of the time.

**2—**The Data Summary Sheet indicates that the student provided an accurate answer or response by the third collection period 26%–50% of the time.

**1—**The Data Summary Sheet indicates that the student provided an accurate answer or response by the third collection period 1%–25% of the time.

**0—**Insufficient information was given, the Data Summary Sheet was incomplete, or the student achieved 0% accuracy.

**Points to Remember**

- Each collection period must have three data points, as indicated on the Data Summary Sheet.
- All data must be reported as a percentage score on the Data Summary Sheet.
- The student's level of accuracy will be determined from the third collection period for mathematics, reading, writing, and the Inquiry Construct entry in science.
- The student's level of accuracy will be determined from the average of the three collection periods for the knowledge entry in science.

### 5.2.4 Level of Independence

Independence is defined as how the student performed the skill. It is based on the number of opportunities the student had to demonstrate the AAGSE skill (e.g., the student was independent in three of ten opportunities, for a score of 30%). The scoring rubric representing the level of independence is shown in Table 5-4.

**Table 5-4. 2013–14 RIAA: Scoring Rubric—Level of Independence**

| *Dimension* | *0 points* | *1 point* | *2 points* | *3 points* | *4 points* |
|---|---|---|---|---|---|
| Level of Independence | Entry contains insufficient information to determine a score OR 0% independence. | Student requires extensive verbal, visual, and/or physical assistance to demonstrate skills and concepts; 1%–25% independence. | Student requires frequent verbal, visual, and/or physical assistance to demonstrate skills and concepts; 26%–50% independence. | Student requires some verbal, visual, and/or physical assistance to demonstrate skills and concepts; 51%–75% independence. | Student requires minimal verbal, visual, and/or physical assistance to demonstrate skills and concepts; 76%–100% independence. |

Each level of this rubric dimension is scored in the following manner:

**4—**The Data Summary Sheet indicates that the student demonstrated skills and concepts independently by the third collection period 76%–100% of the time. The student required minimal (0%–24% of the time) cueing, prompting, or assistance.

**3—**The Data Summary Sheet indicates that the student demonstrated skills and concepts independently by the third collection period 51%–75% of the time. The student required some (25%–49% of the time) cueing, prompting, or assistance.

**2—**The Data Summary Sheet indicates that the student demonstrated skills and concepts independently by the third collection period 26%–50% of the time. The student required frequent (50%–74% of the time) cueing, prompting, or assistance.

**1—**The Data Summary Sheet indicates that the student demonstrated skills and concepts independently by the third collection period 1%–25% of the time. The student required extensive (75%–100% of the time) cueing, prompting, or assistance.

**0—**Insufficient information was given, the Data Summary Sheet was incomplete, or the student achieved 0% independence.

**Points to Remember**

- Each collection period must have three data points, as indicated on the Data Summary Sheet.
- All data must be reported as a percentage score on the Data Summary Sheet.
- The student's level of accuracy will be determined from the third collection period for mathematics, reading, writing, and the Inquiry Construct entry in science.
- The student's level of accuracy will be determined from the average of the three collection periods for the knowledge entry in science.

## 5.3 SCORING RULES

While the scoring rubric addresses the quality of the evidence submitted, within the RIAA datafolios there are many opportunities for scoring irregularities to occur. Table 5-5 details observed scoring irregularities and the rules used to address them.

**Table 5-5. 2013–14 RIAA: Scoring Rules for Handling Irregularities**

| ++CODE | DESCRIPTION | REASON/ACTION |
|---|---|---|
| 01 | Missing entry (no documents submitted for entry). | Entry not submitted. |
| 02 | **R, M, W ONLY. Do not use for Science:** Missing Content Strand/no documents submitted. | Entry not submitted. |
| 03 | SPT/AAGSE is from wrong grade span or inconsistent across entry. | Flag table leader. |
| 04 | Required documentation for at least one CP was not included for an entry. A complete entry includes: 1 DSS, 3 SDFs, and 1 student work product. | Flag table leader. |
| 05 | A CP does not have three data points. | The CP is not used for scoring. |
| 06 | No date or inconsistent dates were given on DSS AND on SDFs. | Entry is not scorable. |
| 07 | Percentages are missing or miscalculated. | Recalculate percentages when possible. If percentage cannot be verified, flag table leader to review the entry. |
| 08 | **SCIENCE ONLY** A collection period does not demonstrate all 4 parts of the science investigation | Continue Scoring. |
| 11 | SDF does not describe distinct activities. | Continue scoring. |
| 12 | Evaluation of student performance and the description documented on the SDF does not reflect assessment of the AAGSE/Inquiry Construct. | The CP is not used for scoring. |
| 13 | The same exact assessment activity and data on a SDF are used for two different CPs or AAGSE entries. | Flag room coordinator to review the entry. |
| 14 | Student work does not assess the AAGSE/Inquiry Construct. | Entry is not scorable. |
| 15 | Student work does not match the description on the SDF. | Entry is not scorable. |
| None | The 1st CP is not scorable. | Progress can be shown between CP 2 & 3 but not 1 &2. |
| | The 2nd CP is not scorable. | Progress can be shown between CP 1 & 3. |
| 16 | **R W, M, and Science Inquiry ONLY:** The 3rd CP is not scorable. Accuracy and independence are scored as zero. | Progress can be shown between CP 1 &2 but not 2 &3. Accuracy and Independence are 0%. |
| 17 | **Science Knowledge entry:** When a single CP is not submitted or not scorable, that **CP** will be averaged in as zero percent for accuracy and independence. | CP will be averaged in as zero percent for accuracy and independence. |
| 18 | Two out of three CPs are not scorable. | Entry is not scorable. |
| 19 | The SDF for an entry demonstrates student performance of the AAGSE/Inquiry Construct in at least 2 of the 3 CPs. | |

## 5.4 SCORERS FOR RIAA

Scorers were hand-picked by Measured Progress staff from a pool of experienced alternate assessment scorers. All scorers were trained for a minimum of one day. Training consisted of reviewing the steps required in the scoring process, from checking the student name to transferring scores to the scannable form. Table leaders were Measured Progress employees or staff who had been table leaders for other alternate assessment scoring programs and/or for the RIAA the previous year. Table leaders attended a one-day training on May 9, 2014. The training consisted of a review of scoring procedures, a review of specific table leader responsibilities, and an opportunity to take a practice qualifier. All table leaders were trained and required to qualify for the scoring of mathematics, reading, writing, and science. Table leader qualification took place on May 9, 2014, with all table leaders qualifying with at least 80% consistency in scoring against prescored qualifiers consisting of two entries. Table leaders were required to pass a qualifier in mathematics, reading, and writing combined, as well as a separate qualifier in science. Only after extensive training were scorers asked to qualify. There were three rounds of qualification open to each scorer. All but one of the scorers and all table leaders qualified by the third qualifier.

## 5.5 SCORING PROCESS

Scoring for the 2013–14 RIAA was completed at Measured Progress May 29, 2014. The eleven-day scoring session involved 45 scorers and 8 table leaders to score 1,046 datafolios. All 1,046 datafolios were scored twice in a double-blind fashion, with many being scored a third time if scorers 1 and 2 did not have exact agreement on all scoring dimensions.

A full mathematics, reading, writing, and science RIAA datafolio ("Emma") was used to illustrate the scoring process. The first sample entries were completed together as a large group. Next, scorers were asked to practice on a couple of samples individually and to then discuss their scores with their table leaders.

The following scoring steps were required of all scorers and table leaders:

**Step 1:** Verify student information on the scoring worksheet. At this stage, scorers ensure that the barcode information on the outside of the datafolio matches the student name and grade of the evidence submitted.

**Step 2:** Check required forms and conduct quick walk-through. Scorers check for the completion of all required forms and perform an initial walk-through of the datafolio.

**Step 3:** Score each content area entry. Each entry is scored. The grade level and SPTs evidenced are checked to ensure an appropriate match. Dates are checked to ensure that they are within the required collection periods. Completeness of evidence is confirmed. Once these initial checks are made, the entry is scored against each of the rubric dimensions.

**Step 4:** Scorers are also asked to complete comments for each of the entries. This allows feedback to be given to each teacher for each datafolio scored. This provides teachers with information to aid their instruction and improve their documentation process in subsequent years.

**Step 5:** Transfer scores to the scannable score sheet. Scorers transfer the scores from the scoring worksheet to the scannable score sheet.

## 5.6 SCORER RELIABILITY

Several steps were followed throughout the scoring process to ensure scorer reliability. First, all table leaders completed first, third, and fifth datafolio read-behinds for every scorer at every grade level. Once the first, third, and fifth datafolios were read behind, every subsequent fifth datafolio was read behind for each scorer. These read-behinds ensured that scorers were accurately scoring the datafolios as would the more senior scorers (the table leaders) had the table leader been scorer 1 or 2. When a table leader found discrepancies between how he or she and the scorer scored a datafolio, the table leader documented how he or she would have scored it, and why, on the scoring worksheet. The table leader then met with the scorer individually to go over the discrepancies. This process allowed the table leader to also provide "retraining" on the scoring process steps and scoring irregularities/rules as needed. Table leaders increased the number of read-behinds for any scorer who he or she felt may have been struggling (e.g., overasking of basic process or irregularities/rules questions, slow performance, or exceptionally fast performance) to ensure each datafolio was reliably scored. Table leaders were provided with a tracking sheet to use during the scoring process which enabled them to be organized and also to notate any overall trends found in regard to a scorer's performance. This information was useful when working individually with the scorer.

As a second step, table leaders participated in debriefs with Measured Progress, Rhode Island College (RIC), and RIDE staff. During the debriefs, table leaders were asked to identify any issues that scorers were having in understanding the scoring process, scoring irregularities/rules, the SPTs, or the AAGSEs.

A third step for determining scorer reliability was through the use of Interrater Reliability (IRR) data. This electronic program identified scoring issues between scorer 1 and scorer 2 based on the outcome of scorer 3 (score of record), providing individual and overall accuracy rates for the three scoring dimensions: Independence, Accuracy, and Progress. The data were reviewed to ensure that scorers maintained an 80% level of interrater agreement. At no time during the scoring session did a scorer need to be terminated.

In addition to the presence of Measured Progress program management staffing for the entire scoring session, RIDE and RIC also had representatives on-site throughout the process. This partnership proved essential, as clarifications to any scoring irregularities/rules, AAGSEs, or SPTs occurred. Any major issues that surfaced with datafolios were reviewed by either a RIDE or RIC staff member. Some of the clarifications provided to table leaders and scorers throughout the scoring process were about scoring rules, such as how to drill down to find out whether the student had made progress between collection periods and how much detail

would be needed in a teacher write-up for accuracy and independence to use as allowable evidence. Other clarifications were specific to the intent and allowable demonstration of an SPT or AAGSE, such as the methods of acceptable evidence for student writing.

# CHAPTER 6 REPORTING RIAA SCORES

As stated at the beginning of this report, the RIAA was designed to provide evidence of progress toward the Rhode Island Alternate Assessment Grade Span Expectations (AAGSEs). Consistent with this purpose, results on the RIAA were reported in terms of achievement levels that describe student performance in relation to the established AAGSEs. There are four achievement levels: Substantially Below Proficient, Partially Proficient, Proficient, and Proficient with Distinction. Students received a separate achievement level classification in each content area.

## 6.1 STATIC REPORTS

Measured Progress created the following reports for the RIAA:

- Paper Student Score Reports (parent/guardian copy and school copy)
- Web-based Student Score Report (school copy)
- Web-based District and School Summary Reports
- Web-based District and School Roster Reports
- Web-based State Reports

Paper reports were shipped to districts in September 2014, along with the student datafolios. Web-based reports were posted online via a secure Web site in September 2014. A copy of each report shell is included in Appendix E.

## 6.2 INTERPRETIVE MATERIALS AND WORKSHOPS

In addition to the score reports, parents and teachers were provided with a copy of the *2014 Guide to Interpretation.* This guide is designed to provide clarification of the RIAA datafolio process and the Student Score Reports. An explanation of the Student Score Report is provided along with a datafolio entry sample. The full *2014 Guide to Interpretation* can be found at http://www.ride.ri.gov/assessment/Altassessment.aspx.

## 6.3 2013–14 RIAA DECISION RULES

Score of record and decision rules were formulated by RIDE and Measured Progress to detail rules for analysis and reporting of achievement reports. To ensure that reported results for the RIAA were accurate relative to collected data and other pertinent information, documents that delineate analysis and reporting rules were created. These documents were observed in the analyses of RIAA test data and in reporting the test results. Moreover, these rules are the main reference for quality assurance checks.

The score of record primarily describes the calculation of students' scores. The decision rules document primarily describes the inclusion/exclusion of students at the school, district, and state levels of aggregations. The decision rules document also describes rules as they pertain to individual reports and the classification of students based on their school type or other information provided by the state through the student demographic file.

The reporting decision rules can be found in Appendix F.

## 6.4 QUALITY ASSURANCE

Quality assurance measures are embedded throughout the entire process of analysis and reporting. The data processor, data analyst, and psychometrician assigned to work on the RIAA implement quality control checks of their respective computer programs and intermediate products. Moreover, when data are handed off to different functions within the Data and Reporting Services department and the Psychometrics and Research department, the sending function verifies that the data are accurate before handoff. Additionally, when a function receives a data set, the first step is to verify the data for accuracy.

Another type of quality assurance measure is parallel processing. Different exclusions that determine whether each student receives scaled scores and/or is included in different levels of aggregation are parallel processed. Using the decision rules document, two data analysts independently write a computer program that assigns students' exclusions. For each content area and grade combination, the exclusions assigned by each data analyst are compared across all students. Only when 100% agreement is achieved can the rest of the data analysis be completed.

Another level of quality assurance involves the procedures implemented by the quality assurance group to check the accuracy of reported data. Using a sample of schools and districts, the quality assurance group verifies that the reported information is correct. The step is conducted in two parts: 1) verify that the computed information was obtained correctly through appropriate application of different decision rules, and 2) verify that the correct data points populate each cell in the RIAA reports. The selection of sample schools and systems for this purpose is very specific and can affect the success of the quality control efforts. There are two sets of samples selected that may not be mutually exclusive.

The first set includes those that satisfy the following criteria:

- One-school District
- Two-school District
- Multischool District

The second set of samples includes systems or schools that have unique reporting situations, as indicated by the decision rules. This second set is necessary to ensure that each rule is applied correctly. The second set includes the following criteria:

School for each school type

School with excluded students, as defined by decision rules

The quality assurance group uses a checklist to implement its procedures. After the checklist is completed, sample reports are circulated for psychometric checks and program management review.

# SECTION IV TECHNICAL CHARACTERISTICS OF THE RIAA

Section IV of this report covers the technical characteristics of the assessment, presented in terms of item statistics, reliability measures, and decision accuracy and consistency indices. The methods of reporting RIAA scores, including report shells and decision rules, are provided. Finally, validity evidence is revisited and summarized throughout each section of this report.

## CHAPTER 7 ITEM ANALYSIS

The RIAA allows educators to tailor the assessment to the needs of each individual student. As described earlier, teachers select from a list of Rhode Island Alternate Assessment Grade Span Expectations (AAGSEs) designed to measure a particular content strand within the context of a Structured Performance Task (SPT). In reading, mathematics, and writing, four scores are generated for each AAGSE: progress, accuracy, independence, and connection to the content strand. In an assessment where the selection of a specific task can vary by student, it is important to examine the frequency of each task's selection and the average scores obtained by students who select each task.

In science, teachers also select from a list of AAGSEs designed to measure a particular content strand. However, instead of four scores per AAGSE, the SPT is scored, based on the submitted AAGSE evidence, for knowledge and inquiry. Three domain scores (accuracy, independence, and connection to the content strand) are generated for knowledge, while four domain scores (progress, accuracy, independence, and connection to the content strand) are generated for inquiry. Also examined are the frequency with which each science SPT was selected and the average knowledge and inquiry scores.

Complete details on how achievement levels are awarded for the four content areas can be found in Achievement Level Classification and Achievement Level Adjustment in Section 7.2.

### 7.1 AAGSE CHARACTERISTICS

Appendix C presents the number of students who were administered each AAGSE (or each SPT for science), the average score, and the spread of scores across the four dimensions (connection, progress, accuracy, and independence). Tables C-1 through C-12 assist in understanding the frequency at which expectations were selected by educators and the means and standard deviations of the dimension scores for those expectations.

Appendix C can also be used cautiously to examine the relative difficulties of the AAGSEs. In this case, AAGSE difficulty is approximated by the average AAGSE score. However, it is important to take error

variance into account (i.e., a joint consideration of the number of students who were assessed on the AAGSE and the spread of the scores). Simply put, the larger the number of students who were assessed on the AAGSE, the more meaning that can be attributed to the scores. At one extreme, if just a single student were assessed on an AAGSE and achieved the highest possible score, it would not be prudent to conclude that the AAGSE was easy; that student may simply be high achieving. On the other hand, if more than 30 students took a particular AAGSE, and all obtained the highest score, one could more confidently conclude that the AAGSE was relatively easy for that group of students. Another caution in interpreting Appendix C is that the dimensions were scored according to different rubrics. Connection and progress were scored on a scale that ranged from 0 to 8; accuracy and independence were scored on scales of 0 to 4. Therefore, 4 was the highest possible score for accuracy and independence but a midpoint score for progress and connection.

Scores within each dimension appeared to be fairly evenly dispersed across AAGSEs within an SPT. Progress scores tended to be slightly higher than connection scores, and accuracy scores were slightly higher than independence scores.

### 7.1.1 Strand Characteristics

Each AAGSE is designed to measure a content strand within the context of an SPT for each grade and content area. Each content strand is measured by two targeted AAGSEs. While the RIAA does not include items as traditionally defined, for purposes of item analysis, the dimensions scores for a given content strand may be treated in the same way as traditional test items. For convenience, the scores are referred to as "items" in the discussion below.

In a general assessment, the simplest measure of item difficulty for a given group of examinees is the *p*-value—the average item score divided by the total number of possible points on that item. Although the *p*-value is traditionally described as a measure of difficulty, it is properly interpreted as an easiness index, because larger values indicate easier items. An index of 0 indicates that no student received credit for the item; an index of 1 indicates that every student received full credit for the item.

Items that are answered correctly by almost all students provide little information about differences in student ability but do indicate knowledge or skills that have been mastered by most students. Similarly, items that are correctly answered by very few students provide little information about differences in student ability but may indicate knowledge or skills that have not yet been mastered by most students. For general assessments, to provide the most precise measurement, difficulty indices should range from near-chance performance (essentially 0.0 for constructed-response items) to 0.9. However, on a criterion-referenced alternative test, such as the RIAA, it may be appropriate to include some items with very low or very high item difficulty values in order to measure the range of skills at a given grade span. Including a range of item difficulties helped to ensure that the test did not exhibit an excess of scores at the floor or ceiling of the distribution.

Another important characteristic of an item is its discrimination. Each item in a test should be able to distinguish higher-ability test-takers from lower-ability test-takers with respect to the construct being tested. For example, a dichotomously scored item is considered to be discriminating if proportionately more test-takers who are high in the ability being measured answer the item correctly than do test-takers low in the ability measured. The total score is generally used as the criterion for judging levels of ability on the construct being tested. Item difficulty can constrain item discrimination power, in that if most examinees are receiving the maximum score on an item (or if most are receiving the minimum), the discrimination is restricted. There are a number of indices used in assessing the discriminating power of an item. The index currently used on the RIAA is the Pearson correlation coefficient, which measures the strength of the relationship (correlation) between examinees' performance on a single item and on the total test. A very low or negative correlation indicates that the item does not measure what the rest of the items on the test are measuring, while a very high correlation (close to +1) suggests that the information provided by the item perfectly reflects the total information provided by all of the other items.

The difficulty and discrimination of each content strand across three of the four dimensions are displayed in Table 7-1.

**Table 7-1. 2013–14 RIAA: Difficulty and Discrimination by Content Area, Grade, and Strand**

| *Content Area* | *Grade Span* | *Strand* | *Dimension* | *Difficulty* | *Discrimination* |
|---|---|---|---|---|---|
| Mathematics | K–2 | Numbers and Operations | Progress | 0.76 | 0.65 |
| | | | Accuracy | 0.82 | 0.54 |
| | | | Independence | 0.61 | 0.56 |
| | | Geometry and Measurement | Progress | 0.76 | 0.61 |
| | | | Accuracy | 0.84 | 0.50 |
| | | | Independence | 0.61 | 0.56 |
| | 3–5 | Numbers and Operations | Progress | 0.78 | 0.55 |
| | | | Accuracy | 0.89 | 0.45 |
| | | | Independence | 0.66 | 0.51 |
| | | Geometry and Measurement | Progress | 0.82 | 0.43 |
| | | | Accuracy | 0.93 | 0.33 |
| | | | Independence | 0.71 | 0.44 |
| | 6–8 | Numbers and Operations | Progress | 0.87 | 0.42 |
| | | | Accuracy | 0.91 | 0.50 |
| | | | Independence | 0.72 | 0.54 |
| | | Data, Statistics, and Probability | Progress | 0.85 | 0.51 |
| | | | Accuracy | 0.90 | 0.38 |
| | | | Independence | 0.72 | 0.48 |
| | 10 | Numbers and Operations | Progress | 0.83 | 0.36 |
| | | | Accuracy | 0.95 | 0.35 |
| | | | Independence | 0.77 | 0.44 |
| | | Functions and Algebra | Progress | 0.74 | 0.58 |
| | | | Accuracy | 0.87 | 0.36 |
| | | | Independence | 0.72 | 0.63 |

continued

| *Content Area* | *Grade Span* | *Strand* | *Dimension* | *Difficulty* | *Discrimination* |
|---|---|---|---|---|---|
| Reading | K–2 | Word Identification Skills/ Vocabulary Strategies and Breadth of Vocabulary | Progress | 0.78 | 0.70 |
| | | | Accuracy | 0.90 | 0.72 |
| | | | Independence | 0.71 | 0.64 |
| | | Early Reading Strategies | Progress | 0.81 | 0.63 |
| | | | Accuracy | 0.89 | 0.57 |
| | | | Independence | 0.66 | 0.60 |
| | 3–5 | Word Identification Skills/ Vocabulary Strategies and Breadth of Vocabulary | Progress | 0.80 | 0.57 |
| | | | Accuracy | 0.92 | 0.47 |
| | | | Independence | 0.74 | 0.46 |
| | | Initial Understanding Analysis and Interpretation of Text | Progress | 0.81 | 0.53 |
| | | | Accuracy | 0.91 | 0.45 |
| | | | Independence | 0.70 | 0.52 |
| | 6–8 | Word Identification Skills/ Vocabulary Strategies and Breadth of Vocabulary | Progress | 0.84 | 0.37 |
| | | | Accuracy | 0.90 | 0.37 |
| | | | Independence | 0.76 | 0.49 |
| | | Initial Understanding Analysis and Interpretation of Text | Progress | 0.85 | 0.40 |
| | | | Accuracy | 0.90 | 0.35 |
| | | | Independence | 0.75 | 0.61 |
| | 10 | Word Identification Skills/ Vocabulary Strategies and Breadth of Vocabulary | Progress | 0.79 | 0.62 |
| | | | Accuracy | 0.91 | 0.56 |
| | | | Independence | 0.76 | 0.59 |
| | | Initial Understanding Analysis and Interpretation of Text | Progress | 0.78 | 0.67 |
| | | | Accuracy | 0.88 | 0.51 |
| | | | Independence | 0.72 | 0.66 |
| Science | 4 | Inquiry | Progress | 0.41 | 0.34 |
| | | | Accuracy | 0.48 | 0.15 |
| | | | Independence | 0.30 | 0.35 |
| | | Knowledge | Accuracy | 0.47 | 0.05 |
| | | | Independence | 0.31 | 0.13 |
| | 8 | Inquiry | Progress | 0.39 | 0.39 |
| | | | Accuracy | 0.49 | 0.18 |
| | | | Independence | 0.39 | 0.59 |
| | | Knowledge | Accuracy | 0.48 | 0.16 |
| | | | Independence | 0.37 | 0.11 |
| | 11 | Inquiry | Progress | 0.37 | 0.27 |
| | | | Accuracy | 0.44 | 0.51 |
| | | | Independence | 0.37 | 0.63 |
| | | Knowledge | Accuracy | 0.46 | 0.29 |
| | | | Independence | 0.35 | 0.16 |
| Writing | 4 | Structures of Language and Writing Conventions | Progress | 0.80 | 0.48 |
| | | | Accuracy | 0.92 | 0.45 |
| | | | Independence | 0.66 | 0.44 |
| | | Writing in Responses to Literary and Informational Text | Progress | 0.78 | 0.41 |
| | | | Accuracy | 0.90 | 0.42 |
| | | | Independence | 0.66 | 0.40 |
| | 7 | Structures of Language and Writing Conventions | Progress | 0.83 | 0.62 |
| | | | Accuracy | 0.92 | 0.31 |
| | | | Independence | 0.73 | 0.57 |

continued

| Content Area | Grade Span | Strand | Dimension | Difficulty | Discrimination |
|---|---|---|---|---|---|
| Writing | 7 | Narrative Writing: Creating a Story Line and Applying Narrative Strategies | Progress | 0.88 | 0.59 |
| | | | Accuracy | 0.94 | 0.49 |
| | | | Independence | 0.75 | 0.62 |
| | 10 | Structures of Language and Writing Conventions | Progress | 0.77 | 0.45 |
| | | | Accuracy | 0.90 | 0.40 |
| | | | Independence | 0.72 | 0.28 |
| | | Informational Writing | Progress | 0.80 | 0.49 |
| | | | Accuracy | 0.95 | 0.17 |
| | | | Independence | 0.76 | 0.55 |

The statistics for the majority of strands fell within an acceptable range for items measuring performance in an alternate assessment context. Independence items were consistently more difficult than progress and accuracy items. For the most part, the discrimination values were quite high, suggesting relatively strong consistency among the dimension and strand scores.

### 7.1.2 Within-Strand Consistency

One of the unique features of the RIAA is that in reading, mathematics, and writing, each student is assessed on two AAGSEs within each content strand SPT. Just as one could take item responses from two parallel forms of a test administered to the same group of students and evaluate the consistency between the scores, the two AAGSE measures within a content strand SPT can be compared. Tables 7-2 through 7-5 show the percentage of students within each of the four dimensions who received the exact same score, as well as the adjacent score, for the two AAGSEs within a task. The table also presents Cohen•s (1960) coefficient º (kappa), a second way of measuring consistency. Kappa is calculated using the following formula:

$$\kappa = \frac{\sum_i C_{ii} - \sum_i C_{i.} C_{.i}}{1 - \sum_i C_{i.} C_{.i}}$$

where

$C_{i.}$ is the proportion of students whose observed score would be $i$ on the first AAGSE,

$C_{.i}$ is the proportion of students whose observed score would be $i$ on the second AAGSE, and

$C_{ii}$ is the proportion of students whose observed score would be $i$ on both AAGSEs.

**Table 7-2. 2013–14 RIAA: Consistency Indices of AAGSE Scores Within SPTs—Mathematics**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| K–2 | 021 | 78 | | | 0.88 | 0.10 | 0.41 | 0.12 | 0.78 | 0.22 | | | 0.92 | 0.06 | 0.45 | 0.07 | 0.59 | 0.35 |
| | 022 | 51 | 0.14 | 0.12 | 0.67 | 0.27 | 0.33 | 0.13 | 0.75 | 0.22 | | | 0.80 | 0.14 | 0.23 | 0.09 | 0.41 | 0.45 |
| | 023 | 30 | 0.52 | 0.24 | 0.90 | 0.10 | 0.57 | 0.14 | 0.83 | 0.17 | 0.47 | 0.31 | 0.93 | 0.07 | | | 0.67 | 0.30 |
| 3–5 | 351 | 308 | | | 0.88 | 0.11 | 0.29 | 0.06 | 0.71 | 0.27 | | | 0.87 | 0.11 | 0.48 | 0.04 | 0.63 | 0.31 |
| | 352 | 232 | 0.16 | 0.08 | 0.82 | 0.14 | 0.27 | 0.07 | 0.72 | 0.27 | | | 0.85 | 0.12 | 0.37 | 0.05 | 0.57 | 0.35 |
| | 353 | 103 | 0.51 | 0.12 | 0.88 | 0.11 | 0.43 | 0.09 | 0.74 | 0.24 | | | 0.87 | 0.10 | 0.55 | 0.06 | 0.67 | 0.23 |
| 6–8 | 671 | 225 | 0.46 | 0.08 | 0.87 | 0.10 | | | 0.83 | 0.17 | 0.46 | 0.07 | 0.85 | 0.12 | 0.45 | 0.05 | 0.62 | 0.30 |
| | 672 | 134 | | | 0.87 | 0.07 | 0.45 | 0.08 | 0.80 | 0.19 | 0.65 | 0.10 | 0.93 | 0.07 | 0.61 | 0.05 | 0.74 | 0.19 |
| | 673 | 82 | | | 0.93 | 0.06 | | | 0.88 | 0.11 | | | 0.84 | 0.15 | | | 0.62 | 0.30 |
| 10 | 101 | 118 | 0.44 | 0.09 | 0.81 | 0.14 | 0.33 | 0.10 | 0.74 | 0.25 | | | 0.89 | 0.08 | 0.50 | 0.06 | 0.68 | 0.27 |
| | 102 | 71 | 0.48 | 0.13 | 0.86 | 0.14 | 0.42 | 0.12 | 0.76 | 0.24 | | | 0.93 | 0.06 | 0.48 | 0.08 | 0.68 | 0.27 |
| | 103 | 22 | 0.65 | 0.19 | 0.86 | 0.14 | | | 0.91 | 0.09 | | | 0.91 | 0.09 | 0.35 | 0.19 | 0.77 | 0.23 |

N: Number of Students; κ: Kappa; S.E.: Standard Error

* Note: Kappas cannot be calculated in all instances because of missing values.

**Table 7-3. 2013–14 RIAA: Consistency Indices of AAGSE Scores Within SPTs—Reading**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| K–2 | 024 | 89 | 0.49 | 0.13 | 0.88 | 0.12 | 0.36 | 0.11 | 0.76 | 0.20 | | | 0.88 | 0.10 | 0.36 | 0.07 | 0.58 | 0.34 |
| | 025 | 25 | | | 0.84 | 0.12 | 0.06 | 0.19 | 0.48 | 0.52 | | | 0.92 | 0.08 | | | 0.56 | 0.20 |
| | 026 | 67 | 0.41 | 0.18 | 0.90 | 0.10 | | | 0.78 | 0.21 | | | 0.85 | 0.10 | | | 0.60 | 0.31 |
| 3–5 | 354 | 325 | 0.49 | 0.09 | 0.93 | 0.06 | 0.39 | 0.05 | 0.74 | 0.25 | | | 0.86 | 0.12 | 0.47 | 0.04 | 0.66 | 0.27 |
| | 355 | 265 | | | 0.95 | 0.05 | 0.40 | 0.06 | 0.77 | 0.22 | | | 0.88 | 0.11 | 0.49 | 0.04 | 0.64 | 0.29 |
| | 356 | 53 | 0.37 | 0.28 | 0.94 | 0.06 | | | 0.68 | 0.32 | | | 0.89 | 0.09 | 0.54 | 0.09 | 0.72 | 0.23 |
| 6–8 | 674 | 222 | 0.66 | 0.08 | 0.94 | 0.06 | 0.45 | 0.07 | 0.81 | 0.18 | | | 0.84 | 0.14 | | | 0.64 | 0.29 |
| | 675 | 148 | 0.68 | 0.12 | 0.96 | 0.03 | 0.42 | 0.09 | 0.80 | 0.18 | 0.35 | 0.09 | 0.78 | 0.20 | 0.42 | 0.06 | 0.62 | 0.34 |
| | 676 | 61 | | | 0.93 | 0.03 | 0.54 | 0.13 | 0.84 | 0.16 | | | 0.85 | 0.07 | | | 0.56 | 0.34 |
| 10 | 104 | 113 | | | 0.89 | 0.10 | | | 0.69 | 0.29 | | | 0.90 | 0.09 | 0.44 | 0.07 | 0.68 | 0.27 |
| | 105 | 66 | | | 0.89 | 0.09 | 0.59 | 0.10 | 0.80 | 0.15 | | | 0.79 | 0.12 | 0.30 | 0.09 | 0.53 | 0.41 |
| | 106 | 44 | 0.28 | 0.26 | 0.91 | 0.09 | | | 0.73 | 0.27 | | | 0.84 | 0.11 | 0.38 | 0.10 | 0.59 | 0.25 |

N: Number of Students; κ: Kappa; S.E.: Standard Error
* Note: Kappas cannot be calculated in all instances because of missing values.

**Table 7-4. 2013–14 RIAA: Consistency Indices of AAGSE Scores Within SPTs—Science**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| 4 | 044 | 7 | | | 0.86 | 0.14 | | | | | | | 0.71 | 0.29 | | | 0.29 | 0.71 |
| | 045 | 61 | 0.48 | 0.12 | 0.79 | 0.18 | | | | | | | 0.79 | 0.13 | 0.29 | 0.08 | 0.44 | 0.48 |
| 8 | 081 | 25 | | | 0.84 | 0.12 | | | | | 0.36 | 0.27 | 0.88 | 0.12 | 0.55 | 0.17 | 0.80 | 0.16 |
| | 082 | 39 | 0.84 | 0.11 | 0.95 | 0.05 | | | | | | | 0.87 | 0.10 | 0.33 | 0.10 | 0.49 | 0.46 |
| 11 | 111 | 51 | 0.35 | 0.12 | 0.67 | 0.33 | | | | | | | 0.73 | 0.16 | | | 0.43 | 0.39 |
| | 112 | 8 | | | 0.75 | 0.25 | | | | | | | 0.63 | 0.38 | | | 0.63 | 0.38 |

N: Number of Students; κ: Kappa; S.E.: Standard Error
* Note: Kappas cannot be calculated in all instances because of missing values.

**Table 7-5. 2013–14 RIAA: Consistency Indices of AAGSE Scores Within SPTs—Writing**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| 4 | 041 | 104 | 0.58 | 0.15 | 0.94 | 0.05 | 0.28 | 0.10 | 0.71 | 0.28 | | | 0.90 | 0.09 | 0.41 | 0.06 | 0.57 | 0.30 |
| | 042 | 89 | 0.59 | 0.15 | 0.93 | 0.07 | 0.31 | 0.10 | 0.69 | 0.28 | | | 0.89 | 0.09 | 0.50 | 0.07 | 0.64 | 0.30 |
| | 043 | 14 | | | 1.00 | 0.00 | 0.69 | 0.20 | 0.86 | 0.14 | 0.44 | 0.30 | 0.86 | 0.14 | | | 0.57 | 0.29 |
| 7 | 071 | 114 | | | 0.88 | 0.09 | 0.42 | 0.09 | 0.81 | 0.16 | | | 0.89 | 0.10 | 0.40 | 0.06 | 0.61 | 0.28 |
| | 072 | 88 | 0.71 | 0.16 | 0.97 | 0.03 | 0.53 | 0.12 | 0.88 | 0.13 | | | 0.90 | 0.09 | 0.47 | 0.08 | 0.66 | 0.27 |
| | 073 | 29 | 1.00 | 0.00 | 1.00 | 0.00 | 0.28 | 0.22 | 0.79 | 0.21 | 0.35 | 0.29 | 0.90 | 0.10 | 0.46 | 0.13 | 0.62 | 0.34 |
| 10 | 107 | 110 | 0.73 | 0.09 | 0.93 | 0.05 | 0.41 | 0.09 | 0.75 | 0.24 | | | 0.90 | 0.08 | 0.47 | 0.06 | 0.67 | 0.25 |
| | 108 | 89 | | | 0.93 | 0.07 | 0.34 | 0.11 | 0.73 | 0.27 | | | 0.96 | 0.03 | 0.62 | 0.07 | 0.75 | 0.20 |
| | 109 | 29 | 0.26 | 0.27 | 0.86 | 0.14 | 0.12 | 0.16 | 0.55 | 0.41 | | | 0.90 | 0.03 | | | 0.72 | 0.17 |

N: Number of Students; κ: Kappa; S.E.: Standard Error

* Note: Kappas cannot be calculated in all instances because of missing values.

### 7.1.3 Subdomain Structure

By design, the initial achievement level classification of the RIAA is based on three of the four dimensions: progress, accuracy, and independence. The fourth dimension—connection to strand—is utilized to adjust the achievement level classification (see Section 7.2). As with any assessment, it is important that these subdomains be carefully examined. This was achieved by exploring the relationships among student dimension scores with Pearson correlation coefficients. A very low correlation (near zero) would indicate that the dimensions are not related, a strong negative correlation (approaching –1.00) demonstrates that they are inversely related (i.e., that a student with a high score on one dimension had a low score on the other), and a strong positive correlation (approaching 1.00) shows that the information provided by one dimension is similar to that provided by the other dimension.

The correlations among the three test dimensions based on the initial achievement level classifications for each grade and content area are displayed in Table 7-6.

**Table 7-6. 2013–14 RIAA: Correlation of Dimensions by Content Area**

| *Content Area* | *Grade Span* | *Correlation Between Dimensions* | | |
|---|---|---|---|---|
| | | *Progress and Accuracy* | *Progress and Independence* | *Accuracy and Independence* |
| Mathematics | K–2 | 0.66 | 0.57 | 0.52 |
| | 3–5 | 0.62 | 0.45 | 0.46 |
| | 6–8 | 0.80 | 0.68 | 0.63 |
| | 10 | 0.76 | 0.73 | 0.73 |
| Reading | K–2 | 0.70 | 0.56 | 0.55 |
| | 3–5 | 0.65 | 0.48 | 0.53 |
| | 6–8 | 0.76 | 0.74 | 0.71 |
| | 10 | 0.83 | 0.73 | 0.71 |
| Science | 4 | 0.80 | 0.55 | 0.59 |
| | 8 | 0.77 | 0.69 | 0.80 |
| | 11 | 0.75 | 0.66 | 0.81 |
| Writing | 4 | 0.66 | 0.38 | 0.47 |
| | 7 | 0.81 | 0.76 | 0.67 |
| | 10 | 0.76 | 0.60 | 0.67 |

The correlations between the three dimensions are fairly high. Progress and accuracy tended to be more similar to one another than they were to independence, with accuracy having the stronger relationship to independence in most cases. These results are consistent with the subdomain framework of the test.

## 7.2 TEST RELIABILITY

A complete evaluation of an assessment must address the way in which the subscore units that make up the test score—traditionally items—function together and complement one another. Since each AAGSE is designed to measure a content strand within the context of an SPT, the sum of the two dimension-specific AAGSE scores for each content strand is analogous to a traditional test item. In the case of the RIAA, this means that in reading, mathematics, and writing, each student had six item scores that contributed to his or her initial achievement level categorization[1]: three dimension scores (progress, accuracy, and independence) for each of the two content strands. Each of the six scores was calculated by summing the two AAGSE scores for that dimension and content strand. In science, each student had five item scores that contributed to his or her initial achievement level categorization: three inquiry scores (progress, accuracy, and independence) and two knowledge scores (accuracy and independence). When the scores are considered to be independent measures, overall reliability of the test can be estimated.

Because the RIAA is a single test, the Cronbach (1951) correlation coefficient, alpha ($\alpha$), is used to measure consistency among its parts. Cronbach's $\alpha$ formula is given as

$$\alpha \equiv \frac{n}{n-1}\left[1 - \frac{\sum_{i=1}^{n} \sigma^2_{(Y_i)}}{\sigma^2_x}\right]$$

where
$i$ indexes the different units whose scores sum to give the total test score,
$n$ is the number of these subscore units,
$\sigma^2_{(Y_i)}$ represents subscore variance, and
$\sigma^2_x$ represents the total test score variance.

Table 7-7 presents alpha for each content area and grade.

[1] Complete details on how achievement levels are awarded for the four content areas can be found below (Achievement Level Classification and Achievement Level Adjustment).

**Table 7-7. 2013–14 RIAA: Cronbach's Reliability Coefficients by Content Area and Grade**

| *Content Area* | *Grade Span* | *Reliability (α)* |
|---|---|---|
| Mathematics | K–2 | 0.80 |
| | 3–5 | 0.67 |
| | 6–8 | 0.73 |
| | 10 | 0.70 |
| Reading | K–2 | 0.80 |
| | 3–5 | 0.73 |
| | 6–8 | 0.69 |
| | 10 | 0.81 |
| Science | 4 | 0.52 |
| | 8 | 0.52 |
| | 11 | 0.58 |
| Writing | 4 | 0.64 |
| | 7 | 0.71 |
| | 10 | 0.66 |

An alpha coefficient toward the high end is taken to mean that the parts of the test are likely measuring very similar knowledge or skills (i.e., that the subscore units complement one another and suggest a reliable assessment). Taking into account that the RIAA alphas were computed based on so few "items," the values in Table 7-7 suggest that the RIAA demonstrated adequate levels of reliability.

### 7.2.1 Achievement Level Classification

For the RIAA, dimension scores and a content area–specific two-way contingency table are used to classify students into one of the four achievement levels. Specifically, accuracy and independence scores are summed and then taken, in combination with the progress score, to the content area–specific contingency table to look up a student's achievement level. For example, according to Table 7-8, a student with an accuracy-plus-independence score of 10 and a progress score of 4 (in mathematics) would be classified as Substantially Below Proficient (Level 1), while a student with the same accuracy and independence sum but a progress score of 8 would be classified as Partially Proficient (Level 2). The content area–specific contingency tables are presented in Tables 7-8 through 7-11. The fourth dimension, connection to the content strand, is utilized to adjust the scores of borderline students' scores (see Achievement Level Adjustment for details).

