RFP# DOE-SGA-2012-15
Committee Questions

*Responses to the following questions must be in the following format:*

- *Font size 10 or 12 point*
- *Page Margins 1"*
- *Succinct, concise responses are appropriate*

*If the information that you provided in the RFP addresses any of the questions below, resubmit in a format to specifically address the questions listed below.*

## Alignment:

*Provide evidence of alignment to the current Standards of Learning including a comparative chart of content standards developed by your company to VA content standards for each content area/grade level that your proposed assessment(s) addresses and numbers of items for each standard. If you are planning to develop assessments in response to the contract being awarded, provide the content standards that you will include in your assessment(s) and the number of items you will develop for each standard with a timeline.*

In our original proposal, we provided the following:

- A correlation of the ***i-Ready Diagnostic*** indicators to the Virginia Standards of Learning. Educators using the program are able to quickly and easily track student performance against the SOLs using the Virginia SOL Performance Report.
- A correlation of the ***BRIGANCE® Inventory of Early Development*** (***IED III) Standardized*** to the Virginia Department of Education Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds. The *IED III Standardized* covers 31 of the 36 Foundation Blocks. The five not covered are all in the science domain.

In Appendices A and B of this response, we provide further information regarding standards coverage and item counts for both programs. We request that this information remain confidential and not be distributed beyond the needs of evaluation for this RFP.

## Student Growth:

*Provide the rationale for the measure of student growth methodology included in Requirement 3.2 . Also provide the procedures used to validate the measures of growth including statistical processes.*

***i-Ready Diagnostic*** is a computer adaptive assessment that employs a vertical scale such that all items from grades K through 8 are on the same scale. The *i-Ready* scale is ideally suited for measuring student growth within a year or across years. The ranges are based on average historical growth rates, as well as state expectations for growth.

Average historical growth rates are typically lower than the growth basis needed under the *i-Ready* indicators, which are aligned to the Virginia Standards of Learning (please see Appendices A and B of this document for more information on specific standards addressed, with item counts).

As districts are currently implementing the newly adopted SOLs, a more conservative basis for setting minimum performance goals is appropriate. Thus the minimum target for one year is based on average historical student performance nationally (how much a student in the 50th percentile of performance is typically able to grow in a year). However, in order to designate a student/teacher as achieving a highly effective target, we would expect them to be moving beyond historical rates and making greater progress to meet the new, more rigorous expectations. Therefore, the upper level default targets are set based on the higher end of the range.

We set these targets by having subject matter experts review the materials and then determine the sufficient proficiency level for students to have achieved for one year's growth based on the indicators. We also referred to the results of *i-Ready* standard settings in 2011 and 2012 to make these determinations. More information regarding standard setting can be found in the *i-Ready Diagnostic Technical Manual* (provided with our original submission) on pages 34–38.

The following tables show the recommended growth targets for reading and math by grade.

| Annual Reading Growth Targets | |
|---|---|
| Grade K | 42 to 48 |
| Grade 1 | 40 to 50 |
| Grade 2 | 32 to 39 |
| Grade 3 | 29 to 36 |
| Grade 4 | 23 to 33 |
| Grade 5 | 16 to 23 |
| Grade 6 | 13 to 25 |
| Grade 7 | 16 to 22 |
| Grade 8 | 14 to 26 |

| Annual Mathematics Growth Targets | |
|---|---|
| Grade K | 28 to 48 |
| Grade 1 | 29 to 46 |
| Grade 2 | 29 to 38 |
| Grade 3 | 28 to 42 |
| Grade 4 | 33 to 41 |
| Grade 5 | 19 to 26 |
| Grade 6 | 15 to 24 |
| Grade 7 | 12 to 20 |
| Grade 8 | 13 to 21 |

For the ***BRIGANCE® IED III Standardized***, while we have significant evidence of validity for the product, we have not conducted a formal study of its use as a measure of student growth. However, districts across the country do use BRIGANCE® products for this purpose. We developed the items within the *IED III Standardized* on a developmental continuum with normative scores available for each age level across that continuum. Scaled scores (at the assessment level) and composite scores (at the subdomain and domain level) as well as age equivalent scores may be used to measure child growth over time (details on how to use age equivalent scores for progress monitoring are included in the next section).

For more information about the creation of the normative scores in the *IED III Standardized*, please refer to chapter 5 of the DRAFT *IED III Standardization & Validation Manual* provided with our original submission. An updated version of the draft manual we submitted with our proposal is now available. We can provide it upon request, if evaluators would like to review.

The *IED III Standardized* is designed to provide information about an individual child's skill mastery and development, while providing normative scores that may assist with diagnostic decisions, including identifying potential delays in development. However, we must note that experts in the measurement field do not recommend making a decision about a child's developmental or academic needs based on a single score or measure (AERA, APA, & NCME 1999). Rather, such decisions should be based on a multifaceted assessment process involving appropriate and varied measures and sources of information. Several data points should be evaluated to ensure that the best possible decisions are made regarding each child's needs.

Aggregate results from the *IED III Standardized* can be used to evaluate the effectiveness of program models and curricular plans, thereby informing the success of programs in accomplishing their goals. Such use is in accordance with how other instruments are used in various types of educational research. Typical questions that might be considered include:

- In what developmental areas are (groups of) children making progress?
- What are the outcomes for children in different kinds of programs or forms of services (e.g., inclusion versus self-contained special education, type of curriculum employed)?
- How do children fare developmentally according to different issues (e.g., numbers of psychosocial risk factors, length of time in Head Start or special education program, age of initial participation, and so forth)?
- How do programs perform over time? Are there changes in patterns of child performance from year to year?

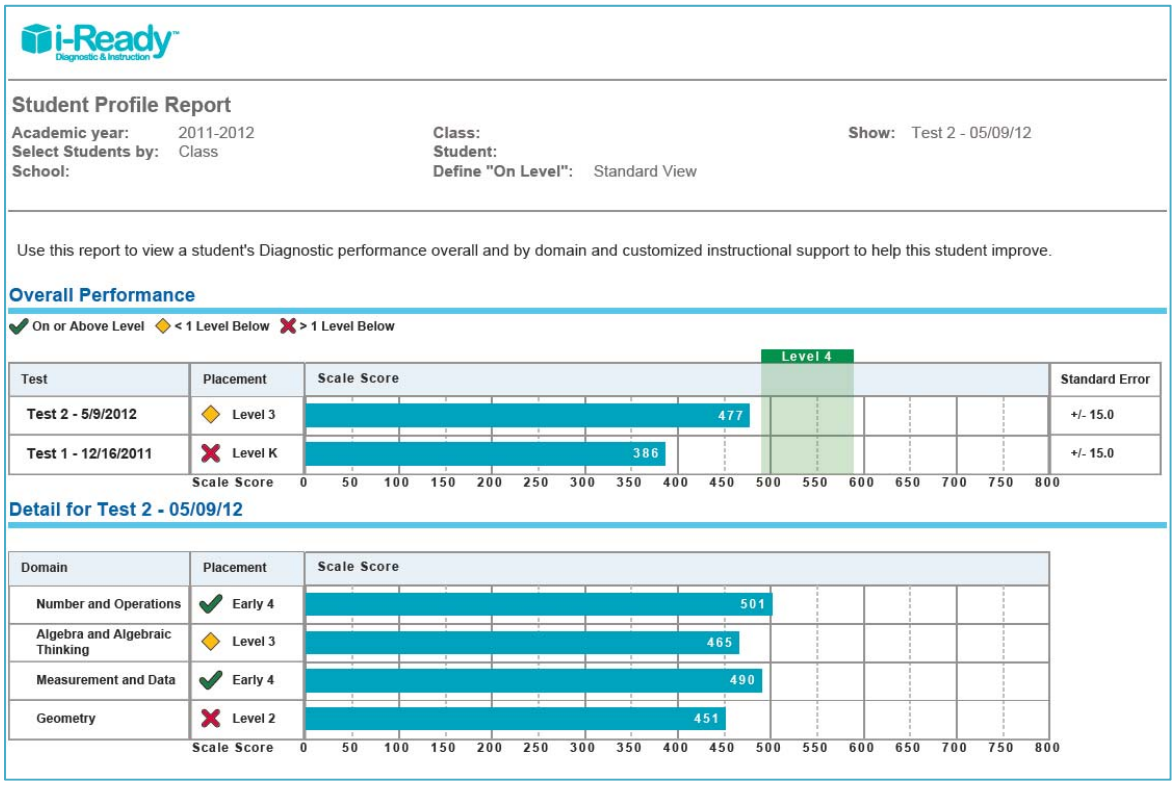
Literature provides examples of how previous editions of the *IED* were used in such a manner (e.g., Aral et al., 2011; Holahan & Costenbader, 2000; Unruh & Dupree; 1998). When considering the *IED III Standardized* for such use, previous studies of this nature may be useful in helping to inform effective evaluation design (e.g., Shadish, Cook, & Campbell, 2001). Please refer to the following section on Reporting for information about how we propose student growth be reported using information gathered with the *IED III Standardized*. See Chapter 4 of the DRAFT *Standardization & Validation Manual* for additional information regarding the use of the *IED III Standardized* for progress monitoring, profile analysis, and program evaluation.

## Reporting:

*Provide your best example of a report derived from the assessment's results which illustrates an individual student's growth (not performance).*

Though many of the ***i-Ready Diagnostic*** reports may be saved and compared (and the data exported to PDF or csv file for external analyses with other data points) to show a student's growth between two or more assessments, perhaps the most useful of these to quickly illustrate growth for individual learners is the Student Profile Report. We have provided a sample of this report as Appendix C of this response.

As illustrated in the excerpt below, the Student Profile Report employs an intuitive bar graph to show individual performance on each test administered. Growth is readily deducible through comparison of the scale scores from each administration.

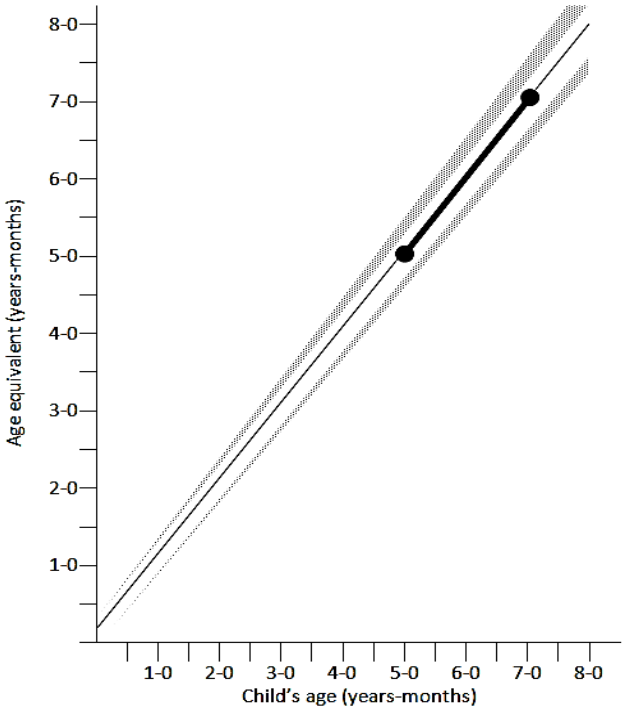



With the **BRIGANCE® *IED III Standardized***, age equivalent scores can be used to plot student performance over time. Chapter 3 of the *Standardization & Validation Manual* includes cautions related to using age equivalent scores; however, despite these cautions, they are appealing when describing where a child's performance is at a given period of time relative to the average performance of that child's age group. For this reason, age equivalent scores can be used to monitor progress over time, as the developing skills assessed on the *IED III Standardized* are assumed to increase with age.

Because of this test property, the plotting of age equivalent scores allows one to determine if the child's performance over time remains on the same trajectory within a given age group. To use age equivalent scores for monitoring progress, the child's score for the skill area(s) of interest (e.g., physical development domain; Total Developmental Score) must be obtained at various points in time. (See Chapter 3 of the *Standardization & Validation Manual* for detailed directions on how to derive age equivalent scores.)

Once age equivalent scores are obtained at two or more points in time, use the figure below to illustrate a child's progress. Follow this sequence of steps:

1. On the x-axis of the graph, locate the child's chronological age.
2. On the y-axis of the graph, locate the child's age equivalent score derived from the first administration of the *IED III Standardized*.
3. Mark the point on the graph where the chronological age and age equivalent score intersect.
4. Complete the above steps for the remaining scores across time. Draw a line between each point in time for the skill area plotted.




To represent multiple subdomains, domains, and/or the Total Developmental Score on the same graph, represent each skill area with a distinct line that is clearly labeled (for instance, consider using a different color for each skill area). For example, consider a child who is 5 years, 0 months (5-0) old who receives an age equivalent score of 5-0 for the Total Developmental Score at the start of Kindergarten. The examiner could conclude that the child's performance is average or in the middle of the distribution of scores relative to the child's peers. Assume the child is also assessed at the beginning of second grade, when he is 7-0 years old. Now the child receives an age equivalent score of 7-0. The gray shaded areas above and below the solid black line in the figure above represent the 75$^{th}$ and 25$^{th}$ percentile range across subdomains, domains, and the Total Developmental Score.