**Table 7-8. 2013–14 RIAA: Achievement Level Contingency Table—Mathematics**

| *Progress► Accuracy + Independence▼* | *0* | *4* | *8* | *12* | *16* | *20* | *24* | *28* | *32* |
|---|---|---|---|---|---|---|---|---|---|
| *0* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *1* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *2* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *3* | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| *4* | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| *5* | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| *6* | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| *7* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *8* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *9* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *10* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *11* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *12* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *13* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *14* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *15* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *16* | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| *17* | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| *18* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *19* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *20* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *21* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *22* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *23* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *24* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *25* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *26* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *27* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *28* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *29* | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *30* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| *31* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| *32* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |

1 = Substantially Below Proficient; 2 = Partially Proficient; 3 = Proficient; 4 = Proficient with Distinction

**Table 7-9. 2013–14 RIAA: Achievement Level Contingency Table—Reading**

| *Progress► Accuracy + Independence▼* | *0* | *4* | *8* | *12* | *16* | *20* | *24* | *28* | *32* |
|---|---|---|---|---|---|---|---|---|---|
| *0* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *1* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *2* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *3* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *4* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *5* | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| *6* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *7* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *8* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *9* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *10* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *11* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *12* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *13* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *14* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *15* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *16* | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| *17* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *18* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *19* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *20* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *21* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *22* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *23* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *24* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *25* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *26* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *27* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *28* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *29* | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *30* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| *31* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| *32* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |

1 = Substantially Below Proficient; 2 = Partially Proficient; 3 = Proficient; 4 = Proficient with Distinction

**Table 7-10. 2013–14 RIAA: Achievement Level Contingency Table—Writing**

| *Progress► Accuracy + Independence▼* | *0* | *4* | *8* | *12* | *16* | *20* | *24* | *28* | *32* |
|---|---|---|---|---|---|---|---|---|---|
| *0* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *1* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *2* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *3* | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| *4* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *5* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *6* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *7* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *8* | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| *9* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *10* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *11* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *12* | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| *13* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *14* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *15* | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| *16* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *17* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *18* | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
| *19* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *20* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *21* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *22* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *23* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *24* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *25* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *26* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| *27* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *28* | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 |
| *29* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| *30* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| *31* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |
| *32* | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 |

1 = Substantially Below Proficient; 2 = Partially Proficient; 3 = Proficient; 4 = Proficient with Distinction

**Table 7-11. 2013–14 RIAA: Achievement Level Contingency Table—Science**

| *Progress► Accuracy + Independence▼* | *0* | *4* | *8* |
|---|---|---|---|
| *0* | 1 | 1 | 1 |
| *1* | 1 | 1 | 2 |
| *2* | 1 | 1 | 2 |
| *3* | 1 | 2 | 2 |
| *4* | 1 | 2 | 2 |
| *5* | 1 | 2 | 3 |
| *6* | 2 | 2 | 3 |
| *7* | 2 | 2 | 3 |
| *8* | 2 | 2 | 3 |
| *9* | 2 | 3 | 3 |
| *10* | 2 | 3 | 3 |
| *11* | 2 | 3 | 3 |
| *12* | 2 | 3 | 4 |
| *13* | 2 | 3 | 4 |
| *14* | 2 | 3 | 4 |
| *15* | 2 | 4 | 4 |
| *16* | 2 | 4 | 4 |

1 = Substantially Below Proficient; 2 = Partially Proficient; 3 = Proficient; 4 = Proficient with Distinction

### 7.2.2 Classification Accuracy and Consistency

While related to reliability, the accuracy and consistency of classifying students into performance categories is an even more important issue in a standards-based reporting framework (Livingston and Lewis, 1995). Unlike generalizability coefficients, decision accuracy and consistency (DAC) can usually be computed with the data currently available for most alternate assessments. For every 2013–14 RIAA grade and content area, each student was classified into one of the following achievement levels: Substantially Below Proficient, Partially Proficient, Proficient, or Proficient with Distinction. This section of the report explains the methodologies used to assess the reliability of classification decisions and presents the results.

Before the Livingston and Lewis (1995) technique could be used for the RIAA, some adjustments had to be made. While the technique is easily adaptable to examinations of all kinds, including mixed item–format tests, it is designed for tests where there is a direct correspondence between an overall total score and achievement levels. Because the RIAA achievement level classifications are based on a two-way contingency table, a total score–to–achievement level conversion table needed to be created. A total score was created for each cell in the contingency table by adding the progress score to the summed independence and accuracy scores, resulting in a matrix of total scores. The cut score for each achievement level was then calculated by taking an average of the scores in the borderline cells. A borderline cell was defined as the last cell before the next achievement level or the first cell in the next achievement level. Table 7-12 is the final total score–to–achievement level conversion table.

**Table 7-12. 2013–14 RIAA: Achievement Level Score Ranges**

| *Achievement Level* | *Total Raw Score Range* | | | |
|---|---|---|---|---|
| | *Mathematics* | *Reading* | *Science* | *Writing* |
| Substantially Below Proficient | 0–25 | 0–25 | 0–6 | 0–25 |
| Partially Proficient | 26–39 | 26–39 | 7–12 | 26–39 |
| Proficient | 40–54 | 40–54 | 13–18 | 40–53 |
| Proficient with Distinction | 55–64 | 55–64 | 19–24 | 54–64 |

Accuracy refers to the extent to which decisions based on test scores match decisions that would have been made if the scores did not contain any measurement error. Accuracy must be estimated, because errorless test scores do not exist. Consistency measures the extent to which classification decisions based on test scores match the decisions based on scores from a second, parallel form of the same test. Consistency can be evaluated directly from actual responses to test items if two complete and parallel forms of the test are given to the same group of students. In operational test programs, however, such a design is usually impractical. Instead, techniques have been developed to estimate both the accuracy and the consistency of classification decisions based on a single administration of a test. The Livingston and Lewis (1995) technique was used for the 2013–14 RIAA because it is easily adaptable to all types of testing formats, including mixed-format tests.

The accuracy and consistency estimates reported below make use of "true scores" in the classical test theory sense. A true score is the score that would be obtained if a test had no measurement error. Of course, true scores cannot be observed and so must be estimated. In the Livingston and Lewis (1995) method, estimated true scores are used to categorize students into their "true" classifications.

For the 2013–14 RIAA, after various technical adjustments (described in Livingston and Lewis, 1995), a four-by-four contingency table of accuracy was created for each content area and grade, where cell [*i, j*] represented the estimated proportion of students whose true score fell into classification *i* (where *i* = 1–4) and observed score into classification *j* (where *j* = 1–4). The sum of the diagonal entries (i.e., the proportion of students whose true and observed classifications matched) signified overall accuracy.

To calculate consistency, true scores were used to estimate the joint distribution of classifications on two independent, parallel test forms. Following statistical adjustments per Livingston and Lewis (1995), a new four-by-four contingency table was created for each content area and grade and populated by the proportion of students who would be categorized into each combination of classifications according to the two (hypothetical) parallel test forms. Cell [*i, j*] of this table represented the estimated proportion of students whose observed score on the first form would fall into classification *i* (where *i* = 1–4) and whose observed score on the second form would fall into classification *j* (where *j* = 1–4). The sum of the diagonal entries (i.e., the proportion of students categorized by the two forms into exactly the same classification) signified overall consistency.

Another way to measure consistency is to use Cohen's (1960) coefficient $\kappa$ (kappa), which assesses the proportion of consistent classifications after removing the proportion of consistent classifications that would be expected by chance. It is calculated using the following formula:

$$\kappa = \frac{(\text{Observed agreement}) - (\text{Chance agreement})}{1 - (\text{Chance agreement})} = \frac{\sum_i C_{ii} - \sum_i C_{i.} C_{.i}}{1 - \sum_i C_{i.} C_{.i}}$$

where

$C_{i.}$ is the proportion of students whose observed achievement level would be Level $i$ (where $i$ = 1–4) on the first hypothetical parallel form of the test;

$C_{.i}$ is the proportion of students whose observed achievement level would be Level $i$ (where $i$ = 1–4) on the second hypothetical parallel form of the test; and

$C_{ii}$ is the proportion of students whose observed achievement level would be Level $i$ (where $i$ = 1–4) on both hypothetical parallel forms of the test.

Because $\kappa$ is corrected for chance, its values are lower than are other consistency estimates.

The accuracy and consistency analyses described above are provided in Table 7-13. The table includes overall accuracy and consistency indices, including kappa. Accuracy and consistency values conditional on achievement level are also given. For these calculations, the denominator is the proportion of students associated with a given achievement level. For example, the conditional accuracy value is 0.62 for Substantially Below Proficient for grades 3–5 mathematics. This figure indicates that among the students whose true scores placed them in this classification, 62% would be expected to be in this classification when categorized according to their observed scores. Similarly, a consistency value of 0.59 indicates that 59% of students with observed scores in the Substantially Below Proficient level would be expected to score in this classification again if a second, parallel test form were used.

**Table 7-13. 2013–14 RIAA: Summary of Decision Accuracy (and Consistency) Results by Content Area and Grade—Overall and Conditional on Achievement Level**

| *Content Area* | *Grade* | *Overall* | *Kappa* | *Conditional on Level* | | | |
|---|---|---|---|---|---|---|---|
| | | | | *Substantially Below Proficient* | *Partially Proficient* | *Proficient* | *Proficient with Distinction* |
| Mathematics | K–2 | 0.69 (0.61) | 0.44 | 0.71 (0.59) | 0.50 (0.41) | 0.55 (0.48) | 0.91 (0.78) |
| | 3–5 | 0.66 (0.61) | 0.35 | 0.62 (0.44) | 0.44 (0.34) | 0.47 (0.41) | 0.90 (0.78) |
| | 6–8 | 0.68 (0.66) | 0.39 | 0.63 (0.51) | 0.37 (0.29) | 0.39 (0.35) | 0.94 (0.84) |
| | 10 | 0.65 (0.62) | 0.38 | 0.65 (0.56) | 0.34 (0.28) | 0.36 (0.31) | 0.93 (0.81) |
| Reading | K–2 | 0.72 (0.61) | 0.32 | 0.82 (0.80) | 0.46 (0.31) | 0.46 (0.30) | 0.75 (0.73) |
| | 3–5 | 0.68 (0.63) | 0.37 | 0.64 (0.48) | 0.44 (0.34) | 0.47 (0.41) | 0.91 (0.80) |
| | 6–8 | 0.66 (0.64) | 0.37 | 0.62 (0.50) | 0.34 (0.27) | 0.36 (0.31) | 0.93 (0.83) |
| | 10 | 0.69 (0.64) | 0.43 | 0.70 (0.61) | 0.42 (0.33) | 0.45 (0.38) | 0.92 (0.82) |
| Science | 4 | 0.49 (0.48) | 0.25 | 0.52 (0.39) | 0.33 (0.29) | 0.31 (0.29) | 0.88 (0.68) |
| | 8 | 0.55 (0.55) | 0.28 | 0.53 (0.44) | 0.28 (0.24) | 0.24 (0.22) | 0.90 (0.76) |
| | 11 | 0.53 (0.51) | 0.30 | 0.58 (0.50) | 0.34 (0.30) | 0.31 (0.28) | 0.90 (0.71) |
| Writing | 4 | 0.61 (0.56) | 0.28 | 0.57 (0.35) | 0.41 (0.31) | 0.43 (0.37) | 0.87 (0.74) |
| | 7 | 0.72 (0.70) | 0.43 | 0.67 (0.61) | 0.32 (0.26) | 0.31 (0.26) | 0.94 (0.87) |
| | 10 | 0.65 (0.62) | 0.34 | 0.61 (0.46) | 0.37 (0.29) | 0.37 (0.33) | 0.92 (0.80) |

For some testing situations, decisions around level thresholds may be of greatest concern. For example, in testing done for NCLB accountability purposes, the primary concern is distinguishing between students who are proficient and those who are not yet proficient. In this case, the accuracy of the Partially Proficient/Proficient threshold is of greatest interest. For the 2013–14 RIAA, Table 7-14 provides accuracy and consistency estimates at each cutpoint, as well as false positive and false negative decision rates. (A false positive is the proportion of students whose observed scores were above the cut and whose true scores were below the cut. A false negative is the proportion of students whose observed scores were below the cut and whose true scores were above the cut.)

**Table 7-14. 2013–14 RIAA: Summary of Decision Accuracy (and Consistency) Results by Content Area and Grade—Conditional on Cutpoint**

| *Content Area* | *Grade* | *Substantially Below Proficient / Partially Proficient* | | | *Partially Proficient / Proficient* | | | *Proficient / Proficient with Distinction* | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | *Accuracy (consistency)* | *False* | | *Accuracy (consistency)* | *False* | | *Accuracy (consistency)* | *False* | |
| | | | *Positive* | *Negative* | | *Positive* | *Negative* | | *Positive* | *Negative* |
| Mathematics | K–2 | 0.94 (0.92) | 0.03 | 0.03 | 0.89 (0.85) | 0.07 | 0.04 | 0.85 (0.81) | 0.12 | 0.03 |
| | 3–5 | 0.96 (0.94) | 0.02 | 0.02 | 0.89 (0.86) | 0.06 | 0.05 | 0.80 (0.75) | 0.15 | 0.05 |
| | 6–8 | 0.94 (0.92) | 0.03 | 0.03 | 0.89 (0.86) | 0.07 | 0.04 | 0.82 (0.80) | 0.14 | 0.03 |
| | 10 | 0.92 (0.89) | 0.05 | 0.04 | 0.87 (0.84) | 0.09 | 0.04 | 0.82 (0.79) | 0.15 | 0.03 |
| Reading | K–2 | 0.97 (0.96) | 0.02 | 0.01 | 0.97 (0.95) | 0.02 | 0.02 | 0.77 (0.68) | 0.05 | 0.18 |
| | 3–5 | 0.96 (0.94) | 0.02 | 0.02 | 0.90 (0.86) | 0.06 | 0.04 | 0.81 (0.77) | 0.14 | 0.04 |
| | 6–8 | 0.93 (0.91) | 0.04 | 0.03 | 0.88 (0.85) | 0.08 | 0.04 | 0.81 (0.79) | 0.15 | 0.04 |
| | 10 | 0.93 (0.91) | 0.04 | 0.03 | 0.89 (0.86) | 0.07 | 0.04 | 0.84 (0.81) | 0.12 | 0.04 |
| Science | 4 | 0.88 (0.85) | 0.06 | 0.05 | 0.79 (0.75) | 0.15 | 0.06 | 0.74 (0.71) | 0.23 | 0.03 |
| | 8 | 0.87 (0.84) | 0.08 | 0.05 | 0.81 (0.77) | 0.14 | 0.05 | 0.76 (0.73) | 0.20 | 0.04 |
| | 11 | 0.87 (0.83) | 0.08 | 0.05 | 0.81 (0.77) | 0.14 | 0.05 | 0.78 (0.75) | 0.19 | 0.03 |
| Writing | 4 | 0.95 (0.93) | 0.02 | 0.03 | 0.86 (0.82) | 0.07 | 0.06 | 0.76 (0.72) | 0.19 | 0.05 |
| | 7 | 0.93 (0.91) | 0.04 | 0.02 | 0.90 (0.87) | 0.07 | 0.03 | 0.85 (0.82) | 0.12 | 0.03 |
| | 10 | 0.94 (0.92) | 0.03 | 0.03 | 0.87 (0.84) | 0.08 | 0.05 | 0.80 (0.77) | 0.16 | 0.04 |

The above indices are derived from Livingston and Lewis's (1995) method of estimating the accuracy and consistency of classifications. It should be noted that Livingston and Lewis discuss two versions of the accuracy and consistency tables. A standard version performs calculations for forms parallel to the form taken. An "adjusted" version adjusts the results of one form to match the observed score distribution obtained in the data. The tables above use the standard version for two reasons: 1) this "unadjusted" version can be considered a smoothing of the data, thereby decreasing the variability of the results, and 2) for results dealing with the consistency of two parallel forms, the unadjusted tables are symmetrical, indicating that the two parallel forms have the same statistical properties. This second reason is consistent with the notion of forms that are parallel; that is, it is more intuitive and interpretable for two parallel forms to have the same statistical distribution.

Note that, as with other methods of evaluating reliability, DAC statistics calculated based on small groups can be expected to be lower than those calculated based on larger groups. For this reason, the values presented in the tables above should be interpreted with caution. In addition, it is important to remember that it is inappropriate to compare DAC statistics between grades and content areas.

### 7.2.3 Achievement Level Adjustment

The RIAA implemented an adjustment to the contingency tables for classifying students into achievement levels. Essentially, the achievement level classifications of borderline students' scores (those who fell just below or just above a proficiency cut) were adjusted according to the connection to content strand score. If a student who fell just below a cut had a connection score greater than 27 for reading, writing, and mathematics, the student was moved up a level. A student who fell just above a cut and had a connection score of less than 7 for reading, writing, and mathematics was moved down a level. If a student who fell just below a cut had a connection score greater than 13 for science, the student was moved up a level. A student who fell just above a cut and had a connection score of less than 4 for science was moved down a level.

Table 7-15 presents the numbers of students at each achievement level initially and the number and percentages of students who moved up or down due to the adjustment.

**Table 7-15. 2013–14 RIAA: Frequencies of Adjustments to Achievement Levels by Content Area and Grade**

| *Content Area* | *Grade Span* | *Achievement Level* | *Number of Students Initially in Level* | *Students Changing Achievement Levels* | | | |
|---|---|---|---|---|---|---|---|
| | | | | *Moved Up* | | *Moved Down* | |
| | | | | *Number* | *Percent* | *Number* | *Percent* |
| Mathematics | K–2 | 1 | 8 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 20 | 1 | 5.0 | 0 | 0.0 |
| | | 3 | 41 | 4 | 9.8 | 0 | 0.0 |
| | | 4 | 37 | 0 | 0.0 | 0 | 0.0 |
| | 3–5 | 1 | 21 | 1 | 4.8 | 0 | 0.0 |
| | | 2 | 42 | 5 | 11.9 | 0 | 0.0 |

continued

| Content Area | Grade Span | Achievement Level | Number of Students Initially in Level | Students Changing Achievement Levels | | | |
|---|---|---|---|---|---|---|---|
| | | | | Moved Up | | Moved Down | |
| | | | | Number | Percent | Number | Percent |
| Mathematics | 3–5 | 3 | 153 | 27 | 17.6 | 0 | 0.0 |
| | | 4 | 154 | 0 | 0.0 | 0 | 0.0 |
| | 6–8 | 1 | 18 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 33 | 5 | 15.2 | 0 | 0.0 |
| | | 3 | 84 | 10 | 11.9 | 0 | 0.0 |
| | | 4 | 126 | 0 | 0.0 | 0 | 0.0 |
| | 10 | 1 | 17 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 16 | 0 | 0.0 | 0 | 0.0 |
| | | 3 | 52 | 9 | 17.3 | 0 | 0.0 |
| | | 4 | 53 | 0 | 0.0 | 0 | 0.0 |
| Reading | K–2 | 1 | 11 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 8 | 0 | 0.0 | 0 | 0.0 |
| | | 3 | 41 | 14 | 34.1 | 0 | 0.0 |
| | | 4 | 46 | 0 | 0.0 | 0 | 0.0 |
| | 3–5 | 1 | 18 | 1 | 5.6 | 0 | 0.0 |
| | | 2 | 56 | 6 | 10.7 | 0 | 0.0 |
| | | 3 | 126 | 33 | 26.2 | 0 | 0.0 |
| | | 4 | 170 | 0 | 0.0 | 0 | 0.0 |
| | 6–8 | 1 | 24 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 30 | 6 | 20.0 | 0 | 0.0 |
| | | 3 | 83 | 12 | 14.5 | 0 | 0.0 |
| | | 4 | 124 | 0 | 0.0 | 0 | 0.0 |
| | 10 | 1 | 14 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 16 | 0 | 0.0 | 0 | 0.0 |
| | | 3 | 46 | 4 | 8.7 | 0 | 0.0 |
| | | 4 | 62 | 0 | 0.0 | 0 | 0.0 |
| Science | 4 | 1 | 17 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 39 | 2 | 5.1 | 2 | 5.1 |
| | | 3 | 23 | 4 | 17.4 | 0 | 0.0 |
| | | 4 | 40 | 0 | 0.0 | 0 | 0.0 |
| | 8 | 1 | 20 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 31 | 5 | 16.1 | 2 | 6.5 |
| | | 3 | 13 | 8 | 61.5 | 0 | 0.0 |
| | | 4 | 45 | 0 | 0.0 | 0 | 0.0 |
| | 11 | 1 | 22 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 24 | 4 | 16.7 | 1 | 4.2 |
| | | 3 | 18 | 4 | 22.2 | 0 | 0.0 |
| | | 4 | 38 | 0 | 0.0 | 0 | 0.0 |
| Writing | 4 | 1 | 9 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 7 | 2 | 28.6 | 0 | 0.0 |
| | | 3 | 62 | 8 | 12.9 | 0 | 0.0 |
| | | 4 | 42 | 0 | 0.0 | 0 | 0.0 |
| | 7 | 1 | 16 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 6 | 3 | 50.0 | 0 | 0.0 |
| | | 3 | 44 | 5 | 11.4 | 0 | 0.0 |
| | | 4 | 72 | 0 | 0.0 | 0 | 0.0 |
| | 10 | 1 | 12 | 0 | 0.0 | 0 | 0.0 |
| | | 2 | 9 | 3 | 33.3 | 0 | 0.0 |

continued

| Content Area | Grade Span | Achievement Level | Number of Students Initially in Level | Students Changing Achievement Levels | | | |
|---|---|---|---|---|---|---|---|
| | | | | Moved Up | | Moved Down | |
| | | | | Number | Percent | Number | Percent |
| Writing | 10 | 3 | 64 | 9 | 14.1 | 0 | 0.0 |
| | | 4 | 53 | 0 | 0.0 | 0 | 0.0 |

Overall, 106 students moved up a level, while only four moved down a level. Of the students who moved up, the majority moved from Partially Proficient to Proficient. This indicates that the evidence submitted for the students showed a very strong connection to academic standards and, therefore, strong fidelity to content. The four students who moved down all moved from Proficient to Partially Proficient. The most favorable trend would be a decrease in downward moves and an increase in upward moves each year, which was the case for 2013–14. The number of students who moved up increased from 74 in 2012–13 to 106 in 2013–14, while the number of students who moved down remained the same at four. These results indicate that evidence submitted for students was more closely tied to academic standards this year than it was last year.

### 7.2.4 Interrater Consistency

Each AAGSE was scored by two independent raters and, as such, interrater consistency could be calculated. Tables 7-16 through 7-19 display results for each SPT by content area and grade span. The percentages of exact and adjacent agreement on score category are shown. Cohen's kappa results, applied to the percentage exact but correcting for chance agreement, are presented as well.

**Table 7-16. 2013–14 RIAA: Interrater Consistency Results by SPT—Mathematics**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| K–2 | 021 | 173 | 0.62 | 0.08 | 0.90 | 0.09 | 0.66 | 0.06 | 0.87 | 0.12 | 0.91 | 0.04 | 0.98 | 0.01 | 0.94 | 0.02 | 0.96 | 0.02 |
| | 022 | 106 | 0.38 | 0.09 | 0.77 | 0.17 | 0.66 | 0.09 | 0.88 | 0.12 | 0.89 | 0.06 | 0.97 | 0.01 | 0.95 | 0.02 | 0.96 | 0.03 |
| | 023 | 63 | 0.58 | 0.12 | 0.87 | 0.13 | 0.70 | 0.10 | 0.87 | 0.10 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 |
| 3–5 | 351 | 632 | | | 0.88 | 0.11 | 0.68 | 0.03 | 0.87 | 0.12 | 0.92 | 0.02 | 0.98 | 0.01 | 0.96 | 0.01 | 0.97 | 0.02 |
| | 352 | 469 | | | 0.87 | 0.09 | 0.67 | 0.04 | 0.87 | 0.12 | 0.98 | 0.01 | 1.00 | 0.00 | 0.94 | 0.01 | 0.96 | 0.03 |
| | 353 | 201 | | | 0.81 | 0.16 | 0.69 | 0.05 | 0.86 | 0.12 | 0.95 | 0.04 | 0.99 | 0.00 | 0.95 | 0.02 | 0.96 | 0.03 |
| 6–8 | 671 | 435 | 0.54 | 0.05 | 0.89 | 0.08 | 0.68 | 0.04 | 0.89 | 0.11 | 0.92 | 0.03 | 0.98 | 0.01 | 0.94 | 0.01 | 0.96 | 0.02 |
| | 672 | 257 | 0.65 | 0.06 | 0.91 | 0.07 | 0.71 | 0.05 | 0.88 | 0.12 | 0.86 | 0.05 | 0.97 | 0.01 | 0.93 | 0.02 | 0.95 | 0.02 |
| | 673 | 179 | 0.41 | 0.12 | 0.91 | 0.05 | 0.47 | 0.09 | 0.87 | 0.12 | 0.98 | 0.02 | 0.99 | 0.00 | 0.96 | 0.02 | 0.97 | 0.02 |
| 10 | 101 | 231 | 0.31 | 0.06 | 0.75 | 0.13 | 0.71 | 0.05 | 0.88 | 0.12 | | | 0.97 | 0.01 | 0.92 | 0.02 | 0.95 | 0.03 |
| | 102 | 151 | 0.32 | 0.09 | 0.80 | 0.13 | 0.73 | 0.06 | 0.87 | 0.13 | | | 0.97 | 0.00 | 0.93 | 0.03 | 0.96 | 0.02 |
| | 103 | 46 | | | 0.76 | 0.11 | | | 0.91 | 0.09 | | | 0.98 | 0.00 | | | 0.98 | 0.00 |

N: Number of Students; κ: Kappa; S.E.: Standard Error

* Note: Kappas cannot be calculated in all instances because of missing values.

**Table 7-17. 2013–14 RIAA: Interrater Consistency Results by SPT—Reading**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| K–2 | 024 | 181 | 0.50 | 0.08 | 0.87 | 0.11 | 0.67 | 0.06 | 0.87 | 0.12 | 0.97 | 0.03 | 0.99 | 0.00 | 0.95 | 0.02 | 0.97 | 0.03 |
| | 025 | 54 | 0.62 | 0.11 | 0.83 | 0.15 | 0.53 | 0.10 | 0.74 | 0.22 | 0.86 | 0.10 | 0.96 | 0.00 | 0.90 | 0.05 | 0.93 | 0.04 |
| | 026 | 137 | 0.60 | 0.11 | 0.92 | 0.06 | 0.68 | 0.08 | 0.90 | 0.10 | | | 0.99 | 0.01 | 0.93 | 0.03 | 0.96 | 0.02 |
| 3–5 | 354 | 644 | 0.54 | 0.06 | 0.93 | 0.06 | 0.71 | 0.03 | 0.88 | 0.11 | 0.93 | 0.02 | 0.99 | 0.00 | 0.94 | 0.01 | 0.96 | 0.02 |
| | 355 | 527 | | | 0.94 | 0.05 | 0.64 | 0.04 | 0.86 | 0.13 | 0.93 | 0.03 | 0.99 | 0.00 | 0.95 | 0.01 | 0.96 | 0.02 |
| | 356 | 115 | | | 0.97 | 0.03 | 0.79 | 0.06 | 0.91 | 0.09 | 0.96 | 0.03 | 0.99 | 0.01 | 0.97 | 0.02 | 0.98 | 0.02 |
| 6–8 | 674 | 443 | 0.44 | 0.06 | 0.89 | 0.08 | 0.78 | 0.03 | 0.92 | 0.08 | 0.94 | 0.02 | 0.98 | 0.00 | 0.93 | 0.02 | 0.96 | 0.03 |
| | 675 | 288 | 0.59 | 0.08 | 0.93 | 0.03 | 0.71 | 0.05 | 0.90 | 0.10 | 0.95 | 0.02 | 0.98 | 0.01 | 0.98 | 0.01 | 0.99 | 0.00 |
| | 676 | 116 | 0.52 | 0.15 | 0.93 | 0.07 | 0.54 | 0.08 | 0.82 | 0.17 | 0.79 | 0.10 | 0.97 | 0.00 | 0.92 | 0.03 | 0.96 | 0.03 |
| 10 | 104 | 229 | 0.50 | 0.07 | 0.86 | 0.10 | 0.74 | 0.05 | 0.90 | 0.10 | | | 0.98 | 0.00 | 0.93 | 0.02 | 0.96 | 0.03 |
| | 105 | 134 | 0.56 | 0.09 | 0.85 | 0.12 | 0.79 | 0.05 | 0.90 | 0.08 | | | 0.96 | 0.01 | 0.93 | 0.03 | 0.96 | 0.03 |
| | 106 | 85 | | | 0.88 | 0.07 | 0.47 | 0.12 | 0.82 | 0.18 | | | 0.94 | 0.04 | 0.95 | 0.03 | 0.96 | 0.01 |

N: Number of Students; κ: Kappa; S.E.: Standard Error
* Note: Kappas cannot be calculated in all instances because of missing values.

**Table 7-18. 2013–14 RIAA: Interrater Consistency Results by SPT—Science**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| 4 | 044 | 37 | | | 0.57 | 0.32 | | | 0.67 | 0.33 | | | 0.84 | 0.14 | 0.72 | 0.09 | 0.78 | 0.22 |
| | 045 | 132 | 0.20 | 0.07 | 0.61 | 0.25 | 0.69 | 0.10 | 0.86 | 0.14 | | | 0.95 | 0.04 | 0.88 | 0.03 | 0.91 | 0.08 |
| 8 | 081 | 49 | | | 0.78 | 0.08 | 0.77 | 0.13 | 0.87 | 0.09 | 0.78 | 0.15 | 0.96 | 0.04 | 0.86 | 0.08 | 0.94 | 0.06 |
| | 082 | 96 | | | 0.68 | 0.20 | 0.72 | 0.10 | 0.87 | 0.13 | | | 0.94 | 0.06 | 0.90 | 0.04 | 0.93 | 0.06 |
| 11 | 111 | 111 | | | 0.68 | 0.23 | | | 0.64 | 0.36 | 0.49 | 0.10 | 0.83 | 0.12 | 0.69 | 0.05 | 0.77 | 0.16 |
| | 112 | 22 | | | 0.73 | 0.23 | 1.00 | 0.00 | 1.00 | 0.00 | 0.83 | 0.16 | 0.95 | 0.05 | 0.81 | 0.12 | 0.91 | 0.09 |

N: Number of Students; κ: Kappa; S.E.: Standard Error
* Note: Kappas cannot be calculated in all instances because of missing values.

**Table 7-19. 2013–14 RIAA: Interrater Consistency Results by SPT—Writing**

| Grade Span | SPT | N | Connection to Strand | | | | Progress | | | | Accuracy | | | | Independence | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | | κ* | S.E. | Percent | |
| | | | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. | | | Exact | Adj. |
| 4 | 041 | 198 | 0.73 | 0.10 | 0.92 | 0.05 | 0.71 | 0.06 | 0.89 | 0.10 | 0.90 | 0.07 | 0.98 | 0.00 | 0.94 | 0.02 | 0.95 | 0.04 |
| | 042 | 165 | | | 0.96 | 0.04 | 0.82 | 0.05 | 0.92 | 0.07 | | | 0.99 | 0.01 | 0.96 | 0.02 | 0.97 | 0.02 |
| | 043 | 31 | | | 0.94 | 0.06 | 0.85 | 0.10 | 0.94 | 0.06 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 |
| 7 | 071 | 228 | | | 0.84 | 0.11 | 0.61 | 0.07 | 0.87 | 0.11 | | | 0.98 | 0.00 | 0.95 | 0.02 | 0.97 | 0.01 |
| | 072 | 174 | | | 0.91 | 0.05 | | | 0.92 | 0.07 | | | 0.99 | 0.00 | 0.97 | 0.02 | 0.98 | 0.01 |
| | 073 | 49 | 0.63 | 0.19 | 0.94 | 0.06 | | | 0.92 | 0.06 | 0.88 | 0.12 | 0.98 | 0.02 | 0.94 | 0.04 | 0.96 | 0.04 |
| 10 | 107 | 227 | 0.59 | 0.07 | 0.88 | 0.09 | 0.64 | 0.05 | 0.84 | 0.14 | 0.89 | 0.06 | 0.99 | 0.01 | 0.95 | 0.02 | 0.97 | 0.03 |
| | 108 | 178 | 0.57 | 0.10 | 0.92 | 0.06 | 0.62 | 0.07 | 0.85 | 0.14 | | | 0.98 | 0.00 | 0.96 | 0.02 | 0.97 | 0.01 |
| | 109 | 58 | | | 0.86 | 0.09 | 0.80 | 0.08 | 0.90 | 0.10 | | | 0.98 | 0.02 | 0.94 | 0.04 | 0.97 | 0.03 |

N: Number of Students; κ: Kappa; S.E.: Standard Error

* Note: Kappas cannot be calculated in all instances because of missing values.

# CHAPTER 8 VALIDITY

Each section in this report has contributed important information to the argument for the validity of RIAA score interpretations by addressing one or more of the following aspects: test development, test alignment, test administration, scoring, item analyses, reliability, achievement levels, and reporting.

A measure of test content validity is to determine how well the assessment tasks represent the curriculum and standards for each content area and grade level. This is informed by the assessment development process, including how the Rhode Island Alternate Assessment Grade Span Expectations (AAGSEs), test blueprints, and student evidence align to the curriculum and standards. Viewed through the lens provided by the *Standards for Educational and Psychological Testing* (2014), evidence based on test content is extensively described in Sections I and II. Review processes for determining content appropriateness, adherence to the test blueprint, use of standardized administration procedures, and appropriate test administration training are all components of validity evidence based on test content. The state provided a vehicle for extensive test administrator training, an administrator report, and a software tool for the collection of student evidence.

The scoring information in Section III describes the qualifications required and steps taken to train scorers of the RIAA on scoring procedures, as well as quality control procedures related to double-blind scoring and read-behind monitoring. Interrater consistency information is presented in Section IV.

Evidence based on internal structure is presented in detail in the discussions of item analyses and reliability under the Technical Characteristics of the RIAA heading in Section IV. Technical characteristics of the assessment are presented in terms of item statistics, reliability measures, and decision accuracy and consistency indices.

Evidence based on the consequences of testing is addressed as outlined in Chapters 6 and 7. The report shells themselves speak to the efforts undertaken to provide clear and accurate information to the public regarding test scores. Achievement level descriptors provide users with reference points for mastery at each grade level, which is another useful and simple way to interpret scores. The continued development of the RIAA interpretation guide for parents and teachers adds to the clarity of information provided to the public.

The evidence presented in this report supports inferences of student achievement on the content represented in the RIAA Grade Level/Span Expectations for reading, writing, mathematics, and science for the purposes of program and instructional improvement and as a component of school accountability. As reflected in the most recent *Standards for Educational and Psychological Testing* (2014), validity has grown to be understood as a unitary concept, with content, criterion-related, and construct validity describing three aspects of validity rather than three separate types of validity. In addition to validity being viewed from a

unitary perspective, the concept has been broadened to address issues related to social consequences and value implications of test interpretations. The validity evidence in this report is presented in this same spirit.

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# APPENDICES

# APPENDIX A—2013–14 STAKEHOLDERS

**Table A-1. 2013–14 RIAA: Alternate Assessment Advisory Committee**

| *Name* | *Organization* |
|---|---|
| Ahern, Denise | RI Special Education Advisory Committee |
| Brow, Leslie | Newport County Regional;<br>Association of Rhode Island Administrators in Special Education |
| Butterworth, Jamie | Rogers High School, New port |
| Dell, Sue | Paul V. Sherlock Center on Disabilities, RI College |
| Fartura, Anne | RI Parent Information Network |
| Gillooly, Cynthia | Autism Support Network |
| Goldberg, Elizabeth | Hope Arts School, Providence |
| Grattan, Amy | Paul V. Sherlock Center on Disabilities, RI College |
| Heineke, Heather | RI Department of Education |
| Izard, Susan | Measured Progress |
| Jermain, Colleen | Superintendents' Association |
| Labitt, Lisa | RI Council on Assistive Technology |
| Lemme, Michelle | Orchard Farms Elementary School, Cranston |
| Palazini, Angela | Western Hills Middle School, Cranston |
| Santa, Rachel | North Kingstown Schools |
| Sienko, David | RIDE - Office of Student, Community, & Academic Supports |
| Tibbetts, Marcia | Measured Progress |
| Valois, Lori | The Groden Center |
| VanAvery, Cynthia | Northern RI Collaborative |
| Wright, Becky | RI Department of Education |

# APPENDIX B—STRUCTURED PERFORMANCE TASKS & TARGETED AAGSES

# Content: Mathematics

## Task: 02-1 Grade: 2

## REQUIRED CONTENT STRAND:
Numbers and Operations

## Structured Performance Task:
***The student will use number concepts to plan a large activity or event*, gather the appropriate materials/information for the activity and/or complete the activity.***

## Targeted AAGSEs:
**Whole numbers: Develop an understanding of a cardinal number.**

**NO 1.1** Represent and number small collections (1 to 4 items).

**NO 1.1a.** Identify or label a small collection of up to "four" items with a number symbol/word (e.g., point to a collection of up to 4 items).

**NO 1.3** Use the counting sequence to demonstrate one-to-one correspondence between objects and counting words/symbols (e.g., one/1).

**Positive Fractional Numbers: Use fractional numbers to represent a part to whole relationship with area and discrete (set) models.**

**NO 3.1** Using concepts of whole units and parts show how parts make a whole (e.g., show how parts of a brownie can make one whole brownie (area model).

**NO 3.2** Show that fractional parts are equal shares or equal-sized portions of a whole unit using area models (e.g., show a fair share of a cookie; fold a piece of paper into two halves).

**Use cardinal numbers to compare quantities by developing and understanding the position and magnitude of whole numbers (up to 199) and the connection between ordinal and cardinal numbers.**

**NO 5.2a** Compare two quantities as same, more, or less, using like items when arranged in the same configuration (number conservation).

**Demonstrate a conceptual understanding of addition and subtraction of whole numbers by solving problems.**

**NO 7.1** Demonstrate that addition means combining items and subtracting means taking away items.

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***A large activity or event is one that involves multiple steps and requires more than one day of planning, e.g., science fair.)**

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## Sample Standards-Based Activities:
- Use mathematical skills in cooking refreshments for class or parent gatherings (e.g., cutting treats into equal parts).
- Plant a classroom garden and compare the categories of plants (vegetables, flowers) using terms such as more, same, or less.
- When planning for a class party, demonstrate addition and subtraction when adjusting for attendance changes.
- Participate in a school cultural night by preparing plates of special foods (no more than 4 items per plate). Once the plates are developed, have students identify or number the amount of food on each plate to deliver to the correct table.

# Content: Mathematics

## Task: 02-2 Grade: 2

## CONTENT STRAND:
Geometry and Measurement

## Structured Performance Task:
***The student will use a calendar, clock, schedule and/or map to participate in a variety of school activities.***

## Targeted AAGSEs:
**Determine elapsed and accrued time.**

**GM 8.1a** Describe passage of time using terms such as: "day" and "night"; "morning," afternoon," and "night"; "yesterday," "today" and "tomorrow."

**GM 8.1b** Using a.m. and p.m., connect the time of day and daily activities or events.

**GM 8.2a** Use calendars to determine passage of time (e.g., how many more days until…?).

**Demonstrate understanding of spatial relationship using location and position.**

**GM 9.1** Identify or demonstrate relative positions in space.

**GM 9.1a** Follow positional descriptions such as over, under, near, far, between, left, right, above, below, on, beside, next to, to locate relative positions of objects in space.

**GM 9.2** Create and use simple maps.

**GM 9.2a** Using a map move from one place to another along a defined path (e.g., move from his/her desk to the teacher's desk).

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## Sample Standards-Based Activities:
- Use a monthly school activity calendar to determine how many days until school vacation or another special event.
- Write a journal entry that describes events that have happened in the past using terms such as yesterday, last week, last month.
- Make and use a daily schedule where student uses terms such as a.m. for morning classes, and p.m. for afternoon classes.
- Develop or follow a map to participate in activities in different parts of the school.
- Using the book, *Flat Stanley*, map the places that Stanley visited. Use the map to describe the movement along Stanley's route.

# Content: Mathematics

## Task: 02-3 Grade: 2

## CONTENT STRAND:
Geometry and Measurement

### Structured Performance Task:
***The student will participate in and/or complete an activity within a larger curriculum unit.****

### Targeted AAGSEs:
**Use properties or attributes (angles and sides) of polygons to name, sort, classify and describe polygons.**

**GM 1.1** Identify, name, classify, and sort 2-D shapes.
- **GM 1.1a** Identify the geometric shapes of rectangles, squares, and triangles.
- **GM 1.1b** Sort polygons by their attributes (e.g., all triangles of different sizes and angles have 3 sides and 3 vertices so are grouped together).

**GM 1.2** Describe attributes of a 2-D shape (i.e., sides and angles), (e.g., when the classroom is mapped, the student describes the rectangle symbolizing a table, as having 4 sides).

**GM 1.3** Use 2-D objects to compose (put together) 2-D shapes to make a specific polygon (e.g., use two trapezoids to make a hexagon or use two rectangles to make a square).

**Identify, compare, and describe 3-D shapes.**

**GM 3.1** Identify, describe, compare, and sort 3-D concrete shapes (e.g., cube, sphere, cone, cylinder).
- **GM 3.1a** Identify 3-D concrete shapes.
- **GM 3.1b** Sort 3-D concrete shapes (e.g., sorting cubes from cones).

**Use symmetry and transformations.**

**GM 4.1** Identify or create shapes that have line symmetry.
- **GM 4.1a** Identify lines of symmetry in a shape (e.g., folding in half, using a mirror, etc.)
- **GM 4.1b** Create 2-D shapes that have line symmetry**.**

**Demonstrate conceptual understanding of perimeter and area.**

**GM 6.1** Demonstrate conceptual understanding of perimeter of a two-dimensional object.
- **GM 6.1a** Compare lengths of sides (length, height) of a figure using language (such as “longer,” “shorter,” “taller”, same etc.).