At both time periods, the child is in the 50th percentile relative to the performance of his same-aged peers. The examiner could conclude that the position of the child's performance, relative to same-aged peers, has remained consistent over the course of the noted two-year period. If the child's progress were to slow down relative to same-aged peers, the curve of the line would shift accordingly; we would also see a shift in the line if the child's progress were to increase relative to same-aged peers.

## Technology:

*For online testing, can portable devices (tablets, iPads, netbooks) be used with the same fidelity as CPUs/laptops?*

Due to the wide variability of hardware quality, we do not currently recommend the use of portable devices for online testing with ***i-Ready Diagnostic***. However, numerous *i-Ready* customers have and do successfully use netbooks for administration. A formal mobile strategy is part of our current roadmap for the product. The **BRIGANCE® *Online Management System*** may be used with fidelity on all platforms.

*Can reports be accessed with fidelity from portable devices 24 hours a day, 7 days a week?*

Users may access reports from the ***i-Ready Diagnostic*** system via some portable devices, but not currently via iPads. This functionality is part of our product roadmap for future development. As a fully web-based product, all features and functionality of *i-Ready Diagnostic* are available to authorized users 24 hours a day, seven days a week, and 365 days per year (excluding scheduled system maintenance/upgrades that occur outside of school hours).

The **BRIGANCE® *Online Management System*** reports may be accessed with fidelity from portable devices, including iPads, 24/7/365 (excluding scheduled system maintenance/ upgrades that will occur periodically outside of school hours).

*Expand on the technology information provided in Requirement 4.x to include specific requirements about technology infrastructure related to bandwidth, caching capabilities, numbers of concurrent testers, redundancy of data storage as well as fail-safe protocols during testing windows.*

As noted in our original response, for **both** *i-Ready Diagnostic* and the BRIGANCE® *Online Management System*, we follow industry best practices in the maintenance, back-up, and security of all program servers:

- Online servers are proactively and intensively monitored on a constant basis (24x7x365). Advanced system performance equipment quickly identifies server performance issues with a rapid response system in place if any corrective action is necessary. The goal is to replace hardware before it fails by using predictive hardware failure monitoring tools.

- Differential backups of data are taken throughout the day in order to achieve a very high data recovery rate; current nightly backups are done to a different storage network.
- Continuous maintenance plans are in place to keep all servers optimized and tuned to operate at peak performance levels.
- Data is stored in a high availability (HA) environment.
- Online servers are connected to the Internet by one of the most redundant networks in the industry providing us an Internet connectivity service level in the five nines (99.999%) uptime.
- Bandwidth is burstable to almost switched wired speeds providing us with virtually unlimited bandwidth.
- We regularly apply routine server patches and security updates.

Curriculum Associates also follows specific procedures in maintaining secure and reliable customer data. These include:

- All staff, teacher, and student logins require valid user names and passwords.
- All data transfers are conducted using a secure internet protocol (SSL and https).
- All authorized access is timed out after 30 minutes of no activity.
- Our servers are located in a new, state of the art data center hosting facility that includes a high level of security, as well as fire protection systems.
- Our servers are protected under one of the best Service Level Agreements (SLA) in the industry.
- Our data hosting facility does not allow any physical access to the server area by non-authorized outside visitors at any time.
- Advanced and hardened firewalls protect all our online servers.
- Data servers are behind the firewall residing on a private network.
- Data traffic is continuously monitored for malicious activity.

We have included a four-page ***i-Ready Diagnostic*** system requirements document as Appendix D of this response.

*i-Ready* runs on a highly scalable and reliable platform architecture, hosted in a Cloud-based environment. This allows our Technical Operations team to quickly add new hardware resources to the application or database tiers with relative ease, if necessary.

Curriculum Associates believes in a proactive policy when it comes to system capacity planning. At least once per quarter, our Technical Operations and Account Management teams meet to forecast *i-Ready* usage for the coming six months. The goal is to always stay well ahead of the usage curve with available server capacity to support an ever-growing user base.

To date, we have regularly seen concurrent user counts of more than 10,000 with no degradation of performance. This level of usership has not taxed our current available server capacity; nonetheless, we monitor system performance and usage on an ongoing basis to ensure optimal system functionality.

The **BRIGANCE® *IED III Standardized*** is a paper-based assessment; it is not administered online.

The **BRIGANCE® *Online Management System*** is Web-based and runs on either a Windows® PC or Apple Macintosh® computer, or on various mobile devices, assuming they use one of the supported browsers. PC users must have Windows® XP or Vista or above. Apple users must have OSX. The following Web browsers are supported:

- Internet Explorer 6.0 or higher
- Firefox 3.0 or higher
- Safari 3.0 or higher for Macintosh OSX

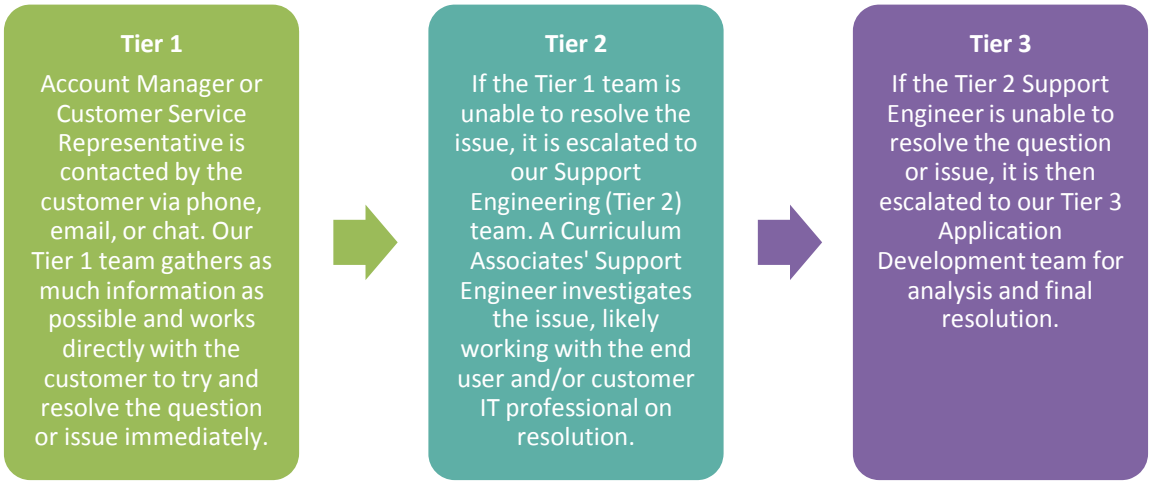
Web browsers must have JavaScript enabled and must be configured to accept session cookies. Pop-up blockers must allow pop-ups from www.BRIGANCE.com. Adobe Acrobat Reader®, available for free online, is required to print and download documentation.