**Demonstrate conceptual understanding of measurable attributes using comparative language.**

**GM 7.1** Describe and compare measurable attributes of objects.
- **GM 7.1a** Compare and communicate length (e.g., “longer/shorter”), height (e.g., “taller/shorter”) and weight (e.g., “heavier/lighter”) of objects using language such as “longer/shorter”, “taller/shorter” heavier/lighter” (e.g., the room is longer on one side than the other side).
- **GM 7.1b** Compare and communicate temperature using measurement language such as “warmer, cooler, same.”

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**Curriculum Unit (sometimes called Unit of Study): opportunity for developing and understanding concepts and context through multiple connected lessons.*

## Sample Standards-Based Activities:

- Sort students by student heights for a class picture and describe/communicate height using measurement language, such as tall or tallest. .
- Describe objects using measurement attributes (e.g., describe a bulletin board, identifying the triangles as having 3 sides, and the squares as having four sides).
- Participate in class science activities of keeping a daily weather chart (e.g., comparing physical characteristics of temperature using language such as warmer, cooler, or same temperature).

# Content: Reading

## Task: 02-4 Grade: 2

## REQUIRED CONTENT STRAND:
Word Identification Skills and Vocabulary Strategies and Breadth of Vocabulary

## Structured Performance Task:
***The student will read/experience text related to self, family, and/or school.***

## Targeted AAGSEs:
**Student applies text identification and/or decoding strategies by**

**WID 1.1** Identifying pictures/symbols/objects/words that represent nouns and verbs.
- **WID 1.1a** Identifying pictures/symbols/objects/words that represent self and others.
- **WID 1.1b** Identifying pictures/symbols/objects/words that represent verbs.
- **WID 1.1c** Identifying pictures/symbols/objects/words that represent nouns.

**WID 1.2** Identifying most (more than half) letters of the alphabet.*

**WID 1.3** Identifying the primary sounds represented by some letters (sound-symbol correspondence).*

**WID 1.4** Using letter-sound correspondence knowledge to sound out regularly spelled (i.e., decodable) one- or two-syllable words.*

**WID 1.5** Reading high-frequency words (e.g., names, and sight words).

***To meet these AAGSEs students must be reading letters and/or words as appropriate to meet the AAGSE. Pictures, objects, or symbols (e.g., Mayer Johnson Symbols) may not be used.**

**Student identifies the meaning of unfamiliar vocabulary by**

**V 2.1** Using provided cues (e.g., pictures, objects, textures, gestures, and/or verbal) to predict meanings.

**V 2.2** Using context clues (words and illustrations) in text to predict words or meanings.

**Student shows breadth of vocabulary knowledge and demonstrates knowledge through understanding of word meanings and relationships by**

**V 3.1** Identifying vocabulary that demonstrates knowledge of basic pragmatic functions (e.g., student refuses, uses comments and social words, asks questions, and requests clarifications).

**V 3.2** Using vocabulary to identify objects, actions, and/or events (e.g., student applies his/her vocabulary in school environments).

**V 3.3** Identifying synonyms (e.g., big/large) and antonyms (e.g., hot/cold).
- **V 3.3a** Identifying synonyms (e.g., big/large).

**V 3.4** Organizing vocabulary by category, feature, and function.
- **V 3.4a** Organizing vocabulary by category.
- **V 3.4b** Organizing vocabulary by feature.

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## Sample Standards-Based Activities:
- Use pocket charts to categorize vocabulary into nouns and verbs in a school newsletter article. The vocabulary would be used in a classroom vocabulary word wall.

- Read names/tasks on classroom helper list (self and others/nouns) to announce the jobs of the day.
- Read high frequency holiday words on a school event announcement.
- Identify animals (nouns) seen from the classroom window as part of a study of animals.
- Identify letters of the alphabet for creating a journal entitled “About Me.” Students identify things they like for each letter (e.g. A=animals, B=baseball, C=clothes). Students use the journal for an open house display.
- Students read and select vocabulary words (objects and actions) to create a caption that describes a photo of the class’s volcano experiment for use in the school newspaper.

# Content: Reading

## Task: 02-5 Grade: 2

## CONTENT STRAND:
Early Reading Strategies of Informational Text

### Structured Performance Task:
***The student will utilize and/or read informational texts.***

### Targeted AAGSEs:
**Demonstrates phonemic awareness and applies phonological knowledge and skills by**

**ER 9.1** Isolating phonemes in spoken syllables and single-syllable words (e.g., "Tell me the first sound in "mop." "Tell me the last sound in "mop." "Tell me the middle sound in "mop.").
**ER 9.4** Identifying words, pictures, or auditory representations that rhyme.

**Demonstrates awareness of concepts of print during shared and individual reading by**

**ER 10.3** Identifying key parts of a word **(**e.g., "Point to the beginning of the word." "Point to the end of the word.").*****
**ER 10.4** Identifying key features of a book.
**ER 10.5** Identifying basic punctuation marks and their usage.
**ER 10.5a** Identifying that periods and question marks go at the end of sentences and have specific meaning – telling or asking.
**ER 10.6** Demonstrating a one-to-one matching of spoken words to words in print.

***To meet this AAGSE students must be reading letters and/or words as appropriate to meet the AAGSE. Pictures, objects, or symbols (e.g., Mayer Johnson Symbols) may not be used.**

**Student demonstrates initial understanding of informational texts (expository and practical texts by**

**IT 7.3** Using explicitly stated information to answer questions about the text (Where do penguins live?).

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### Sample Standards-Based Activities:
- Read label on material bins (using one to one matching of spoken words to words in print) to return activity materials to the correct bin.
- Read posted word wall words to check the spelling of the student's own written work.
- Read a menu, zoo map, or signs to answer explicitly stated information from these informational texts.
- Read a classroom schedule to help change from class to class throughout the day.
- Read center choices (e.g., reading center) by indentifying the key parts of the words on each choice.

# Content: Reading

## Task: 02-6 Grade: 2

## CONTENT STRAND:
Early Reading Strategies of Literary Text

### Structured Performance Task:
***The student will listen to and/or read literary texts.***

### Targeted AAGSEs:
**Demonstrates phonemic awareness and applies phonological knowledge and skills by**

**ER 9.1** Isolating phonemes in spoken syllables and single-syllable words (e.g., "Tell me the first sound in "mop." "Tell me the last sound in "mop." "Tell me the middle sound in "mop.").

**ER 9.4** Identifying words, pictures, or auditory representations that rhyme.

**Demonstrates awareness of concepts of print during shared and individual reading by**

**ER 10.3** Identifying key parts of a word (e.g., "Point to the beginning of the word." "Point to the end of the word.").*

**ER 10.4** Identifying key features of a book.

**ER 10.5** Identifying basic punctuation marks and their usage.

**ER 10.5a** Identifying that periods and question marks go at the end of sentences and have specific meaning – telling or asking.

**ER 10.6** Demonstrating a one-to-one matching of spoken words to words in print.

***To meet this AAGSE students must be reading letters and/or words as appropriate to meet the AAGSE. Pictures, objects, or symbols (e.g., Mayer Johnson Symbols) may not be used.**

**Student demonstrates initial understanding of elements of literary texts (including text read aloud, reading text independently, or in a guided manner) by**

**LT. 4.2** Answering simple questions about a story's content.

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### Sample Standards-Based Activities:
- When reading a class experience story, identify the basic punctuation marks and their use.
- Locate and return magazines identifying the key features of the book (e.g., title, cover, date - for a magazine).
- Listen to audio books to match words/pictures to spoken language (1 to 1 correspondence).
- Identify key words during the morning message.
- Read directions to participate in an activity.

# Content: Mathematics

## Task: 35-1 Grades: 3-5

## REQUIRED CONTENT STRAND:
Numbers and Operations

### Structured Performance Task:
***The student will use number concepts to solve everyday problems.***.

### Targeted AAGSEs:
**Whole numbers: Develop an understanding of a cardinal number.**

**NO 1.1** Represent and number small collections (1 to 4 items).

**NO 1.1a.** Identify or label a small collection of up to "four" items with a number symbol/word (e.g., point to a collection of up to 4 items).

**NO 1.3** Use the counting sequence to demonstrate one-to-one correspondence between objects and counting words/symbols (e.g., one/1).

**NO 1.3a** Count by ones forward from a number other than one (e.g., 7.8…).

**NO 1.5** Skip count by 2s, 5s, and 10s (may use a hundreds chart).

**Positive Fractional Numbers: Use decimals and percents to represent a part to whole relationship.**

**NO 4.1** Distinguish between decimal notations (e.g., 0.35), percents (e.g., 35%), and other numbers (e.g., 35).

**NO 4.2** Identify decimals within a context of money as part of 100 (e.g., shows 10 pennies out of 100 is the same as $0.10; or $1.17 = $1.00 and 17 pennies out of 100.

**Use numbers to compare quantities by developing and understanding the position and magnitude of whole numbers (up to 199) and the connection between ordinal and cardinal numbers.**

**NO 5.1** Demonstrate how to make more and less of a quantity (e.g., add objects to make more or subtract objects to make less).

**Represent collections and numerical relations by connecting numerals to number words and the quantities both represent.**

**NO 6.5** Identify the larger of two written numbers.

**Identify coin and/or bill value.**

**NO 11.1** Identify the value of coins, i.e., penny as 1¢, nickel as 5 pennies or 5¢, dime as 10 pennies or 10¢, and a quarter as 25 pennies or 25¢.

**Count and add a collection of coins and/or bills.**

**NO 12.1** Find possible combinations of coins to equal 25¢ and 50¢.

**NO 12.2** Add like and unlike coin collections together to dollar and cents notation.

**NO 12.2a** Add like coins together to match coin combinations to dollar and cents notation.

**NO 12.2b** Add unlike coins together to match coin combinations to dollar and cents notation.

**Demonstrate fluency with basic addition and subtraction combinations (up to 10) regardless of strategy used.**

**NO 13.2** Use semi-concrete materials (hundreds' chart, number line) to show more or less than the original number.

**NO 13.3** Use concrete or semi-concrete materials for addition and subtraction of number combinations (1-10).

**Fluently adds and subtracts two digit multiples of ten.**

**NO 15.1** Use concrete and semi-concrete materials to show addition or subtraction with two digit multiples of ten.

**NO 15.1a** Use concrete materials to show addition or subtraction with two digit multiples of ten.

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## Sample Standards-Based Activities:

- Prepare bake sale menu prices, putting groups of two similar items in order from least expensive to most expensive (identifying the larger of two written numbers).
- Choose products for fund raising by identifying the larger of two written numbers to select the one with the lower cost.
- Participate in yearbook sales by identifying the larger of two written per-unit prices..
- Determine if you have enough money to purchase an item by calculating the sale price of a percentage off.
- Assist in a book fair/book orders, counting the dollars using one-to-one correspondence between objects (dollars) and counting words.
- Identify the value of coins in order to make sure the correct amount of money was received and to provide the correct change.

# Content: Mathematics

## Task: 35-2 Grades: 3-5

## CONTENT STRAND:
Geometry and Measurement

## Structured Performance Task:
***The student will use a calendar, clock, schedule and/or map to participate in a variety of school activities.***

## Targeted AAGSEs:
**Determine elapsed and accrued time.**

**GM 8.1a** Describe passage of time using terms such as: "day" and "night"; "morning," afternoon," and "night"; "yesterday," "today" and "tomorrow."
**GM 8.1b** Using a.m. and p.m., connect the time of day and daily activities or events.
**GM 8.1c** Identify what comes next using a schedule or calendar (e.g., using a monthly school calendar).
**GM 8.1d** Distinguish between time units (e.g., minutes, hours, days, and years).

**GM 8.2a** Use calendars to determine passage of time (e.g., how many more days until…?).
**GM 8.2b** Use clocks to measure and communicate time to the nearest hour and half hour (e.g., a student correctly identifies the time as 1:00 pm by looking at an analog or digital clock).
**GM 8.2c** Use timers and clocks to measure and communicate the duration of time (e.g., a student uses a stopwatch to measure the amount of time it takes to walk around the school).

**Demonstrate understanding of spatial relationship using location and position.**

**GM 9.1** Identify or demonstrate relative positions in space.
**GM 9.1a** Follow positional descriptions such as, over, under, near, far, between, left, right, above, below, on, beside, next to, to locate relative positions of objects in space.
**GM 9.1b** Use positional descriptions to identify location of objects in space.
**GM 9.2** Create and use simple maps.
**GM 9.2a** Using a map move from one place to another along a defined path (e.g., move from his/her desk to the teacher's desk).
**GM 9.2b** Use navigation concepts, such as left, right, forward, backward, tactile, localizing and tracking to move along a path.

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## Sample Standards-Based Activities:
- Plan a day's event using clocks to communicate activity times to the nearest hour.
- Use the lunch schedule to convey lunch offerings using terms such as today, yesterday, tomorrow.
- Write a journal entry that covers a period of time where the entry uses terms such as a.m. and p.m.
- Describe places on a school map using positional descriptions such as between, next to, left, and/or right.
- Communicate directions with a map.
- Draw and use the school map for a treasure hunt.

- Be a tour guide for new students to the school, showing students how to move from one place to another using the map.

# Content: Mathematics

## Task: 35-3 Grades: 3-5

## CONTENT STRAND:
Geometry and Measurement

### Structured Performance Task:
***The student will participate in and/or complete an activity within a larger academic curriculum unit.****

### Targeted AAGSEs:
**Use properties or attributes (angles and sides) of polygons to name, sort, classify and describe polygons.**

**GM 1.1** Identify, name, classify, and sort 2-D shapes.

**GM 1.1a** Identify the geometric shapes of rectangles, squares, and triangles.

**GM 1.1b** Sort polygons by their attributes, regardless of orientation (e.g., all triangles of different sizes and angles have 3 sides and 3 vertices so are grouped together).

**GM 1.2** Describe attributes of a 2-D shape (i.e., sides and angles) (e.g., when the classroom is mapped, the student describes the rectangle symbolizing a table, as having 4 sides).

**GM 1.3** Use 2-D objects to compose (put together) 2-D shapes to make a specific polygon (e.g., use two trapezoids to make a hexagon or use two rectangles to make a square).

**Identify, compare, and describe 3-D shapes.**

**GM 3.1** Identify, describe, compare, and sort 3-D concrete shapes (e.g., cube, sphere, cone, cylinder).

**GM 3.1a** Identify 3-D concrete shapes.

**GM 3.1b** Sort 3-D concrete shapes (e.g., sorting cubes from cones).

**Use symmetry and transformations.**

**GM 4.1** Identify or create shapes that have line symmetry.

**GM 4.1a** Identify lines of symmetry in a shape (e.g., folding in half, using a mirror, etc.).

**GM 4.1b** Create 2-D shapes that have line symmetry.

**GM 4.2** Use spatial planning (foresight) to compose and decompose shapes using line symmetry to demonstrate congruent parts within a shape (e.g., use two congruent trapezoids to make a hexagon).

**Demonstrate conceptual understanding of similarity.**

**GM 5.1** Identify and compare similar shapes from a group of shapes.

**GM 5.1a** Match shape from a group of shapes with another same size, shape, and orientation (e.g., match two same size and shape rectangles).

**GM 5.1b** Match two same shapes of different sizes from a group of shapes (e.g., match two different size triangles with same angles/shape and same orientation).

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****Curriculum Unit (sometimes called Unit of Study): opportunity for developing and understanding concepts and context through multiple connected lessons.***

**Demonstrate conceptual understanding of perimeter and area.**

**GM 6.1** Demonstrate conceptual understanding of perimeter of a two-dimensional object or figure (e.g., rectangle, circle, oval, or combinations of figures; use string to measure the perimeter of a circular object such as a hula hoop).

**GM 6.1a** Compare lengths of sides (length, height) of a figure using language (such as "bigger," "smaller," "longer," "shorter," "taller", same etc.).

**GM 6.1b** Show understanding of unit iteration (placing units/objects end to end in some manner with no gaps) for length measurement.

**GM 6.1c** Use both conventional rulers and manipulative units that are standard units (such as centimeter cubes) to measure perimeter of 2-D figures.

**GM 6.2** Demonstrate conceptual understanding of area of a two-dimensional object or figure.

**GM 6.2a** Compare area by placing one object on top of another to determine which has more space.

**GM 6.2b** Demonstrate understanding of area by covering rectangles with unit tiles (e.g., use grid paper to determine area of rectangles).

**Demonstrate conceptual understanding of measurable attributes using comparative language.**

**GM 7.1** Describe and compare measurable attributes of objects.

**GM 7.1a** Compare and communicate length (e.g., "longer/shorter"), height (e.g., "taller/shorter") and weight (e.g., "heavier/lighter") of objects using language such as "longer/shorter", "taller/shorter" heavier/lighter" (e.g., the room is longer on one side than the other side).

**GM 7.1b** Compare and communicate temperature using measurement language such as "warmer, cooler, same."

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## Sample Standards-Based Activities:

- Sort 3-D concrete shapes to be used to develop dioramas for an upcoming Pioneer Day event. .
- Combine 2-D shapes into polygons (large rectangles) for use in art projects (placements) as part of a geometry unit.
- Participate in science lessons that involve measuring and comparing the physical attributes of objects using language such as heavier and lighter.

# Content: Reading

## Task: 35-4 Grades: 3-5

## REQUIRED CONTENT STRAND:
Word Identification Skills and Vocabulary Strategies and Breadth of Vocabulary

### Structured Performance Task:
***The student will read/experience text related to school and/or community.***

### Targeted AAGSEs:

**Student applies text identification and/or decoding strategies by**

**WID 1.1** Identifying pictures/symbols/objects/words that represent nouns and verbs.
- **WID 1.1a** Identifying pictures/symbols/objects/words that represent self and others.
- **WID 1.1b** Identifying pictures/symbols/objects/words that represent verbs.
- **WID 1.1c** Identifying pictures/symbols/objects/words that represent nouns.

**WID 1.2** Identifying most (more than half) letters of the alphabet. *

**WID 1.3** Identifying the primary sounds represented by most letters (sound-symbol correspondence).*

**WID 1.4** Using letter-sound correspondence knowledge to sound out regularly spelled (i.e., decodable) one- or two-syllable words. *

**WID 1.5** Reading high-frequency words (e.g., names, and sight words).

**WID 1.6** Using knowledge of sounds and letter patterns (including common endings such as "-s," –ed", "-ly", "-ing") to read regularly spelled one- or two-syllable words. *

**WID 1.7** Using knowledge of sounds, syllable types, or word patterns (including word families) to identify regularly spelled multi-syllabic words, (e.g., student matches words to other words with similar sounds by answering questions such as "Which word rhymes with the underlined word?" or "Which word has the same vowel sound as the word in the box?").*

***To meet these AAGSEs students must be reading letters and/or words as appropriate to meet the AAGSE. Pictures, objects, or symbols (e.g., Mayer Johnson Symbols) may not be used.**

**Student identifies the meaning of unfamiliar vocabulary by**

**V 2.1** Using provided cues (e.g., pictures, objects, textures, gestures, and/or words) to predict meanings.

**V 2.2** Using context clues (words and illustrations) in text to predict words or meanings.

**V 2.3** Using other resources to connect unknown words to known words.
- **V 2.3a** Using prior knowledge and personal word banks.
- **V 2.3b** Using text features (e.g., illustrations, diagrams, charts).

**Student shows breadth of vocabulary knowledge and demonstrates knowledge through understanding of word meanings and relationships by**

**V 3.1** Identifying vocabulary that demonstrates knowledge of basic pragmatic functions (e.g., student refuses, uses comments and social words, asks questions, and requests clarifications).

**V 3.2** Using vocabulary to identify objects, actions, and/or events (e.g., student applies his/her vocabulary in school environments and in the community).

**V 3.3** Using synonyms (e.g., big/large) and antonyms (e.g., hot/cold).
**V 3.3a** Using synonyms (e.g., big/large).
**V 3.3b** Using antonyms (e.g., hot/cold).
**V 3.4** Organizing vocabulary by category, feature, and function.
**V 3.4a** Organizing vocabulary by category.
**V 3.4b** Organizing vocabulary by feature.
**V 3.4c** Organizing vocabulary by function.
**V 3.5** Selecting the appropriate word to use in context of one or more sentences (e.g., student uses pictures or word banks to complete sentences or storyboards).

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## Sample Standards-Based Activities:

- Choose the correct vocabulary word using context clues from the community newspaper article on *Our Playgrounds in Westerly*.
- Play community vocabulary bingo with vocabulary words such as Town Hall, Rockwell School, and Gray's Ice Cream.
- Read community information (the town on the school bus, message on school bulletin board) when selected as "Class Reader" as part of a class helper.
- Identify symbols/signs found in your community (hospital, school, crosswalk, caution, park, fire station, and/or telephone) to perform a task.
- Read classroom website to develop an invitation for an upcoming classroom event.

# Content: Reading

## Task: 35-5 Grades: 3-5

## CONTENT STRAND:
Initial Understanding, Analysis & Interpretation of Literary Text

### Structured Performance Task:
***The student will respond in a variety of ways to literary texts, including text read aloud by teachers or peers, reading text independently, or in a guided manner.***

### Targeted AAGSEs:
**Student demonstrates initial understanding of elements of literary texts (including text read aloud, reading text independently, or in a guided manner) by**

**LT 4.1** Identifying and/or describing literary elements in a story.
- **LT 4.1a** Identifying and/or describing the main character(s) and setting.
- **LT 4.1b** Identifying and/or describing major events.

**LT 4.2** Answering simple questions about a story's content.
**LT 4.3** Retelling or ordering the key events in a story (e.g., In *A Cricket in Times Square*, the student identifies the key events as the news stand burns and Chester plays music.).
**LT 4.4** Summarizing the story.
**LT 4.5** Describing the difference between literary and informational text.
**LT 4.6** Describing the differences between a variety of types of literary text, such as poetry, plays, or fairy tales.

**Student analyzes and interprets elements of literary texts (including texts read aloud or read independently) by**

**LT 5.1** Making predictions about what might happen next in the text.
- **LT 5.1a** Making a prediction and explain why the prediction was made.

**LT 5.2** Describing the main characters' physical characteristics and personality traits.
- **LT 5.2a** Identifying or describing the main characters' physical characteristics.
- **LT5.2b** Identifying or describing the main characters' personality traits.

**LT 5.3** Identifying causes and effects within a literary text. (e.g., student responds to "What caused the boy to run away?").
**LT 5.4** Making inferences about two or more aspects of a text (i.e., problem, conflict, solution, author's purpose).
**LT 5.5** Identifying who is telling the story.

**Student generates a personal response to what is read aloud or what is read independently through a variety of means by**

**LT 6.1** Connecting stories or other texts to personal experience, prior knowledge, or other texts.

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### Sample Standards-Based Activities:
- Use a storyboard to identify characters, adding information that describes each character's physical characteristics.
- Use a story webs/ map to respond to simple questions about the story.
- Make predictions based on the title, cover and/or story; picture walks.
- Role-play to retell a story.
- Use story box materials to identify characters or setting.

- After putting informational texts on one table and literary texts on another table, have students describe the difference between these two types of texts.

# Content: Reading

## Task: 35-6 Grades: 3-5

## CONTENT STRAND:
Initial Understanding, Analysis and Interpretation of Informational Text

### Structured Performance Task:
***The student will use informational text to gather and interpret information to gain knowledge and expand knowledge on a specific topic.***

### Targeted AAGSEs:
**Student demonstrates initial understanding of informational texts (expository and practical texts) by**

**IT 7.1** Identifying the key features of informational texts and their purpose.
- **IT 7.1a** Identifying and describing the purpose of the title, illustrations/photograph, and captions.
- **IT 7.1b** Identifying headings, charts, maps, and diagrams.

**IT 7.2** Using features of informational texts to obtaining information (e.g., student uses the table of contents to identify the key information on page 5).

**IT 7.3** Using explicitly stated information to answer questions about the text.
- **IT 7.3a** Using explicitly stated information to answer questions related to the main idea or key details.

**IT 7.4** Identifying the differences in purpose and/or characteristics among different types of informational material.

**IT 7.5** Using a provided organizational format to show an understanding of the information (e.g., organizing information by charting, mapping, paraphrasing, and/or summarizing the main/central idea of an informational text.).

**Student analyzes and interprets informational text, citing evidence as appropriate by**

**IT 8.1** Identifying the general topic of a text.
- **IT 8.1a** Identifying main/central idea and locating supporting details.

**IT 8.2** Making inferences and/or drawing conclusions about central ideas that are relevant to the text.

**IT 8.3** Identifying causes and effects within the text.

**IT 8.4** Comparing facts and supporting details within a text.

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### Sample Standards-Based Activities:
- Use a newspaper to read and choose options for a class vote on an upcoming field trip.
- Identifying the title and cover photograph's purpose to help a student select informational text for a report on monkeys.
- After reading the procedures of a science investigation, the student answers questions on specifically stated information.
- Research a topic to participate in a group activity or presentation.
- Follow a map or route within the school to get to a location.
- Using a graphic organizer, student identifies the causes and effects of pollution based on reading a text entitled "The Pollution Around Us".

- After reviewing pages on the Audubon Society website, identify the general topic of the page.
- After putting informational texts on one table and literary texts on another table, have students describe the difference between these two types of texts.

# Content: Writing

## Task: 04-1 Grade: 4

## REQUIRED CONTENT STRAND:
Structures of Language and Writing Conventions

### Structured Performance Task:
***The student will write in response to activities within his/her school environment.***

### Targeted AAGSEs:
**Student demonstrates command of the structures of sentences, paragraphs, and text by**

- **SL 1.1** Expressing an idea with written language (i.e., words, sentences).
- **SL 1.2** Demonstrating that multiple sentences are written left to right, and top to bottom.
- **SL 1.3** Writing with organizational structures including correct spacing for sentences and paragraph formats within texts.
  - **SL 1.3a** Writing with organizational structures including correct spacing for sentences within texts.
- **SL 1.4** Writing simple sentences with a subject and predicate, and with adjectives and/or adverbs.
  - **SL 1.4a** Writing simple sentences with a subject and a predicate.
  - **SL 1.4b** Writing simple sentences with adjectives and/or adverbs.
- **SL 1.5** Writing sentences to express ideas about a topic.

**In independent writing, student demonstrates command of appropriate English conventions by**

- **WC 9.1** Spelling his/her own first and last name, using correct capitalization.
  - **WC 9.1a** Reproducing his/her own first and last name.
- **WC 9.2** Spelling common/high frequency words.
- **WC 9.3** Using capitalization in writing a paragraph, letter, story or poem.
  - **WC 9.3a** Capitalizing proper nouns.
  - **WC 9.3b** Capitalizing beginnings of sentences.
- **WC 9.4** Using punctuation marks to clarify meaning.
  - **WC 9.4a** Using periods, question marks and exclamation points.

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### Sample Standards-Based Activities:

- Write about a favorite school activity (e.g., field day, book fair, assemblies, reading and arts week, school spirit day, 100 day of school, fire prevention week, dental health week) expressing an idea with written language.
- Write a summary of an interview with a classroom visitor.
- Prepare cards to thank classroom visitors.
- Write observations during a science experiment.
- Develop articles summarizing a classroom or school activity for use in a school newspaper.
- Write a summary of a student's daily activities for use in open house.
- Develop a letter to inform the principal of an exciting field trip event the class completed.

# Content: Writing

## Task: 04-2 Grade: 4

## CONTENT STRAND:
Writing in Response to Literary and Informational Text

### Structured Performance Task:
***The student will develop a writing piece in response to a literary text.***

### Targeted AAGSEs:
**Writing in response to literary or informational text, student shows understanding of plots, ideas, and concepts by**

- **LT 2.1** Writing accurate information to set the text's context/background.
  - **LT 2.1a** Identifying the title and author of the text.
  - **LT 2.1b** Describing content/ideas, events, characters, and/or settings.
  - **LT 2.1c** Retelling the text.
- **LT 2.2** Connecting what has been read (the plot, ideas, and concepts) to prior knowledge and/or other texts with written language.

**Writing in response to literary or informational text, student makes and supports analytical judgments about text by**

- **LT 3.1** Using references to text to respond to a question regarding the content of the text.
- **LT 3.2** Stating a focus /purpose.
- **LT 3.3** Making inferences about content/ideas, events, characters, and/or settings.
- **LT 3.4** Organizing ideas, using transitions (words, phrases) appropriately.

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### Sample Standards-Based Activities:
- Create a book report on a literary text read in class where student describes the content and three events.
- Write answers to questions about a literary text (e.g., the student identifies the page and places a "sticky note" on the place in the text where each answer was found).
- Compare the concepts in one book with the concepts in another book (e.g., both stories are about a child who gets in trouble).

# Content: Writing

## Task: 04-3 Grade: 4

## CONTENT STRAND:
Writing in Response to Literary and Informational Text

### Structured Performance Task:
***The student will develop a writing piece in response to an informational text.***

### Targeted AAGSEs:
**Writing in response to literary or informational text, student shows understanding of plots, ideas, and concepts by**

- **LT 2.1** Writing accurate information to set the text's context/background.
  - **LT 2.1a** Identifying the title and author of the text.
  - **LT 2.1b** Describing content/ideas, events, characters, and/or settings.
  - **LT 2.1c** Retelling the text.
- **LT 2.2** Connecting what has been read (the plot, ideas, and concepts) to prior knowledge and/or other texts with written language.

**Writing in response to literary or informational text, student makes and supports analytical judgments about text by**

- **LT 3.1** Using references to text to respond to a question regarding the content of the text.
- **LT 3.2** Stating a focus /purpose.
- **LT 3.3** Making inferences about content/ideas, events, characters, and/or settings.
- **LT 3.4** Organizing ideas, using transitions (words, phrases) appropriately.

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### Sample Standards-Based Activities:
- Write a lab report after reading the observations written about a science experiment.
- Identify the title and author of an informational article in a weekly reader (News-2-You).
- Use a biography to create a book report.
- After reading the newspaper, write about the most popular movies for the current month.
- Create a summary of what is needed after reviewing a recipe.
- Develop captions that represent informational concepts learned (e.g. writing captions to pictures that represent good nutrition, safety, health).
- Write a "to do list" after reading about an upcoming school event.
- Write a list of questions for a school visitor, after reading their biography.

# Content: Science

## Task: 04-4 Grade: 4

**INQUIRY CONSTRUCT: Observing/Questioning**
**Make and describe observations in order to ask questions, and/or make predictions related to the science investigation**

## Structured Performance Task:

***The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing.***

## Targeted AAGSEs:

### Life Science

**LS1.1.1 Distinguish between living and non-living things.**
(Suggestion: Select a living thing from a group of non-living things.)
**LS1.1.1b** Recognize at least one characteristic of living things (e.g., Living things need food and water.).

**LS1.1.2 Match organisms with similar features.**
**LS1.1.2a** Given an external feature of an organism, match organisms with the same feature (e.g., head, legs, fur, wings, tail).

**LS1.2.1 Describe the things that plants need in order to grow and survive.**
**LS1.2.1a** Identify one or more conditions a plant needs in order to grow and survive (e.g., light, soil, water, and/or air).

**LS1.2.2 Describe the things that animals need in order to grow and survive.**
**LS1.2.2a** Identify one or more conditions an animal needs in order to grow and survive (e.g., food, water, shelter, and/or air).

**LS1.3.1 Recognize the life stages of common organisms.**

**LS2.1.1. Identify sources of energy for survival of organisms.**
**LS2.1.1a** Identify that sunlight is a source of energy for plants.
**LS2.1.1b** Identify that some animals get their energy (food) by eating plants.

**LS2.1.2 Identify the relationships between organisms in a food web.**

**LS3.1.1 Identify the responses of plants and animals to changes in their environment.**
**LS3.1.1a** Identify the responses of plants and animals to a change in their food supply.
**LS3.1.1c** Identify the responses of plants and animals to seasonal and weather-related changes.

**LS3.1.2 Describe how some organisms are better adapted for specific environments than other organisms.**
**LS3.1.2a** Match animals to their environment (e.g., camel in desert, polar bear in arctic, fish in water environment).

**LS4.1.1 Identify the senses.**
**LS4.1.1b** Match the external body part with the senses known (e.g., ear: hearing, finger: feeling).

# Earth and Space Science

**ESS1.1.1 Describe soils using their physical properties.**

**ESS1.1.1b** Describe soil using one physical property (see NOTE below).
(Suggestions: Feel soil; use hand lens to examine make-up of soil; select soil when given soil and grass, etc.)
NOTE: Properties of soil include: color, texture/feel, size or shape of particles, structure, drainage, stoniness, easily eroded, and amount of organic material (e.g., decaying leaf or root parts).

**ESS1.1.2 Describe rocks and minerals using their physical properties.**

**ESS1.1.2b** Describe rocks and minerals using one physical property (e.g., color, size, shape, texture, smell, weight).
(Suggestions: Examine minerals and rocks with various properties; compare properties of different minerals or rocks; select the rock or mineral when given one along with one other object.)

NOTE: Properties of rocks include: color, texture/feel, size or shape of particles in them, hardness, and structure based on how they were formed (igneous, sedimentary, and metamorphic).

NOTE: Properties of minerals include: color (one or several), luster (how it reflects light), crystal shape, cleavage and fracture (how it breaks).

**ESS1.1.3 Compare different soils to each other using their physical properties.**

**ESS1.1.3c** Compare soils using one physical property.
(Suggestions: Provide bowls with organic soil/loam, clay, silt, and sand, and have students describe and compare the different soils. Conduct tests to see differences in percolation/drainage of soils.)

**ESS1.1.4 Compare different rocks and minerals to each other using their physical properties.**

**ESS1.1.4b** Sort rocks and minerals using one physical property.
**ESS1.1.4c** Compare rocks and minerals using one physical property.
(Suggestions: Examine a variety of rocks and minerals, sort them into categories and compare rocks to each other, compare minerals to each other, and compare rocks to minerals.)

**ESS1.1.5 Compare rocks and minerals to soils using their physical properties.**

**ESS1.1.5b** Compare soils to rocks and minerals using one physical property (e.g., color, size, shape, texture, smell, weight).
(Suggestion: Examine a rock or mineral and soil and describe the differences.)

**ESS1.2.1 Identify the forms of water in the water cycle.**

(Suggestions: Compare liquid water to ice, boil water and watch the steam, use cool-mist humidifier to feel steam.)

**ESS1.2.4 Describe some changes on the earth that happen faster than others.**

**ESS1.2.4a** Identify relatively fast changes to the earth's surface (e.g., flash floods, heavy rain and resulting erosion, several very hot days dry and crack the soil, larger rock breaks to make smaller rocks, such as when bulldozers move them or water gets into a crack and freezes).

**ESS1.2.5 Identify air and water of different temperatures.**

(Suggestion: Feel cool water and warm water; feel that the air above an ice cube is cooler than the air above a warm object.)

**ESS1.2.13 Identify weather and seasonal changes throughout the year.**

**ESS1.2.13a** Use observations and data collection tools (e.g., wind vane, thermometer, rain gauge) to describe daily weather (e.g., clouds, hot, cold, wet, dry).
**ESS1.2.13b** Identify each season.
**ESS1.2.13c** Describe each season.
(Suggestion: Keep a record of seasonal changes; identify the season when given a picture showing something seasonally obvious – like snow for winter, baby birds for spring; keep a daily record of air temperature, cloud observations, and precipitation.)

**ESS2.1.1 Identify the major effects the sun has on the earth.**

**ESS2.1.1d** Identify the sun's position as it changes throughout the day (e.g., sunrise, noon, sunset).

**ESS2.1.2 Identify the moon.**

**ESS2.1.2b** Identify changes in the moon's appearance.

## Physical Science

**PS1.1.1 Distinguish the physical properties of matter.**

**PS1.1.1a** Identify which object in a group has a specific physical property (e.g., size, shape, color, texture, smell, weight).
**PS1.1.1d** Compare objects using one physical property (e.g., size, shape, color, texture, smell, weight, mass).
**PS1.1.1e** Use observations and data collection tools (e.g., timer, balance scale, ruler) to sort objects into two groups using one physical property (e.g., size, shape, color, texture, smell, weight).

**PS1.3.1 Demonstrate an understanding of mass.**

**PS1.3.1c** Measure the masses of a whole object and parts of that whole object.

**PS2.1.1 Identify forms of energy.**

**PS2.1.1d** Identify electrical energy (e.g., identify that hair stands on end when rubbed with a balloon because of electrical energy - static electricity; identify a static electricity shock from a carpet as electrical energy.).
**PS2.1.1e** Identify mechanical energy (e.g., identify mechanical energy in the movements of a wheel chair or hand mixer).

**PS3.1.1 Describe the relationship between force and motion.**

**PS3.2.1 Identify magnetic forces.**

**PS3.2.1a** Identify objects that are or are not attracted to magnets.

# Content: Science

## Task: 04-5 Grade: 4

**INQUIRY CONSTRUCT: Conducting**
**Follow procedures, using equipment or measurement devices accurately as appropriate for collecting and/or recording qualitative or quantitative data**

## Structured Performance Task:

***The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing.***

## Targeted AAGSEs:

### Life Science

**LS1.1.1 Distinguish between living and non-living things.**
(Suggestion: Select a living thing from a group of non-living things.)
**LS1.1.1c** Discriminate between a living thing and a non-living thing.
**LS1.1.1d** Sort living things from a group of living and non-living things.

**LS1.1.2 Match organisms with similar features.**
**LS1.1.2a** Given an external feature of an organism, match organisms with the same feature (e.g., head, legs, fur, wings, tail).
**LS1.1.2b** Sort organisms based on one or two similar or different external features**.**

**LS1.1.3 Distinguish plants from animals.**

**LS1.1.4 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar animals (including self).**

**LS1.1.5 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar plants.**

**LS1.2.1 Describe the things that plants need in order to grow and survive.**
**LS1.2.1a** Identify one or more conditions a plant needs in order to grow and survive (e.g., light, soil, water, and/or air).

**LS1.2.2 Describe the things that animals need in order to grow and survive.**
**LS1.2.2a** Identify one or more conditions an animal needs in order to grow and survive (e.g., food, water, shelter and/or air).

**LS1.3.2 Identify similarities between parents and offspring.**
**LS1.3.2a** Match offspring with parent (e.g., calf to a cow, chick to a hen, lamb to a sheep, puppy to a dog).

**LS2.1.1. Identify sources of energy for survival of organisms.**

# Earth and Space Science

**ESS1.1.1 Describe soils using their physical properties.**

**ESS1.1.1a** Distinguish soil from other objects or materials (e.g., grass, wood, leaves, paper, rubber, food, etc.).

**ESS1.1.1b** Describe soil using one physical property (see NOTE below).

(Suggestions: Feel soil; use hand lens to examine make-up of soil; select soil when given soil and grass, etc.)

NOTE: Properties of soil include: color, texture/feel, size or shape of particles, structure, drainage, stoniness, easily eroded, and amount of organic material (e.g., decaying leaf or root parts).

**ESS1.1.2 Describe rocks and minerals using their physical properties.**

**ESS1.1.2a** Distinguish rocks and minerals from other objects or materials (e.g., grass, wood, leaves, paper, rubber, food, etc.).

**ESS1.1.3 Compare different soils to each other using their physical properties.**

**ESS1.1.3a** Match soils using one physical property.

**ESS1.1.3b** Sort soils using one physical property.

**ESS1.1.3c** Compare soils using one physical property.

(Suggestions: Provide bowls with organic soil/loam, clay, silt, and sand, and have students describe and compare the different soils. Conduct tests to see differences in percolation/drainage of soils.)

**ESS1.1.4 Compare different rocks and minerals to each other using their physical properties.**

**ESS1.1.4a** Match rocks and minerals using one physical property.

(Suggestions: Examine a variety of rocks and minerals, sort them into categories and compare rocks to each other, compare minerals to each other, and compare rocks to minerals.)

**ESS1.1.5 Compare rocks and minerals to soils using their physical properties.**

**ESS1.1.5a** Sort and separate soils from rocks and minerals.

**ESS1.2.1 Identify the forms of water in the water cycle.**

(Suggestions: Compare liquid water to ice, boil water and watch the steam, use cool-mist humidifier to feel steam.)

**ESS1.2.4 Describe some changes on the earth that happen faster than others.**

**ESS1.2.4a** Identify relatively fast changes to the earth's surface (e.g., flash floods, heavy rain and resulting erosion, several very hot days dry and crack the soil, larger rock breaks to make smaller rocks, such as when bulldozers move them or water gets into a crack and freezes).

**ESS1.2.5 Identify air and water of different temperatures.**

**ESS1.2.5a** Identify that air can have different temperatures.

(Suggestions: Feel that the air above an ice cube is cooler than the air above a warm object.)

**ESS1.2.5b** Identify that water can have different temperatures.

(Suggestion: Feel cool water and warm water, feel how the air above an ice cube is cooler than the air above a warm object.)

**ESS 1.2.13 Identify weather and seasonal changes throughout the year.**

**ESS1.2.13a** Use observations and data collection tools (e.g., wind vane, thermometer, rain gauge) to describe daily weather (e.g., clouds, hot, cold, wet, dry).

**ESS1.2.13b** Identify each season.

**ESS1.2.13c** Describe each season.

(Suggestion: Keep a record of seasonal changes; identify the season when given a picture showing something seasonally obvious – like snow for winter, baby birds for spring; keep a daily record of air temperature, cloud observations, and precipitation.)

**ESS2.1.1 Identify the major effects the sun has on the earth.**

**ESS2.1.1.a** Collect data to show that the sun warms the earth during daytime.

**ESS2.1.1b** Collect data to show the difference in temperature between a shady spot and a sunny spot.

**ESS2.1.1c** Describe the differences between night and day.

(Suggestions: Take the temperature at the same location outside at different times during the day and compare the temperatures, take the temperature in a sunny spot and a shady spot and compare; keep track of the sun's position at different times during the day.)

## Physical Science

**PS1.1.1 Distinguish the physical properties of matter.**

**PS1.1.1b** Identify one or more physical properties of common objects.

**PS1.1.1c** Match objects using one physical property (e.g., size, shape, color, texture, smell, weight).

**PS1.2.1 Recognize states of matter.**

**PS1.3.1 Demonstrate an understanding of mass.**

**PS1.3.1a** Measure the masses of objects using balances or see-saws.

**PS1.3.1b** Identify some objects that are more massive than others.

**PS1.3.1e** Compare the masses of objects measured.

**PS2.1.1 Identify forms of energy.**

**PS2.1.1a** Identify light energy (e.g., Identify shadows as places where light energy is blocked, make shadows with flashlights).

**PS2.1.1b** Identify sound energy (e.g., Identify sound vibrations as sound energy by plucking guitar strings, feeling drums vibrate, feeling cell phones vibrate, seeing salt vibrate on a drum).

**PS2.1.1c** Identify heat energy (e.g., Identify the sun's feeling of warmth as heat energy. Take the students outside on a sunny day and use a solar cooker to cook hot dogs.)

**PS3.1.1 Describe the relationship between force and motion.**

**PS3.1.1b** Identify something as moving or not moving.

**PS3.1.1c** Make something move pushing or pulling (applying force).

**PS3.2.1 Identify magnetic forces.**

**PS3.2.1a** Identify objects that are or are not attracted to magnets.

# Content: Mathematics

## Task: 67-1 Grades: 6-7

## REQUIRED CONTENT STRAND:
Numbers and Operations

### Structured Performance Task:
***The student will use number concepts to solve everyday problems.***

### Targeted AAGSEs:
**Whole numbers: Develop an understanding of cardinal numbers.**

**NO 1.2** Use number/words/symbols together to create the counting sequence by one forward and backward up to 199.

**NO 1.2a** Count by ones forward up to 199.

**NO 1.3** Use the counting sequence to demonstrate one-to-one correspondence between objects and counting words/symbols (e.g., one/1).

**Whole numbers: Use place value by applying the concepts of equivalency in composing and decomposing numbers or in expanded notation.**

**NO 2.1** Demonstrate an understanding that "10" is a special unit within the base-ten system by unitizing numbers up to 199 (e.g., 19 bundle of 10s and 9 singles is the same as 190+9 or 199).

**NO 2.4** Represent quantities in different ways by composing/decomposing numbers to show part-whole relations (e.g., 14=7+7 and 14=9+5; 143=142+1 and 143=100+43).

**Positive Fractional Numbers: Use fractional numbers to represent a part to whole relationship with area and discrete (set) models.**

**NO 3.1** Using concepts of whole unit and parts, show how parts can make a whole (e.g., Show how parts of a brownie can make one whole brownie (area model).

**NO 3.2** Show that fractional parts are equal shares or equal-sized portions of a whole unit using area models and discrete (set) models (e.g., show a fair share of a pizza; fold a piece of paper into two halves; identifies two out of four people are wearing a blue shirt – discrete (set) model).

**NO 3.3** Match fractional parts with area models (e.g., matches the notation ½ to one half of an apple).

**NO 3.4** Match a fractional notation to a discrete (set) model (e.g., match the notation 2/4 to a group of two people wearing blue shirts out of a group of four people).

**NO 3.5** Using fractional notation, numerator = part and denominator = whole, to show the part/whole relationship in an area model.

**NO 3.6** Using fractional notation, numerator = part and denominator = whole, to show the part/whole relationship in a discrete (set) model.

**Use numbers to compare quantities by developing and understanding the position and magnitude of whole numbers (up to 199) and the connection between ordinal and cardinal numbers.**

**NO 5.2** Compare two quantities to recognize equivalence or differences despite appearances (number conservation) (e.g., use different age appropriate items for comparison of quantity).

**NO 5.2a** Compare two quantities as same, more, or less using like items when arranged in the same configuration (number conservation).

**NO 5.2b** Compare two quantities as same, more, or less using like items when arranged differently (number conservation).

**NO 5.2c** Compare two quantities as same, more, or less using unlike items when arranged in the same configuration (number conservation).

**NO 5.3** Understand and apply ordinal terms by using the terms first, second,… to tenth accurately (e.g., identifies the tenth person in line).
**NO 5.4** Use larger number principle with number sequences up to 199 (e.g., a collection of 179 is larger than 178 because 9 appears after 8 in the counting sequence).

**Represent collections and numerical relations by connecting numerals to number words and the quantities both represent.**

**NO 6.2** Identify 2-digit and 3-digit numbers.
**NO 6.3** Identify numerals 1-10 (e.g., student is able to point out a "five" given a choice of numerals).
**NO 6.4** Use numbers between 11-199, or words, or models to represent the cardinal value (how many) of a collection.
**NO 6.5** Identify the larger of two written numbers.

**Demonstrate a conceptual understanding of addition and subtraction of whole numbers by solving problems.**

**NO 7.1** Show that addition means combining items and subtracting means taking away items.
**NO 7.2** Use direct-modeling to solve addition and subtraction word problems using sums of 10 or greater, identifying the correct symbol of operation (+,-).
**NO 7.2a** Use sums less than 10 and corresponding differences and identify the correct symbol of operation.

**Count and add a collection of coins and/or bills.**

**NO 12.2** Add like and unlike coins collections together to equal dollars and cents notation.
**NO 12.2a** Add like coins together to equal dollars and cents notation.
**NO 12.2b** Add unlike coins together to equal dollars and cents notation.
**NO 12.3** Add like and unlike bills together to equal dollars and cents notation.
**NO 12.3a** Add like bills together to equal dollars and cents notation.
**NO 12.3b** Add unlike bills together to equal dollars and cents notation.

**Make estimates of the number of objects in a set up to 20.**

**NO 17.1** Use comparisons to estimate size of a collection up to 15 without counting (e.g., Are there enough chairs compared to the 15 students?).
**NO 17.2** Make estimates in a given situation and explain the reasonableness of the solution (e.g., If there are seven students and five yards of ribbon and every student needs one yard of ribbon, is there enough ribbon for everyone? Explain your answer.).
**NO 17.2a** Make estimates in a given situation and explain the reasonableness of the solution (e.g., if there are eight students and ten yards of ribbon and every student needs one yard of ribbon, is there enough ribbon for everyone?).

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## Sample Standards-Based Activities:

- Participate in a school-wide multicultural fair, having students identify two digit classroom numbers when counting fliers to deliver to each classroom.
- Create a school recipe book, collecting recipes from other classes, and having a culmination event where each class prepares one dish and shares as a school. To learn fractions, the class can double or triple the recipe.
- Plan a special event, such as Teacher Appreciation Day, where students make invitations, estimate the number of attendees, prepare the teachers room, and clean up afterward.
- Count and record data for a science investigation that occurs over multiple days, analyze the data, and present the investigation at the school's science fair.

# Content: Mathematics

## Task: 67-2 Grades: 6-7

## CONTENT STRAND:
Data, Statistics and Probability

### Structured Performance Task:
***The student will create a hypothesis and test that hypothesis by collecting and presenting data.***

### Targeted AAGSEs:
**Interpret a given representation (e.g., tables, graphs) to answer questions related to the data.**

**DSP 1.1** Describe the features (e.g., title, bars, line, labels, key) of a data display (e.g., Using a bar graph, where do you find the information that tells what the bars represent?).

**DSP 1.2** Answer questions about parts of the data and/or the set of data as a whole (e.g., identifying how many in one category or what the data set represents, e.g., given a bar graph, answer the following questions: what was the number of students in our school last year (sets of data) – which grades has the most students (part of data).

**DSP 1.3** Answer questions about parts of the data using more than one tape of data display (e.g., pictograph and bar graph).

**Analyze patterns, trends, or distributions (e.g., tables, graphs) in data.**

**DSP 2.1** Demonstrate simple comparisons (fewest, most, least, equal) by using the data (e.g., after looking at the bars, which of the bars have the fewest…?).

**DSP 2.2** Make observational statements about all or parts of the data (e.g., compare the number of boys and girls in the class) using comparison words (fewer, more, less, equal most frequent).

**DSP 2.3** Make observational statements about the overall trend by using the distribution of data.

**Identify or describe representations that best display a given set of data and organize and display data.**

**DSP 3.2** Given data, select the display that best represents the data.

**For a probability event in which the sample space may or may not contain equally likely outcomes, determine the likelihood of the occurrence of an event.**

**DSP 5.1** Identify ideas related to probability: more likely, less likely, and equally likely using simple randomizing devices (e.g., spinners, number cubes).

**DSP 5.2** Make predictions about the probability of an event occurring (e.g., use two spinners, one with two colors and one with two numbers, so show the possible outcomes when each spinner is spun).

**DSP 5.3** Justify a conclusion based on data from the sample space (e.g., show how you got the possible combinations).

**In response to a teacher or student generated question or hypothesis, group or collect data to answer the question.**

**DSP 6.1** Determine an effective method to collect data to answer the question or hypothesis (e.g., complete a survey, observation, experiment, investigation.

**DSP 6.2** Collect and record data to answer a question or test a hypothesis.

**DSP 6.3** Organize and display data to answer a question or test a hypothesis.

## Sample Standards-Based Activities:

- Participate in science investigation that clearly utilizes the four part inquiry processes.
- Identify a hypothesis on a topic of interest to students (i.e. their favorite movie, clothes worn, favorite shoes, or favorite music group). Conduct a survey and analyze the results to be published in the school newspaper.
- Identify a hypothesis and set up voting experiences, such as class elections.
- Have students develop a hypothesis on something related to their own learning (i.e. “I think I can learn five spelling words each week.”) Have students maintain a progress chart and decide if their hypothesis is correct after four weeks.
- Make a hypothesis about an event occurring, given specific conditions (e.g., flipping a coin, selecting combinations of items) and decide if the hypothesis was correct.

# Content: Mathematics

## Task: 67-3 Grades: 6-7

## CONTENT STRAND:
Data, Statistics and Probability

## Structured Performance Task:
***The student will interpret given data to make decisions or draw conclusions.***

## Targeted AAGSEs:
**Interpret a given representation (e.g., tables, graphs) to answer questions related to the data.**

**DSP 1.1** Describe the features (e.g., title, bars, line, labels, key) of a data display (e.g., Using a bar graph, where do you find the information that tells what the bars represent?).

**DSP 1.2** Answer questions about parts of the data and/or the set of data as a whole (e.g., identifying how many in one category or what the data set represents, e.g., given a bar graph, answer the following questions: what was the number of students in our school last year (sets of data) – which grade has the most students (part of data).

**DSP 1.3** Answer questions about parts of the data using more than one type of data display (e.g., pictograph and bar graph).

**Analyze patterns, trends, or distributions (e.g., tables, graphs) in data.**

**DSP 2.1** Demonstrate simple comparisons (fewest, most, least, equal) by using the data (e.g., after looking at the bars, which of the bars have the fewest…?).

**DSP 2.2** Make observational statements about all or parts of the data (e.g., compare the number of boys and girls in the class) using comparison words (fewer, more, less, equal most frequent).

**DSP 2.3** Make observational statements about the overall trend by using the distribution of data.

**Identify or describe representations that best display a given set of data and organize and display data.**

**DSP 3.1** Given data, sort by general categories and represent the data in a given data display (e.g., after sorting student votes, a student is told to organize the data in a bar graph).

**DSP 3.2** Given data, select the display that best represents the data.

**For a probability event in which the sample space may or may not contain equally likely outcomes, determine the likelihood of the occurrence of an event.**

**DSP 5.1** Identify ideas related to probability: more likely, less likely, and equally likely using simple randomizing devices (e.g., spinners, number cubes).

**DSP 5.2** Make predictions about the probability of an event occurring (e.g., use two spinners, one with two colors and one with two numbers, to show the possible outcomes when each spinner is spun).

**DSP 5.3** Justify a conclusion based on data from the sample space (e.g., show how you got the possible combinations).

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## Sample Standards-Based Activities:
- Read nutritional information on food boxes to sort foods (data) into “healthy choices” or “unhealthy choices”.

- Present students with two different types of data displays (i.e., bar graph and pie graph) that present the same data on the inventory items at the school store. Have students select the display that best conveys the information to make a decision.
- Compare and analyze patterns in data collected (e.g., height charts for the year, growth of different plants).
- Using data from a weather and temperature chart to decide the overall temperature range for the month. Students can describe the month/week's weather/temperature with language such as:
  There were _____ (more/fewer) rainy days than sunny days.
  The _____ (highest) temperature was 85 degrees and the _____ (lowest) temperature was 16 degrees this month.

# Content: Reading

## Task: 67-4 Grades: 6-7

## REQUIRED CONTENT STRAND:

Word Identification Skills and Vocabulary Strategies and Breadth of Vocabulary

### Structured Performance Task:

***The student will read/experience text related to community, state, and/or vocational topics.***

### Targeted AAGSEs:

**Student applies text identification and/or decoding strategies by**

**WID 1.1** Identifying pictures/symbols/objects/words that represent nouns and verbs.
- **WID 1.1a** Identifying pictures/symbols/objects/words that represent self and others.
- **WID 1.1b** Identifying pictures/symbols/objects/words that represent verbs.
- **WID 1.1c** Identifying pictures/symbols/objects/words that represent nouns.

**WID 1.2** Identifying most (more than half) letters of the alphabet. *

**WID 1.3** Identifying the primary sounds represented by some letters (sound-symbol correspondence).*

**WID 1.4** Using letter-sound correspondence knowledge to sound out regularly spelled (i.e., decodable) one- or two-syllable words**.** *

**WID 1.5** Reading high-frequency words (e.g., names and sight words).

**WID 1.6** Using knowledge of sounds and letter patterns (including common endings such as "-s"," –ed", "-ly", "-ing") to read regularly spelled one- or two-syllable words. *

**WID 1.7** Using knowledge of sounds, syllable types, or word patterns (including word families) to identify regularly spelled multi-syllabic words, (e.g., student matches words to other words with similar sounds by answering questions such as "Which word rhymes with the underlined word?". or "Which word has the same vowel sound as the word in the box?"). *
- **WID 1.7a** Identifying word families*
- **WID 1.7b** Identifying prefixes and suffixes.*
- **WID 1.7c** Identifying variant spellings for consonants and vowels (e.g., catalog/catalogue**).***

*** To meet these AAGSEs students must be reading letters and/or words as appropriate to meet the AAGSE. Pictures, objects, or symbols (e.g., Mayer Johnson Symbols) may not be used.**

**Student identifies the meaning of unfamiliar vocabulary by**

**V 2.1** Using provided cues (e.g., pictures, objects, textures, gestures, and/or words) to predict meanings.

**V 2.2** Using context clues (words and illustrations) in text to predict words or meanings.

**V 2.3** Using other resources to connect unknown words to known words.
- **V 2.3a** Using prior knowledge and personal word banks.
- **V 2.3b** Using text features (e.g., illustrations, diagrams, charts).
- **V 2.3c** Using glossaries, dictionaries, and/or thesauruses.

**Student shows breadth of vocabulary knowledge and demonstrates knowledge through understanding of word meanings and relationships by**

**V 3.1** Identifying vocabulary that demonstrates knowledge of basic pragmatic functions (e.g., student refuses, uses comments and social words, asks questions, and requests clarifications).
**V 3.2** Using vocabulary, describe objects, actions, and/or events.
**V 3.3** Using synonyms (e.g., big/large) and antonyms (e.g., hot/cold).
**V 3.3a** Using synonyms (e.g., big/large).
**V 3.3b** Using antonyms (e.g., hot/cold).
**V 3.4** Organizing vocabulary by category, feature, and function.
**V 3.4a** Organizing vocabulary by category.
**V 3.4b** Organizing vocabulary by feature.
**V 3.4c** Organizing vocabulary by function.
**V 3.5** Selecting the appropriate word to use in context of one or more sentences (e.g., student uses pictures or word banks to complete sentences or storyboards).
**V 3.6** Identifying the multiple meanings of words (e.g., fall is a time of year and to fall is to trip).
**V 3.7** Identifying homonyms and homophones.

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## Sample Standards-Based Activities:

- Read words from a personal dictionary to assist with writing a report on places within Rhode Island (e.g., the state house, Roger Williams Park, Narragansett Beach)
- Read a local/community store flyer or website to create a shopping list for materials needed for a class project.
- After reading a newspaper article on an upcoming event, have students create a school flyer that describes an upcoming community or state event (e.g., Gaspee Days, a Polish Festival, and St. Patrick's Day Parade). This flyer can be posted on a school bulletin board.
- Identify community information (e.g., reading information on a RIPTA bus) to perform a task or complete a public bus trip.
- Identify symbols/signs found in your community (e.g., hospital, school, store, crosswalk, caution, park, fire station, and/or telephone) to perform a task or identify where to purchase class materials.

# Content: Reading

## Task: 67-5 Grades: 6-7

## CONTENT STRAND:
Initial Understanding, Analysis & Interpretation of Literary Text

### Structured Performance Task:
***The student will respond in a variety of ways to literary texts, including text read aloud by teachers or peers, reading text independently, or in a guided manner.***

### Targeted AAGSEs:
**Student demonstrates initial understanding of elements of literary texts (including text read aloud, reading text independently, or in a guided manner) by**

- **LT 4.1** Describing literary elements in a story.
  - **LT 4.1a** Describing the main character(s) and setting.
  - **LT 4.1b** Describing major events.
  - **LT 4.1c** Identifying the problem/solution or plot.
  - **LT 4.1d** Identifying significant changes in character(s) or setting(s) over time.
- **LT 4.2** Answering simple questions about a story's content.
- **LT 4.3** Retelling or ordering the key events in a story (e.g., In *Holes*, the student identifies the key events as going to camp and digging holes.).
- **LT 4.4** Summarizing the text (e.g., poem, story, play).
- **LT 4.5** Describing the difference between literary and informational text.
- **LT 4.6** Describing the difference among a variety of types of literary text, such as poetry, plays, fantasies, realistic fiction, or mysteries.

**Student analyzes and interprets elements of literary texts (including texts read aloud or read independently) by**

- **LT 5.1** Making predictions about what might happen next in the text.
  - **LT 5.1a** Making a prediction and explaining why the prediction was made.
  - **LT 5.1b** Using evidence in the text to make logical predictions.
- **LT 5.2** Describing the main characters' physical characteristics and personality traits.
  - **LT 5.2a** Identifying or describing the main characters' physical characteristics.
  - **LT 5.2b** Identifying or describing the main characters' personality traits.
- **LT 5.3** Identifying causes and effects within a literary text.
- **LT 5.4** Making inferences about two or more aspects of a text (i.e., problem, conflict, solution, author's purpose).
  - **LT 5.4a** Making inferences about problem, conflict, or solution.
  - **LT 5.4b** Making inferences about author's message or purpose.
- **LT 5.6** Identifying literary devices (e.g., rhyme, repeated language, dialogue, description) as appropriate to genre.

**Student generates a personal response to what is read aloud or what is read independently through a variety of means by**

- **LT 6.1** Connecting stories or other texts to personal experience, prior knowledge, or other texts.
- **LT 6.2** Providing relevant details to support connecting stories or other texts to personal experience, prior knowledge, or other texts.

## Sample Standards-Based Activities:

- After students read a literary text, they create a cartoon strip to retell a story, demonstrating their retelling of three key events.
- Use a storyboard to identify character, describing the main character's physical characteristics.
- After reading a literary text, a student creates and uses a story webs/ map to respond to simple questions about the story.
- After looking at the illustrations within a chapter of a literary text, students make inferences/predictions on what will happen in the chapter.
- Use story box materials to identify characters or settings in a literary text.

# Content: Reading

## Task: 67-6 Grades: 6-7

## CONTENT STRAND:
Initial Understanding, Analysis and Interpretation of Informational Text

### Structured Performance Task:
***The student will use informational text to gather and interpret information to gain knowledge and expand knowledge on a specific topic.***

### Targeted AAGSEs:
**Student demonstrates initial understanding of informational texts (expository and practical texts) by**

**IT 7.1** Identifying the key features of informational texts and their purpose.
- **IT 7.1a** Identifying and describing the purpose of the title, illustrations/photograph, and captions.
- **IT 7.1b** Identifying and describing the purpose of headings/subheadings, charts, maps, and diagrams.

**IT 7.2** Using features of informational texts to obtaining information (e.g., student uses a table to identify the month that has the most precipitation).

**IT 7.3** Using explicitly stated information to answer questions about the text.
- **IT 7.3a** Using explicitly stated information to answer questions related to the main idea or key details.

**IT 7.4** Identifying the differences in purpose and/or characteristics among different types of informational material.

**IT 7.5** Using a provided organizational format to show an understanding of the information. (e.g., representing main ideas and supporting information using a bullet format).

**IT 7.6** Choosing an organizational format that clearly conveys information.

**Student analyzes and interprets informational text, citing evidence as appropriate by**

**IT 8.1** Identifying the general topic of a text.
- **IT 8.1a** Identifying main/central idea and locating supporting details.

**IT 8.2** Making inferences, drawing conclusions, and/or forming judgments/conclusions about central ideas that are relevant to the text.

**IT 8.3** Identifying and/or making inferences about causes and effects within the text (e.g., When given a text about growing plants, the student is able to answer the question, “What would happen if the plant has no sunlight?”).

**IT 8.4** Distinguishing facts from opinions within a text.

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### Sample Standards-Based Activities:
- Use a newspaper to read and choose options for a class vote on an upcoming field trip.
- Identifying the title and cover photograph’s purpose to select informational texts for a report on volcanoes.
- After reading the procedures of a science investigation, a student answers questions on specifically stated information.
- Research a topic to create a PowerPoint presentation or brochure to share with the class.
- Follow a map or route within the school to get to a location or to gain knowledge of a building.

- Using a graphic organizer, the student identifies the causes and effects of pollution based on information located in an informational text.
- After reviewing pages on the Audubon Society website, students identify the general topic of the page.
- Extract and share facts by creating a PowerPoint presentation or brochure.
- Read and follow directions to complete a science experiment.

# Content: Writing

## Task: 07-1 Grade: 7

## REQUIRED CONTENT STRAND:
Structures of Language and Writing Conventions

## Structured Performance Task:
***The student will write in response to activities within his/her school and/or community.***

## Targeted AAGSEs:
**Student demonstrates command of the structures of sentences, paragraphs, and text by**

- **SL 1.1** Expressing an idea with written language (i.e., words, sentences).
- **SL 1.2** Demonstrating that multiple sentences are written left to right, and top to bottom to form a paragraph(s).
- **SL 1.3** Writing with organizational structures including correct spacing for sentences and paragraph formats within texts.
  - **SL 1.3a** Writing with organizational structures including correct spacing for sentences within texts.
  - **SL 1.3b** Writing paragraphs with correct spacing (e.g., indenting paragraphs or block format for paragraphs).
- **SL 1.4** Writing simple sentences with a subject and predicate, and with adjectives and/or adverbs.
  - **SL 1.4a** Writing simple sentences with a subject and a predicate.
  - **SL 1.4b** Writing simple sentences with adjectives and/or adverbs.
  - **SL 1.4c** Using a variety of sentence structures using two or more of the following: declarative, interrogative, exclamatory, simple, compound and/or complex.
- **SL 1.5** Writing sentences to express ideas about a topic.
  - **SL1.5a** Creating several simple related and ordered sentences (paragraph) to develop an idea/topic.

**In independent writing, student demonstrates command of appropriate English conventions by**

- **WC 9.1** Spelling his/her own first and last name, using correct capitalization.
  - **WC 9.1a** Reproducing his/her own first and last name.
- **WC 9.2** Spelling common/high frequency words.
- **WC 9.3** Using capitalization in writing a paragraph, letter, story, or poem.
  - **WC 9.3a** Capitalizing proper nouns.
  - **WC 9.3b** Capitalizing beginnings of sentences.
  - **WC 9.3c** Capitalizing titles.
- **WC 9.4** Using punctuation marks to clarify meaning.
  - **WC 9.4a** Using periods, question marks and exclamation points.
- **WC 9.5** Using parts of speech.
  - **WC 9.5a** Using singular and plural forms of nouns.
  - **WC 9.5b** Using simple verb tenses and subject-verb agreement.

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## Sample Standards-Based Activities:
- After participating, write about a favorite extra-curricular or community activity (e.g., girl/boy scouts, church/youth group, Special Olympics, music activities, after school programs, sporting events, and library).
- After participating, write about a family/community holiday custom.
- After visiting a work site in the community, write a letter with questions to ask a community worker.

- After a community placement/visit, write cards to thank people in the community.
- After participating, write articles for a local newspaper about community/school team events.
- After participating in a school planning meeting, write to prepare an informational flyer about an event in the community (e.g., an Art festival, service learning projects).
- Write a review of a play performed by the Senior Center.
- Write about a visit to the community recreational center.
- Write about a completed trip to the local historical society.

# Content: Writing

## Task: 07-2 Grade: 7

## CONTENT STRAND:
Narrative Writing: Creating a Story Line and Applying Narrative Strategies

### Structured Performance Task:
***The student will develop narrative writing based in response to literary experiences.***

### Targeted AAGSEs:
**In written narratives, student organizes and relates a story line, plot, and/or series of events by**

**N 4.1** Creating an understandable story line.
- **N 4.1a** Establishing a problem and solution.

**N 4.2** Using transitions words/phrases to demonstrate an understanding of the sequence of events.
- **N 4.2a** Creating a story line with a beginning, middle, and end.
- **N 4.2b** Using dialogue or actions to advance plot or story line (e.g., what would this character say/do?).

**Student demonstrates use of narrative strategies by**

**N 5.1** Using sensory and/or descriptive language to describe an object, person, or event/experience.
**N 5.2** Using sensory and/or descriptive language to describe character(s).
**N 5.3** Using sensory and/or descriptive language to describe a setting.

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### Sample Standards-Based Activities:
- Complete a book response, after reading a grade-level appropriate book (e.g. Wringer, Hatchet, Holes).
- Write a narrative story about the early life of a character.
- Write a summary of the events of a story using a graphic organizer that clearly presents a sequenced structure.
- Write a narrative summary of a personal experience similar to that experienced by a character in a book.
- Develop a story sequel to a grade-level appropriate book.
- Write an alternative ending to a story about John F. Kennedy, Martin Luther King Jr. or Abraham Lincoln.

# Content: Writing

## Task: 07-3 Grade: 7

## CONTENT STRAND:

Narrative Writing: Creating a Story Line and Applying Narrative Strategies

### Structured Performance Task:

***The student will develop narrative writing based on real-life experiences.***

### Targeted AAGSEs:

**In written narratives, student organizes and relates a story line, plot, and/or series of events by**

**N 4.1** Creating an understandable story line.

**N 4.1a** Establishing a problem and solution.

**N 4.2** Using transitions words/phrases to demonstrate an understanding of the sequence of events.

**N 4.2a** Creating a story line with a beginning, middle, and end.

**N 4.2b** Using dialogue or actions to advance plot or story line (e.g., what would this character say/do?).

**Student demonstrates use of narrative strategies by**

**N 5.1** Using sensory and/or descriptive language to describe an object, person, or event/experience.

**N 5.2** Using sensory and/or descriptive language to describe character(s).

**N 5.3** Using sensory and/or descriptive language to describe a setting.

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### Sample Standards-Based Activities:

- Summarize the sequence of events from a community trip.
- Create a story after a trip to the restaurant including details such as name of restaurant, order of events, details using sensory language.
- Create a story that describes a typical day of a community worker.
- Create a story about a school experience. Students can use a sentence completion technique, completing the sentence with descriptive words to describe the people, setting, or items used.
- Write about the day's events in a note home to parents, at the end of the school day
- Develop an entry in a school newspaper describing a classroom experience or project.
- Create a sequence of cartoons that conveys a story. Student can use descriptive language to write the speech balloons.
- Write of a personal experience similar to an article found in the news.

# Content: Science

## Task: 08-1 Grade: 8

## INQUIRY CONSTRUCT: Planning
**Identify information/evidence that needs to be collected and/or tool to be used in order to answer the question and/or check a prediction**

### Structured Performance Task:
***The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing.***

### Targeted AAGSEs:

### Life Science

**LS1.1.1 Distinguish between living and non-living things.**
**LS1.1.1b** Identify at least two characteristics of living things (e.g., living things need food, water and air).

**LS1.1.3 Distinguish plants from animals.**

**LS1.1.4 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar animals (including self).**

**LS1.1.5 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar plants.**

**LS1.2.1 Describe the things that plants need in order to grow and survive.**
**LS1.2.1a** Identify one or more conditions a plant needs in order to grow and survive (e.g., light, soil, water, space, food and/or air).

**LS1.2.2 Describe the things that animals need in order to grow and survive.**
**LS 1.2.2a** Identify one or more conditions an animal needs in order to grow, survive (e.g., food, water, shelter, space, and/or air).

**LS1.2.4 Identify the characteristics of living things.**
**LS1.2.4a** Identify at least five of the ten characteristics of living things (e.g., need source of energy, need water, made of cells, movement, growth, respiration, excretion, response, reproduction, and life span/death).

**LS1.2.5 Recognize that organisms are made of cells.**

**LS2.1.1 Identify sources of energy for survival of organisms.**
**LS2.1.1b** Identify that some animals get their energy (food) by eating plants.
**LS2.1.1c** Identify that some animals get their energy (food) by eating other animals.

**LS2.1.2 Describe the relationships between plants and animals that depend on each other for food.**
**LS2.1.2d** Identify the relationships between plants and animals by creating a simple food web.

**LS2.1.3 Discuss living and non-living factors in an ecosystem.**

**LS2.1.3a** Identify one or more living factor(s) that affect organisms in an ecosystem (e.g., introduction of coyote to a forest, effects of a hurricane on an ecosystem, effect of pollution on an ecosystem).

## Earth and Space Science

**ESS1.1.2 Describe rocks and minerals using their physical properties.**

**ESS1.1.2a** Distinguish rocks and minerals from other objects or materials (e.g., grass, wood, leaves, paper, rubber, food, etc.).

**ESS1.1.3 Compare different soils to each other using their physical properties.**

**ESS1.1.3c** Compare soils using one or more physical properties.
(Suggestions: Provide bowls with organic soil/loam, clay, silt, and sand, and have students describe and compare the different soils. Conduct tests to see differences in percolation/drainage property of soils.)

**ESS1.1.7 Identify the uses of the four basic earth materials (i.e., water, soil, rocks and air).**

(Suggestions: Involve students in a scavenger hunt to find water, soil, rocks, and air; make a collage using magazine pictures of the four basic earth materials; observe videos and photographs, read books, build a home for a pet (fish, hermit crab); build a biosphere; work with balloons to understand air.)

**ESS1.2.1 Identify the components and changes represented by the water cycle.**

**ESS1.2.1f** Identify the changes between the parts of the water cycle (with arrows).
(Suggestion: Heat water on a hot plate to produce steam, then place a cold surface above the hot plate so the steam will condense into liquid water again; measure evaporation from a glass of water left on a windowsill or table; read or watch age appropriate materials; work with ice in a glass of water; make a diagram showing the relationships between ice, liquid water, and steam.)

**ESS1.2.4 Describe some changes on the earth that happen faster than others.**

**ESS1.2.4a** Identify relatively fast changes to the earth's surface (e.g., flash floods, heavy rain and resulting erosion, several very hot days dry and crack the soil, larger rock breaks to make smaller rocks, earthquake, volcano erupts, a hurricane or tropical storm occurs).
**ESS1.2.4b** Identify relatively slow changes to the earth's surface (e.g., a large rock slowly breaks down over many many years from water washing over it in a stream or river; compare photos of slowly moving glaciers taken in different years or a lake drying up over several years.) .
(Suggestion: compare smooth rocks collected from a stream to breaking a rock quickly; compare pictures of older – and smoother - mountains on the East coast of the US to younger Rocky Mountains which are higher and pointier.)

**ESS1.2.5 Identify how air and water can have different temperatures.**

**ESS1.2.5a** Identify the cause of changes in air temperatures.
(Suggestions: Feel that the air above an ice cube is cooler than the air above a warm object.)
**ESS1.2.5b** Identify the cause of changes in water temperatures.
(Suggestion: Relate warm temperatures to sun, ice cube in water.)

**ESS1.2.6 Describe how wind and water change Earth.**

**ESS1.2.6a** Describe how erosion by wind, water (including floods), and glaciers change the earth.

**ESS1.2.10 Investigate volcanoes, faults and earthquakes and how they are related.**

**ESS1.2.10a** Identify physical properties of volcanoes.
**ESS1.2.10b** Describe what a fault is.

NOTE: A fault is the actual crack in the Earth's crust where rock has fractured due to movement. The fault is not actually what moves. Rocks move along faults past each other. Movement occurs along faults.

**ESS1.2.10c** Recognize what happens when rocks move along a fault (crack in the Earth's crust) during an earthquake.
(Suggestions: Observe/feel/hear videos, pictures, models, simulate earth questions, model of a volcano; graham cracker and frosting activity to show faults and movement; create a 'town' between two desks & move desks to simulate earthquake; fossils – plaster of paris; leaf press.)

**ESS1.2.11 Identify geologic processes of fossil formation.**
**ESS1.2.11a** Identify how fossils form.

**ESS1.2.13 Identify weather and seasonal changes throughout the year.**
**ESS1.2.13b** Identify each season.
**ESS1.2.13d** Identify weather data collection tools (e.g., thermometer, weather/wind vane, rain gauge, wind sock, barometer) and what data they are used to collect.
(Suggestions: Keep a daily record of air temperature, cloud observations, and precipitation, relative humidity by using a weather station; check the weather report in the newspaper each day; create weather instruments.)

**ESS1.2.14 Associate air pressure with the weight of air on the earth.**
**ESS1.2.14a** Identify that the weight of air varies on different parts of the earth's surface.
(Suggestion: Pictures of pilots wearing air masks to illustrate air pressure; Mt. Everest climbers; empty container with another container that fits snugly inside – feel the pressure; measure the circumference of a balloon, then place the balloon in hot water then measure the circumference, then place the balloon in ice water and measure the circumference, then compare the sizes.)

**ESS2.1.1 Identify the major effects the sun has on the earth.**
**ESS2.1.1c** Describe the night/day differences in temperature to the sun's position in the sky.
**ESS2.1.1d** Identify the sun's position as it changes throughout the day, (e.g., sunrise, noon, sunset, dawn, dusk).
(Suggestion: Record temperature every hour in their weather station; record where the sun is in the sky at different times during the day; compare the temperature when the sun is behind clouds to the temperature when the sun is shining.)

**ESS2.1.2 Identify the moon.**
**ESS2.1.2b** Identify and record changes in the moon's appearance.
(Suggestion: Create an accurate picture of the moon & other nighttime objects in the sky; draw phases of the moon; chart on a class calendar the upcoming phases of the moon; chart on individual calendar the daily/nightly appearances of the moon; draw or cut phases of the moon from a newspaper.)

**ESS2.1.3 Identify that Earth is a planet.**
**ESS2.1.3a** Identify that the surface we live on is the surface of the planet Earth.

## Physical Science

**PS1.1.1 Distinguish the physical properties of matter.**
**PS1.1.1a** Identify which object in a group has a specific physical property (e.g., size, shape, color, texture, smell, weight, etc.).

**PS1.1.1b** Identify two or more physical properties of common objects.
**PS1.1.1d** Compare objects using one or more physical properties, e.g., size, shape, color, texture, smell, weight, mass, temperature.

**PS1.3.1 Demonstrate an understanding of mass.**
**PS1.3.1a** Measure the masses of objects using balances or see-saws.
**PS1.3.1c** Measure the masses of a whole object and parts of that whole object.

**PS1.4.1 Identify categories of matter.**
**PS1.4.1d** Identify one or more physical changes (e.g., tearing paper, breaking a pencil, food color in water, evaporation, condensation, freezing or melting).

NOTE: Salt, sugar and water are compounds which means they are substances made of two or more elements which have combined chemically.

**PS2.1.1 Identify forms of energy.**

**PS3.1.1 Describe the relationship between force and motion.**
**PS3.1.1d** Identify the initial and final positions of an object that moves.

**PS3.2.1 Identify characteristics of magnetic forces.**
**PS3.2.1b** Sort objects into those that are attracted to magnets and those that are not attracted to magnets.

# Content: Science

## Task: 08-2 Grade: 8

## INQUIRY CONSTRUCT: Conducting
### Use data to summarize results

## Structured Performance Task:
***The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing.***

## Targeted AAGSEs:

### Life Science

**LS1.1.1 Distinguish between living and non-living things.**

**LS1.1.1b** Identify at least two characteristics of living things (e.g., living things need food, water and air).

**LS1.1.1d** Sort living things from a group of living and non-living things.
(Suggestion: Select a living thing from a group of non-living things.)

**LS1.1.2 Compare similarities and differences between organisms.**

**LS1.1.2a** Match similar organisms based on one or two external features (e.g., match two similar animals such as fish to fish and bird to bird).

NOTE: Classification, sort and compare depend on the selection of the organisms for degree of difficulty.

**LS1.1.2b** Sort organisms based on one or two similar or different external features.
(Suggestion: Use a graphic organizer to show the common features of the organisms, such as fur, two legs.)

**LS1.1.2c** Compare one or more external features of a group of organisms.
(Suggestions: Use a graphic organizer to show the common features of the organisms, such as fur, two legs. Use a Venn diagram to compare features of a group of organisms.)

**LS1.1.3 Distinguish plants from animals.**

**LS1.1.3c** Distinguish a plant within a group of organisms.

**LS1.1.3d** Distinguish an animal within a group of organisms.

**LS1.1.3e** Compare two or more plants to each other.

**LS1.1.3f** Compare two or more animals to each other.
(Suggestion: Use a Venn diagram or other graphic organizer.)

**LS1.1.4 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar animals (including self).**

**LS1.1.5 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar plants.**

**LS1.1.6 Associate functions with the external features of animals.**

**LS1.1.6a** Identify that animals move using structures such as legs, wings, tails, or fins.

**LS1.1.6b** Identify that animals can be protected by features such as shells (e.g., snail), claws (e.g., tiger), quills (e.g., porcupine), color of skin or fur, etc.

**LS1.1.6c** Identify that animals obtain food using structures or characteristic features such as beaks, claws, fast speed, good eyesight, sense of smell.

**LS1.1.7 Classify organisms.**

**LS1.1.7a** Identify one or more major group of organisms from a selection of different organisms. (Groups should include: mammals, fish, and reptiles.)
(Suggestion: Ask the student to identify fish when given several different organisms.)

**LS1.2.1 Describe the things that plants need in order to grow and survive.**

**LS1.2.1a** Identify one or more conditions a plant need in order to grow and survive (e.g., light, soil, water, space, and/or air).

**LS1.2.2 Describe the things that animals need in order to grow and survive.**

**LS 1.2.2a** Identify one or more conditions an animal needs in order to grow and survive (e.g., food, water, shelter, space, and/or air).

**LS1.2.4 Identify the characteristics of living things.**

**LS1.2.4a** Identify at least five of the ten characteristics of living things (i.e., need source of energy, need water, made of cells, movement, growth, respiration, excretion, response, reproduction, and life span/death).

**LS1.2.5 Recognize that organisms are made of cells.**

**LS1.3.2 Identify similarities between parents and offspring.**

**LS1.3.2a** Match offspring with parent (e.g., calf to a cow, chick to a hen, lamb to a sheep, puppy to a dog, acorn to oak tree, pinecone to pine trees).

**LS1.3.3 Identify the life cycle of a familiar plant or animal.**

**LS1.3.3a** Identify a life cycle for an organism that does not undergo metamorphosis (e.g., bear, rabbit).
**LS1.3.3b** Identify a life cycle for an organism that undergoes metamorphosis (e.g., butterfly).

**LS2.1.1 Identify sources of energy for survival of organisms.**

**LS2.1.1a** Identify that sunlight is the source of energy for plants.

**LS3.1.1 Identify the responses of plants and animals to changes in their environment.**

**LS3.1.1a** Identify the responses of plants and animals to a change in their food supply.
**LS3.1.1c** Identify the responses of plants and animals to seasonal and weather-related changes.
(Suggestion: Move a plant to a container and provide for its needs, and observe how the habitat change affects the plant.)

**LS3.1.2 Recognize that some organisms are better adapted for specific environments than other organisms.**

**LS3.1.2a** Match animals to their environment, e.g., camel in desert, polar bear in arctic.
(Suggestion: Select a white rabbit over a brown or black rabbit as better adapted to a snowy, winter environment.)

**LS4.1.2 Identify patterns of human health and disease.**

**LS4.1.2a** Identify signs or feelings of being sick, hurt/injured, or discomfort (e.g., cut on finger, headache, dizziness, etc.).

# Earth and Space Science

**ESS1.1.1 Describe soils using their physical properties.**

**ESS1.1.1a** Distinguish soil from other objects or materials (e.g., grass, wood, leaves, paper, rubber, etc.).

**ESS1.1.1b** Describe soil using one or more physical properties.

(Suggestions: Feel soil; use microscope or hand lens to examine make-up of soil; select soil when given soil and grass etc.; describe or draw pictures of soil.)

NOTE: Properties of soil include: color, texture/feel, size or shape of particles, structure, drainage, stoniness, easily eroded, and amount of organic material (e.g., decaying leaf or root parts).

**ESS1.1.2 Describe rocks and minerals using their physical properties.**

**ESS1.1.2b** Describe rocks and minerals using one or more physical properties (See NOTES below) (e.g., compare rocks and minerals and (gems) in jewelry; do a hardness test; scratch for color; hammer on rocks and minerals to determine cleavage and fracture.).

NOTE: Properties of rocks include: color, texture/feel, size or shape of particles in them, hardness, and structure based on how they were formed (igneous, sedimentary, and metamorphic).

NOTE: Properties of minerals include: color (one or several), luster (how it reflects light), streak (use power form of crystal and rub across unglazed streak plate), crystal shape, cleavage and fracture (how it breaks).

**ESS1.1.3 Compare different soils to each other using their physical properties.**

**ESS1.1.3a** Match soils using one or more physical properties.

**ESS1.1.3b** Sort soils using one or more physical properties.

**ESS1.1.3c** Compare soils using one or more physical properties.

(Suggestions: Provide bowls with organic soil/loam, clay, silt, and sand, and have students describe and compare the different soils. Conduct tests to see differences in percolation/drainage property of soils.)