*During online testing, will remote, "live-time" diagnostic assistance be provided? If so, describe this assistance.*

Our Technical Support and Customer Services teams are live and available during testing windows, Monday through Thursday 8:30 am–7:00 pm and Friday 8:30 am–5:00 pm Eastern. Support is available via live chat, toll-free phone, and email. In addition, your Curriculum Associates' Account Manager can be on-call for major testing windows if we know the schedule in advance.

The Commonwealth will also have 24/7 access to online Frequently Asked Questions, recorded trainings, and user manuals.

We employ a proven three-tier model (see figure on the next page) for the efficient handling of technical support questions and issues. We track customer inquiries using our case management system, escalating as necessary to provide as expedient a resolution as possible.




*What level of local IT support should the division expect in each school/classroom in order to appropriately support successful testing?*

***i-Ready Diagnostic*** is a fully web-based, vendor-hosted, SaaS product, thus nothing is installed at the local level and we push all program updates/upgrades/enhancements to the application from our end—with no end user support required. Your Curriculum Associates' Account Manager will work with sites prior to test administration to ensure all systems and technologies are in place for a smooth implementation.

This question is not relevant to the ***IED III Standardized***, as its administration is paper-based.

## Availability:

*For those assessments that are being developed, when will assessments be available for operational use?*

Grades K–8 in ***i-Ready Diagnostic*** are available for immediate operational use.

The **BRIGANCE® *IED III Standardized*** will be available operationally in March 2013. The corresponding BRIGANCE® *Online Management System* will be available operationally later during the 2013-14 school year. If sites choose to implement the *IED III Standardized* this school year, they may do so. Data can be collected and scored manually (all materials are provided with the product), and then can be transcribed into the new *OMS* in the upcoming school year (beginning mid-to-late fall 2013) for longitudinal comparison of student growth.

# Appendix A: *i-Ready Diagnostic* Correlations to Virginia Standards of Learning

*i-Ready Diagnostic* addresses the Virginia Standards of Learning listed in the tables below, with the number of items stipulated for each.

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **0** | **536** |
| **LA.K.K.10.a** | **24** |
| Use pictures to identify topic and make predictions. | 24 |
| **LA.K.K.2.a** | **13** |
| Increase listening and speaking vocabularies. | 13 |
| **LA.K.K.2.b** | **34** |
| Use number words. | 34 |
| **LA.K.K.2.c** | **34** |
| Use words to describe/name people, places, and things. | 34 |
| **LA.K.K.2.d** | **34** |
| Use words to describe/name location, size, color, and shape. | 34 |
| **LA.K.K.2.e** | **34** |
| Use words to describe/name actions. | 34 |
| **LA.K.K.2.g** | **13** |
| Use vocabulary from other content areas. | 13 |
| **LA.K.K.4.b** | **10** |
| Identify . . . words that rhyme. | 10 |
| **LA.K.K.4.c** | **12** |
| Blend and segment multisyllabic words at the syllable level. | 12 |
| **LA.K.K.4.d** | **14** |
| Segment one-syllable words into speech sound units including beginning phoneme(s) (onset) and ending (rimes). | 14 |
| **LA.K.K.4.e** | **23** |
| Identify words according to shared beginning and/or ending sounds. | 23 |
| **LA.K.K.6.d** | **14** |
| Read his/her name and read fifteen meaningful, concrete words. | 14 |
| **LA.K.K.7.a** | **12** |
| Identify and name the . . . lowercase letters of the alphabet. | 6 |
| Identify and name the uppercase . . . letters of the alphabet. | 6 |
| **LA.K.K.7.b** | **115** |
| Match . . . initial consonant diagraph sounds to appropriate letters. | 14 |
| Match . . . short vowel . . . sounds to appropriate letters. | 35 |
| Match consonant . . . sounds to appropriate letters. | 66 |
| **LA.K.K.7.d** | **12** |
| Identify beginning consonant sounds in single-syllable words. | 12 |
| **LA.K.K.8.a** | **13** |
| Discuss meanings of words. | 13 |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **LA.K.K.8.b** | **13** |
| Develop vocabulary by listening to a variety of texts read aloud. | 13 |
| **LA.K.K.9.c** | **12** |
| Use pictures to make predictions. | 12 |
| **LA.K.K.9.d** | **44** |
| Begin to . . . answer questions about what is read. | 12 |
| Begin to ask and answer questions about what is read. | 32 |
| **LA.K.K.9.e** | **22** |
| Use story language in . . . retellings. | 2 |
| Use story language in discussions and retellings. | 20 |
| **LA.K.K.9.f** | **21** |
| Retell familiar stories, using beginning, middle, and end. | 21 |
| **LA.K.K.9.g** | **13** |
| Discuss characters, setting, and events. | 13 |
| **1** | **1150** |
| **LA.1.1.10.d** | **7** |
| Identify text features such as pictures, headings, charts, and captions. | 7 |
| **LA.1.1.10.e** | **9** |
| Make and confirm predictions. | 9 |
| **LA.1.1.10.f** | **56** |
| . . . Answer who, what, where, when, why, and how questions about what is read. | 8 |
| Ask and answer who, what, where, when, why, and how questions about what is read. | 48 |
| **LA.1.1.10.g** | **7** |
| Identify the main idea. | 7 |
| **LA.1.1.2.a** | **12** |
| Increase listening and speaking vocabularies. | 12 |
| **LA.1.1.2.d** | **12** |
| Use vocabulary from other content areas. | 12 |
| **LA.1.1.4.a** | **10** |
| Create rhyming words. | 10 |
| **LA.1.1.4.b** | **22** |
| Count phonemes (sounds) in one-syllable words. | 22 |
| **LA.1.1.4.c** | **21** |
| Blend sounds to make one-syllable words. | 21 |
| **LA.1.1.4.d** | **15** |
| Segment one-syllable words into individual speech sounds (phonemes). | 15 |
| **LA.1.1.4.e** | **12** |
| . . . Delete phonemes (sounds) to make new words. | 4 |
| Add . . . phonemes (sounds) to make new words. | 8 |
| **LA.1.1.5.c** | **12** |
| Identify letters, words, sentences, and ending punctuation. | 12 |
| **LA.1.1.6.a** | **81** |
| Use beginning and ending consonants to decode and spell single-syllable words. | 81 |
| **LA.1.1.6.b** | **50** |
| Use two-letter consonant blends to decode and spell single-syllable words. | 50 |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **LA.1.1.6.c** | **6** |
| Use beginning consonant digraphs to decode . . . single-syllable words. | 6 |
| **LA.1.1.6.d** | **22** |
| Use short vowel sounds to decode and spell single-syllable words. | 22 |
| **LA.1.1.6.e** | **230** |
| Blend beginning, middle, and ending sounds to recognize and read words. | 230 |
| **LA.1.1.6.f** | **230** |
| Use word patterns to decode unfamiliar words. | 230 |
| **LA.1.1.6.g** | **6** |
| Read and spell simple two-syllable compound words. | 6 |
| **LA.1.1.6.h** | **48** |
| Read and spell commonly used sight words. | 48 |
| **LA.1.1.7.a** | **18** |
| Use words, phrases, and sentences. | 18 |
| **LA.1.1.8.a** | **33** |
| Discuss meanings of words in context. | 33 |
| **LA.1.1.8.b** | **12** |
| Develop vocabulary by listening to and reading a variety of texts. | 12 |
| **LA.1.1.8.c** | **15** |
| Ask for the meaning of unknown words and make connections to familiar words. | 15 |
| **LA.1.1.8.d** | **18** |
| Use text clues such as words or pictures to discern meanings of unknown words. | 18 |
| **LA.1.1.8.e** | **12** |
| Use vocabulary from other content areas. | 12 |
| **LA.1.1.9.d** | **9** |
| Make and confirm predictions. | 9 |
| **LA.1.1.9.e** | **68** |
| . . . Answer who, what, when, where, why, and how questions about what is read. | 17 |
| Ask and answer who, what, when, where, why, and how questions about what is read. | 51 |
| **LA.1.1.9.f** | **43** |
| Identify . . . important events. | 9 |
| Identify . . . setting and important events. | 9 |
| Identify characters . . . | 6 |
| Identify characters, setting, and important events. | 19 |
| **LA.1.1.9.g** | **37** |
| Retell stories and events, using beginning, middle, and end. | 37 |
| **LA.1.1.9.h** | **17** |
| Identify the main idea or theme. | 17 |
| **2** | **684** |
| **LA.2.2.10.a** | **6** |
| Use table of contents. | 6 |
| **LA.2.2.10.b** | **6** |
| Use pictures, captions, and charts. | 6 |
| **LA.2.2.10.c** | **6** |
| Use dictionaries, glossaries, and indices. | 6 |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **LA.2.2.2.a** | **16** |
| Increase listening and speaking vocabularies. | 16 |
| **LA.2.2.2.d** | **13** |
| Identify and use synonyms and antonyms. | 13 |
| **LA.2.2.2.e** | **16** |
| Use vocabulary from other content areas. | 16 |
| **LA.2.2.4.a** | **22** |
| Count phonemes (sounds) within one-syllable words. | 22 |
| **LA.2.2.4.b** | **21** |
| Blend sounds to make one-syllable words. | 21 |
| **LA.2.2.4.c** | **15** |
| Segment one-syllable words into individual speech sounds (phonemes). | 15 |
| **LA.2.2.4.d** | **4** |
| . . . Delete phonemes (sounds) to make words. | 4 |
| **LA.2.2.4.e** | **36** |
| Blend and segment multisyllabic words at the syllable level. | 36 |
| **LA.2.2.5.a** | **64** |
| Use knowledge of . . . consonant digraphs to decode . . . words. | 14 |
| Use knowledge of consonants, consonant blends, and consonant digraphs to decode and spell words. | 50 |
| **LA.2.2.5.b** | **83** |
| Use knowledge of . . . long . . . vowel patterns to decode . . . words. | 17 |
| Use knowledge of . . . r-controlled vowel patterns to decode . . . words. | 12 |
| Use knowledge of short . . . vowel patterns to decode . . . words. | 15 |
| Use knowledge of short [and] long . . . vowel patterns to decode . . . words. | 6 |
| Use knowledge of short, long, and r-controlled vowel patterns to decode and spell words. | 33 |
| **LA.2.2.5.c** | **43** |
| Decode regular multisyllabic words. | 43 |
| **LA.2.2.7.a** | **13** |
| Use knowledge of homophones. | 13 |
| **LA.2.2.7.b** | **10** |
| Use knowledge of prefixes and suffixes. | 10 |
| **LA.2.2.7.c** | **13** |