**ESS1.1.4 Compare different rocks and minerals to each other using their physical properties.**

**ESS1.1.4a** Match rocks and minerals using one or more physical properties.

**ESS1.1.4b** Sort rocks and minerals using one or more physical properties.

(Suggestions: Examine a variety of rocks and minerals, sort them into categories and compare rocks to each other, compare minerals to each other, and compare rocks to minerals.)

**ESS1.1.5 Compare rocks and minerals to soils using their physical properties.**

**ESS1.1.5b** Compare soils to rocks and minerals using one or more physical properties (See NOTES on properties of soils, rocks, and minerals listed previously.).

**ESS1.1.5d** Collect data about the properties of soils, rocks and minerals.

(Suggestion: Visit quarry/landscape store; gather soil from various areas around the school; using various soils plant seeds to determine which soil is best for growing that plant; gather rocks in the area; use a rock tumbler; compare how much water a particular soil will hold (predict); create a chart that reflects the properties of types of the class's collected rocks; identify uses of rocks in the environment based on their physical qualities, such as walkways (hardness), building materials (color, beauty, luster, etc.).

**ESS1.1.6 Identify the four basic materials of the earth (i.e., water, soil, rocks and air.)**

(Suggestions: Identify a basic earth material when given two different basic earth materials; compare the basic earth materials.)

**ESS1.1.7 Identify the uses of the four basic earth materials (i.e., water, soil, rocks and air).**

(Suggestions: Involve students in a scavenger hunt to find water, soil, rocks, and air; make a collage using magazine pictures of the four basic earth materials; observe videos and photographs,

read books, build a home for a pet (fish, hermit crab); build a biosphere; work with balloons to understand air.)

**ESS1.2.1 Identify the components and changes represented by the water cycle.**

**ESS1.2.1e** Identify the water cycle and its parts, including evaporation, precipitation, run-off, condensation, groundwater, and transpiration.
(Suggestions: Heat water on a hot plate to produce steam, then place a cold surface above the hot plate so the steam will condense into liquid water again; measure evaporation from a glass of water left on a windowsill or table; read or watch age appropriate materials; work with ice in a glass of water; make a diagram showing the relationships between ice, liquid water, and steam.)

**ESS1.2.3 Identify the earth's surface and that it changes with time.**

**ESS1.2.3c** Identify ways that the earth's surface changes with time (e.g., erosion of soils near drainage ditches, rock or mudslides in the news media).
(Suggestions: Keep an ant farm in the classroom to show visually how the surface and underground change; collect and discuss news photos/satellite pictures of areas before and after major storms.)

**ESS1.2.4 Identify some changes on the earth that happen faster than others.**

**ESS1.2.4a** Identify relatively fast changes to the earth's surface (e.g., flash floods, heavy rain and resulting erosion, several very hot days dry and crack the soil, larger rock breaks to make smaller rocks, earthquake, volcano erupts, a hurricane or tropical storm occurs).
**ESS1.2.4b** Identify relatively slow changes to the earth's surface (e.g., a large rock slowly breaks down over many many years from water washing over it in a stream or river; compare photos of slowly moving glaciers taken in different years or a lake drying up over several years).
(Suggestion: compare smooth rocks collected from a stream to breaking a rock quickly; compare pictures of older – and smoother - mountains on the East coast of the US to younger Rocky Mountains which are higher and pointier.)

**ESS1.2.7 Identify that rocks change into other rocks.**

**ESS1.2.7a** Match rocks by type to descriptions or pictures of igneous, sedimentary, and metamorphic rocks.
**ESS1.2.7b** Sort rocks into groups by type using descriptions, characteristics or pictures of each type.
**ESS1.2.7c** Compare igneous, sedimentary and metamorphic rocks.
(Suggestion: Match temperatures to different environments using pictures, match relative temperatures by observing clothing of people in different pictures; use 3 stream tables and set up ahead of time, w/sand and small rocks. While students are gone, move rock and sand w/wind (blow-dryer), glacier (ice) and water have students figure out what caused the changes; have students create containers with sand pebbles, water, silt soil and shale to watch the layering – similar to sand art, break a rock into smaller pieces using a hammer; create a sand stone.)

**ESS1.2.11 Identify geologic processes of fossil formation**.

**ESS1.2.11b** Distinguish between fossils and other objects.

**ESS1.2.13 Identify weather and seasonal changes throughout the year.**

**ESS1.2.13a** Use observations and one or more data collection tools (e.g., wind vane, thermometer, rain gauge) to describe daily weather (e.g., clouds, cloud types, hot, cold, wet, dry, humidity, precipitation).
**ESS1.2.13c** Describe each season.
**ESS1.2.13d** Identify weather data collection tools (e.g. thermometer, weather/wind vane, rain gauge, wind sock, barometer) and what data they are used to collect.
(Suggestions: Keep a daily record of air temperature, cloud observations, and precipitation, relative humidity by using a weather station; check the weather report in the newspaper each day; create weather instruments.)

**ESS2.1.1 Identify the major effects the sun has on the earth.**

**ESS2.1.1a** Collect data to show that the sun warms the earth during daytime.

**ESS2.1.1b** Collect data to show the difference in temperature between a shady spot and a sunny spot.

**ESS2.1.2 Identify the moon.**

**ESS2.1b** Identify and record changes in the moon's appearance.

(Suggestion: Create an accurate picture of the moon and other nighttime objects in the sky; draw phases of the moon; chart on a class calendar the upcoming phases of the moon; chart on individual calendar the daily/nightly appearances of the moon; draw or cut phases of the moon from a newspaper.)

**ESS2.1.3 Identify that Earth is a planet.**

**ESS2.1.3b** Identify other planets in the solar system (e.g., work with globes, and models of the planets in the solar system, research the planets).

**ESS3.1.1 Identify stars.**

**ESS3.1.1a** Distinguish stars from other objects in the sky (e.g., moon, planets).

**ESS3.1.1b** Identify one or more constellations.

(Suggestions: Create tin can or construction paper constellations; expose students to various cultural stories/legends that explain where the constellations came from; create a night-time sky model that includes stars.)

## Physical Science

**PS1.1.1 Distinguish the physical properties of matter.**

**PS1.1.1e** Use observations and data collection tools (e.g., timer, balance scale, ruler, thermometer) to sort objects into groups using one or more physical properties (e.g., size, shape, color, texture, smell, weight, temperature).

**PS1.1.2 Identify changes in the physical properties of matter.**

**PS1.1.2a** Identify physical changes (e.g., freezing, melting, boiling, tearing paper).

**PS1.2.1 Compare states of matter.**

**PS1.2.1d** Compare the states of matter (e.g., solids have a definite shape and definite volume, liquids have a definite volume but take the shape of their container, gases have no definite volume or shape).

**PS1.2.2 Identify how states of matter can change.**

**PS1.2.2a** Identify how states of matter can change (e.g., solid to liquid - melting, liquid to gas - vaporization, gas to liquid -condensation, liquid to solid - freezing etc.).

**PS1.3.1 Demonstrate an understanding of mass.**

**PS1.3.1b** Identify that some objects are more massive than others.

**PS1.3.1d** Identify that the mass of a whole object is greater than the mass of each part of that whole object.

**PS1.3.1e** Compare the masses of objects measured.

**PS1.4.1 Identify categories of matter.**

**PS1.4.1b** Identify a mixture (e.g., peas and carrots, rocks and leaves, trail mix).

**PS1.4.1c** Identify solutions **(**e.g., Koolade, lemonade, hot chocolate).

NOTE: Salt, sugar and water are compounds which means they are substances made of two or more elements which have combined chemically.

**PS2.1.1 Identify forms of energy.**

**PS2.1.1a** Identify light energy (e.g., identify shadows as places where light energy is blocked, make shadows with flashlights).

**PS2.1.1c** Identify heat energy (e.g., identify the sun's feeling of warmth as heat energy. Take the students outside on a sunny day and use a solar cooker to cook hot dogs.).

**PS2.1.1e** Identify mechanical energy. (e.g., identify mechanical energy in the movements of a wheel chair or hand mixer.).

**PS3.1.1 Describe the relationship between force and motion.**

**PS3.1.1c** Make something move by pushing or pulling (applying force).

**PS3.1.1e** Identify that objects can move in different directions (e.g., horizontally, vertically, forward, backward).

**PS3.1.1f** Identify an object changing direction.

**PS3.1.1g** Identify one object moving faster/slower (speed) than another object.

**PS3.2.1 Identify characteristics of magnetic forces.**

**PS3.2.1a** Identify objects that are and are not attracted to magnets.

# Content: Mathematics

## Task: 10-1 Grade: 10

## REQUIRED CONTENT STRAND:
Numbers and Operations

### Structured Performance Task:
***The student will apply number concepts to complete a career, vocational and/or community activity.***

### Targeted AAGSEs:
**Whole numbers: Develop an understanding of cardinal numbers.**

**NO 1.5** Skip count by 10s starting with a number other than a multiple of 10 (e.g., starting at 12, use a hundreds' chart to count by 10s).

**NO 1.6** Use the counting sequence to demonstrate one-to-one correspondence between objects and counting words/symbols and to demonstrate that the final number is the quantity of the set.

**Whole numbers: Use place value by applying the concepts of equivalency in composing and decomposing numbers.**

**NO 2.1** Demonstrate that "10 is the base unit in the base-ten system by unitizing numbers up to 199 (e.g., 19 bundles of 10 and 9 singles is the same as 190+9 or 199.

**NO 2.2** Demonstrate that digits have different values depending on their place (ones, tens, hundreds) (e.g., arrange two digits to make the largest number).

**NO 2.3** Represent numbers in an expanded form (e.g., bundle of 10 and 7 singles; or 10 + 7; or 143= 100+40+3).

**NO 2.4** Represent quantities in different ways by composing/decomposing numbers to show part-whole relations (e.g., 14= 7+7 and 14=9+5; 143=142+1 and 143=100+43).

**Positive Fractional Numbers: Use decimals and percents to represent a part to whole relationship.**

**NO 4.1** Distinguish between decimal notations (e.g., 0.35), percents (e.g., 35%) and other numbers (e.g., 35).

**NO 4.2** Identify decimals within a context of money, percents and/or metric units as part of 100 (e.g., showing 10 pennies out of 100 is the same as $0.10; 30% or 2.5 centimeters).

**NO 4.3** Demonstrate the relationship between percent and the original number (e.g., 33% off means a discount, or 15% increase means the number is greater than before).

**Represent collections and numerical relations by connecting numerals to number words and the quantities both represent.**

**NO 6.5** Identify the larger of two written numbers.

**Identify coins and/or bills.**

**NO 10.2** Identify bills: $1.00, $5.00, $10.00, and $20.00 bills.

**Identify coin and/or bill value.**

**NO 11.2** Identify the value of bills and how they are related to each other: $1.00 as 100 pennies or 100¢, $5.00 as 5 $1.00, $10.00 as two $5.00 bills or 10 $1.00 bills, $20.00 as two $10.00 bills or 20 $1.00 bills.

**Count and add a collection of coins and/or bills.**

**NO 12.3** Add like and unlike bills together to equal dollars and cents notation.

**NO 12.3a** Add like bills together to match dollar and cents notation.
**NO 12.3b** Add unlike bills together to match dollar and cents notation.
**NO 12.4** Add bills together.
**NO 12.5** Add bills and coins together to match dollar and cents notation.
**NO 12.6** Make change from $5.00 or less.

**Demonstrate fluency with basic addition and subtraction combinations (up to 10) regardless of strategy used.**

**NO 13.2** Use semi-concrete materials (hundreds' chart, number line) to show more or less than the original number.
**NO 13.3** Use semi-concrete materials for addition and subtraction of number combinations (1-10).

**Fluently knows number combinations (1-20) for addition and subtraction.**

**NO 14.1** Use strategies to reason out unknown sums to 20 and their subtraction counterparts (e.g., counting-on, double plus or minus, making tens, using compensation, and/or using known facts).

**Fluently adds and subtracts two digit multiples of ten.**

**NO 15.1** Use concrete and semi-concrete materials to show addition or subtraction with two digit multiples of ten.
**NO 15.2** Use strategies to solve addition or subtraction problems with multiples of 10 more or less than the original number (e.g., the sum of 30+20=30+10+10).

**Add and subtract two digit numbers.**

**NO 16.1** Add and subtract two digit numbers with student identified strategy (e.g., mental calculations, algorithms, counting up and counting down, using and semi-concrete materials).

**Make estimates of the number of objects in a set up to 20.**

**NO 17.1** Use comparisons to estimate size of a collection, up to 20, without counting (e.g., Are there enough chairs compared to the 20 students who need them?).
**NO 17.2** Make estimates in a given situation and explain the reasonableness of the solution (e.g., If there are seven students and five yards of ribbon and every students needs one yard of ribbon, is there enough ribbon for everyone? Explain your answer.).
**NO17.2a** Make estimates in a given situation (e.g., If there are eight students and ten yards of ribbon and every students needs one yard of ribbon, is there enough ribbon for everyone?).

**Make estimates of the number of objects in a set up to 100.**

**NO 18.1** Estimate the size of a collection, up to 100, without counting (e.g., Are there more than 70 marbles in the jar?).

**Apply appropriate properties of a number.**

**NO 19.2** Use composition and decomposition of numbers to identify number families (e.g., 2+3 = 5, 3+2 = 5, 5-3 = 2, and 5-2 = 3).
**NO 19.3** Identify or provide examples of the commutative property of addition (e.g., 3+5 is the same as 5+3).
**NO 19.4** Identify or show that adding zero to any number gives that number (additive identity) (e.g., 5+0=5).
**NO 19.5** Identify or show that when adding 3 or more numbers, the order in which you combine them, does not matter (e.g., (3+5) + 2 = 3+ (5+2) (associative of addition).

## Sample Standards-Based Activities:

- Add bills and coins together to match cents and dollar notation on the cash register to buy materials for a class meal.
- Sell meals to faculty and staff, making change from $5.00 or less.
- Work at a school business that involves money counting, adding bills together.
- Use the counting sequence (one-to-one correspondence between objects and counting words) to count stock in inventory or in vending machines.
- Prepare a weekly checking deposit, adding bills and coins together to match dollar and cents notation at the bank.
- Plan a class fund raising event, making estimates of the materials needed such as chairs in the cafeteria to match ticket sales.
- Plan a day trip and determine the amount o money you will need for the trip, including bus fare, meals and spending money.
- Determine the number of miles one needs to travel to go on a field trip.

# Content: Mathematics

**Task: 10-2** **Grade: 10**

## CONTENT STRAND:
Functions and Algebra

### Structured Performance Task:
***The student will identify, interpret, and/or use patterns in school and/or community environments within an academic/vocational task.***

### Targeted AAGSEs:
**Identify and extends to specific cases for a variety of patterns.**

**FA 1.1** Recognize a simple repeating (A, B, A, B) pattern with concrete materials (e.g., pencil, pen, pencil, pen, pencil, pen in drafting class).
**FA 1.2** Create a simple repeating pattern with concrete materials/representation.
**FA 1.3**.Extend a simple repeating pattern to the next one (e.g., A, B, A, B, A,…).
**FA 1.4** Recognize a growing pattern (numeric) (e. g., 1, 1-2, 1-2-3, 1-2-3-4, 1-2-3-4-5).
**FA 1.5** Create a simple growing pattern with concrete or semi-concrete representation (e.g., &, &&, &&&, &&&&).
**FA 1.7** Identify the core unit of a simple repeating pattern (e.g., x,o,x,o,x, the xo is the core unit of this pattern).

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### Sample Standards-Based Activities:.

- Follow patterns in collating school materials for a science investigation.
- Use a pattern-related activity to assemble simple objects (e.g., creating table decorations, assembling displays) for a school concert.
- Identify patterns in a work schedule.
- Use a pattern set to complete a vocational job.
- Locate simple repeating patterns in the environment (e.g., as store using building or room numbers, pricing or inventory codes, sizes on a display).
- Identify the core unit of a simple repeating pattern (e.g., women's rack, men's rack, women's rack, men's rack - where women and men is the core unit).

# Content: Mathematics

## Task: 10-3 Grade: 10

## CONTENT STRAND:
Functions and Algebra

### Structured Performance Task:
***The student will use mathematical concepts to solve everyday problems.***

### Targeted AAGSEs:
**Demonstrate conceptual understanding of linear relationships as a constant rate of change.**

**FA 2.1** Identify and/or describe change in a constant rate of change between successive elements in a pattern in a variety of situations (e.g., When looking at a graph, student identifies the rate of change as being constant).

**Demonstrate conceptual understanding of algebraic expressions.**

**FA 3.1** Represent mathematical situations by using a box, letter, or symbol involving any one of the four operations.

**FA 3.1a** Recognize that a box, letter or other symbol represents an unknown quantity.

**FA 3.1b** Use numbers, letters, symbols, pictures and/or words to represent a mathematical situation involving addition and subtraction (e.g., A+3=Δ-5).

**FA 3.1c** Use numbers, letters, symbols, pictures and/or words to represent a mathematical situation involving multiplication and division (e.g., Yx3, Δ÷4).

**Demonstrate conceptual understanding of equality.**

**FA 4.1** Show equivalence representations with two expressions (e.g., (1+3=2+2) or an equation (4+6=10).

**FA 4.2** Find the value that will make an open sentence true (e.g. $2+\square=7$).

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### Sample Standards-Based Activities:
- Complete a project involving observations about change (e.g., using a daily science log to determine the rate of change in inside temperature).
- Create a real-world problem and solve it (e.g., determine how many more of an item is needed to complete a project) using an open sentence.
- Keep an inventory for a storeroom, where student develops a mathematical equation determine how many of an item needs to be added for full inventory (i.e. 3 + □=5).
- Determine how to double or triple a recipe for a class party by developing a mathematical equation (e.g. 2cups X □ =4 cups to double a recipe or 2cups X □ =6 cups to triple a recipe)

# Content: Reading

## Task: 10-4 Grade: 10

## REQUIRED CONTENT STRAND:
Word Identification Skills and Vocabulary Strategies and Breadth of Vocabulary

### Structured Performance Task:
***The student will read/experience text related to transition to adult life (e.g., reading a bus schedule, reading a job application and/or reading store information).***

### Targeted AAGSEs:
**Student applies text identification and/or decoding strategies by**

**WID 1.1** Identifying pictures/symbols/objects/words that represent nouns and verbs.
- **WID 1.1b** Identifying pictures/symbols/objects/words that represent verbs.
- **WID 1.1c** Identifying pictures/symbols/objects/words that represent nouns.

**WID 1.4** Using letter-sound correspondence knowledge to sound out regularly spelled (i.e., decodable) one- or two-syllable words. *

**WID 1.5** Reading high-frequency words (e.g., names and sight words).

**WID 1.6** Using knowledge of sounds and letter patterns (including common endings such as "-s"," –ed", "-ly", "-ing") to read regularly spelled one- or two-syllable words. *

**WID 1.7** Using knowledge of sounds, syllable types, or word patterns (including word families) to identify regularly spelled multi-syllabic words, (e.g., student matches words to other words with similar sounds by answering questions such as "Which word rhymes with the underlined word?" or "Which word has the same vowel sound as the word in the box?"). *
- **WID 1.7a** Identifying word families*
- **WID 1.7b** Identifying prefixes and suffixes.*
- **WID 1.7c** Identifying variant spellings for consonants and vowels (e.g., catalog/catalogue).*

*** To meet these AAGSEs students must be reading letters and/or words as appropriate to meet the AAGSE. Pictures, objects, or symbols (e.g., Mayer Johnson Symbols) may not be used.**

**Student identifies the meaning of unfamiliar vocabulary by**

**V 2.1** Using provided cues (e.g., pictures, objects, textures, gestures, and/or words) to predict meanings.

**V 2.2** Using context clues (words and illustrations) in text to predict words or meanings.

**V 2.3** Using other resources to connect unknown words to known words.
- **V 2.3a** Using prior knowledge and personal word banks.
- **V 2.3b** Using text features (e.g., illustrations, diagrams, charts).
- **V 2.3c** Using glossaries, dictionaries, and/or thesauruses.

**Student shows breadth of vocabulary knowledge and demonstrates knowledge through understanding of word meanings and relationships by**

**V 3.1** Identifying vocabulary that demonstrates knowledge of basic pragmatic functions (e.g., student refuses, uses comments and social words, asks questions, and requests clarifications).

**V 3.2** Using vocabulary to describe objects, actions, and events.

**V 3.3** Using synonyms (e.g., big/large) and antonyms (e.g., hot/cold).
**V 3.3a** Using synonyms (e.g., big/large).
**V 3.3b** Using antonyms (e.g., hot/cold).
**V 3.4** Organizing vocabulary by category, feature, and function.
**V 3.4a** Organizing vocabulary by category.
**V 3.4b** Organizing vocabulary by feature.
**V 3.4c** Organizing vocabulary by function.
**V 3.5** Selecting the appropriate word to use in context of one or more sentences (e.g., student uses pictures or word banks to complete sentences or storyboards).
**V 3.6** Identifying the multiple meanings of words (e.g., fall is a time of year and to fall is to trip).
**V 3.7** Identifying homonyms and homophones.
**V 3.8** Describing shades of meaning (e.g., the difference between cold and freezing).

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## Sample Standards-Based Activities:

- Read text (e.g., YMCA, newspapers, movie listing, websites) for recreational information, identifying high frequency words such as movie, swim, and cost.
- Read an application (e.g., job, YMCA, video membership) in order to apply for a job.
- Read a personal address book to address an envelope to invite graduates to a special school event.
- Read directions to complete a adult-related task (e.g., to assemble something, to find a location, to complete a recipe, for laundry care, and/or for food safety).
- Read store information (e.g., aisles, clearance, and /or sales) to make a purchase.
- Read health information (e.g., medicine labels, hazard warnings, and/or ingredients for diet restrictions) to make decisions.
- Read schedules (e.g., bus schedules, movie times, hours of operation, TV guides, and/or appointment schedules) to perform a task.
- Identify symbols/signs found in your community (e.g., hospital, school, crosswalk, caution, park, fire station, and/or telephone) to perform a task.

# Content: Reading

## Task: 10-5 Grade: 10

## CONTENT STRAND:
Initial Understanding, Analysis & Interpretation of Literary Text

### Structured Performance Task:
***The student will respond in a variety of ways to literary texts, including text read aloud by teachers or peers, reading text independently, or in a guided manner.***

### Targeted AAGSEs:
**Student demonstrates initial understanding of elements of literary texts (including text read aloud, reading text independently, or in a guided manner) by**

- **LT 4.1** Describing literary elements in a story.
  - **LT 4.1a** Describing the main character(s) and setting.
  - **LT 4.1b** Describing major events.
  - **LT 4.1c** Identifying the problem/solution or plot.
  - **LT 4.1d** Identifying significant changes in character(s) or setting(s) over time.
- **LT 4.2** Answering simple questions about a story's content.
- **LT 4.3** Retelling or ordering the key events in a story (e.g., In *Romeo and Juliet*, the student identifies key events as Romeo and Juliet meet, fall in love, and die.).
- **LT 4.4** Summarizing the text (e.g., poem, story, play).
- **LT 4.5** Describing the difference between literary and informational text.
- **LT 4.6** Describing the difference among a variety of types of literary text, such as poetry, plays, fantasies, realistic fiction, or mysteries.

**Student analyzes and interprets elements of literary texts (including texts read aloud or read independently) by**

- **LT 5.1** Making predictions about what might happen next in the text.
  - **LT 5.1a** Making a prediction and explaining why the prediction was made.
  - **LT 5.1b** Using evidence in the text to make logical predictions.
  - **LT 5.1c** Explaining or supporting logical predictions.
- **LT 5.2** Describing the main characters' physical characteristics and personality traits.
  - **LT 5.2a** Identifying or describing the main characters' physical characteristics.
  - **LT 5.2b** Identifying or describing the main characters' personality traits.
  - **LT 5.2c** Providing examples of words or actions that reveal characters' personality traits.
  - **LT 5.2d** Identifying that a characters' personality trait changes over time.
  - **LT 5.2e** Identifying a character's motives.
- **LT 5.3** Identifying causes and effects within a literary text.
  - **LT 5.3a** Making inferences about causes and effects.
- **LT 5.4** Making inferences about two or more aspects of a text (i.e., problem, conflict, solution, author's purpose).
  - **LT 5.4a** Making inferences about problem, conflict, or solution.
  - **LT 5.4b** Making inferences about author's message or purpose.
- **LT 5.6** Identifying literary devices (e.g., imagery, simple similes, metaphor and rhyme) as appropriate to genre.

**Student generates a personal response to what is read aloud or what is read independently through a variety of means by**

- **LT 6.1** Connecting stories or other texts to personal experience, prior knowledge, or other texts.

**LT 6.2** Providing relevant details to support connecting stories or other texts to personal experience, prior knowledge, or other texts.

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## Sample Standards-Based Activities:

- Complete a graphic organizer with clearly defined identify characters, traits, and changes over time.
- Create timelines to retell or sequence a story.
- Sequence events from a story using words, cards, pictures, representational objects, symbols.
- Use a story webs/ map to respond to simple questions about the story.
- Make predictions based on the title, cover and/or story indicating why the prediction was made.
- Use graphic organizers to identify cause and effect from a story plot.

# Content: Reading

## Task: 10-6 Grade: 10

## CONTENT STRAND:
Initial Understanding, Analysis and Interpretation of Informational Text

### Structured Performance Task:
***The student will use informational text to plan or to follow directions to complete an activity, report, or other product.***

### Targeted AAGSEs:
**Student demonstrates initial understanding of informational texts (expository and practical texts) by**

**IT 7.1** Identifying the key features of informational texts and their purpose.
- **IT 7.1a** Identifying and describing the purpose of the title, illustrations/photograph, and captions.
- **IT 7.1b** Identifying and describing the purpose of headings, charts, maps, and diagrams.
- **IT 7.1c** Identifying and describing the purpose of bold face type, italics of informational texts.

**IT 7.2** Using features of informational texts to obtaining information (e.g., student identifies the employment section of the newspaper to locate jobs in the town).

**IT 7.3** Using explicitly stated information to answer questions about the text.
- **IT 7.3a** Using explicitly stated information to answer questions related to the main idea or key details.

**IT 7.4** Identifying the differences in purpose and/or characteristics among different types of informational material.

**IT 7.5** Using a provided organizational format to show an understanding of the information (e.g., representing main ideas and supporting information using bullet format).

**IT 7.6** Choosing an organizational format that appropriately conveys information.

**Student analyzes and interprets informational text, citing evidence as appropriate by**

**IT 8.1** Identifying the general topic of a text.
- **IT 8.1a** Identifying main/central idea and locating supporting details.

**IT 8.2** Making inferences, drawing conclusions, and/or forming judgments/conclusions about central ideas that are relevant to the text.

**IT 8.3** Identifying and/or making inferences about causes and effects within the text (e.g., When given a text about growing plants, the student is able to answer the question, "What would happen if the plant has no sunlight?").

**IT 8.4** Distinguishing facts from opinions within a text.

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### Sample Standards-Based Activities:
Extract information from a text to:

- Have student select a graphic organizer and use it to develop a report/capstone portfolio.
- Create and follow directions to complete a product.
- Read a "to do" list to complete necessary tasks.
- To create a resume, have students use a provided organizational format (header and bullets) to develop an understanding of the information by putting the correct information in the correct position.

# Content: Writing

## Task: 10-7 Grade: 10

## REQUIRED CONTENT STRAND:
Structures of Language and Writing Conventions

### Structured Performance Task:
***The student will write as part of transition to adult life (e.g., using correct capitalization and punctuation, write a cover sheet for a résumé or a sequential list necessary for a vocational task).***

### Targeted AAGSEs:
**Student demonstrates command of the structures of sentences, paragraphs, and text by**

- **SL 1.1** Expressing an idea with written language (i.e., words, sentences).
- **SL 1.2** Demonstrating that multiple sentences are written left to right, and top to bottom to form a paragraph(s).
- **SL 1.3** Writing with organizational structures including correct spacing for sentences and paragraph formats within texts.
  - **SL 1.3a** Writing with organizational structures including correct spacing for sentences within texts.
  - **SL1.3b** Writing paragraphs with correct spacing (e.g., indenting paragraphs or block format for paragraphs).
- **SL 1.4** Writing simple sentences with a subject and predicate, and with adjectives and/or adverbs.
  - **SL 1.4a** Writing simple sentences with a subject and a predicate.
  - **SL 1.4b** Writing simple sentences with adjectives and/or adverbs.
  - **SL 1.4c** Using a variety of sentence structures using two or more of the following: declarative, interrogative, exclamatory, simple, compound and/or complex.
- **SL 1.5** Writing sentences to express ideas about a topic.
  - **SL 1.5a** Creating several simple related and ordered sentences (paragraph) to develop an idea/topic.
  - **SL 1.5b** Maintaining a central idea/focus with topic sentence(s) and supporting details in paragraph and/or multi-paragraph texts.

**In independent writing, student demonstrates command of appropriate English conventions by**

- **WC 9.1** Spelling his/her own first and last name, using correct capitalization.
  - **WC 9.1a** Reproducing his/her own first and last name.
- **WC 9.2** Spelling common/high frequency words.
- **WC 9.3** Using capitalization in writing a paragraph, letter, story, or poem.
  - **WC 9.3a** Capitalizing proper nouns.
  - **WC 9.3b** Capitalizing beginnings of sentences.
  - **WC 9.3c** Capitalizing titles of books.
- **WC 9.4** Using punctuation marks to clarify meaning.

**WC 9.4a** Using periods, question marks, exclamation points and commas (e.g., series, dates).

**WC 9.5** Using parts of speech.

**WC 9.5a** Using singular and plural forms of nouns.

**WC 9.5b** Using simple verb tenses and subject-verb agreement.

**WC 9.5c** Using nouns and pronouns.

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## Sample Standards-Based Activities:

- Write a cover sheet for a résumé, capitalizing the beginning of each sentence.
- Write an essay that details a student's plans for the future, demonstrating that multiple sentences are written left to right, and top to bottom to form a paragraph(s).
- Write several simple related and ordered sentences (paragraph) to develop a list of his/her needs (e.g. write information that summarizes routines for assistance in self care, or assistance in changing positions).
- Write a sequential list necessary for a vocational task, using punctuation marks appropriately.
- Complete an application/personal form writing common/high frequency words (e.g., spelling appropriate information to include on a work application; describing likes and dislikes when completing a volunteer application; summarizing medical conditions on a health form).
- Summarize a job shadow experience, apprenticeship, or volunteer work to share with others, by writing several simple related and ordered sentences (paragraph) to develop an idea/topic.

# Content: Writing

## Task: 10-8 Grade: 10

## CONTENT STRAND:
Informational Writing

### Structured Performance Task:
***The student will write an informational piece about personal experiences within the school and/or community.***

### Targeted AAGSEs:
**In informational writing, student organizes ideas and concepts by**

**IW 6.1** Listing steps of simple process in a logical order.
**IW 6.2** Using numbering and/or lettering to identify steps in a process.
**IW 6.3** Using basic transition words (e.g., "first,"" then,"" next, and "finally") to describe steps in a process.
**IW 6.4** Using an appropriate organizational text structure (e.g., by description, sequence, chronology, and compare/contrast) to develop main/controlling idea.
**IW6.4a** Logically grouping ideas into predictable categories (e.g., what birds eat, where they live, etc.).
**IW 6.5** Creating an introduction that sets the context.
**IW 6.6** Using transition words and phrases that are appropriate to text structures (e.g., comparing/contrasting or chronology).
**IW 6.7** Writing a conclusion.

**In informational writing, student effectively conveys purpose by**

**IW 7.1a** Stating a topic and focus/controlling idea about a topic (e.g., topic = careers; controlling idea = different careers require different skills).
**IW 7.1b** Stating and maintaining a controlling idea about a topic.

**In informational writing, student demonstrates use of a range of elaboration strategies by**

**IW 8.1** Identifying information and details related to the topic.
**IW 8.1a** Identifying and including facts and/or details relevant to the focus/controlling idea.
**IW 8.1b** Identifying extraneous material.
**IW 8.1c** Excluding extraneous material.
**IW 8.1d** Including sufficient details or facts for an appropriate depth of information (e.g., naming, describing, explaining, comparing, or using visual images).

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### Sample Standards-Based Activities:
- Write an email to a friend to give the friend directions to a community event, using numbering and/or lettering to identify the steps in the directions.

- Write his/her biography for the yearbook.  In a draft, the student identifies the areas of extraneous material he/she wrote to be edited out for the final product.
- Write a letter regarding an important issue (e.g., letter to the editor, letter to the school principal, and/or letter to a public official), in which the student writes an introduction that sets the context of the issue.
- Create a flyer for a school/community fund raising event and identify the facts and/or details relevant to the focus/controlling idea.
- Write a sequential list necessary for voting using numbering and/or lettering to identify steps in the process.
- Create a power point describing his/her goals for the future.

# Content: Writing

## Task: 10-9 Grade: 10

## CONTENT STRAND:
Informational Writing

### Structured Performance Task:
***The student will write an informational piece related to vocational experiences.***

### Targeted AAGSEs:
**In informational writing, student organizes ideas and concepts by**

**IW 6.1** Listing steps of simple process in a logical order.
**IW 6.2** Using numbering and/or lettering to identify steps in a process.
**IW 6.3** Using basic transition words (e.g., "first"," then", "next", and "finally") to describe steps in a process.
**IW 6.4** Using an appropriate organizational text structure (e.g., by description, sequence, chronology, and compare/contrast) to develop main/controlling idea.
**IW 6.4a** Logically grouping ideas into predictable categories (e.g., what birds eat, where they live, etc.).
**IW 6.5** Creating an introduction that sets the context.
**IW 6.6** Using transition words and phrases that are appropriate to text structures (e.g., comparing/contrasting or chronology).
**IW 6.7** Writing a conclusion.

**In informational writing, student effectively conveys purpose by**

**IW 7.1a** Stating a topic and focus/controlling idea about a topic (e.g., topic = careers; controlling idea = different careers require different skills).
**IW 7.1b** Stating and maintaining a controlling idea about a topic.

**In informational writing, student demonstrates use of a range of elaboration strategies by**

**IW 8.1** Identifying information and details related to the topic.
**IW 8.1a** Identifying and including facts and/or details relevant to the focus/controlling idea.
**IW 8.1b** Identifying extraneous material.
**IW 8.1c** Excluding extraneous material.
**IW 8.1d** Including sufficient details or facts for an appropriate depth of information (e.g., naming, describing, explaining, comparing, or using visual images).

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### Sample Standards-Based Activities:
- Write an email to a friend to give the friend directions to the local YMCA for a Special Olympics event, using numbering and/or lettering to identify the steps in the directions.
- Have a student write their biography for their personal résumé. In a draft, have the student identify the areas of extraneous material he/she wrote to be edited out for the final product.

- Write a letter to the local paper regarding an important issue about jobs in the community (letter to the editor, letter to the school principal, letter to a public official), where student writes an introduction that sets the context of the issue.
- Create a flyer for a community fund raising and then identify the facts and/or details relevant to the focus/controlling idea.
- Write a sequential list necessary for a given vocational task using numbering and/or lettering to identify steps in a process.
- Write what tools are needed for each step of a vocational task, logically grouping ideas into predictable categories (e.g., what tools are needed for each step).

# Content: Science

## Task: 11-1 Grade: 11

## INQUIRY CONSTRUCT: Conducting
## Use accepted methods for organizing, representing and/or manipulating data

### Structured Performance Task:
***The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing.***

### Targeted AAGSEs:

### Life Science

**LS1.1.1 Distinguish between living and non-living things.**
- **LS1.1.1a** Identify self as living, therefore needing food and water.
- **LS1.1.1c** Discriminate between living things and non-living things.
- **LS1.1.1d** Sort living things from a group of livings and non-living things.
- **LS1.1.1e** Classify living things and non-living things into two groups.

**LS1.1.2 Compare similarities and differences between organisms.**
- **LS1.1.2a** Match similar organisms based on two or more external features (e.g., match two similar animals such as fish to fish and bird to bird).

NOTE: Classification, sort and compare - depends on the selection of the organisms for degree of difficulty.

- **LS1.1.2b** Sort organisms based on two or more similar or different external features.
- **LS1.1.2d** Group organisms by two or more similarities.

(Suggestions: Use a graphic organizer to show the common features of the organisms, such as fur, two legs. Use a Venn diagram to compare features of a group of organisms.)

**LS1.1.3 Distinguish plants from animals.**
- **LS1.1.3c** Distinguish a plant within a group of organisms.
- **LS1.1.3d** Distinguish an animal within a group of organisms.
- **LS1.1.3h** Compare similarities and differences between a plant and an animal.

(Suggestion: Use a Venn diagram or other graphic organizer.)

**LS1.1.4 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to animals (including self).**

**LS1.1.5 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar plants.**
- **LS1.1.5g** Compare the features of two different plants.

**LS1.1.7 Classify organisms.**

**LS1.1.7a** Identify one or more major group of organisms from a selection of different organisms. (Groups should include mammals, fish, amphibians, and reptiles.)

**LS1.2.1 Describe the things that plants need in order to grow, survive, and reproduce.**

**LS1.2.1a** Identify two or more conditions plants need to grow, survive and reproduce (i.e., light, water, air, space and food; reproduction: self pollination or cross pollination)**.**

**LS1.2.1d** Investigate what happens to a plant under different conditions, e.g., blue light instead of white light.

**LS1.2.2 Describe the things that animals need in order to grow, survive, and reproduce.**

**LS 1.2.2a** Identify two or more conditions an animal needs in order to grow, survive, and reproduce (i.e., food, water, shelter, space, and/or air).

**LS1.2.2c** Describe one or more conditions an animal needs in order to grow, survive, and reproduce (i.e., food, water, shelter, space, and/or air).

**LS1.2.3 Identify adaptations within organisms that help them survive in their environment.**

**LS1.2.3a** Identify two or more adaptations needed for survival in common animals, (e.g., adaptations such as claws, odor, teeth, tail, for defense, food/eating and maintaining body temperature).

**LS1.2.4 Describe the ten characteristics of living things.**

**LS1.2.4a** Identify the ten characteristics of living things (i.e., need source of energy, need water, made of cells, movement, growth, respiration, excretion, response, reproduction, and life span/death).

**LS1.2.4c** Describe five of the ten characteristics of living things (i.e., need source of energy, need water, made of cells, movement, growth, respiration, excretion, response, reproduction, and life span/death).

**LS1.2.5 Recognize that organisms are made of cells.**

**LS1.2.5c** Recognize that some cells are specialized for certain functions.

**LS1.3.2 Identify similarities between parents and offspring.**

**LS1.3.2b** From up to 4 kinds of plants or animals, select the offspring that belongs with a given adult.

**LS1.3.3 Sequence the life cycle of a familiar plant or animal.**

**LS1.3.3c** Sequence a life cycle for an organism with similar appearance at each stage (e.g., bear, rabbit).

**LS1.3.3d** Sequence a life cycle for an organism that undergoes metamorphosis (e.g., butterfly).

**LS2.1.1 Describe the sources of energy for survival of organisms.**

**LS2.1.1a** Describe that sunlight is a source of energy for plants.

**LS2.1.2 Describe the relationships between plants and animals that depend on each other for food.**

**LS2.1.2d** Describe the relationships between plants and animals by creating a simple food web.

**LS2.1.3 Discuss living and non-living factors in an ecosystem.**

**LS2.1.3a** Identify two or more living factors that affect organisms in an ecosystem (e.g., introduction of coyote to a forest, effects of a hurricane on an ecosystem, effect of pollution on an ecosystem).

**LS2.1.3b** Identify two or more non-living factors that affect organisms.

**LS3.1.1 Identify the responses of plants and animals to changes in their environment.**

**LS3.1.1a** Identify the responses of plants and animals to a change in their food supply.

**LS3.1.1b** Identify the responses of plants and animals to habitat destruction or changes in habitat (e.g., flood, fire, housing developments).

**LS3.1.1c** Identify the responses of plants and animals to seasonal and weather-related changes.

(Suggestion: Move a plant to a container and provide for its needs, and observe how the habitat change affects the plant.)

**LS3.1.2 Recognize that some organisms are better adapted for specific environments than other organisms.**

**LS3.1.2a** Select the animal that can best live in a given environment when given a choice between two to four animals.

(Suggestion: Select a land animal over an aquatic animal.)

**LS4.1.2 Identify patterns of human health and disease.**

**LS4.1.2a** Identify signs or feelings of being sick, hurt/injured, or discomfort (e.g., cut on finger, headache, dizziness, etc.).

## Earth and Space Science

**ESS1.1.1 Identify soils using their physical properties.**

**ESS1.1.1c** Identify soils with specified physical properties.

(Suggestions: Feel soil; use microscope or hand lens to examine and describe make-up of soil or draw pictures of what they see.)

NOTE: Properties of soil include: color, texture/feel, size or shape of particles, structure, drainage, stoniness, easily eroded, and amount of organic material (e.g., decaying leaf or root parts).

**ESS1.1.2 Identify rocks and minerals using their physical properties.**

**ESS1.1.2b** Describe rocks and minerals using two or more physical properties.

NOTE: Properties of rocks include: color, texture/feel, size or shape of particles in them, hardness, and structure based on how they were formed (igneous, sedimentary, and metamorphic).

NOTE: Properties of minerals include: color (one or several), luster (how it reflects light), streak (use power form of crystal and rub across unglazed streak plate), crystal shape, cleavage and fracture (how it breaks).

**ESS1.1.3 Compare different soils to each other using their physical properties.**

**ESS1.1.3b** Sort soils using two or more physical properties.

**ESS1.1.3d** Classify soils by type (clay, sand, silt, loam) using two or more physical properties.
(Suggestions: Provide bowls with organic soil/loam, clay, silt, and sand and have students describe and compare the different soils. Conduct tests to see differences in percolation/drainage properties of soils.)