| Use knowledge of antonyms and synonyms. | 13 |
| **LA.2.2.7.d** | **29** |
| Discuss meanings of words and develop vocabulary by listening and reading a variety of texts. | 29 |
| **LA.2.2.7.e** | **16** |
| Use vocabulary from other content areas. | 16 |
| **LA.2.2.8.a** | **6** |
| Make and confirm predictions. | 6 |
| **LA.2.2.8.c** | **53** |
| . . . Answer questions about what is read. | 6 |
| Ask and answer questions about what is read. | 47 |
| **LA.2.2.8.d** | **34** |
| Locate information to answer questions. | 34 |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **LA.2.2.8.e** | **35** |
| Describe . . . important events in fiction and poetry. | 7 |
| Describe characters . . . and important events in fiction and poetry. | 6 |
| Describe characters, setting, and important events in fiction and poetry. | 22 |
| **LA.2.2.8.f** | **14** |
| Identify the problem and solution. | 14 |
| **LA.2.2.8.g** | **6** |
| Identify the main idea. | 6 |
| **LA.2.2.8.h** | **20** |
| Summarize stories and events with beginning, middle, and end in the correct sequence. | 20 |
| **LA.2.2.8.i** | **6** |
| Draw conclusions based on the text. | 6 |
| **LA.2.2.9.a** | **6** |
| Preview the selection using text features. | 6 |
| **LA.2.2.9.b** | **6** |
| Make and confirm predictions about the main idea. | 6 |
| **LA.2.2.9.e** | **36** |
| . . . Answer questions about what is read. | 6 |
| Ask and answer questions about what is read. | 30 |
| **LA.2.2.9.f** | **18** |
| Locate information to answer questions. | 18 |
| **LA.2.2.9.g** | **12** |
| Identify the main idea. | 12 |
| **3** | **611** |
| **LA.3.3.3.a** | **95** |
| Use knowledge of regular and irregular vowel patterns. | 95 |
| **LA.3.3.3.b** | **102** |
| Decode regular multisyllabic words. | 102 |
| **LA.3.3.4.a** | **12** |
| Use knowledge of homophones. | 12 |
| **LA.3.3.4.b** | **19** |
| Use knowledge of roots [and] affixes . . . | 7 |
| Use knowledge of roots, affixes, synonyms, and antonyms. | 12 |
| **LA.3.3.4.c** | **26** |
| Apply meaning clues [and] language structure . . . | 14 |
| Apply meaning clues, language structure, and phonetic strategies. | 12 |
| **LA.3.3.4.d** | **26** |
| Use context to clarify meaning of unfamiliar words. | 26 |
| **LA.3.3.4.e** | **14** |
| Discuss meanings of words and develop vocabulary by listening and reading a variety of texts. | 14 |
| **LA.3.3.4.f** | **14** |
| Use vocabulary from other content areas. | 14 |
| **LA.3.3.5.c** | **14** |
| Make, confirm, or revise predictions. | 14 |
| **LA.3.3.5.d** | **29** |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| Compare and contrast settings, characters, and events. | 29 |
| **LA.3.3.5.f** | **58** |
| . . . Answer questions about what is read. | 22 |
| Ask and answer questions about what is read. | 36 |
| **LA.3.3.5.g** | **14** |
| Draw conclusions about text. | 14 |
| **LA.3.3.5.h** | **24** |
| Identify the problem and solution. | 24 |
| **LA.3.3.5.i** | **14** |
| Identify the main idea. | 14 |
| **LA.3.3.5.j** | **8** |
| Identify supporting details. | 8 |
| **LA.3.3.6.a** | **7** |
| Identify the author's purpose. | 7 |
| **LA.3.3.6.c** | **7** |
| Preview and use text features. | 7 |
| **LA.3.3.6.d** | **65** |
| . . . Answer questions about what is read. | 22 |
| Ask and answer questions about what is read. | 43 |
| **LA.3.3.6.e** | **14** |
| Draw conclusions based on text. | 14 |
| **LA.3.3.6.f** | **14** |
| Summarize major points found in nonfiction texts. | 14 |
| **LA.3.3.6.g** | **14** |
| Identify the main idea. | 14 |
| **LA.3.3.6.h** | **14** |
| Identify supporting details. | 14 |
| **LA.3.3.7.b** | **7** |
| Use table of contents, indices, and charts. | 7 |
| **4** | **314** |
| **LA.4.4.4.a** | **28** |
| Use context to clarify meanings of unfamiliar words. | 28 |
| **LA.4.4.4.b** | **23** |
| Use knowledge of roots, [and] affixes . . . | 11 |
| Use knowledge of roots, affixes, synonyms, antonyms, and homophones. | 12 |
| **LA.4.4.4.d** | **16** |
| Develop vocabulary by listening to and reading a variety of texts. | 16 |
| **LA.4.4.4.e** | **16** |
| Use vocabulary from other content areas. | 16 |
| **LA.4.4.5.a** | **8** |
| Explain the author's purpose. | 8 |
| **LA.4.4.5.b** | **31** |
| Describe how the choice of language, setting, characters, and information contributes to the author's purpose. | 31 |
| **LA.4.4.5.c** | **22** |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| Identify the main idea. | 22 |
| **LA.4.4.5.d** | **25** |
| Summarize supporting details. | 25 |
| **LA.4.4.5.e** | **14** |
| Identify the problem and solution. | 14 |
| **LA.4.4.5.g** | **9** |
| Identify sensory words. | 9 |
| **LA.4.4.5.h** | **11** |
| Draw conclusions/make inferences about text. | 11 |
| **LA.4.4.5.i** | **11** |
| Make, confirm, or revise predictions. | 11 |
| **LA.4.4.5.j** | **18** |
| Identify cause and effect relationships. | 18 |
| **LA.4.4.6.a** | **6** |
| Use text structures, such as type, headings, and graphics, to predict and categorize information in both print and digital texts. | 6 |
| **LA.4.4.6.c** | **8** |
| Explain the author's purpose. | 8 |
| **LA.4.4.6.d** | **16** |
| Identify the main idea. | 16 |
| **LA.4.4.6.e** | **25** |
| Summarize supporting details. | 25 |
| **LA.4.4.6.f** | **11** |
| Draw conclusions and make simple inferences using textual information as support. | 11 |
| **LA.4.4.6.g** | **10** |
| Distinguish between cause and effect. | 10 |
| **LA.4.4.6.h** | **6** |
| Distinguish between fact and opinion. | 6 |
| **5** | **348** |
| **LA.5.5.4.a** | **30** |
| Use context to clarify meaning of unfamiliar words and phrases. | 30 |
| **LA.5.5.4.b** | **12** |
| Use context and sentence structure to determine meanings and differentiate among multiple meanings of words. | 12 |
| **LA.5.5.4.c** | **18** |
| Use knowledge of roots [and] affixes . . . | 6 |
| Use knowledge of roots, affixes, synonyms, antonyms, and homophones. | 12 |
| **LA.5.5.4.d** | **19** |
| Identify an author's use of figurative language. | 19 |
| **LA.5.5.4.f** | **18** |
| Develop vocabulary by listening to and reading a variety of texts. | 18 |
| **LA.5.5.4.g** | **18** |
| Study word meanings across content areas. | 18 |
| **LA.5.5.5.b** | **10** |
| Describe character development. | 10 |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **LA.5.5.5.c** | **15** |
| Describe the development of plot and explain the resolution of conflict(s). | 15 |
| **LA.5.5.5.e** | **20** |
| Describe how an author's choice of vocabulary contributes to the author's style. | 20 |
| **LA.5.5.5.f** | **13** |
| Identify and ask questions that clarify various points of view. | 13 |
| **LA.5.5.5.g** | **20** |
| Identify main idea. | 20 |
| **LA.5.5.5.h** | **20** |
| Summarize supporting details from text. | 20 |
| **LA.5.5.5.i** | **13** |
| Draw conclusions and make inferences from text. | 13 |
| **LA.5.5.5.j** | **20** |
| Identify cause and effect relationships. | 20 |
| **LA.5.5.5.k** | **13** |
| Make, confirm, or revise predictions. | 13 |
| **LA.5.5.6.d** | **13** |
| Identify the main idea of nonfiction texts. | 13 |
| **LA.5.5.6.e** | **20** |
| Summarize supporting details in nonfiction texts. | 20 |
| **LA.5.5.6.f** | **12** |
| Identify structural patterns found in nonfiction. | 12 |
| **LA.5.5.6.g** | **13** |
| Locate information to support . . . predictions and conclusions. | 13 |
| **LA.5.5.6.h** | **12** |
| Identify cause and effect relationships following transition words signaling the pattern. | 12 |
| **LA.5.5.6.i** | **7** |
| Differentiate between fact and opinion. | 7 |
| **LA.5.5.6.j** | **12** |
| Identify, compare, and contrast relationships. | 12 |
| **6** | **317** |
| **LA.6.6.4.b** | **18** |
| Use roots [and] affixes . . . to expand vocabulary. | 9 |
| Use roots, cognates, affixes, synonyms, and antonyms to expand vocabulary. | 9 |
| **LA.6.6.4.c** | **9** |
| Use context and sentence structure to determine meanings and differentiate among multiple meanings of words. | 9 |
| **LA.6.6.4.d** | **15** |
| Identify and analyze figurative language. | 15 |
| **LA.6.6.4.f** | **12** |
| Extend general and specialized vocabulary through . . . reading . . . | 12 |
| **LA.6.6.5.a** | **23** |
| Identify the elements of narrative structure, including . . . character, plot, [and] conflict . . . | 10 |
| Identify the elements of narrative structure, including . . . plot [and] conflict . . . | 7 |
| Identify the elements of narrative structure, including . . . theme. | 6 |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **LA.6.6.5.b** | **9** |
| Make, confirm, and revise predictions. | 9 |
| **LA.6.6.5.c** | **23** |
| Describe how word choice and imagery contribute to the meaning of a text. | 23 |
| **LA.6.6.5.d** | **19** |
| Describe cause and effect relationships and their impact on plot. | 19 |
| **LA.6.6.5.f** | **9** |
| Use information in the text to draw conclusions and make inferences. | 9 |
| **LA.6.6.5.g** | **24** |
| Explain how . . . plot development . . . [is] used in a selection to support a central conflict or story line. | 7 |
| Explain how character . . . development . . . [is] used in a selection to support a central conflict or story line. | 10 |
| Explain how character and plot development are used in a selection to support a central conflict or story line. | 7 |
| **LA.6.6.5.h** | **18** |
| Identify the main idea. | 18 |
| **LA.6.6.5.i** | **19** |
| Identify and summarize supporting details. | 19 |
| **LA.6.6.5.j** | **15** |
| Identify and analyze the author's use of figurative language. | 15 |
| **LA.6.6.5.k** | **12** |
| Identify transitional words and phrases that signal an author's organizational pattern. | 12 |
| **LA.6.6.6.d** | **9** |
| Make, confirm, or revise predictions. | 9 |
| **LA.6.6.6.e** | **9** |
| Draw conclusions and make inferences based on explicit and implied information. | 9 |
| **LA.6.6.6.f** | **7** |
| Differentiate between fact and opinion. | 7 |
| **LA.6.6.6.g** | **12** |
| Identify main idea. | 12 |
| **LA.6.6.6.h** | **19** |
| Summarize supporting details. | 19 |
| **LA.6.6.6.i** | **12** |
| Compare and contrast information about one topic, which may be contained in different selections. | 12 |
| **LA.6.6.6.j** | **12** |
| Identify the author's organizational pattern. | 12 |
| **LA.6.6.6.k** | **12** |
| Identify cause and effect relationships. | 12 |
| **7** | **271** |
| **LA.7.7.4.b** | **16** |
| Use roots [and] affixes . . . to expand vocabulary. | 6 |
| Use roots, cognates, affixes, synonyms, and antonyms to expand vocabulary. | 10 |
| **LA.7.7.4.c** | **17** |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| Identify and analyze figurative language. | 17 |
| **LA.7.7.4.d** | **20** |
| Identify connotations. | 20 |
| **LA.7.7.4.e** | **10** |
| Use context and sentence structure to determine meanings and differentiate among multiple meanings of words. | 10 |
| **LA.7.7.4.f** | **6** |
| Extend general and specialized vocabulary through . . . reading . . . | 6 |
| **LA.7.7.5.a** | **30** |
| Describe the elements of narrative structure including . . . character development . . . | 9 |
| Describe the elements of narrative structure including . . . theme . . . | 7 |
| Describe the elements of narrative structure including plot structure . . . | 7 |
| Describe the elements of narrative structure including setting, character development, plot structure, . . . and conflict. | 7 |
| **LA.7.7.5.d** | **17** |
| Describe the impact of word choice, imagery, and literary devices including figurative language. | 17 |
| **LA.7.7.5.e** | **6** |
| Make, confirm, and revise predictions. | 6 |
| **LA.7.7.5.g** | **6** |
| Make inferences and draw conclusions based on the text. | 6 |
| **LA.7.7.5.h** | **20** |
| Identify the main idea. | 20 |
| **LA.7.7.5.i** | **20** |
| Summarize text relating supporting details. | 20 |
| **LA.7.7.5.j** | **7** |
| Identify the author's organizational pattern. | 7 |
| **LA.7.7.5.k** | **7** |
| Identify cause and effect relationships. | 7 |
| **LA.7.7.6.c** | **7** |
| Identify an author's organizational pattern using textual clues, such as transitional words and phrases. | 7 |
| **LA.7.7.6.d** | **6** |
| Draw conclusions and make inferences on explicit and implied information. | 6 |
| **LA.7.7.6.e** | **7** |
| Differentiate between fact and opinion. | 7 |
| **LA.7.7.6.f** | **6** |
| Identify the source, viewpoint, and purpose of texts. | 6 |
| **LA.7.7.6.g** | **23** |
| Describe how word choice and language structure convey an author's viewpoint. | 23 |
| **LA.7.7.6.h** | **13** |
| Identify the main idea. | 13 |
| **LA.7.7.6.i** | **20** |
| Summarize text identifying supporting details. | 20 |
| **LA.7.7.6.j** | **7** |
| Identify cause and effect relationships. | 7 |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| **8** | **417** |
| **LA.8.8.4.a** | **18** |
| Identify and analyze an author's use of figurative language. | 18 |
| **LA.8.8.4.b** | **23** |
| Use context, structure, and connotations to determine meaning and differentiate among multiple meanings of words and phrases. | 23 |
| **LA.8.8.4.c** | **17** |
| Use roots [and] affixes . . . to determine the meaning of unfamiliar words and technical vocabulary. | 6 |
| Use roots, affixes, cognates, synonyms, and antonyms to determine the meaning of unfamiliar words and technical vocabulary. | 11 |
| **LA.8.8.4.e** | **23** |
| Discriminate between connotative and denotative meanings and interpret the connotation. | 23 |
| **LA.8.8.4.f** | **10** |
| Extend general and specialized vocabulary through . . . reading . . . | 10 |
| **LA.8.8.5.a** | **18** |
| Explain the use of symbols and figurative language. | 18 |
| **LA.8.8.5.b** | **10** |
| Make inferences and draw conclusions based on explicit and implied information using evidence from text as support. | 10 |
| **LA.8.8.5.c** | **29** |
| Explain how authors use . . . point of view . . . to create meaning. | 5 |
| Explain how authors use characters . . . to create meaning. | 6 |
| Explain how authors use characters, conflict, point of view, voice, and tone to create meaning. | 18 |
| **LA.8.8.5.e** | **30** |
| Compare and contrast the author's use of word choice, dialogue, form, rhyme, rhythm, and voice in different texts. | 30 |
| **LA.8.8.5.f** | **30** |
| Compare and contrast authors' styles. | 30 |
| **LA.8.8.5.g** | **12** |
| Identify and ask questions that clarify various viewpoints. | 12 |
| **LA.8.8.5.h** | **20** |
| Identify the main idea. | 20 |
| **LA.8.8.5.i** | **20** |
| Summarize text relating supporting details. | 20 |
| **LA.8.8.5.j** | **14** |
| Identify an author's organizational pattern using textual clues, such as transitional words and phrases. | 14 |
| **LA.8.8.5.k** | **14** |
| Identify cause and effect relationships. | 14 |
| **LA.8.8.6.a** | **7** |
| Draw on . . . knowledge of text structure to understand selections. | 7 |
| **LA.8.8.6.b** | **10** |
| Make inferences and draw conclusions based on explicit and implied information using evidence from text as support. | 10 |
| **LA.8.8.6.c** | **15** |