**ESS1.1.4 Compare different rocks and minerals to each other using their physical properties.**

**ESS1.1.4b** Sort rocks and minerals using two or more physical properties.
**ESS1.1.4c** Compare rocks and minerals using two or more physical properties.
(Suggestions: Examine a variety of rocks and minerals, sort them into categories and compare rocks to each other, compare minerals to each other, and compare rocks to minerals.)

**ESS1.1.5 Compare rocks and minerals to soils using their physical properties.**

**ESS1.1.5b** Compare soils to rocks and minerals using two or more physical properties (see NOTES on properties of soils, rocks, and minerals above).
**ESS1.1.5g** Complete charts showing hardness, color, streak, density, etc. of given rocks and minerals (e.g., create a Venn diagram to classify rocks, soils, and minerals according to their properties).

**ESS1.1.6 Identify the four basic materials of the earth (i.e., water, soil, rocks and air.)**

**ESS1.1.7 Identify the uses of the four basic earth materials (i.e., water, soil, rocks and air).**

**ESS1.2.1 Identify the components and changes represented by the water cycle**.

**ESS1.2.1d** Identify the three forms of water in the water cycle.
**ESS1.2.1e** Identify the water cycle and its parts, including evaporation, precipitation, run-off, condensation, groundwater, and transpiration.
**ESS1.2.1f** Identify the changes between the parts of the water cycle (with arrows).

**ESS1.2.4 Describe some changes on the earth that happen faster than others.**

**ESS1.2.4a** Identify relatively fast changes to the earth's surface (e.g., flash floods, heavy rain and resulting erosion, several very hot days dry and crack the soil, larger rock breaks to make smaller rocks, earthquake, volcano erupts, a hurricane or tropical storm occurs).
**ESS1.2.4b** Identify relatively slow changes to the earth's surface (e.g., a large rock slowly breaks down over many, many years from water washing over it in a stream or river).
**ESS1.2.4c** Compare the results of relatively faster and slower changes.
(Suggestion: Compare smooth rocks collected from a stream to breaking a rock quickly; compare pictures of older – and smoother - mountains on the East coast of the US to younger Rocky Mountains which are higher and pointier.)

**ESS1.2.7 Identify that rocks change into other rocks.**

**ESS1.2.7a** Match rocks by type to descriptions or pictures of igneous, sedimentary, and metamorphic rocks.
**ESS1.2.7d** Identify rocks as igneous, sedimentary or metamorphic.

**ESS1.2.8 Describe how rocks form.**

**ESS1.2.8a** Describe one way that rocks form from other rocks through erosion and deposition.

(Suggestions: Observe rock from volcanoes; smash concrete with hammer to demonstrate production of sediments; Elmer's glue & sand to show compactness of sandstone.)

**ESS1.2.11 Identify geologic processes of fossil formation**.

**ESS1.2.11a** Identify how fossils form.

**ESS1.2.13 Identify weather and seasonal changes throughout the year.**

**ESS1.2.13a** Use observations and two or more data collection tools (e.g., wind vane, thermometer, rain gauge) to describe daily weather (e.g., clouds, cloud types, hot, cold, wet, dry, humidity, precipitation).

**ESS1.2.15 Recognize that the atmosphere is made up of different layers.**

**ESS1.2.15a** Identify layers of the atmosphere.

**ESS2.1.1 Identify the major effects the sun has on the earth.**

**ESS2.1.1a** Collect data to show that the sun warms the earth during daytime.

**ESS2.1.1b** Collect data to show the difference in temperature between a shady spot and a sunny spot.

**ESS2.1.1d** Identify the sun's position as it changes throughout the day, e.g., sunrise, noon, sunset, dawn, dusk.

(Suggestion: Record temperature every hour in their weather station; record where the sun is in the sky at different times during the day; compare the temperature when the sun is behind clouds to the temperature when the sun is shining.)

**ESS2.1.2 Identify the moon.**

**ESS2.1.2a** Distinguish the moon from other objects in the sky.

**ESS2.1.2b** Identify and record changes in the moon's appearance.

(Suggestion: Keep a record of the appearance of the moon; draw phases of the moon; cut out pictures of the moon phases from newspapers.)

**ESS2.1.3 Identify Earth is a planet.**

**ESS2.1.3c** Identify at least one characteristic of two or more planets other than Earth, e.g., size, distance from sun, number of moons, color, presence of rings, relative temperature.

**ESS2.1.4 Identify the parts of the earth-moon-sun system and how they move.**

**ESS2.1.4a** Identify the parts of an earth-moon-sun model.

**ESS3.1.1 Identify stars.**

**ESS3.1.1a** Distinguish stars from other objects in the sky, e.g., moon, planets.

## Physical Science

**PS1.1.1 Distinguish the physical properties of matter.**

**PS1.1.1a** Identify which object in a group has a specific physical property (e.g., size, shape, color, texture, smell, weight, mass, etc.).

**PS1.1.1b** Identify two or more physical properties of common objects.

**PS1.1.1c** Match objects using two or more physical properties (e.g., size, shape, color, texture, smell, weight, temperature, flexibility).

**PS1.1.1e** Use observations and data collection tools (e.g., timer, balance scale, ruler, thermometer, spring scale) to sort objects into groups using two or more physical properties (e.g., size, shape, color, texture, smell, weight, temperature, flexibility).

**PS1.1.2 Identify changes in the physical properties of matter.**

**PS1.1.2a** Identify physical changes (e.g., freezing, melting, boiling, tearing paper).

**PS1.2.1 Classify states of matter.**

**PS1.3.1 Demonstrate an understanding of mass.**

**PS1.3.1a** Measure the masses of objects using balances or see-saws.
**PS1.31b** Describe that some objects are more massive than others.
**PS1.3.1c** Measure the masses of a whole object and parts of that whole object.
**PS1.3.1e** Compare the masses of objects measured.

**PS1.3.2 Identify conservation of matter.**

**PS1.3.2a** Identify that the mass of a whole object is always the same as the sum of the masses of its parts.
**PS1.3.2b** Show that the mass of an object is the same before and after a physical change.

**PS1.4.1 Identify categories of matter.**

**PS1.4.1b** Identify a mixture (e.g., peas and carrots, rocks and leaves, trail mix).
**PS1.4.1c** Identify solutions, (e.g., Koolade, lemonade, hot chocolate).
**PS1.4.1d** Identify two or more physical changes (e.g., tearing paper, breaking a pencil, food color in water, evaporation, condensation, freezing or melting).
**PS1.4.1e** Sort substances into mixtures, solutions, and pure substances that are combined to make them.

NOTE: Salt, sugar and water are compounds which means they are substances made of two or more elements which have combined chemically.

**PS2.1.1 Describe forms of energy.**

**PS2.1.1a** Describe light energy (e.g., identify shadows as places where light energy is blocked; make shadows with flashlights.).

**PS2.1.1b** Describe sound energy (e.g., identify sound vibrations as sound energy by plucking guitar strings, feeling drums vibrate, feeling cell phones vibrate, seeing salt vibrate on a drum.)

**PS2.1.1c** Describe heat energy (e.g., identify the sun's feeling of warmth as heat energy. Take the students outside on a sunny day and use a solar cooker to cook hot dogs.)

**PS2.1.2 Identify different magnitudes of energy.**

**PS2.1.2a** Identify differences in heat absorption.
(Suggestion: Feel how a dark material becomes hotter than a light material when they are left in the sunlight for the same amount of time.)
**PS2.1.2b** Identify differences in sound energy (e.g., hitting a drum softly produces small vibrations, hitting a drum hard produces larger vibrations).
**PS2.1.2c** Identify differences in mechanical energy (e.g., toy car moving slowly versus a toy car moving quickly).

**PS3.1.1 Identify the relationship between force and motion.**

**PS3.1.1b** Identify something as moving or not moving.
**PS3.1.1c** Make something move by pushing or pulling (applying force).
**PS3.1.1d** Identify the initial and final positions of an object that moves.

**PS3.2.1 Identify characteristics of magnetic forces.**
**PS3.2.1a** Identify objects that are and are not attracted to magnets.
**PS3.2.1b** Sort objects into those that are attracted to magnets and those that are not attracted to magnets.
**PS3.2.1d** Recognize that magnets have poles that repel and attract each other.

**PS3.3.1 Identify the effect of gravity on objects.**
**PS3.3.1b** Identify that objects fall because of the pull of the Earth's gravity.

# Content: Science

## Task: 11-2 Grade: 11

**INQUIRY CONSTRUCT: Analyzing**
**Use evidence to support and/or justify interpretations and/or conclusions or explain how the evidence refutes the hypothesis**

## Structured Performance Task:

***The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing.***

## Targeted AAGSEs:

### Life Science

**LS1.1.1 Distinguish between living and non-living things.**
**LS1.1.1c** Discriminate between living things and non-living things.
**LS1.1.1d** Sort living things from a group of living and non-living things.
**LS1.1.1e** Classify living things and non-living things into two groups.

**LS1.1.2 Compare similarities and differences between organisms.**
**LS1.1.2b** Sort organisms based on two or more similar or different external features.
**LS1.1.2c** Compare two or more external features of a group of organisms.

**LS1.1.3 Distinguish plants from animals.**
**LS1.1.3g** Distinguish an organism as a plant or an animal.
**LS1.1.3h** Compare similarities and differences between a plant and an animal.
(Suggestion: Use a Venn diagram or other graphic organizer.)

**LS1.1.4 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to animals (including self).**

**LS1.1.5 Use observations and data collection tools (e.g., hand lens, dissecting microscope) to identify external features common to familiar plants.**

**LS1.1.6 Associate functions with the external features of animals.**
**LS1.1.6a** Identify structures that specific animals use to move, such as legs, wings, tails, fins, etc.
**LS1.1.6b** Identify features that animals use to protect themselves such as shells (e.g., snail), claws (e.g., tiger), quills (e.g., porcupine), color of skin or fur, etc.
**LS1.1.6c** Compare how animals obtain food using structures or characteristic features such as beaks, claws, fast speed, good eyesight, sense of smell, etc.

**LS1.1.8 Associate the external features of plants with their functions.**

**LS1.2.1 Describe the things that plants need in order to grow, survive, and reproduce.**
**LS1.2.1a** Identify two or more conditions plants need to grow, survive and reproduce (i.e. light, water, air, space and food).
**LS1.2.1d** Describe one or more conditions a plant needs in order to grow, survive, and reproduce (e.g., light, soil, water, air, and/or space; reproduce: self pollination or cross pollination).

**LS1.2.2 Describe the things that animals need in order to grow, survive, and reproduce.**
**LS1.2.2d** Investigate what happens to an animal under different conditions (e.g., different temperatures).

**LS1.2.3 Identify adaptations within organisms that help them survive in their environment.**
**LS1.2.3a** Identify two or more adaptations needed for survival in common animals (e.g., adaptations such as claws, odor, teeth, tail, for defense, food/eating and maintaining body temperature).

**LS1.2.5 Recognize that organisms are made of cells.**

**LS1.3.4 Compare life cycles of different organisms.**
**LS1.3.4a** Compare life cycles of two or more plants.
**LS1.3.4b** Compare life cycles of two or more animals.

**LS2.1.1 Describe the sources of energy for survival of organisms.**
**LS2.1.1b** Describe that some animals get their energy (food) by eating plants.
**LS2.1.1c** Describe that some animals get their energy (food) by eating other animals.

**LS2.1.2 Describe the relationships between plants and animals that depend on each other for food.**

**LS2.1.3 Discuss living and non-living factors in an ecosystem.**
**LS2.1.3d** Describe the impact of various living (e.g., disease, population shifts, non-native invasive species) and non-living (e.g., flood, drought, fires) factors on organisms.

**LS3.1.1 Identify the responses of plants and animals to changes in their environment.**
**LS3.1.1a** Identify the responses of plants and animals to a change in their food supply.
**LS3.1.1b** Identify the responses of plants and animals to habitat destruction or changes in habitat (e.g., flood, fire, housing developments).
**LS3.1.1c** Identify the responses of plants and animals to seasonal and weather-related changes. (Suggestion: Move a plant to a container and provide for its needs, and observe how the habitat change affects the plant.)

**LS3.1.2 Recognize that some organisms are better adapted for specific environments than other organisms.**
**LS3.1.2a** Select the animal that can best live in a given environment when given a choice between two to four animals.
(Suggestion: Select a land animal over an aquatic animal.)

**LS4.1.2 Identify patterns of human health and disease.**
**LS4.1.2a** Identify signs or feelings of being sick, hurt/injured, or discomfort (e.g., cut on finger, headache, dizziness, etc.).
**LS4.1.2b** Identify the connection between hygiene and wellness.

**LS4.1.3 Compare voluntary to involuntary body responses.**

**LS4.1.4 Compare instinctual to learned behaviors.**

## Earth and Space Science

**ESS1.1.3 Compare different soils to each other using their physical properties.**

**ESS1.1.3c** Compare soils using two or more physical properties.
**ESS1.1.3d** Classify soils by type (clay, sand, silt, loam) using two or more physical properties.
(Suggestions: Provide bowls with organic soil/loam, clay, silt, and sand and have students describe and compare the different soils. Conduct tests to see differences in percolation/drainage properties of soils.)

**ESS1.1.5 Compare rocks and minerals to soils using their physical properties.**
**ESS1.1.5e** Use data to accept or reject prediction/hypotheses about physical properties of soils, rocks and minerals.
**ESS1.1.5f** Indicate why some earth materials are classified together and some are not.
(Suggestions: Choose the one that doesn't belong by feeling rocks, comparing rocks and minerals (gems) in jewelry; doing a hardness test, scratch for color, hammer on minerals to show fracture.)

**ESS1.1.7 Identify the uses of the four basic earth materials (water, soil, rocks and air).**
**ESS1.1.7e** Determine the best earth materials for specific purposes.
(Suggestions: Drink (taste) water; use water - plants/animals/vapor or list their uses; grow plants in soil; touch & use rocks – build a model wall/house, build a model dam; raise a guppy in a jar with a plant to demonstrate that the guppy needs water and air and the plant recycles the carbon dioxide and provides oxygen for the guppy.)

**ESS1.2.1 Identify the components and changes represented by the water cycle.**
**ESS1.2.1e** Identify the water cycle and its parts, including evaporation, precipitation, run-off, condensation, groundwater, and transpiration.
**ESS1.2.1f** Identify the changes between the parts of the water cycle (with arrows).
**ESS1.2.1g** Use arrows to show the relationship between the parts of the water cycle.
(Suggestions: Identify the water cycle and its parts; observe steam in bathroom and compare to rain, observe condensation on a mirror and compare to rain; label a transparency showing the water cycle and show with an overhead projector; fill a graduated jar with water and let the water evaporate and student observe change, observe leaves through the microscope to see openings where transpiration occurs.)

**ESS1.2.2 Identify that water moves rocks and soils.**
**ESS1.2.2a** Identify the different ways water moves rocks and soils (e.g., floods, tides. raindrops, rivers, etc.).
**ESS1.2.2c** Communicate an understanding of erosion.
(Suggestions: Use a stream table to do different investigations with rocks and soils and water intensities observe erosion in the schoolyard if possible, observe pictures of floods, tides etc., use an Environmental Control Unit (ECU) and a switch for different investigations; use water to make rocks move.)

**ESS1.2.3 Identify the earth's surface and that it changes with time.**
**ESS1.2.3a** Identify the surface and core of different objects or materials as models of the earth's surface (e.g., egg, ball, orange, globe). (Suggestion: Give students a globe and have them indicate on the globe where the surface is, where the earth's atmosphere is, and describe where the core is.)
**ESS1.2.3c** Identify ways that the earth's surface changes with time (e.g., erosion of soils near drainage ditches, rock or mudslides in the news media).
(Suggestions: Keep an ant farm in the classroom to show visually how the surface and underground change; collect and discuss news photos/satellite pictures of areas before and after major storms.)
**ESS1.2.3d** Explore models of the earth showing the crust, mantle and core. (The idea that there are different layers in the earth is important, not the ability to identify the names of the layers.)
(Suggestions: Make models of the layers of the earth, using various materials, such as colored clay.)

**ESS1.2.4 Describe some changes on the earth that happen faster than others.**

**ESS1.2.4c** Compare the results of relatively faster and slower changes.
(Suggestion: Compare smooth rocks collected from a stream to breaking a rock quickly; compare pictures of older – and smoother - mountains on the East coast of the US to younger Rocky Mountains which are higher and pointier.)

**ESS1.2.5 Identify how air and water can have different temperatures.**

**ESS1.2.5c** Predict temperature in various environments.
**ESS1.2.5d** Compare air temperatures to water temperatures in the same environment.
(Suggestion: Feel cool water and warm water, feel how the air above an ice cube is cooler than the air above a warm object.)

**ESS1.2.6 Describe how wind and water shape land.**

**ESS1.2.6a** Describe how erosion by wind, water (including floods), and glaciers shapes land.

**ESS1.2.8 Describe how rocks form.**

**ESS1.2.8c** Describe one way that rocks form from alteration by heat and pressure. (Suggestions: Observe rocks from volcanoes; smash concrete w/ hammer to demonstrate production of sediments; Elmer's glue & sand to show compactness of sandstone.)

**ESS1.2.9 Represent processes of the rock cycle in words, models or diagrams.**

**ESS1.2.9a** Identify the parts of the rock cycle.
**ESS1.2.9b** Identify the changes represented in the rock cycle.
**ESS1.2.9c** Create a representation of the rock cycle.
(Suggestions: Draw pictures of the rock cycle or label a diagram of the rock cycle.)

**ESS1.2.10 Investigate volcanoes, faults and earthquakes and how they are related.**

**ESS1.2.10d** Recognize the relationships between and among volcanoes, earthquakes and faults.
(Suggestions: Observe/feel/hear videos, pictures, models, simulate earth questions, model of a volcano; graham cracker and frosting activity to show faults and movement; create a 'town' between two desks and move desks to simulate earthquake; fossils – plaster of paris; leaf press; on a map place pictures of volcanoes and earthquakes to find the connection; build a tower out of blocks and knock it down to simulate the effects of an earthquake.)

**ESS1.2.12 Identify the patterns of landforms and geologic processes.**

**ESS1.2.12a** Identify fossil patterns, e.g., similar fossils from different parts of the world.
**ESS1.2.12b** Identify patterns of earthquake, fault, and volcano location, e.g., ring of fire, mid-Atlantic Ridge.
(Suggestions: Compare similar fossils that were found at different locations; plot volcano and earthquake locations on a map of the world.)

**ESS1.2.15 Identify that the atmosphere is made up of different layers.**

**ESS1.2.15b** Describe the layers of the atmosphere.
(Suggestion: Make and label diagrams of the atmospheric layers.)

**ESS2.1.1 Identify the major effects the sun has on the earth.**

**ESS2.1.1c** Describe the night/day differences in temperature to the sun's position in the sky.
**ESS2.1.1d** Identify the sun's position as it changes throughout the day (e.g., sunrise, noon, sunset, dawn, dusk).
(Suggestion: Record temperature every hour in their weather station; record where the sun is in the sky at different times during the day; compare the temperature when the sun is behind clouds to the temperature when the sun is shining.)

**ESS2.1.2 Identify the moon.**

**ESS2.1.2b** Identify and record changes in the moon's appearance.
**ESS2.1.2c** Compare the daily times the moon becomes visible throughout the year. (Suggestion: Keep a record of the appearance of the moon and other objects in the sky; draw phases of the moon; cut out pictures of the moon phases from newspapers.)

**ESS2.1.6 Recognize the impact of gravity on objects in the solar system.**
**ESS2.1.6b** Recognize examples of the actions of gravity.
(Suggestion: Drop different objects; observe what happens, and record results of these investigations.)

**ESS3.1.1 Identify stars.**
**ESS3.1.1b** Identify two or more constellations.
(Suggestions: Create tin can or construction paper constellations; expose students to various cultural stories/legends that explain where the constellations came from; create a night-time sky that includes stars.)

## Physical Science

**PS1.1.1 Distinguish the physical properties of matter.**
**PS1.1.1b** Identify common objects using two or more physical properties.
**PS1.1.1d** Compare objects using two or more physical properties, e.g., size, shape, color, texture, smell, weight, mass, temperature, flexibility.
**PS1.1.1f** Indicate which object from a group of two or three objects has the greater density. (As determined from 1.1.1g, density is mass/volume.)
**PS1.1.1h** Describe why objects are grouped together.

**PS1.1.2 Identify changes in the physical properties of matter.**
**PS1.1.2b** Describe physical changes.

**PS1.2.2 Identify that states of matter can change.**
**PS1.2.2a** Identify that states of matter can change, e.g., solid to liquid - melting, liquid to gas vaporization, gas to liquid -condensation, liquid to solid - freezing etc.
**PS1.2.2b** Identify that states of matter can change by adding or subtracting energy, e.g., heating and cooling.

**PS1.3.1 Demonstrate an understanding of mass.**
**PS1.3.1b** Describe that some objects are more massive than others.
**PS1.3.1d** Describe that the mass of a whole object is greater than the mass of each part of that whole object.
**PS1.3.1f** Compare the masses of objects of equal volume made of different substances.

**PS1.3.2 Identify conservation of matter.**
**PS1.3.2a** Identify that the mass of a whole object is always the same as the sum of the masses of its parts.

**PS1.4.1 Identify categories of matter.**
**PS1.4.1f** Recognize compounds (e.g., sugar is a compound: heat it and it burns (chemical change) into a new substance - carbon, water vapor and carbon dioxide).

NOTE: Salt, sugar and water are compounds which means they are substances made of two or more elements which have combined chemically.

**PS2.1.3 Identify that energy can be transformed from one form to another.**

**PS2.2.1 Identify physical and chemical changes.**

**PS2.2.1c** Identify that in a physical change the substance stays the same although the appearance might change.

**PS2.2.1d** Identify that when chemical changes occur the substance changes into something different (a new substance with new and different characteristics).

**PS3.1.1 Identify the relationship between force and motion.**

**PS3.1.1h** Describe how a different amount of force on the same object causes different amounts or speeds of movement, e.g., a harder push or pull.

**PS3.2.1 Identify characteristics of magnetic forces.**

**PS3.2.1b** Sort objects into those that are attracted to magnets and those that are not attracted to magnets.

**PS3.2.1c** Predict whether an object will be attracted to a magnet.

# APPENDIX C—DESCRIPTIVE STATISTICS FOR DIMENSIONS BY AAGSES WITHIN SPTS

**Table C-1. 2013–14 RIAA: AAGSE Characteristics—Mathematics Grades K–2**

| *spt* | *aagse* | *N* | *meanCS* | *stdCS* | *meanSP* | *stdSP* | *meanLA* | *stdLA* | *meanLI* | *stdLI* |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | 23 | 7.7 | 0.7 | 7.1 | 1.7 | 3.8 | 0.4 | 3.0 | 1.0 |
| | 1.1a | 45 | 7.6 | 0.9 | 6.9 | 2.2 | 3.7 | 0.9 | 2.6 | 1.4 |
| | 1.3 | 61 | 7.6 | 0.9 | 6.9 | 2.1 | 3.8 | 0.8 | 2.7 | 1.3 |
| 021 | 3.1 | 7 | 8.0 | 0.0 | 7.4 | 1.5 | 4.0 | 0.0 | 3.0 | 1.4 |
| | 3.2 | 7 | 8.0 | 0.0 | 8.0 | 0.0 | 3.7 | 0.5 | 3.1 | 1.5 |
| | 5.2a | 26 | 7.8 | 0.5 | 6.6 | 2.5 | 3.7 | 0.8 | 2.8 | 1.3 |
| | 7.1 | 11 | 7.1 | 1.4 | 6.5 | 2.0 | 3.6 | 1.2 | 2.4 | 1.5 |
| | 8.1a | 31 | 6.9 | 1.4 | 6.3 | 2.7 | 3.6 | 1.0 | 2.8 | 1.3 |
| | 8.1b | 8 | 7.3 | 1.0 | 5.5 | 3.0 | 3.8 | 0.5 | 2.8 | 1.6 |
| | 8.2a | 51 | 7.8 | 0.8 | 7.5 | 1.4 | 3.7 | 0.9 | 2.5 | 1.4 |
| 022 | 9.1 | 6 | 7.3 | 1.6 | 7.3 | 1.6 | 4.0 | 0.0 | 3.2 | 0.4 |
| | 9.1a | 11 | 7.8 | 0.6 | 6.9 | 2.6 | 4.0 | 0.0 | 1.9 | 1.6 |
| | 9.2 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.3 | 0.6 |
| | 9.2a | 7 | 7.1 | 1.1 | 6.9 | 2.0 | 3.4 | 1.5 | 2.9 | 1.3 |
| | 1.1 | 6 | 7.0 | 1.7 | 6.0 | 3.3 | 3.8 | 0.4 | 2.7 | 1.5 |
| | 1.1a | 24 | 7.4 | 1.1 | 6.3 | 2.6 | 3.7 | 0.9 | 2.9 | 1.3 |
| | 1.1b | 3 | 8.0 | 0.0 | 5.3 | 4.6 | 4.0 | 0.0 | 2.7 | 2.3 |
| | 1.2 | 4 | 8.0 | 0.0 | 6.0 | 2.3 | 4.0 | 0.0 | 3.8 | 0.5 |
| | 1.3 | 5 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.6 | 0.5 |
| | 3.1 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.0 | 2.0 |
| | 3.1a | 6 | 7.7 | 0.8 | 7.3 | 1.6 | 4.0 | 0.0 | 3.2 | 1.3 |
| 023 | 3.1b | 8 | 7.5 | 0.9 | 6.0 | 3.7 | 4.0 | 0.0 | 2.6 | 1.4 |
| | 4.1 | 0 | | | | | | | | |
| | 4.1a | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.0 | 1.4 |
| | 4.1b | 0 | | | | | | | | |
| | 6.1 | 0 | | | | | | | | |
| | 6.1a | 3 | 7.3 | 1.2 | 5.3 | 2.3 | 4.0 | 0.0 | 2.7 | 1.5 |
| | 7.1 | 0 | | | | | | | | |
| | 7.1a | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 7.1b | 1 | 8.0 | | 8.0 | | 3.0 | | 4.0 | |

**Table C-2. 2013–14 RIAA: AAGSE Characteristics—Mathematics Grades 3–5**

| *spt* | *aagse* | *N* | *meanCS* | *stdCS* | *meanSP* | *stdSP* | *meanLA* | *stdLA* | *meanLI* | *stdLI* |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | 15 | 8.0 | 0.0 | 6.7 | 2.0 | 3.8 | 0.4 | 2.8 | 1.5 |
| | 1.1a | 36 | 7.9 | 0.3 | 6.3 | 2.6 | 3.9 | 0.5 | 2.7 | 1.5 |
| | 1.3 | 49 | 7.8 | 0.6 | 6.3 | 2.6 | 3.8 | 0.7 | 2.0 | 1.6 |
| | 1.3a | 51 | 7.8 | 0.8 | 7.1 | 2.1 | 3.9 | 0.3 | 2.6 | 1.4 |
| | 1.5 | 51 | 7.5 | 1.2 | 6.1 | 2.4 | 4.0 | 0.2 | 3.2 | 1.0 |
| 351 | 11.1 | 108 | 7.8 | 0.7 | 6.7 | 2.1 | 3.8 | 0.7 | 2.9 | 1.3 |
| | 12.1 | 37 | 7.6 | 0.8 | 6.5 | 2.6 | 3.9 | 0.2 | 2.7 | 1.3 |
| | 12.2 | 12 | 7.8 | 0.6 | 6.7 | 2.0 | 3.8 | 0.5 | 3.8 | 0.4 |
| | 12.2a | 30 | 8.0 | 0.0 | 6.9 | 2.3 | 3.5 | 0.7 | 2.8 | 1.3 |
| | 12.2b | 9 | 8.0 | 0.0 | 8.0 | 0.0 | 3.8 | 0.4 | 2.9 | 0.8 |
| | 13.2 | 22 | 7.5 | 0.9 | 6.9 | 2.2 | 3.9 | 0.3 | 2.9 | 1.4 |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 13.3 | 49 | 7.7 | 0.9 | 6.7 | 2.1 | 3.8 | 0.6 | 3.2 | 1.2 |
| | 15.1 | 9 | 8.0 | 0.0 | 5.3 | 2.8 | 3.9 | 0.3 | 2.4 | 1.4 |
| | 15.1a | 2 | 8.0 | 0.0 | 2.0 | 2.8 | 4.0 | 0.0 | 3.5 | 0.7 |
| 351 | 4.1 | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 4.2 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 5.1 | 60 | 7.8 | 0.6 | 6.9 | 2.3 | 3.8 | 0.5 | 3.0 | 1.4 |
| | 6.5 | 123 | 7.7 | 0.8 | 7.0 | 1.9 | 3.9 | 0.5 | 3.0 | 1.3 |
| | 8.1a | 55 | 7.8 | 0.6 | 7.1 | 1.8 | 3.8 | 0.4 | 3.1 | 1.0 |
| | 8.1b | 51 | 7.5 | 1.1 | 7.1 | 1.7 | 4.0 | 0.2 | 3.0 | 1.3 |
| | 8.1c | 70 | 7.7 | 0.9 | 7.2 | 1.7 | 3.9 | 0.6 | 3.3 | 1.1 |
| | 8.1d | 5 | 6.8 | 1.8 | 7.2 | 1.8 | 3.6 | 0.5 | 2.2 | 1.1 |
| | 8.2a | 84 | 7.8 | 0.8 | 6.9 | 2.1 | 3.9 | 0.5 | 2.8 | 1.2 |
| | 8.2b | 75 | 7.4 | 1.1 | 6.9 | 1.8 | 3.8 | 0.6 | 3.4 | 0.9 |
| 352 | 8.2c | 28 | 7.9 | 0.4 | 6.9 | 2.1 | 3.5 | 1.0 | 2.9 | 1.1 |
| | 9.1 | 13 | 8.0 | 0.0 | 5.2 | 2.5 | 3.5 | 0.7 | 3.5 | 0.9 |
| | 9.1a | 60 | 8.0 | 0.3 | 6.9 | 2.0 | 3.9 | 0.4 | 3.0 | 1.0 |
| | 9.1b | 7 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.7 | 1.4 |
| | 9.2 | 14 | 7.7 | 0.7 | 7.1 | 1.7 | 3.5 | 0.9 | 3.1 | 1.0 |
| | 9.2a | 17 | 7.4 | 1.4 | 6.1 | 2.5 | 3.8 | 0.6 | 3.6 | 0.6 |
| | 9.2b | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 1.1 | 9 | 7.8 | 0.7 | 4.9 | 3.3 | 3.8 | 0.4 | 2.0 | 2.0 |
| | 1.1a | 38 | 7.6 | 0.9 | 6.8 | 2.1 | 3.8 | 0.4 | 2.1 | 1.6 |
| | 1.1b | 13 | 7.8 | 0.6 | 5.8 | 2.6 | 3.5 | 1.2 | 3.5 | 1.2 |
| | 1.2 | 0 | | | | | | | | |
| | 1.3 | 12 | 7.7 | 0.8 | 5.0 | 3.5 | 4.0 | 0.0 | 1.5 | 1.5 |
| | 3.1 | 5 | 7.6 | 0.9 | 3.2 | 3.3 | 4.0 | 0.0 | 0.6 | 1.3 |
| | 3.1a | 13 | 7.7 | 0.8 | 6.2 | 2.6 | 3.8 | 0.4 | 1.5 | 1.7 |
| | 3.1b | 12 | 7.7 | 0.8 | 6.3 | 3.2 | 3.7 | 0.5 | 2.7 | 1.5 |
| | 4.1 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 4.1a | 17 | 7.8 | 0.7 | 6.8 | 1.9 | 3.9 | 0.2 | 3.5 | 0.9 |
| | 4.1b | 0 | | | | | | | | |
| | 4.2 | 0 | | | | | | | | |
| 353 | 5.1 | 5 | 7.6 | 0.9 | 8.0 | 0.0 | 4.0 | 0.0 | 3.0 | 1.2 |
| | 5.1a | 25 | 7.4 | 1.3 | 7.4 | 1.5 | 3.8 | 0.5 | 2.5 | 1.3 |
| | 5.1b | 5 | 8.0 | 0.0 | 7.2 | 1.8 | 4.0 | 0.0 | 3.4 | 0.5 |
| | 6.1 | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 6.1a | 13 | 7.5 | 1.2 | 6.2 | 2.1 | 3.5 | 1.1 | 2.8 | 1.2 |
| | 6.1b | 3 | 7.3 | 1.2 | 0.0 | 0.0 | 4.0 | 0.0 | 1.3 | 2.3 |
| | 6.1c | 6 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.3 | 1.5 |
| | 6.2 | 1 | 6.0 | | 4.0 | | 4.0 | | 3.0 | |
| | 6.2a | 1 | 8.0 | | 8.0 | | 4.0 | | 3.0 | |
| | 6.2b | 3 | 8.0 | 0.0 | 5.3 | 2.3 | 4.0 | 0.0 | 3.7 | 0.6 |
| | 7.1 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 7.1a | 15 | 7.9 | 0.5 | 7.7 | 1.0 | 4.0 | 0.0 | 3.1 | 1.2 |
| | 7.1b | 12 | 7.8 | 0.6 | 6.0 | 2.7 | 4.0 | 0.0 | 2.8 | 1.5 |

**Table C-3. 2013–14 RIAA: AAGSE Characteristics—Mathematics Grades 6–7**

| *spt* | *aagse* | *N* | *meanCS* | *stdCS* | *meanSP* | *stdSP* | *meanLA* | *stdLA* | *meanLI* | *stdLI* |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.2 | 3 | 6.0 | 2.0 | 5.3 | 2.3 | 3.3 | 0.6 | 4.0 | 0.0 |
| | 1.2a | 19 | 7.6 | 1.1 | 7.8 | 0.9 | 4.0 | 0.0 | 3.3 | 1.3 |
| | 1.3 | 36 | 7.7 | 1.0 | 7.2 | 1.6 | 3.7 | 0.8 | 2.6 | 1.4 |
| | 12.2 | 37 | 7.7 | 0.7 | 7.4 | 1.5 | 3.9 | 0.4 | 3.3 | 0.7 |
| | 12.2a | 37 | 7.8 | 0.6 | 7.5 | 1.4 | 3.9 | 0.3 | 2.6 | 0.9 |
| | 12.2b | 14 | 7.6 | 0.9 | 7.4 | 1.5 | 3.6 | 0.6 | 2.8 | 1.2 |
| | 12.3 | 19 | 7.9 | 0.5 | 7.4 | 1.5 | 4.0 | 0.0 | 3.6 | 0.6 |
| | 12.3a | 21 | 8.0 | 0.0 | 7.0 | 1.7 | 3.7 | 0.9 | 2.7 | 1.2 |
| | 12.3b | 2 | 8.0 | 0.0 | 6.0 | 2.8 | 3.5 | 0.7 | 3.0 | 0.0 |
| | 17.1 | 0 | | | | | | | | |
| | 17.2 | 0 | | | | | | | | |
| | 17.2a | 1 | 6.0 | | 8.0 | | 3.0 | | 4.0 | |
| | 2.1 | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 2.4 | 10 | 6.2 | 1.5 | 6.4 | 2.1 | 4.0 | 0.0 | 3.1 | 0.9 |
| | 3.1 | 15 | 8.0 | 0.0 | 7.5 | 1.4 | 3.9 | 0.3 | 3.0 | 1.4 |
| | 3.2 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 3.7 | 0.6 | 4.0 | 0.0 |
| 671 | 3.3 | 11 | 7.8 | 0.6 | 5.5 | 2.7 | 3.5 | 1.2 | 2.8 | 1.3 |
| | 3.4 | 20 | 7.8 | 0.6 | 7.6 | 1.2 | 3.5 | 0.7 | 2.5 | 1.0 |
| | 3.5 | 8 | 8.0 | 0.0 | 7.0 | 1.9 | 3.8 | 0.7 | 3.9 | 0.4 |
| | 3.6 | 22 | 8.0 | 0.0 | 7.8 | 0.9 | 3.8 | 0.5 | 3.0 | 0.9 |
| | 5.2 | 0 | | | | | | | | |
| | 5.2a | 19 | 7.5 | 1.1 | 6.3 | 2.4 | 3.6 | 1.0 | 2.4 | 1.5 |
| | 5.2b | 6 | 8.0 | 0.0 | 8.0 | 0.0 | 3.8 | 0.4 | 3.0 | 1.1 |
| | 5.2c | 5 | 8.0 | 0.0 | 8.0 | 0.0 | 3.4 | 0.5 | 3.6 | 0.5 |
| | 5.3 | 18 | 7.9 | 0.5 | 6.9 | 1.8 | 4.0 | 0.0 | 3.1 | 1.4 |
| | 5.4 | 0 | | | | | | | | |
| | 6.2 | 11 | 7.3 | 1.3 | 7.3 | 1.6 | 3.6 | 1.2 | 3.4 | 1.3 |
| | 6.3 | 18 | 7.0 | 1.7 | 6.9 | 1.8 | 3.6 | 0.5 | 3.1 | 1.4 |
| | 6.4 | 10 | 7.8 | 0.6 | 7.2 | 1.7 | 3.5 | 1.3 | 3.0 | 1.3 |
| | 6.5 | 61 | 7.8 | 0.8 | 7.1 | 1.8 | 3.8 | 0.7 | 3.0 | 1.3 |
| | 7.1 | 24 | 7.4 | 1.1 | 6.8 | 1.9 | 3.8 | 0.8 | 2.9 | 1.4 |
| | 7.2 | 14 | 7.0 | 1.0 | 7.1 | 1.7 | 4.0 | 0.0 | 3.7 | 0.5 |
| | 7.2a | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 1.1 | 28 | 7.1 | 1.6 | 7.0 | 1.8 | 3.9 | 0.4 | 3.1 | 1.2 |
| | 1.2 | 69 | 7.9 | 0.5 | 7.3 | 1.7 | 3.9 | 0.5 | 3.3 | 1.1 |
| | 1.3 | 28 | 7.7 | 0.9 | 7.6 | 1.3 | 3.8 | 0.5 | 3.4 | 0.9 |
| | 2.1 | 64 | 7.8 | 0.7 | 7.4 | 1.6 | 3.9 | 0.4 | 2.9 | 1.2 |
| | 2.2 | 27 | 7.3 | 1.0 | 6.4 | 2.5 | 3.7 | 0.8 | 3.0 | 1.4 |
| | 2.3 | 0 | | | | | | | | |
| 672 | 3.2 | 8 | 6.0 | 1.1 | 4.0 | 0.0 | 4.0 | 0.0 | 2.8 | 0.9 |
| | 5.1 | 0 | | | | | | | | |
| | 5.2 | 0 | | | | | | | | |
| | 5.3 | 0 | | | | | | | | |
| | 6.1 | 0 | | | | | | | | |
| | 6.2 | 36 | 7.9 | 0.3 | 6.9 | 2.5 | 3.9 | 0.3 | 2.7 | 1.5 |
| | 6.3 | 15 | 7.6 | 0.8 | 5.3 | 2.9 | 3.9 | 0.4 | 2.3 | 1.6 |
| 673 | 1.1 | 9 | 7.6 | 1.3 | 5.3 | 3.5 | 3.4 | 1.0 | 1.7 | 1.8 |
| | 1.2 | 53 | 8.0 | 0.3 | 7.5 | 1.3 | 3.7 | 0.7 | 3.3 | 0.9 |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.3 | 20 | 8.0 | 0.0 | 7.6 | 1.2 | 3.9 | 0.3 | 3.2 | 1.2 |
| | 2.1 | 57 | 7.9 | 0.5 | 7.6 | 1.2 | 3.9 | 0.6 | 3.1 | 1.2 |
| | 2.2 | 5 | 8.0 | 0.0 | 8.0 | 0.0 | 3.8 | 0.4 | 3.4 | 0.5 |
| | 2.3 | 0 | | | | | | | | |
| 673 | 3.1 | 31 | 7.8 | 0.6 | 7.4 | 1.5 | 3.6 | 0.8 | 3.3 | 1.1 |
| | 3.2 | 7 | 7.4 | 1.5 | 7.4 | 1.5 | 4.0 | 0.0 | 2.9 | 0.9 |
| | 5.1 | 0 | | | | | | | | |
| | 5.2 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 5.3 | 0 | | | | | | | | |

**Table C-4. 2013–14 RIAA: AAGSE Characteristics—Mathematics Grades 10**

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.5 | 4 | 5.0 | 2.0 | 6.0 | 2.3 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 1.6 | 19 | 7.6 | 0.8 | 6.1 | 3.1 | 3.8 | 0.9 | 1.9 | 1.5 |
| | 10.2 | 48 | 7.5 | 1.2 | 7.3 | 1.8 | 3.9 | 0.2 | 3.3 | 1.0 |
| | 11.2 | 15 | 7.5 | 1.4 | 5.9 | 3.0 | 4.0 | 0.0 | 3.7 | 0.5 |
| | 12.3 | 9 | 7.1 | 1.1 | 6.7 | 2.0 | 3.9 | 0.3 | 3.7 | 0.5 |
| | 12.3a | 4 | 8.0 | 0.0 | 6.0 | 4.0 | 4.0 | 0.0 | 2.5 | 1.7 |
| | 12.3b | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 12.4 | 36 | 7.4 | 1.1 | 7.0 | 1.8 | 3.8 | 0.4 | 3.4 | 0.8 |
| | 12.5 | 40 | 7.5 | 1.2 | 6.9 | 2.0 | 3.9 | 0.3 | 3.4 | 1.0 |
| | 12.6 | 14 | 6.7 | 1.9 | 6.0 | 2.1 | 3.6 | 1.1 | 2.7 | 1.5 |
| | 13.2 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.0 | 1.0 |
| | 13.3 | 2 | 8.0 | 0.0 | 6.0 | 2.8 | 4.0 | 0.0 | 3.0 | 0.0 |
| | 14.1 | 0 | | | | | | | | |
| | 15.1 | 0 | | | | | | | | |
| | 15.2 | 0 | | | | | | | | |
| 101 | 16.1 | 5 | 7.2 | 1.1 | 8.0 | 0.0 | 4.0 | 0.0 | 2.6 | 0.5 |
| | 17.1 | 0 | | | | | | | | |
| | 17.2 | 0 | | | | | | | | |
| | 17.2a | 0 | | | | | | | | |
| | 18.1 | 0 | | | | | | | | |
| | 19.2 | 0 | | | | | | | | |
| | 19.3 | 1 | 4.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 19.4 | 0 | | | | | | | | |
| | 19.5 | 0 | | | | | | | | |
| | 2.1 | 0 | | | | | | | | |
| | 2.2 | 0 | | | | | | | | |
| | 2.3 | 0 | | | | | | | | |
| | 2.4 | 3 | 6.7 | 2.3 | 6.7 | 2.3 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 4.1 | 0 | | | | | | | | |
| | 4.2 | 0 | | | | | | | | |
| | 4.3 | 0 | | | | | | | | |
| | 6.5 | 38 | 7.6 | 0.9 | 6.8 | 2.6 | 3.9 | 0.2 | 2.8 | 1.4 |
| | 1.1 | 23 | 7.4 | 0.9 | 7.3 | 2.0 | 4.0 | 0.2 | 3.2 | 1.2 |
| 102 | 1.2 | 70 | 7.7 | 0.9 | 6.9 | 2.2 | 3.9 | 0.5 | 3.2 | 1.2 |
| | 1.3 | 51 | 7.6 | 0.9 | 6.1 | 2.7 | 3.9 | 0.2 | 2.9 | 1.5 |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.4 | 4 | 6.5 | 1.0 | 6.0 | 2.3 | 4.0 | 0.0 | 3.0 | 0.8 |
| 102 | 1.5 | 4 | 8.0 | 0.0 | 6.0 | 2.3 | 3.8 | 0.5 | 4.0 | 0.0 |
| | 1.7 | 15 | 7.2 | 1.7 | 5.9 | 3.0 | 3.9 | 0.5 | 3.1 | 1.5 |
| | 2.1 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 3.1 | 6 | 8.0 | 0.0 | 7.3 | 1.6 | 4.0 | 0.0 | 3.5 | 0.5 |
| | 3.1a | 9 | 7.3 | 1.0 | 6.7 | 2.0 | 4.0 | 0.0 | 3.8 | 0.4 |
| 103 | 3.1b | 5 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 3.1c | 1 | 6.0 | | 0.0 | | 4.0 | | 4.0 | |
| | 4.1 | 4 | 6.5 | 1.9 | 8.0 | 0.0 | 3.8 | 0.5 | 4.0 | 0.0 |
| | 4.2 | 21 | 7.4 | 1.1 | 6.9 | 1.9 | 4.0 | 0.2 | 3.8 | 0.4 |

**Table C-5. 2013–14 RIAA: AAGSE Characteristics—Reading Grades K–2**

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | 10 | 7.6 | 1.3 | 7.6 | 1.3 | 3.9 | 0.3 | 3.4 | 1.0 |
| | 1.1a | 37 | 7.7 | 0.7 | 6.6 | 2.5 | 3.9 | 0.7 | 3.0 | 1.4 |
| | 1.1b | 5 | 7.6 | 0.9 | 6.4 | 2.2 | 4.0 | 0.0 | 2.8 | 0.8 |
| | 1.1c | 26 | 7.8 | 0.7 | 7.1 | 2.3 | 3.6 | 0.9 | 2.8 | 1.6 |
| | 1.2 | 13 | 6.6 | 1.5 | 5.5 | 3.1 | 3.5 | 1.1 | 3.4 | 1.1 |
| | 1.3 | 8 | 7.5 | 1.4 | 6.0 | 3.0 | 3.6 | 0.5 | 3.1 | 1.5 |
| | 1.4 | 2 | 7.0 | 1.4 | 4.0 | 5.7 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 1.5 | 53 | 7.8 | 0.7 | 6.9 | 1.9 | 4.0 | 0.2 | 3.1 | 1.1 |
| 024 | 2.1 | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 1.5 | 2.1 |
| | 2.2 | 2 | 6.0 | 0.0 | 4.0 | 5.7 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 3.1 | 2 | 8.0 | 0.0 | 6.0 | 2.8 | 4.0 | 0.0 | 2.5 | 2.1 |
| | 3.2 | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 3.5 | 0.6 | 3.3 | 0.5 |
| | 3.3 | 3 | 6.7 | 2.3 | 5.3 | 4.6 | 4.0 | 0.0 | 3.0 | 1.7 |
| | 3.3a | 4 | 8.0 | 0.0 | 7.0 | 2.0 | 3.8 | 0.5 | 3.0 | 0.8 |
| | 3.4 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.3 | 0.6 |
| | 3.4a | 18 | 7.8 | 0.6 | 6.7 | 1.9 | 4.0 | 0.0 | 2.9 | 1.3 |
| | 3.4b | 0 | | | | | | | | |
| | 10.3 | 7 | 7.7 | 0.8 | 4.0 | 3.3 | 3.3 | 1.5 | 2.0 | 1.9 |
| | 10.4 | 12 | 7.7 | 0.8 | 5.3 | 2.6 | 3.7 | 1.2 | 2.2 | 1.7 |
| | 10.5 | 0 | | | | | | | | |
| 025 | 10.5a | 0 | | | | | | | | |
| | 10.6 | 9 | 7.6 | 0.9 | 7.1 | 1.8 | 3.6 | 1.3 | 2.4 | 1.6 |
| | 7.3 | 9 | 7.8 | 0.7 | 6.2 | 2.1 | 3.6 | 1.3 | 2.6 | 1.5 |
| | 9.1 | 10 | 7.4 | 1.3 | 5.6 | 2.1 | 3.9 | 0.3 | 2.5 | 1.4 |
| | 9.4 | 9 | 7.6 | 0.9 | 8.0 | 0.0 | 3.8 | 0.7 | 2.9 | 1.1 |
| | 10.3 | 6 | 7.7 | 0.8 | 7.3 | 1.6 | 4.0 | 0.0 | 2.3 | 1.9 |
| | 10.4 | 29 | 7.8 | 0.6 | 7.0 | 2.0 | 3.9 | 0.3 | 2.8 | 1.3 |
| | 10.5 | 0 | | | | | | | | |
| 026 | 10.5a | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 10.6 | 24 | 7.8 | 0.6 | 7.0 | 2.1 | 3.6 | 0.9 | 2.8 | 1.6 |
| | 4.2 | 62 | 7.9 | 0.5 | 7.1 | 1.8 | 3.8 | 0.6 | 3.0 | 1.2 |
| | 9.1 | 3 | 6.7 | 2.3 | 8.0 | 0.0 | 4.0 | 0.0 | 2.3 | 0.6 |
| | 9.4 | 13 | 7.2 | 1.3 | 7.7 | 1.1 | 3.8 | 0.6 | 3.3 | 0.6 |

**Table C-6. 2013–14 RIAA: AAGSE Characteristics—Reading Grades 3–5**

| *spt* | *aagse* | *N* | *meanCS* | *stdCS* | *meanSP* | *stdSP* | *meanLA* | *stdLA* | *meanLI* | *stdLI* |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | 28 | 7.4 | 1.3 | 6.6 | 2.5 | 3.9 | 0.3 | 3.4 | 0.9 |
| | 1.1a | 36 | 7.9 | 0.5 | 6.4 | 2.2 | 4.0 | 0.2 | 3.2 | 1.4 |
| | 1.1b | 58 | 7.9 | 0.5 | 6.8 | 2.4 | 3.8 | 0.7 | 3.0 | 1.2 |
| | 1.1c | 75 | 7.9 | 0.5 | 6.7 | 2.0 | 3.8 | 0.4 | 2.4 | 1.5 |
| | 1.2 | 5 | 7.6 | 0.9 | 5.6 | 2.2 | 3.8 | 0.4 | 3.4 | 0.9 |
| | 1.3 | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.8 | 0.5 |
| | 1.4 | 18 | 7.9 | 0.5 | 6.9 | 1.8 | 4.0 | 0.0 | 3.7 | 0.6 |
| | 1.5 | 86 | 7.7 | 0.8 | 6.2 | 2.5 | 3.9 | 0.5 | 3.4 | 0.9 |
| | 1.6 | 4 | 8.0 | 0.0 | 7.0 | 2.0 | 4.0 | 0.0 | 3.8 | 0.5 |
| | 1.7 | 12 | 7.3 | 1.0 | 7.0 | 1.8 | 3.9 | 0.3 | 3.8 | 0.5 |
| | 2.1 | 26 | 7.8 | 0.7 | 6.5 | 2.3 | 3.9 | 0.3 | 2.0 | 1.7 |
| | 2.2 | 16 | 7.9 | 0.5 | 5.8 | 2.0 | 3.9 | 0.5 | 3.2 | 0.8 |
| 354 | 2.3 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 2.3a | 0 | | | | | | | | |
| | 2.3b | 6 | 7.3 | 1.0 | 6.0 | 2.2 | 3.3 | 1.6 | 2.5 | 1.5 |
| | 3.1 | 5 | 8.0 | 0.0 | 5.6 | 2.2 | 4.0 | 0.0 | 3.6 | 0.5 |
| | 3.2 | 17 | 7.5 | 0.9 | 7.1 | 1.7 | 3.7 | 0.6 | 2.4 | 1.3 |
| | 3.3 | 5 | 7.6 | 0.9 | 7.2 | 1.8 | 3.2 | 1.8 | 3.0 | 1.7 |
| | 3.3a | 54 | 8.0 | 0.0 | 6.5 | 2.4 | 3.9 | 0.5 | 3.1 | 1.5 |
| | 3.3b | 28 | 7.9 | 0.4 | 7.3 | 1.9 | 3.9 | 0.3 | 3.2 | 1.1 |
| | 3.4 | 6 | 7.0 | 1.7 | 5.3 | 2.1 | 3.8 | 0.4 | 3.0 | 1.3 |
| | 3.4a | 69 | 7.9 | 0.4 | 7.5 | 1.5 | 3.9 | 0.3 | 3.4 | 0.9 |
| | 3.4b | 8 | 7.8 | 0.7 | 6.0 | 2.1 | 4.0 | 0.0 | 2.9 | 0.8 |
| | 3.4c | 16 | 7.9 | 0.5 | 6.5 | 2.5 | 3.9 | 0.3 | 3.3 | 1.2 |
| | 3.5 | 99 | 8.0 | 0.3 | 7.0 | 1.9 | 3.9 | 0.4 | 3.3 | 1.0 |
| | 4.1 | 12 | 7.5 | 0.9 | 5.3 | 3.1 | 4.0 | 0.0 | 2.2 | 1.9 |
| | 4.1a | 95 | 7.8 | 0.6 | 6.7 | 2.3 | 3.9 | 0.2 | 2.9 | 1.3 |
| | 4.1b | 53 | 7.8 | 0.6 | 6.6 | 2.3 | 3.8 | 0.4 | 2.7 | 1.5 |
| | 4.2 | 106 | 7.8 | 0.7 | 6.7 | 2.3 | 3.9 | 0.6 | 2.8 | 1.5 |
| | 4.3 | 104 | 7.9 | 0.4 | 6.9 | 2.1 | 3.8 | 0.4 | 3.2 | 0.9 |
| | 4.4 | 31 | 7.7 | 0.7 | 6.6 | 1.9 | 3.5 | 1.4 | 2.5 | 1.6 |
| | 4.5 | 0 | | | | | | | | |
| | 4.6 | 0 | | | | | | | | |
| 355 | 5.1 | 30 | 8.0 | 0.0 | 6.5 | 2.0 | 3.9 | 0.4 | 3.0 | 1.2 |
| | 5.1a | 1 | 8.0 | | 8.0 | | 4.0 | | 2.0 | |
| | 5.2 | 8 | 8.0 | 0.0 | 8.0 | 0.0 | 3.9 | 0.4 | 3.5 | 0.5 |
| | 5.2a | 55 | 7.9 | 0.5 | 7.2 | 1.6 | 3.8 | 0.8 | 2.6 | 1.5 |
| | 5.2b | 24 | 7.9 | 0.4 | 7.3 | 1.5 | 3.9 | 0.3 | 3.3 | 1.0 |
| | 5.3 | 6 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.7 | 0.5 |
| | 5.4 | 2 | 8.0 | 0.0 | 6.0 | 2.8 | 4.0 | 0.0 | 2.5 | 0.7 |
| | 5.5 | 20 | 8.0 | 0.0 | 7.8 | 0.9 | 3.8 | 0.5 | 3.2 | 1.0 |
| | 6.1 | 11 | 8.0 | 0.0 | 8.0 | 0.0 | 3.6 | 0.5 | 3.4 | 0.7 |
| | 7.1 | 0 | | | | | | | | |
| | 7.1a | 0 | | | | | | | | |
| 356 | 7.1b | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 7.2 | 5 | 8.0 | 0.0 | 7.2 | 1.8 | 4.0 | 0.0 | 3.4 | 0.5 |
| | 7.3 | 40 | 7.8 | 0.8 | 6.7 | 2.1 | 3.8 | 0.5 | 3.3 | 0.9 |
| | 7.3a | 21 | 7.9 | 0.4 | 7.2 | 1.6 | 3.8 | 0.4 | 3.1 | 1.0 |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 7.4 | 0 | | | | | | | | |
| | 7.5 | 14 | 8.0 | 0.0 | 6.9 | 1.9 | 3.9 | 0.3 | 3.2 | 1.1 |
| | 8.1 | 34 | 7.9 | 0.5 | 6.8 | 1.8 | 3.9 | 0.4 | 3.5 | 0.7 |
| 356 | 8.1a | 1 | 8.0 | | 8.0 | | 4.0 | | 1.0 | |
| | 8.2 | 0 | | | | | | | | |
| | 8.3 | 0 | | | | | | | | |
| | 8.4 | 0 | | | | | | | | |

**Table C-7. 2013–14 RIAA: AAGSE Characteristics—Reading Grades 6–7**

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | 48 | 7.9 | 0.6 | 7.6 | 1.2 | 3.7 | 0.7 | 3.3 | 1.0 |
| | 1.1a | 5 | 8.0 | 0.0 | 6.4 | 2.2 | 3.8 | 0.4 | 1.4 | 1.7 |
| | 1.1b | 31 | 7.7 | 0.9 | 7.0 | 2.3 | 3.5 | 0.7 | 3.1 | 1.2 |
| | 1.1c | 42 | 7.6 | 1.1 | 6.2 | 2.4 | 3.9 | 0.4 | 3.0 | 1.2 |
| | 1.2 | 2 | 4.0 | 0.0 | 6.0 | 2.8 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 1.3 | 2 | 6.0 | 2.8 | 8.0 | 0.0 | 4.0 | 0.0 | 2.5 | 0.7 |
| | 1.4 | 4 | 8.0 | 0.0 | 7.0 | 2.0 | 3.8 | 0.5 | 3.0 | 2.0 |
| | 1.5 | 56 | 7.6 | 0.9 | 7.0 | 1.9 | 3.9 | 0.6 | 3.2 | 0.9 |
| | 1.6 | 15 | 7.9 | 0.5 | 6.9 | 1.8 | 3.7 | 0.6 | 3.5 | 0.6 |
| | 1.7 | 10 | 6.4 | 1.8 | 7.6 | 1.3 | 3.8 | 0.6 | 3.7 | 0.7 |
| | 1.7a | 0 | | | | | | | | |
| | 1.7b | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 1.7c | 0 | | | | | | | | |
| | 2.1 | 17 | 8.0 | 0.0 | 7.1 | 1.7 | 3.5 | 0.6 | 2.9 | 1.1 |
| | 2.2 | 13 | 7.4 | 1.0 | 6.8 | 1.9 | 3.5 | 1.1 | 3.4 | 1.3 |
| 674 | 2.3 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.0 | 1.7 |
| | 2.3a | 0 | | | | | | | | |
| | 2.3b | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.3 | 1.7 |
| | 2.3c | 5 | 7.6 | 0.9 | 7.2 | 1.8 | 3.2 | 1.8 | 2.4 | 1.5 |
| | 3.1 | 4 | 8.0 | 0.0 | 5.0 | 2.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 3.2 | 13 | 7.8 | 0.6 | 7.4 | 2.2 | 3.6 | 1.1 | 2.9 | 1.4 |
| | 3.3 | 11 | 6.9 | 1.0 | 5.8 | 2.8 | 3.9 | 0.3 | 2.6 | 1.4 |
| | 3.3a | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.8 | 0.5 |
| | 3.3b | 6 | 8.0 | 0.0 | 7.3 | 1.6 | 3.8 | 0.4 | 3.8 | 0.4 |
| | 3.4 | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 3.4a | 47 | 7.9 | 0.5 | 6.9 | 2.2 | 3.8 | 0.6 | 3.3 | 1.1 |
| | 3.4b | 5 | 8.0 | 0.0 | 7.2 | 1.8 | 4.0 | 0.0 | 2.0 | 1.2 |
| | 3.4c | 25 | 7.9 | 0.4 | 7.7 | 1.1 | 3.6 | 0.9 | 3.2 | 1.0 |
| | 3.5 | 88 | 7.9 | 0.5 | 7.1 | 2.0 | 3.9 | 0.3 | 3.5 | 0.9 |
| | 3.6 | 4 | 7.5 | 1.0 | 6.0 | 2.3 | 4.0 | 0.0 | 3.5 | 1.0 |
| | 3.7 | 0 | | | | | | | | |
| | 4.1 | 5 | 8.0 | 0.0 | 8.0 | 0.0 | 3.4 | 0.9 | 3.2 | 0.8 |
| | 4.1a | 45 | 8.0 | 0.3 | 7.1 | 1.9 | 3.6 | 0.7 | 3.3 | 1.0 |
| 675 | 4.1b | 9 | 8.0 | 0.0 | 8.0 | 0.0 | 3.9 | 0.3 | 2.8 | 1.5 |
| | 4.1c | 12 | 8.0 | 0.0 | 7.7 | 1.2 | 3.6 | 0.5 | 2.3 | 1.6 |
| | 4.1d | 2 | 8.0 | 0.0 | 6.0 | 2.8 | 4.0 | 0.0 | 3.0 | 0.0 |
| | 4.2 | 74 | 7.7 | 0.8 | 6.8 | 2.3 | 3.7 | 0.7 | 3.1 | 1.2 |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 4.3 | 66 | 7.8 | 0.8 | 7.0 | 1.7 | 3.8 | 0.4 | 3.2 | 1.1 |
| | 4.4 | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 3.5 | 0.7 | 2.5 | 0.7 |
| | 4.5 | 0 | | | | | | | | |
| | 4.6 | 0 | | | | | | | | |
| | 5.1 | 15 | 7.9 | 0.5 | 7.5 | 1.4 | 3.8 | 0.6 | 3.3 | 1.0 |
| | 5.1a | 1 | 8.0 | | 0.0 | | 4.0 | | 4.0 | |
| | 5.1b | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.0 | 1.4 |
| | 5.2 | 10 | 8.0 | 0.0 | 7.6 | 1.3 | 4.0 | 0.0 | 2.6 | 1.0 |
| 675 | 5.2a | 35 | 7.8 | 0.6 | 6.6 | 1.9 | 3.6 | 0.8 | 2.9 | 1.4 |
| | 5.2b | 25 | 7.9 | 0.4 | 7.5 | 1.3 | 3.7 | 0.9 | 3.4 | 1.3 |
| | 5.3 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 5.4 | 0 | | | | | | | | |
| | 5.4a | 0 | | | | | | | | |
| | 5.4b | 0 | | | | | | | | |
| | 5.6 | 0 | | | | | | | | |
| | 6.1 | 5 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.8 | 0.4 |
| | 6.2 | 0 | | | | | | | | |
| | 7.1 | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 7.1a | 1 | 8.0 | | 4.0 | | 4.0 | | 4.0 | |
| | 7.1b | 0 | | | | | | | | |
| | 7.2 | 13 | 8.0 | 0.0 | 7.1 | 2.4 | 4.0 | 0.0 | 2.9 | 1.1 |
| | 7.3 | 30 | 7.8 | 0.6 | 7.1 | 1.7 | 3.8 | 0.8 | 3.3 | 1.1 |
| | 7.3a | 10 | 7.8 | 0.6 | 6.8 | 1.9 | 3.6 | 1.3 | 3.2 | 1.4 |
| | 7.4 | 0 | | | | | | | | |
| 676 | 7.5 | 20 | 7.7 | 1.0 | 6.8 | 2.3 | 3.6 | 1.2 | 2.9 | 1.4 |
| | 7.6 | 6 | 7.7 | 0.8 | 6.0 | 2.2 | 4.0 | 0.0 | 3.3 | 1.2 |
| | 8.1 | 13 | 7.7 | 1.1 | 6.5 | 2.6 | 3.7 | 0.6 | 3.3 | 1.3 |
| | 8.1a | 18 | 7.9 | 0.5 | 7.6 | 1.3 | 3.9 | 0.5 | 3.2 | 1.2 |
| | 8.2 | 0 | | | | | | | | |
| | 8.3 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.7 | 0.6 |
| | 8.4 | 7 | 8.0 | 0.0 | 7.4 | 1.5 | 3.9 | 0.4 | 3.6 | 0.8 |

**Table C-8. 2013–14 RIAA: AAGSE Characteristics—Reading Grades 10**

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | 9 | 7.8 | 0.7 | 7.1 | 1.8 | 3.7 | 0.5 | 3.7 | 0.7 |
| | 1.1b | 7 | 7.4 | 1.0 | 5.1 | 3.8 | 3.4 | 1.5 | 2.3 | 1.8 |
| | 1.1c | 45 | 7.6 | 0.9 | 6.2 | 2.8 | 3.9 | 0.6 | 2.8 | 1.4 |
| | 1.4 | 0 | | | | | | | | |
| | 1.5 | 34 | 7.5 | 1.2 | 7.9 | 0.7 | 3.9 | 0.2 | 3.6 | 0.7 |
| | 1.6 | 0 | | | | | | | | |
| 104 | 1.7 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 1.7a | 1 | 8.0 | | 4.0 | | 4.0 | | 1.0 | |
| | 1.7b | 1 | 8.0 | | 8.0 | | 4.0 | | 2.0 | |
| | 1.7c | 0 | | | | | | | | |
| | 2.1 | 9 | 7.6 | 0.9 | 6.7 | 2.0 | 3.9 | 0.3 | 2.9 | 1.2 |
| | 2.2 | 4 | 8.0 | 0.0 | 6.0 | 2.3 | 3.8 | 0.5 | 3.5 | 1.0 |
| | 2.3 | 0 | | | | | | | | |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| 104 | 2.3a | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 2.3b | 0 | | | | | | | | |
| | 2.3c | 21 | 7.6 | 1.0 | 6.3 | 3.0 | 4.0 | 0.0 | 3.5 | 0.8 |
| | 3.1 | 1 | 8.0 | | 8.0 | | 4.0 | | 3.0 | |
| | 3.2 | 7 | 7.7 | 0.8 | 4.6 | 2.8 | 3.9 | 0.4 | 2.1 | 1.5 |
| | 3.3 | 5 | 6.8 | 1.1 | 5.6 | 2.2 | 4.0 | 0.0 | 3.6 | 0.5 |
| | 3.3a | 3 | 8.0 | 0.0 | 5.3 | 2.3 | 4.0 | 0.0 | 3.3 | 0.6 |
| | 3.3b | 1 | 8.0 | | 8.0 | | 4.0 | | 3.0 | |
| | 3.4 | 0 | | | | | | | | |
| | 3.4a | 39 | 7.8 | 0.5 | 7.6 | 1.2 | 3.9 | 0.3 | 3.5 | 0.9 |
| | 3.4b | 0 | | | | | | | | |
| | 3.4c | 5 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.8 | 1.1 |
| | 3.5 | 47 | 7.7 | 0.9 | 6.6 | 1.9 | 3.9 | 0.3 | 3.6 | 0.9 |
| | 3.6 | 0 | | | | | | | | |
| | 3.7 | 3 | 6.7 | 1.2 | 5.3 | 2.3 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 3.8 | 0 | | | | | | | | |
| 105 | 4.1 | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 4.1a | 25 | 7.7 | 0.7 | 6.9 | 2.5 | 4.0 | 0.2 | 3.2 | 1.3 |
| | 4.1b | 1 | 8.0 | | 4.0 | | 2.0 | | 2.0 | |
| | 4.1c | 1 | 8.0 | | 4.0 | | 3.0 | | 1.0 | |
| | 4.1d | 0 | | | | | | | | |
| | 4.2 | 50 | 7.6 | 0.9 | 6.0 | 2.5 | 3.8 | 0.8 | 3.2 | 1.3 |
| | 4.3 | 47 | 7.5 | 1.0 | 6.7 | 2.2 | 3.5 | 1.0 | 3.0 | 1.2 |
| | 4.4 | 0 | | | | | | | | |
| | 4.5 | 0 | | | | | | | | |
| | 4.6 | 0 | | | | | | | | |
| | 5.1 | 0 | | | | | | | | |
| | 5.1a | 0 | | | | | | | | |
| | 5.1b | 0 | | | | | | | | |
| | 5.1c | 0 | | | | | | | | |
| | 5.2 | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 3.7 | 0.6 | 4.0 | 0.0 |
| | 5.2a | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.0 | 1.0 |
| | 5.2b | 0 | | | | | | | | |
| | 5.2c | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.5 | 1.3 |
| | 5.2d | 0 | | | | | | | | |
| | 5.2e | 0 | | | | | | | | |
| | 5.3 | 0 | | | | | | | | |
| | 5.3a | 0 | | | | | | | | |
| | 5.4 | 0 | | | | | | | | |
| | 5.4a | 0 | | | | | | | | |
| | 5.4b | 0 | | | | | | | | |
| | 5.6 | 0 | | | | | | | | |
| | 6.1 | 8 | 7.0 | 1.1 | 3.5 | 2.6 | 3.6 | 0.5 | 2.5 | 1.3 |
| | 6.2 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| 106 | 7.1 | 6 | 8.0 | 0.0 | 6.7 | 2.1 | 4.0 | 0.0 | 3.3 | 0.8 |
| | 7.1a | 0 | | | | | | | | |
| | 7.1b | 0 | | | | | | | | |
| | 7.1c | 0 | | | | | | | | |
| | 7.2 | 9 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.7 | 0.7 |
| | 7.3 | 23 | 7.9 | 0.4 | 7.3 | 1.6 | 4.0 | 0.0 | 2.9 | 1.3 |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| 106 | 7.3a | 10 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.7 | 0.5 |
| | 7.4 | 0 | | | | | | | | |
| | 7.5 | 17 | 8.0 | 0.0 | 7.5 | 1.3 | 3.8 | 0.4 | 3.3 | 0.8 |
| | 7.6 | 3 | 6.7 | 1.2 | 5.3 | 2.3 | 1.3 | 2.3 | 1.0 | 1.7 |
| | 8.1 | 13 | 7.7 | 0.8 | 6.2 | 3.1 | 3.9 | 0.3 | 2.7 | 1.7 |
| | 8.1a | 7 | 7.7 | 0.8 | 6.9 | 2.0 | 4.0 | 0.0 | 2.3 | 1.7 |
| | 8.2 | 0 | | | | | | | | |
| | 8.3 | 0 | | | | | | | | |
| | 8.4 | 3 | 8.0 | 0.0 | 6.7 | 2.3 | 3.7 | 0.6 | 4.0 | 0.0 |

**Table C-9. 2013–14 RIAA: AAGSE Characteristics—Science**

| Grade | spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 044 | I | 7 | 7.1 | 2.3 | 6.9 | 2.0 | 4.0 | 0.0 | 2.7 | 1.4 |
| | | K | 33 | 6.8 | 2.0 | | | 3.6 | 0.5 | 2.4 | 1.3 |
| | 045 | I | 65 | 7.1 | 1.6 | 6.5 | 2.5 | 3.8 | 0.8 | 2.4 | 1.4 |
| | | K | 78 | 7.2 | 1.4 | | | 3.8 | 0.4 | 2.5 | 1.1 |
| 8 | 081 | I | 25 | 7.8 | 0.9 | 5.8 | 2.8 | 4.0 | 0.2 | 3.7 | 0.8 |
| | | K | 29 | 7.9 | 0.5 | | | 3.8 | 0.4 | 3.3 | 0.9 |
| | 082 | I | 43 | 7.3 | 1.6 | 6.5 | 2.5 | 3.8 | 0.7 | 2.7 | 1.4 |
| | | K | 60 | 6.8 | 2.2 | | | 3.8 | 0.4 | 2.8 | 1.1 |
| 11 | 111 | I | 55 | 7.0 | 1.2 | 6.0 | 2.2 | 3.4 | 1.3 | 2.8 | 1.5 |
| | | K | 69 | 7.1 | 1.6 | | | 3.7 | 0.6 | 2.8 | 1.0 |
| | 112 | I | 9 | 7.1 | 1.5 | 5.8 | 2.1 | 3.9 | 0.3 | 3.9 | 0.3 |
| | | K | 15 | 7.6 | 0.8 | | | 3.7 | 0.5 | 3.2 | 0.8 |

**Table C-10. 2013–14 RIAA: AAGSE Characteristics—Writing Grade 4**

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| 041 | 1.1 | 51 | 7.9 | 0.4 | 7.1 | 1.7 | 4.0 | 0.2 | 2.7 | 1.3 |
| | 1.2 | 13 | 7.8 | 0.6 | 6.2 | 2.1 | 3.5 | 1.1 | 2.2 | 1.9 |
| | 1.3 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 1.3a | 4 | 7.5 | 1.0 | 7.0 | 2.0 | 4.0 | 0.0 | 3.3 | 0.5 |
| | 1.4 | 1 | 8.0 | | 8.0 | | 4.0 | | 2.0 | |
| | 1.4a | 19 | 7.8 | 0.9 | 6.7 | 2.7 | 3.9 | 0.2 | 2.3 | 1.4 |
| | 1.4b | 4 | 8.0 | 0.0 | 7.0 | 2.0 | 4.0 | 0.0 | 2.8 | 1.0 |
| | 1.5 | 19 | 7.9 | 0.5 | 7.4 | 1.5 | 3.9 | 0.2 | 2.8 | 1.2 |
| | 9.1 | 19 | 7.5 | 1.1 | 5.7 | 2.4 | 3.8 | 0.5 | 3.2 | 1.5 |
| | 9.1a | 30 | 7.7 | 0.9 | 5.6 | 2.9 | 3.9 | 0.3 | 2.1 | 1.4 |
| | 9.2 | 12 | 7.3 | 1.3 | 7.0 | 1.8 | 3.3 | 1.4 | 3.0 | 1.3 |
| | 9.3 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 9.3a | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.0 | 0.0 |
| | 9.3b | 14 | 7.6 | 1.2 | 7.1 | 1.7 | 3.9 | 0.4 | 3.1 | 0.7 |
| | 9.4 | 8 | 7.8 | 0.7 | 7.5 | 1.4 | 4.0 | 0.0 | 3.9 | 0.4 |
| | 9.4a | 21 | 7.8 | 0.9 | 7.4 | 1.4 | 4.0 | 0.2 | 3.2 | 1.2 |
| 042 | 2.1 | 1 | 8.0 | | 8.0 | | 3.0 | | 4.0 | |
| | 2.1a | 50 | 7.8 | 0.5 | 6.7 | 2.3 | 3.9 | 0.6 | 3.0 | 1.2 |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2.1b | 23 | 7.7 | 0.7 | 6.4 | 2.0 | 3.7 | 0.9 | 1.9 | 1.3 |
| | 2.1c | 23 | 7.9 | 0.4 | 5.9 | 2.7 | 4.0 | 0.2 | 3.1 | 1.1 |
| | 2.2 | 13 | 7.5 | 0.9 | 7.1 | 1.8 | 3.9 | 0.3 | 3.5 | 0.8 |
| 042 | 3.1 | 28 | 7.8 | 0.6 | 6.9 | 2.1 | 3.8 | 0.8 | 2.7 | 1.3 |
| | 3.2 | 5 | 8.0 | 0.0 | 1.6 | 3.6 | 4.0 | 0.0 | 2.4 | 2.2 |
| | 3.3 | 23 | 7.9 | 0.4 | 6.8 | 2.5 | 4.0 | 0.2 | 2.7 | 1.5 |
| | 3.4 | 22 | 7.9 | 0.4 | 7.6 | 1.2 | 3.8 | 0.9 | 2.8 | 1.3 |
| | 2.1 | 0 | | | | | | | | |
| | 2.1a | 6 | 8.0 | 0.0 | 6.0 | 2.2 | 4.0 | 0.0 | 2.8 | 1.6 |
| | 2.1b | 10 | 8.0 | 0.0 | 7.2 | 1.7 | 3.9 | 0.3 | 3.1 | 1.1 |
| | 2.1c | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 2.0 | 2.8 |
| 043 | 2.2 | 3 | 8.0 | 0.0 | 5.3 | 2.3 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 3.1 | 6 | 8.0 | 0.0 | 7.3 | 1.6 | 4.0 | 0.0 | 2.7 | 1.6 |
| | 3.2 | 0 | | | | | | | | |
| | 3.3 | 4 | 8.0 | 0.0 | 6.0 | 2.3 | 3.3 | 0.5 | 2.3 | 1.7 |
| | 3.4 | 1 | 8.0 | | 8.0 | | 4.0 | | 1.0 | |

**Table C-11. 2013–14 RIAA: AAGSE Characteristics—Writing Grade 7**

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1.1 | 59 | 7.6 | 0.8 | 6.6 | 2.2 | 3.8 | 0.4 | 2.9 | 1.2 |
| | 1.2 | 9 | 7.8 | 0.7 | 4.0 | 3.5 | 3.6 | 0.9 | 1.8 | 1.7 |
| | 1.3 | 0 | | | | | | | | |
| | 1.3a | 1 | 8.0 | | 8.0 | | 3.0 | | 3.0 | |
| | 1.3b | 0 | | | | | | | | |
| | 1.4 | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 3.8 | 0.5 | 3.0 | 0.8 |
| | 1.4a | 21 | 7.8 | 0.6 | 7.0 | 2.2 | 3.8 | 0.6 | 2.7 | 1.4 |
| | 1.4b | 10 | 8.0 | 0.0 | 7.2 | 1.7 | 3.8 | 0.4 | 2.9 | 1.7 |
| | 1.4c | 1 | 6.0 | | 8.0 | | 4.0 | | 3.0 | |
| | 1.5 | 28 | 7.7 | 0.7 | 7.3 | 1.9 | 3.8 | 0.8 | 2.9 | 1.3 |
| | 1.5a | 8 | 8.0 | 0.0 | 7.5 | 1.4 | 3.9 | 0.4 | 3.4 | 0.7 |
| 071 | 9.1 | 11 | 7.5 | 1.3 | 6.9 | 2.6 | 3.9 | 0.3 | 3.7 | 0.9 |
| | 9.1a | 20 | 7.1 | 1.5 | 6.8 | 2.9 | 4.0 | 0.2 | 2.8 | 1.7 |
| | 9.2 | 22 | 7.6 | 0.8 | 7.3 | 2.0 | 4.0 | 0.2 | 3.4 | 0.9 |
| | 9.3 | 12 | 8.0 | 0.0 | 7.3 | 1.6 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 9.3a | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 3.3 | 0.6 | 3.0 | 1.0 |
| | 9.3b | 10 | 7.8 | 0.6 | 8.0 | 0.0 | 3.6 | 0.5 | 3.5 | 0.5 |
| | 9.3c | 0 | | | | | | | | |
| | 9.4 | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 3.8 | 0.5 | 3.8 | 0.5 |
| | 9.4a | 11 | 7.3 | 1.0 | 5.8 | 3.3 | 3.8 | 0.4 | 2.7 | 1.5 |
| | 9.5 | 0 | | | | | | | | |
| | 9.5a | 3 | 8.0 | 0.0 | 8.0 | 0.0 | 3.7 | 0.6 | 4.0 | 0.0 |
| | 9.5b | 1 | 8.0 | | 8.0 | | 4.0 | | 3.0 | |
| | 4.1 | 14 | 7.7 | 0.7 | 6.6 | 2.0 | 3.7 | 1.1 | 3.6 | 1.1 |
| | 4.1a | 39 | 8.0 | 0.0 | 7.7 | 1.4 | 3.9 | 0.2 | 3.1 | 1.2 |
| 072 | 4.1b | 4 | 8.0 | 0.0 | 7.0 | 2.0 | 4.0 | 0.0 | 3.5 | 0.6 |
| | 4.2 | 43 | 7.8 | 0.6 | 7.5 | 1.3 | 3.9 | 0.3 | 3.1 | 1.1 |
| | 4.3 | 0 | | | | | | | | |

continued

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| 072 | 5.1 | 51 | 7.8 | 0.5 | 7.5 | 1.4 | 3.9 | 0.3 | 3.2 | 1.1 |
| | 5.2 | 19 | 7.7 | 0.7 | 6.3 | 2.4 | 3.8 | 0.5 | 3.3 | 0.9 |
| | 5.3 | 16 | 7.9 | 0.5 | 7.0 | 2.3 | 3.8 | 0.4 | 2.9 | 1.4 |
| 073 | 4.1 | 7 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.1 | 0.7 |
| | 4.1a | 12 | 7.7 | 0.8 | 7.0 | 1.8 | 3.9 | 0.3 | 2.5 | 1.4 |
| | 4.1b | 0 | | | | | | | | |
| | 4.2 | 18 | 7.9 | 0.5 | 7.1 | 1.7 | 4.0 | 0.0 | 2.8 | 1.4 |
| | 4.3 | 0 | | | | | | | | |
| | 5.1 | 16 | 7.9 | 0.5 | 7.8 | 1.0 | 3.9 | 0.3 | 3.1 | 1.0 |
| | 5.2 | 0 | | | | | | | | |
| | 5.3 | 5 | 8.0 | 0.0 | 6.4 | 2.2 | 3.6 | 0.5 | 3.8 | 0.4 |

**Table C-12. 2013–14 RIAA: AAGSE Characteristics—Writing Grade 10**

| spt | aagse | N | meanCS | stdCS | meanSP | stdSP | meanLA | stdLA | meanLI | stdLI |
|---|---|---|---|---|---|---|---|---|---|---|
| 107 | 1.1 | 41 | 7.6 | 0.9 | 6.3 | 2.4 | 4.0 | 0.2 | 2.8 | 1.3 |
| | 1.2 | 9 | 7.8 | 0.7 | 6.2 | 2.1 | 3.6 | 1.0 | 1.7 | 1.7 |
| | 1.3 | 1 | 8.0 | | 4.0 | | 4.0 | | 4.0 | |
| | 1.3a | 4 | 8.0 | 0.0 | 8.0 | 0.0 | 3.8 | 0.5 | 3.0 | 0.0 |
| | 1.3b | 6 | 8.0 | 0.0 | 7.3 | 1.6 | 4.0 | 0.0 | 3.2 | 0.8 |
| | 1.4 | 0 | | | | | | | | |
| | 1.4a | 15 | 8.0 | 0.0 | 6.9 | 2.4 | 4.0 | 0.0 | 3.0 | 1.2 |
| | 1.4b | 13 | 6.6 | 1.3 | 5.2 | 2.5 | 3.7 | 0.9 | 2.8 | 1.5 |
| | 1.4c | 0 | | | | | | | | |
| | 1.5 | 12 | 8.0 | 0.0 | 7.7 | 1.2 | 4.0 | 0.0 | 3.2 | 1.6 |
| | 1.5a | 22 | 8.0 | 0.0 | 7.5 | 1.4 | 4.0 | 0.0 | 3.1 | 1.0 |
| | 1.5b | 10 | 7.4 | 1.0 | 6.8 | 1.9 | 3.8 | 0.4 | 3.3 | 0.9 |
| | 9.1 | 10 | 8.0 | 0.0 | 7.6 | 1.3 | 4.0 | 0.0 | 3.5 | 0.7 |
| | 9.1a | 18 | 6.7 | 1.9 | 6.7 | 2.4 | 3.8 | 0.9 | 2.7 | 1.5 |
| | 9.2 | 7 | 6.6 | 1.9 | 6.3 | 2.1 | 3.9 | 0.4 | 3.7 | 0.5 |
| | 9.3 | 12 | 8.0 | 0.0 | 7.7 | 1.2 | 4.0 | 0.0 | 3.6 | 0.7 |
| | 9.3a | 9 | 8.0 | 0.0 | 7.6 | 1.3 | 3.9 | 0.3 | 3.8 | 0.7 |
| | 9.3b | 23 | 7.9 | 0.4 | 6.8 | 2.2 | 4.0 | 0.0 | 3.7 | 0.5 |
| | 9.3c | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 9.4 | 8 | 8.0 | 0.0 | 6.0 | 3.0 | 4.0 | 0.0 | 3.3 | 1.0 |
| | 9.4a | 5 | 6.8 | 1.1 | 4.8 | 1.8 | 4.0 | 0.0 | 3.2 | 0.8 |
| | 9.5 | 7 | 6.0 | 1.2 | 5.7 | 2.1 | 3.4 | 1.1 | 4.0 | 0.0 |
| | 9.5a | 2 | 8.0 | 0.0 | 4.0 | 5.7 | 3.5 | 0.7 | 3.5 | 0.7 |
| | 9.5b | 4 | 8.0 | 0.0 | 7.0 | 2.0 | 4.0 | 0.0 | 3.8 | 0.5 |
| | 9.5c | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.5 | 0.7 |
| 108 | 6.1 | 64 | 7.9 | 0.4 | 7.5 | 1.5 | 3.9 | 0.3 | 3.1 | 1.1 |
| | 6.2 | 39 | 7.8 | 0.8 | 6.5 | 2.4 | 3.9 | 0.7 | 3.0 | 1.2 |
| | 6.3 | 44 | 7.8 | 0.7 | 6.6 | 2.4 | 4.0 | 0.2 | 3.1 | 1.2 |
| | 6.4 | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 6.4a | 17 | 7.4 | 0.9 | 4.9 | 3.3 | 3.9 | 0.2 | 2.6 | 1.7 |
| | 6.5 | 3 | 8.0 | 0.0 | 5.3 | 2.3 | 4.0 | 0.0 | 3.0 | 1.7 |
| | 6.6 | 0 | | | | | | | | |
| | 6.7 | 2 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 | 3.0 | 1.4 |

continued

| *spt* | *aagse* | *N* | *meanCS* | *stdCS* | *meanSP* | *stdSP* | *meanLA* | *stdLA* | *meanLI* | *stdLI* |
|---|---|---|---|---|---|---|---|---|---|---|
| | 7.1a | 0 | | | | | | | | |
| | 7.1b | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 4.0 | 0.0 |
| | 8.1 | 7 | 8.0 | 0.0 | 7.4 | 1.5 | 4.0 | 0.0 | 4.0 | 0.0 |
| 108 | 8.1a | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 8.1b | 0 | | | | | | | | |
| | 8.1c | 1 | 8.0 | | 8.0 | | 4.0 | | 4.0 | |
| | 8.1d | 6 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.7 | 0.5 |
| | 6.1 | 21 | 7.8 | 0.6 | 6.1 | 2.7 | 4.0 | 0.0 | 3.4 | 1.1 |
| | 6.2 | 9 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.7 | 0.7 |
| | 6.3 | 10 | 7.6 | 0.8 | 5.2 | 2.7 | 3.7 | 0.7 | 3.5 | 0.8 |
| | 6.4 | 0 | | | | | | | | |
| | 6.4a | 1 | 6.0 | | 4.0 | | 4.0 | | 4.0 | |
| | 6.5 | 0 | | | | | | | | |
| | 6.6 | 0 | | | | | | | | |
| 109 | 6.7 | 0 | | | | | | | | |
| | 7.1a | 0 | | | | | | | | |
| | 7.1b | 0 | | | | | | | | |
| | 8.1 | 0 | | | | | | | | |
| | 8.1a | 2 | 8.0 | 0.0 | 8.0 | 0.0 | 4.0 | 0.0 | 3.0 | 1.4 |
| | 8.1b | 8 | 8.0 | 0.0 | 7.5 | 1.4 | 4.0 | 0.0 | 3.8 | 0.5 |
| | 8.1c | 0 | | | | | | | | |
| | 8.1d | 7 | 7.7 | 0.8 | 4.0 | 3.3 | 3.4 | 1.5 | 2.6 | 1.4 |

# APPENDIX D—SCORE OF RECORD

**Score of Record**
**Rhode Island Alternate Assessment**
**Reporting 2013-2014**
**(Datafolios submitted spring 2014)**

This document details rules for determining the final score of record. The final student level data set used for analysis and reporting is described in the "Data Processing Specifications." This document is considered a draft until the Rhode Island State Department of Education (DOE) signs off. If there are rules that need to be added or modified after said sign-off, DOE sign off will be obtained for each rule. Details of these additions and modifications will be in the Addendum section.

A. Tests Administered

1. Reading administered at grades 02-07, and 10
2. Math administered at grades 02-07, and 10
3. Writing administered at grades 04,07, and 10
4. Science administered at grades 04,08, and 11
5. The student's test grade is defined to be the grade bubbled on the score form.
6. Final content area scores will be blank if the test should not have been administered based on grade, regardless if content area submitted in datafolio.

B. Final Entry Scores(for applicable grades)

1. Entry Submitted
    a. If grade is in the Tests Administered list then Y or N
    b. Otherwise, if grade is not in Test Administered list then blank.
    c. If scorer 3 Entry Submitted is Y or N, then Entry Submitted = scorer 3 Entry Submitted. Otherwise, Entry Submitted = scorer 1 Entry Submitted
2. Entry Scorable
    a. If Entry Submitted is N or blank, then blank
    b. If Entry Submitted is Y, then Y or N
    c. If Entry Submitted = Y, then if scorer 3 Entry Scorable is marked Y or N then Entry Scorable = scorer 3 Entry Scorable. Otherwise Entry Scorable = scorer 1 Entry Scoreable.
    d. Refer to Section C within this document for cases where Entry Scorable will be set to N based on analysis of SPT# and AAGSE#.
3. Connection to Strand
    a. If Entry Submitted is Y and Entry Scorable = Y, then Connection to Strand will be 2,4,6, or 8.
    b. Otherwise, Connection to Strand will be blank
    c. If Entry Submitted = Y and Entry Scorable = Y, then do the following
        I. If scorer 3 Connection to Strand is marked, then Connection to Strand = scorer 3 Connection to Strand,
        II. Else Connection to Strand = scorer 1 Connection to Strand
4. Student Progress (Not Applicable for Science Knowledge Entry)
    a. If Entry Submitted is Y and Entry Scorable = Y, then Student Progress will be 0, 4, or 8
    b. Otherwise, Student Progress will be blank

c. If Entry Submitted = Y and Entry Scorable = Y, then do the following

I. If scorer 3 Student Progress is marked, then Student Progress = scorer 3 Student Progress, else

II. Student Progress = scorer 1 Student Progress

5. Level of Accuracy

a. If Entry Submitted is Y and Entry Scorable = Y, then Level of Accuracy will be 0,1,2,3, or 4

b. Otherwise, Level of Accuracy will be blank

c. If Entry Submitted = Y and Entry Scorable = Y, then do the following

I. If scorer 3 Level of Accuracy is marked, then Level of Accuracy = scorer 3 Level of Accuracy

II. Else, Level of Accuracy = scorer 1 Level of Accuracy

6. Level of Independence

a. If Entry Submitted is Y and Entry Scorable = Y, then Level of Independence 0,1,2,3, or 4

b. Otherwise, Level of Independence will be blank

c. If Entry Submitted = Y and Entry Scorable = Y, then do the following

I. If scorer 3 Level of Independence is marked, then Level of Independence = scorer 3 Level of Independence, else

II. Level of Independence = scorer 1 Level of Independence

7. Comment Codes

a. If scorer 3 bubbled in Entry Submitted, Entry Scorable, Connection to Strand, Student Progress, Level of Accuracy, or Level of Independence then final comment codes are from scorer 3.

b. Otherwise if scorer 3 bubbled SPT/AGASE and scorer 3 marked comment codes then final comment codes from scorer 3

c. Otherwise final comment codes are from scorer 1 and scorer 2

C. Valid Final Strand, Domain (Science Only), SPT#, and AAGSE # Combinations and impact on Final Entry Scores

1. Reading, Math, and Writing

a. Program management will provide a lookup table in EXCEL listing valid SPT# and AAGSE # combinations by strand, subject, and gradespan

b. The files will also contain the text for SPT# and AAGSE #s for reporting

c. If scorer 3 SPT # is marked, then SPT # = scorer 3 SPT#, else SPT# = scorer 1 SPT #

d. If scorer 3 AAGSE # 1 {2} is marked, then AAGSE #1 {2} = scorer 3 AAGSE # 1 {2}, else AAGSE #1{2} = scorer 1 AAGSE # 1 {2}

e. If Entry Submitted 1 {2} is Y and SPT#/AAGSE # combination is not in the list of valid SPT# /AAGSE# by strand, subject, and gradespan, then Entry Scorable 1 {2} = N

f. If numeric portion of AAGSE # 1 = numeric portion of AAGSE # 2 and not blank, then set Entry Scorable 2 = N

g. If Entry Scorable 1 {2} = N or Entry Submitted 1{2} = N, then Connection to Strand, Student Progress, Level of Accuracy, Level of Independence = blank for entry 1 {2}

2. Science

a. Program management will provide lookup tables in EXCEL listing valid SPT# and Domain AAGSE # combinations by gradespan.

b. The files will also contain the text for SPT#, and Domain AAGSE # for reporting

c. Calculation of temporary Science SPT#, Domain AAGSE #1 {2} {3}

I. If scorer 3 SPT # is marked, then Science SPT # = scorer 3 SPT#, else Science SPT# = scorer 1 SPT #

II. If scorer 3 Domain 1 {2} {3} is marked, then Science Domain 1 {2} {3} = scorer 3 Domain 1 {2} {3}, else Science Domain 1{2}{3} = scorer 1 Domain 1 {2} {3}

III. If scorer 3 AAGSE # 1 {2} {3} is marked, then Science AAGSE #1 {2} {3} = scorer 3 AAGSE # 1 {2} {3}, else Science AAGSE #1{2}{3} = scorer 1 AAGSE # 1 {2} {3}

d. If the Science SPT#/AAGSE # 1 {2} {3} combination is not in the list of valid SPT# /AAGSE# codes based on gradespan, then the Domain # 1 {2} {3} is not valid.

e. If two or three distinct valid Science Domains (ESS,LS,PS) are not submitted then set Inquiry Entry Scorable = N and Knowledge Entry Scorable = N, when Inquiry Submitted = Y and Knowledge Entry Submitted = Y, respectively.

f. If Inquiry {Knowledge} Entry Scorable = N or Inquiry {Knowledge} Entry Submitted = N, then Connection to Strand, Student Progress, Level of Accuracy, Level of Independence = blank for Inquiry {Knowledge} entry.

g. Calculation of Inquiry SPT#, Domain#1 {2} {3}, AAGSE # {1},{2},{3}

I. If Inquiry Entry Submitted = Y, then Inquiry SPT #, Domain #1 {2} {3}, AAGSE #1 {2} {3} = Science Strand SPT, Domain #1 {2} {3}, AAGSE #1 {2} {3}

h. Calculation of Knowledge SPT#, Domain#1 {2} {3}, AAGSE # {1},{2},{3}

I. If Knowledge Entry submitted = Y, then Knowledge Strand SPT#, Domain #1 {2} {3} , AAGSE #1 {2} {3} = Science Strand SPT, Domain AAGSE #1 {2} {3}

D. Student Participation Status

1. A student participated in the content area if at least one Entry Submitted = Y for the content area

2. Each student that did not participate will be assigned a not tested code for the content area as specified in the analysis and reporting decision rules.

# APPENDIX E—SAMPLE REPORTS

# *Rhode Island Alternate Assessment*
# *Student Score Report 2013-2014*

Alternate Assessment datafolios assessed students in grades 2, 3, 4, 5, 6, 7, and 10 in Reading and Mathematics. Students in grades 4, 7, and 10 were also assessed in Writing. Students in grades 4, 8, and 11 were assessed in Science. Evidence of student work was collected in three distinct data collection periods: September 30 – November 14, 2013, January 6 – January 31, 2014, and March 3 – April 4, 2014

**Student:** Ryan Dulieu
**Grade:** 02
**School:** Demonstration School 2
**District:** Demonstration District A

## Mathematics

| | Dimensions | | | |
|---|---|---|---|---|
| | Connection to the Content Strand | Student Progress | Level of Accuracy | Level of Independence |
| **Numbers and Operations** | | | | |
| The student demonstrates the knowledge and/or skills in the Mathematics AAGSE within a standards-based activity. | | | | |
| NO1.1a - Identify or label a small collection of up to "four" items with a number symbol/word (e.g., point to a collection of up to 4 items). | 8 | 4 | 4 | 2 |
| NO1.3 - Use the counting sequence to demonstrate one-to-one correspondence between objects and counting words/symbols (e.g., one/1). | 8 | 8 | 4 | 3 |
| **Geometry and Measurement** | | | | |
| The student demonstrates the knowledge and/or skills in the Mathematics AAGSE within a standards-based activity. | | | | |
| GM8.2a - Use calendars to determine passage of time (e.g., how many more days until…?). | 8 | 8 | 4 | 2 |
| GM9.2 - Create and use simple maps. | 8 | 8 | 4 | 3 |
| **Total Mathematics Dimension Scores** | **32** | **28** | **16** | **10** |
| **Achievement Level** | **Proficient with Distinction** | | | |

## Reading

| | | | | |
|---|---|---|---|---|
| **Word Identification Skills, Vocabulary Strategies, and Breadth of Vocabulary** | | | | |
| The student demonstrates the knowledge and/or skills in the Reading AAGSE within a standards-based activity. | | | | |
| WID1.1a - Student applies text identification and/or decoding strategies by identifying pictures/symbols/objects/words that represent self and others. | 8 | 8 | 4 | 2 |
| WID1.5 - Student applies text identification and/or decoding strategies by reading high-frequency words (e.g., names, and sight words). | 8 | 4 | 4 | 3 |
| **Early Reading Strategies of Literary Text** | | | | |
| The student demonstrates the knowledge and/or skills in the Reading AAGSE within a standards-based activity. | | | | |
| ER10.4 - Demonstrates awareness of concepts of print during shared and individual reading by identifying key features of a book. | 8 | 8 | 4 | 3 |
| LT4.2 - Student demonstrates initial understanding of elements of literary texts (including text read aloud, reading text independently, or in a guided manner) by answering simple questions about a story's content. | 8 | 4 | 4 | 3 |
| **Total Reading Dimension Scores** | **32** | **24** | **16** | **11** |
| **Achievement Level** | **Proficient with Distinction** | | | |

AAGSE = Alternate Assessment Grade Span Expectation S = State approved special consideration § = Datafolio was submitted but every entry was unscorable
Not Tested, Other = No entries submitted L = Student is First Year LEP in Reading and Writing

# Alternate Assessment Achievement Level Descriptions For Grade 2

## Mathematics

**Proficient with Distinction: Students performing at this level submitted datafolios that demonstrate**

- a high level of accuracy on instructional activities aligned with the grade span Numbers and Operations and Geometry and Measurement Alternate Assessment Grade Span Expectations (AAGSEs)
- a high level of independence on instructional activities aligned with the grade span AAGSEs
- consistent progress in applying knowledge and skills of the grade span AAGSEs during the year
- a high ability to apply knowledge and skills of the grade span AAGSEs across multiple instructional activities

**Proficient: Students performing at this level submitted datafolios that demonstrate**

- an adequate level of accuracy on instructional activities aligned with the grade span Numbers and Operations and Geometry and Measurement Alternate Assessment Grade Span Expectations (AAGSEs)
- an adequate level of independence on instructional activities aligned with the grade span AAGSEs
- consistent progress in applying knowledge and skills of the grade span AAGSEs during the year
- an adequate ability to apply knowledge and skills of the grade span AAGSEs across multiple instructional activities

**Partially Proficient: Students performing at this level submitted datafolios that demonstrate**

- a minimal level of accuracy on instructional activities aligned with the grade span Numbers and Operations and Geometry and Measurement Alternate Assessment Grade Span Expectations (AAGSEs)
- a minimal level of independence on instructional activities aligned with the grade span AAGSEs
- inconsistent progress in applying knowledge and skills of the grade span AAGSEs during the year
- a minimal ability to apply knowledge and skills of the grade span AAGSEs across multiple instructional activities

**Substantially Below Proficient: Students performing at this level demonstrate**

- a low level of accuracy on instructional activities aligned with the grade span Numbers and Operations and Geometry and Measurement Alternate Assessment Grade Span Expectations (AAGSEs)
- a low level of independence on instructional activities aligned with the grade span AAGSEs
- little or no progress in applying knowledge and skills of the grade span AAGSEs during the year
- little or no ability to apply knowledge and skills of the grade span AAGSEs across multiple instructional activities

## Reading

**Proficient with Distinction: Students performing at this level submitted datafolios that demonstrate**

- a high level of accuracy on instructional activities aligned with Word Identification and Vocabulary and Early Reading Alternate Assessment Grade Span Expectations (AAGSEs)
- a high level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- a high ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Proficient: Students performing at this level submitted datafolios that demonstrate**

- an adequate level of accuracy on instructional activities aligned with Word Identification and Vocabulary and Early Reading Alternate Assessment Grade Span Expectations (AAGSEs)
- an adequate level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- an adequate ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Partially Proficient: Students performing at this level submitted datafolios that demonstrate**

- a minimal level of accuracy on instructional activities aligned with Word Identification and Vocabulary and Early Reading Alternate Assessment Grade Span Expectations (AAGSEs)
- a minimal level of independence on instructional activities aligned with AAGSEs
- inconsistent progress in applying knowledge and skills of AAGSEs during the year
- a minimal ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Substantially Below Proficient: Students performing at this level demonstrate**

- a low level of accuracy on instruction activities aligned with Word Identification and Vocabulary and Early Reading Alternate Assessment Grade Span Expectations (AAGSEs)
- a low level of independence on instructional activities aligned with AAGSEs
- little or no progress in applying knowledge and skills of AAGSEs during the year
- little or no ability to apply knowledge and skills of AAGSEs across multiple instructional activities

# Rhode Island Alternate Assessment
# Student Score Report 2013-2014

Alternate Assessment datafolios assessed students in grades 2, 3, 4, 5, 6, 7, and 10 in Reading and Mathematics. Students in grades 4, 7, and 10 were also assessed in Writing. Students in grades 4, 8, and 11 were assessed in Science. Evidence of student work was collected in three distinct data collection periods: September 30 – November 14, 2013, January 6 – January 31, 2014, and March 3 – April 4, 2014

**School Copy**

**Student:** Aaron Godfrey
**Grade:** 10
**School:** Demonstration School 1
**District:** Demonstration District A

## Mathematics

| | Dimensions | | | | Comment Codes |
|---|---|---|---|---|---|
| | Connection to the Content Strand | Student Progress | Level of Accuracy | Level of Independence | |
| **Numbers and Operations** | | | | | |
| The student demonstrates the knowledge and/or skills in the Mathematics AAGSE within a standards-based activity. | | | | | |
| NO2.4 - Represent quantities in different ways by composing/decomposing numbers to show part-whole relations. | 4 | 8 | 4 | 4 | 11,19 |
| NO12.5 - Add bills and coins together to match dollar and cents notation. | 8 | 8 | 4 | 4 | 19 |
| **Functions & Algebra** | | | | | |
| The student demonstrates the knowledge and/or skills in the Mathematics AAGSE within a standards-based activity. | | | | | |
| FA4.1 - Show equivalence representations with two expressions (e.g., (1+3=2+2) or an equation (4+6=10). | 4 | 8 | 4 | 4 | 19 |
| FA4.2 - Find the value that will make an open sentence true (e.g.2+_=7 ). | 4 | 4 | 4 | 4 | 19 |
| **Total Mathematics Dimension Scores** | **20** | **28** | **16** | **16** | |
| **Achievement Level** | **Proficient with Distinction** | | | | |

## Reading

| | | | | | |
|---|---|---|---|---|---|
| **Word Identification Skills, Vocabulary Strategies, and Breadth of Vocabulary** | | | | | |
| The student demonstrates the knowledge and/or skills in the Reading AAGSE within a standards-based activity. | | | | | |
| V3.7 - Student shows breadth of vocabulary knowledge and demonstrates knowledge through understanding of word meanings and relationships by identifying homonyms and homophones. | 8 | 8 | 4 | 4 | 19 |
| V2.2 - Student identifies the meaning of unfamiliar vocabulary by using context clues (words and illustrations) in text to predict words or meanings. | 8 | 4 | 4 | 4 | 19 |
| **Initial Understanding, Analysis, and Interpretation of Literary Text** | | | | | |
| The student demonstrates the knowledge and/or skills in the Reading AAGSE within a standards-based activity. | | | | | |
| LT4.2 - Student demonstrates initial understanding of elements of literary texts (including text read aloud, reading text independently, or in a guided manner) by answering simple questions about a story's content. | 8 | 4 | 4 | 4 | 19 |
| LT5.2 - Student analyzes and interprets elements of literary texts (including texts read aloud or read independently) by describing the main characters' physical characteristics and personality traits. | 8 | 8 | 4 | 4 | 19 |
| **Total Reading Dimension Scores** | **32** | **24** | **16** | **16** | |
| **Achievement Level** | **Proficient with Distinction** | | | | |

AAGSE = Alternate Assessment Grade Span Expectation S = State approved special consideration § = Datafolio was submitted but every entry was unscorable
Not Tested, Other = No entries submitted L = Student is First Year LEP in Reading and Writing

# *Rhode Island Alternate Assessment*
# *Student Score Report 2013-2014*

Alternate Assessment datafolios assessed students in grades 2, 3, 4, 5, 6, 7, and 10 in Reading and Mathematics. Students in grades 4, 7, and 10 were also assessed in Writing. Students in grades 4, 8, and 11 were assessed in Science. Evidence of student work was collected in three distinct data collection periods: September 30 – November 14, 2013, January 6 – January 31, 2014, and March 3 – April 4, 2014

**School Copy**

**Student:** Aaron Godfrey
**Grade:** 10
**School:** Demonstration School 1
**District:** Demonstration District A

## Writing

| | Dimensions | | | | Comment Codes |
|---|---|---|---|---|---|
| | Connection to the Content Strand | Student Progress | Level of Accuracy | Level of Independence | |
| **Structures of Language and Writing Conventions** | | | | | |
| The student demonstrates the knowledge and/or skills in the Writing AAGSE within a standards-based activity. | | | | | |
| SL1.2 - Student demonstrates command of the structures of sentences, paragraphs, and text by demonstrating that multiple sentences are written left to right, and top to bottom to form a paragraph(s). | 8 | 8 | 4 | 4 | 19 |
| WC9.5b - In independent writing, student demonstrates command of appropriate English conventions by using simple verb tenses and subject-verb agreement. | 8 | 4 | 4 | 4 | 19 |
| **Informational Writing** | | | | | |
| The student demonstrates the knowledge and/or skills in the Writing AAGSE within a standards-based activity. | | | | | |
| IW6.4a - In informational writing, student organizes ideas and concepts by logically grouping ideas into predictable categories. | 8 | 8 | 4 | 4 | 19 |
| IW6.1 - In informational writing, student organizes ideas and concepts by listing steps of simple process in a logical order. | 8 | 8 | 4 | 4 | 19 |
| **Total Writing Dimension Scores** | **32** | **28** | **16** | **16** | |
| **Achievement Level** | **Proficient with Distinction** | | | | |

AAGSE = Alternate Assessment Grade Span Expectation S = State approved special consideration § = Datafolio was submitted but every entry was unscorable
Not Tested, Other = No entries submitted L = Student is First Year LEP in Reading and Writing

# Alternate Assessment Achievement Level Descriptions For Grade 10

## Mathematics

**Proficient with Distinction: Students performing at this level submitted datafolios that demonstrate**

- a high level of accuracy on instructional activities aligned with Numbers and Operations and Functions and Algebra Alternate Assessment Grade Span Expectations (AAGSEs)
- a high level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- a high ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Proficient: Students performing at this level submitted datafolios that demonstrate**

- an adequate level of accuracy on instructional activities aligned with Numbers and Operations and Functions and Algebra Alternate Assessment Grade Span Expectations (AAGSEs)
- an adequate level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- an adequate ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Partially Proficient: Students performing at this level submitted datafolios that demonstrate**

- a minimal level of accuracy on instructional activities aligned with Numbers and Operations and Functions and Algebra Alternate Assessment Grade Span Expectations (AAGSEs)
- a minimal level of independence on instructional activities aligned with AAGSEs
- inconsistent progress in applying knowledge and skills of AAGSEs during the year
- a minimal ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Substantially Below Proficient: Students performing at this level demonstrate**

- a low level of accuracy on instructional activities aligned with Numbers and Operations and Functions and Algebra Alternate Assessment Grade Span Expectations (AAGSEs)
- a low level of independence on instructional activities aligned with AAGSEs
- little or no progress in applying knowledge and skills of AAGSEs during the year
- little or no ability to apply knowledge and skills of AAGSEs across multiple instructional activities

## Reading

**Proficient with Distinction: Students performing at this level submitted datafolios that demonstrate**

- a high level of accuracy on instructional activities aligned with Word Identification and Vocabulary and Initial Understanding, Analysis and Interpretation of Literacy or Informational Text Alternate Assessment Grade Span Expectations (AAGSEs)
- a high level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- a high ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Proficient: Students performing at this level submitted datafolios that demonstrate**

- an adequate level of accuracy on instructional activities aligned with Word Identification and Vocabulary and Initial Understanding, Analysis and Interpretation of Literacy or Informational Text Alternate Assessment Grade Span Expectations (AAGSEs)
- an adequate level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- an adequate ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Partially Proficient: Students performing at this level submitted datafolios that demonstrate**

- a minimal level of accuracy on instructional activities aligned with Word Identification and Vocabulary and Initial Understanding, Analysis and Interpretation of Literacy or Informational Text Alternate Assessment Grade Span Expectations (AAGSEs)
- a minimal level of independence on instructional activities aligned with AAGSEs
- inconsistent progress in applying knowledge and skills of AAGSEs during the year
- a minimal ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Substantially Below Proficient: Students performing at this level demonstrate**

- a low level of accuracy on instructional activities aligned with Word Identification and Vocabulary and Initial Understanding, Analysis and Interpretation of Literacy or Informational Text Alternate Assessment Grade Span Expectations (AAGSEs)
- a low level of independence on instructional activities aligned with AAGSEs
- little or no progress in applying knowledge and skills of AAGSEs during the year
- little or no ability to apply knowledge and skills of AAGSEs across multiple instructional activities

## Writing

**Proficient with Distinction: Students performing at this level submitted datafolios that demonstrate**

- a high level of accuracy on instructional activities aligned with Structures of Language and Writing Conventions and Informational Writing Alternate Assessment Grade Span Expectations (AAGSEs)
- a high level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- a high ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Proficient: Students performing at this level submitted datafolios that demonstrate**

- an adequate level of accuracy on instructional activities aligned with Structures of Language and Writing Conventions and Informational Writing Alternate Assessment Grade Span Expectations (AAGSEs)
- an adequate level of independence on instructional activities aligned with AAGSEs
- consistent progress in applying knowledge and skills of AAGSEs during the year
- an adequate ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Partially Proficient: Students performing at this level submitted datafolios that demonstrate**

- a minimal level of accuracy on instructional activities aligned with Structures of Language and Writing Conventions and Informational Writing Alternate Assessment Grade Span Expectations (AAGSEs)
- a minimal level of independence on instructional activities aligned with AAGSEs
- inconsistent progress in applying knowledge and skills of AAGSEs during the year
- a minimal ability to apply knowledge and skills of AAGSEs across multiple instructional activities

**Substantially Below Proficient: Students performing at this level demonstrate**

- a low level of accuracy on instructional activities aligned with Structures of Language and Writing Conventions and Informational Writing Alternate Assessment Grade Span Expectations (AAGSEs)
- a low level of independence on instructional activities aligned with AAGSEs
- little or no progress in applying knowledge and skills of AAGSEs during the year
- little or no ability to apply knowledge and skills of AAGSEs across multiple instructional activities

# APPENDIX F—DECISION RULES

**Analysis and Reporting Decision Rules**
**Rhode Island Alternate Assessment**
**Spring 13-14 (Datafolios submitted May 2014)**

This document details rules for analysis and reporting. The final student level data set used for analysis and reporting is described in the "Data Processing Specifications." This document is considered a draft until the Rhode Island State Department of Education (DOE) signs off. If there are rules that need to be added or modified after said sign-off, DOE sign off will be obtained for each rule. Details of these additions and modifications will be in the Addendum section.

## I. General Information

A. *Tests administered:*

| Grade | Subject | Type of Test |
|---|---|---|
| 02 | Reading | Datafolio |
| 02 | Math | Datafolio |
| 03 | Reading | Datafolio |
| 03 | Math | Datafolio |
| 04 | Reading | Datafolio |
| 04 | Math | Datafolio |
| 04 | Writing | Datafolio |
| 04 | Science | Datafolio |
| 05 | Reading | Datafolio |
| 05 | Math | Datafolio |
| 06 | Reading | Datafolio |
| 06 | Math | Datafolio |
| 07 | Reading | Datafolio |
| 07 | Math | Datafolio |
| 07 | Writing | Datafolio |
| 08 | Science | Datafolio |
| 10 | Reading | Datafolio |
| 10 | Math | Datafolio |
| 10 | Writing | Datafolio |
| 11 | Science | Datafolio |

B. *Reports Produced*:

1. Student Score Report
   - Two versions: One with comment codes for teachers (print and web) and one without comment codes for parents (print).
   - For students tested at an outplacement school with a valid sending district, an additional copy of the student report (parent and school) versions will be printed and shipped to the sending district.
2. School Roster (Roster of Students in the School)

3. District Roster (Roster of schools in the district, including outplacement school data based only on students sent from the district)

4. Student Achievement by Demographic Characteristics

   - By grade, content area, school, district, and state

5. Summary Report

   - By grade, school, district, and state

C. *Files Produced:*

1. School Accuracy in Datafolio Assembly (pre-reporting)
2. Student level data file
3. LCI Analysis (Not Applicable in 2013-14)

D. Special Circumstances

1. Grade 11 students can submit all four content areas. These students will be reported at grade 11 and grade 10 separately. These students are excluded from all grade 10 aggregations and grade 10 school roster. They are identified at the grade 10 record using student ID. The grade 11 record has the student's student ID for variable 'rptStudid'. The grade 10 record has 'rptStudid' set to the grade 11 bookletnumber. Valid student IDs start with a "1". Bookletnumbers start with a "9".

E. *Student Status (StuStatus)*

| **StuStatus** | **Description** |
|---|---|
| 1 | Homeschooled |
| 2 | Privately Funded |
| 3 | Exchange Student |
| 4 | Excluded State |
| 0 | Publically Funded |

| **StuStatus impact on Data Analysis and Reporting** | | |
|---|---|---|
| **Level** | **Impact on Analysis** | **Impact on Reporting** |
| Student | n/a | For StuStatus values of 1,2 and 3 print the description from the table above for the school and district names. |
| School | Exclude all students with a StuStatus value of 1,2 or 3. | Students with a StuStatus value of 1,2 or 3 are not listed on the school roster report. |
| District | Exclude all students with a StuStatus value of 1,2 or 3. | n/a |
| State | Exclude all students with a StuStatus value of 1,2, 3 or 4. | n/a. |

F. *School Type:*

| SchType | Source | Description | Included in aggregate data | | |
|---|---|---|---|---|---|
| | | | School | District | State |
| PUB | ICORE: SchoolSubTypeID=1, 12, or 13 | Public Schools | ✓ | ✓ | ✓ |
| PRI | ICORE: SchoolSubTypeID=3 | Private Schools | ✓ | | |
| OUT | ICORE: SchoolSubTypeID=8 | Out Placement Schools | ✓ | ✓ * | ✓ |
| CHA | ICORE: SchoolSubTypeID=11 | Charter Schools | ✓ | ✓ | ✓ |

* Students attending an out placement school with a valid sending district code are included in district aggregations using the sending district code. Non-public sending district codes are not valid. Non-public sending district codes are district codes associated with schools of school type "PRI" and "OUT".

## II. Student Participation / Exclusions

A. *Not Tested Reasons by content area*

1. State Approved: First Year LEP (reading and writing only)
2. State Approved: Withdrew from school after
3. State Approved: Enrolled in school after
4. State Approved: Special consideration
5. Not tested, other

B. *Student Participation Status by content area*

1. Tested: A student is identified as "Tested" if at least one entry was submitted and scorable per *RIAlt1314ScoreofRecord.pdf.* If a not tested reason is provided in the raw student data, then ignore the not tested reason. Please note, this is different from NECAP – LEP and State Approved Special Consideration not tested reasons overrides student work.
2. Tested – Unscoreble: A student is identified as "Tested-Unscorable" if at least one entry was submitted but all entries are categorized as not scoreable or not submitted. If a not tested reason is provided in the raw student data, then ignore the not tested reason. Please note, this is different from NECAP – LEP and State Approved Special Consideration not tested reasons overrides student work.
3. Not Tested: A student is identified as "Not Tested" if no entries were submitted. If a not tested reason is not supplied in the data provided by data processing, then the student is assigned the not tested reason "Not Tested, Other"

C. *Student Participation Summary by Content Area*

| Part. Status | Description | Raw Score | Achievement Level | Student Report |
|---|---|---|---|---|
| A | Tested | ✓ | ✓ | ✓ |
| B | Tested Unscorable | | ✓ | ✓ |
| C | Not Tested: State Approved First Year LEP | | | ✓ |
| D | Not Tested: State Approved Withdrew from school after | | | ✓ |
| E | Not Tested: State Approved Enrolled in school after | | | ✓ |
| F | Not Tested: State Approved Special consideration | | | ✓ |
| G | Not Tested, Other | | | ✓ |

## III. Calculations

A. *Raw scores*

1. Refer to *RIAlt1314ScoreofRecord.pdf* to calculate final entry scores.

B. *Scaling*

1. Achievement levels are assigned based on content area raw scores and the content area specific charts finalized during standard setting. Each content area has two charts: one for assigning the achievement level and one identifying which cells are "just above" or "just below" the cut which will be used to adjust the achievement level as follows.

- Reading, Math, and Writing

I. Students who have Connection to Standard total score is less than or equal to 6 are in the Low connection to standard range.

II. Students who have Connection to Standard total score is greater than or equal to 28 are in the High connection to standard score.

- Science

I. Students who have Connection to Standard total score is less than or equal to 3 are in the Low connection to standard range.

II. Students who have Connection to Standard total score is greater than or equal to 14 are in the High connection to standard score.

- Students are assigned a content achievement level based on their total Student Progress (sum of all final content area entry student progress scores), total Level of Accuracy and Independence scores (sum of all final content area entry level of accuracy and independence scores). The achievement level will increase by one if they fall just below the cut and are in the high range for Connection to Standard Score. The achievement level will decrease by one if they fall just above the cut and are in the low range for Connection to Standards score.
- For science, if only Knowledge entry was submitted, then the total Student Progress score is 0.
- For students identified as "Tested Unscorable" for a content area, the content area achievement level will be "Substantially Below Proficient". Final dimension scores will be blank.

## IV. Report Specific Rules

A. The report templates are the same as the prior year except for the following:

1. Grade 8 does not test Reading and Math and is not included in the paragraph describing the grades and subjects assessed on the various reports.
2. Year references in titles need to be updated
   - 2012-2013 needs to be updated to 2013-2014
   - 2013 needs to be updated to 2014
3. Collection periods: September 30 – November 14, 2013, January 6 – January 31, 2014, and March 3 – April 4, 2014
4. Not Tested Withdrew and Enrolled after date is Jan. 6, 2014.

B. Summary Report

1. A report is produced by grade for school, district and state levels.
2. All students are included based on special circumstances, student status and school type decision rules.
3. Use the district code associated with the school for district aggregations. Except for students attending an outplacement school with a valid sending district, use the sending district code for district aggregations.
4. Use the school code for school aggregations.
5. Only students with a participation status of "A" or "B" are included in the number and percent at each achievement level.
6. If the number of content area "Students Reported Above" is less than 10, then do not suppress achievement level data.
7. Percents are rounded to the nearest whole number.

8. The watermarks should only be printed on a report when the number of “students reported above” is less than 10.

C. Student Achievement by Demographic Characteristics

1. A report is produced by grade and content area for school, district and state levels.
2. All students are included based on special circumstances, student status and school type decision rules.
3. Use the district code associated with the school for district aggregations. Except for students attending an outplacement school with a valid sending district, use the sending district code for district aggregations.
4. Use the school code for school aggregations.
5. If the “Number in Category” is less than 10, then leave percents at each achievement level blank.
6. “LEP Monitored” category includes students with an LEP value of 2 or 3. “LEP Current” includes students with an LEP value of 1.
7. “Special Education” includes students with an IEP value of 1.
8. Only students with a participation status of “A” or “B” are included in the “Number in Category” and percent at each achievement level.
9. Percents are rounded to the nearest whole number.
10. The watermarks should only be printed on a report when the number of “students reported above” is less than 10.

D. District Roster

1. A report is produced for each district by grade.
2. All students are included based on special circumstances, student status and school type decision rules.
3. Use the district code associated with the school for district aggregations. Except for students attending an outplacement school with a valid sending district, use the sending district code for district aggregations.
4. Use the school code for school aggregations. Except for students attending an outplacement school with a valid sending district, use the sending district code concatenated with the school code for school aggregations.
5. Schools are listed in alpha order. Outplacement schools with students sent from the district are listed in alpha order at the end of the roster under “Outplacement School(s)” heading.
6. This is a confidential report. Report all data regardless of number of students included in calculations.

E. School Roster

1. A report is produced for each school.
2. All students in the data provided by data processing are listed on the school roster.
3. Students are storted by grade, lname, fname, mi, except students identified in the special circumstances section.
4. For students identified as “Tested Unscorable” place a section symbol after the Achievement Level.
5. Student names are proper case.

F. Student Score Report (Student Report)

1. The content strand header and description text (structured performance task (SPT)) lookup table will be provided by program management. The file will contain SPT codes and the corresponding text that should print. If a strand was not submitted (A) then the headers will be “Strand not submitted”. If a strand was not scoreable (B) then the headers will be “Strand not scorable”.
2. The content strand AAGSE code and description text lookup table will be provided by program management. The file will contain AAGSE codes and the corresponding text that should print. If an AAGSE was not submitted (A) then the text will be “AAGSE not submitted”. If an AAGSE was not scoreable (B) then the text will be “AAGSE not scorable”.
3. The science inquiry construct text will be based on the Science SPT, Inquiry Entry Submitted, and Inquiry Entry Scoreable. If an inquiry entry was not submitted then the text will be “Inquiry Not Submitted”. If an inquiry entry was unscorable then the text will be “Inquiry Not Scorable”. Otherwise, it will be the text associated with the DM and SPT number.
4. Reading, Math and Writing
    i. If both AAGSES were not submitted, then print “Strand Not Submitted” in the gray line and leave corresponding SPT and AAGSE text lines blank
    ii. Otherwise, at least one AAGSE was submitted so the student must have a valid SPT number.
        a. Therefore, print the Strand text associated with the SPT in the gray line and the SPT text associated with the SPT in line under the Strand
        b. For each AAGSE,
            - If the AAGSE was not submitted, print “AAGSE Not Submitted”.
            - If the AAGSE was not scoreable, then print “<the actual AAGSE Code> - Unscoreable” (Note: some

students' may have the 0.0.0 AAGSE code print others may have valid AAGSE codes)

- Otherwise print "<the actual AAGSE Code> - truncated AAGSE text from Profile"

iii. If an AAGSE was not submitted or scorable, then leave "Connection to the Content Strand","Student Progress",'Level of Accuracy", and "Level of Independence" blank.

5. Science

   i. Inquiry SPT text: If the Inquiry entry is not submitted, then print "Not Submitted". Otherwise if the Inquiry is not scorable, then print "Unscorable". Otherwise, print "The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing."

   ii. Knowledge Construct Text: If the Knowledge Construct entry is not submitted, then print "Not Submitted". Otherwise if the Knowledge Construct is not scorable, then print "Unscorable". Otherwise, print "The student will demonstrate the concept within a science investigation, which includes observing/questioning, planning, conducting and analyzing."

   iii. Knowledge Construct AAGSE Text: For each AAGSE,

      a. If Knowledge Construct is not submitted, then print "AAGSE Not Submitted".

      b. If Knowledge Construct is unscorable then print then print "<the actual AAGSE Code> - Unscoreable" (Note: some students' may have the 0.0.0 AAGSE code print others may have valid AAGSE codes).

      c. Otherwise Otherwise print "<the actual AAGSE Code> - truncated AAGSE text from Profile"

   iv. If all three Knowledge AAGSEs were not submitted or scorable, then leave "Connection to the Content Strand",'Level of Accuracy", and "Level of Independence" blank.

   v. If inquiry entry was not submitted or scorable, then leave "Connection to the Content Strand","Student Progress",'Level of Accuracy", and "Level of Independence" blank.

6. For students identified as content area "Tested- Unscorable" print a section symbol after the achievement level. Leave content area dimension scores blank.

7. For students identified as "Not Tested" print not tested reason for achievement level. Leave total content area dimension scores blank.

8. For the student report with comment codes, print up to 4 unique comment codes separated by commas. Refer to *RIAlt1314ScoreofRecord.pdf* for description on calculating final comment codes.

## V. Data File Rules

A. School Accuracy in Datafolio Assembly

1. Data file may be produced based on preliminary scored data and provided to the department for score investigation and clean up. Results of the department review are incorporated prior to the reporting data hand off.
2. Datafolios compiled by the same teacher within school, grade span, and subject have the same SPT/AAGSE/Domain (Domain is for science only) but some entries are determined to be unscorable and some entries are determined to be scorable. Only teachers who submitted 6 or more datafolios are included.
3. A teacher is identified by teacher name. Datafolios missing teacher name will be grouped together with in a school and gradespan.

B. Student Results File

1. State level CSV file, follows layout *RIAlt1314StudentDataLayout.xls*.
2. Includes all students in the data provided by data processing.

C. LCI Analysis (Not Applicable for 13-14)

1. The following files will be produced
    - RIAlt[year]LCIStudentData.csv
        I. This file contains the raw student data for students who submitted an LCI
    - RIAlt[year]LCIFreqDist.csv
        I. This file contains the frequency distribution of item responses on the LCI
    - RIAlt[year]NotSubmitted.csv
        I. This file contains the RI Alt student who did not submit an LCI as well as the students who submitted an LCI
    - RIAl[year]Percent.csv
        I. This file contains the percent of students who submitted/not submitted an LCI
    - File layouts for the files can be found in RIAlt[year]LCILayout.xls.

| Data File | Naming Convention | Layout |
|---|---|---|
| School Accuracy in Datafolio Assembly | RIAlt*[year]*ScoreReviewPullList.xls | NA |
| Student Results | RIAlt*[year]*StudentData.csv | RIAlt*[year]*StudentDataLayout.xls |
| LCI Analysis: (Not Applicable in 13-14) | | |
| Student Data | RIAlt*[year]*LCIStudentData.csv | RIAlt*[year]*LCILayout.xls |
| Frequency Distribution | RIAlt*[year]*LCIFreqDist.csv | |
| Not Submitted | RIAlt*[year]*NotSubmitted.csv | |
| Percents | RIAlt*[year]*LCIPercent.csv | |
| Where *[year]* is the current analysis year, formatted as: 1314 | | |