| Numbers of Items per *i-Ready* Standard and per VA SOL: ENGLISH LANGUAGE ARTS | |
|---|---|
| **Row Labels** | **Total** |
| Analyze the author's qualifications, viewpoint, and impact. | 15 |
| **LA.8.8.6.d** | **19** |
| Analyze the author's use of text structure . . . | 7 |
| Analyze the author's use of text structure and word choice. | 12 |
| **LA.8.8.6.e** | **8** |
| Analyze details for relevance and accuracy. | 8 |
| **LA.8.8.6.f** | **8** |
| Differentiate between fact and opinion. | 8 |
| **LA.8.8.6.g** | **14** |
| Identify the main idea. | 14 |
| **LA.8.8.6.h** | **20** |
| Summarize the text identifying supporting details. | 20 |
| **LA.8.8.6.i** | **14** |
| Identify an author's organizational pattern using textual clues, such as transitional words and phrases. | 14 |
| **LA.8.8.6.j** | **14** |
| Identify cause and effect relationships. | 14 |
| **Grand Total** | **4648** |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| **0** | **199** |
| **MA.K.K.1** | **4** |
| The student, given two sets, each containing 10 or fewer concrete objects, will identify and describe one set as having more, fewer, or the same number of members as the other set, using the concept of one-to-one correspondence. | 4 |
| **MA.K.K.10** | **7** |
| The student will compare two objects or events, using direct comparisons or nonstandard units of measure, according to one or more of the following attributes: length (shorter, longer), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder). Examples of nonstandard units include foot length, hand span, new pencil, paper clip, and block. | 7 |
| **MA.K.K.11.a** | **10** |
| The student will identify . . . plane geometric figures (circle, triangle, square, and rectangle) . . . | 10 |
| **MA.K.K.11.b** | **12** |
| The student will compare the size (larger, smaller) and shape of plane geometric figures (circle, triangle, square, and rectangle) | 12 |
| **MA.K.K.12** | **18** |
| The student will . . . identify representations of plane geometric figures (circle, triangle, square, and rectangle) regardless of their positions and orientations in space. | 10 |
| The student will describe the location of one object relative to another (above, below, next to) and identify representations of plane geometric figures (circle, triangle, square, and rectangle) regardless of their positions and orientations in space. | 8 |
| **MA.K.K.14** | **7** |
| The student will display gathered data in . . . picture graphs . . . and will answer questions related to the data. | 7 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| **MA.K.K.15** | **27** |
| The student will sort . . . objects according to attributes. | 6 |
| The student will sort and classify objects according to attributes. | 21 |
| **MA.K.K.2.a** | **7** |
| The student, given a set containing 15 or fewer concrete objects, will tell how many are in the set by counting the number of objects orally | 7 |
| **MA.K.K.2.b** | **7** |
| The student, given a set containing 15 or fewer concrete objects, will write the numeral to tell how many are in the set; and | 7 |
| **MA.K.K.2.c** | **7** |
| The student, given a set containing 15 or fewer concrete objects, will select the corresponding numeral from a given set of numerals | 7 |
| **MA.K.K.3** | **3** |
| The student, given an ordered set of ten objects and/or pictures, will indicate the ordinal position of each object, first through tenth, and the ordered position of each object. | 3 |
| **MA.K.K.4.a** | **20** |
| The student will count . . . backward from 10 | 7 |
| The student will count forward to 100 . . . | 13 |
| **MA.K.K.4.b** | **14** |
| The student will identify . . . one less than a number . . . | 7 |
| The student will identify one more than a number . . . | 7 |
| **MA.K.K.4.c** | **13** |
| The student will count by . . . tens to 100 | 6 |
| The student will count by fives . . . to 100 | 7 |
| **MA.K.K.5** | **8** |
| The student will identify the parts of a . . . region that represent fractions for halves and fourths. | 6 |
| The student will identify the parts of a set . . . that represent fractions for halves and fourths. | 2 |
| **MA.K.K.6** | **29** |
| The student will model adding and subtracting whole numbers, using up to 10 concrete objects. | 29 |
| **MA.K.K.7** | **4** |
| The student will recognize a penny, nickel, dime, and quarter and will determine the value of a collection of pennies and/or nickels whose total value is 10 cents or less. | 4 |
| **MA.K.K.9** | **2** |
| The student will tell time to the hour, using analog and digital clocks. | 2 |
| **1** | **312** |
| **MA.1.1.1.a** | **13** |
| The student will count from 0 to 100 . . . | 13 |
| **MA.1.1.1.b** | **10** |
| The student will group a collection of up to 100 objects into tens and ones and write the corresponding numeral to develop an understanding of place value | 10 |
| **MA.1.1.11** | **2** |
| The student will use calendar language appropriately (e.g., names of the months, today, yesterday, next week, last week). | 2 |
| **MA.1.1.12** | **31** |
| The student will identify . . . and sort plane geometric figures (triangle, square, rectangle, and circle) according to number of sides, vertices, and right angles. | 9 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will identify . . . plane geometric figures (triangle, square, rectangle, and circle) according to number of sides, vertices, and right angles. | 10 |
| The student will identify and trace, describe, and sort plane geometric figures (triangle, square, rectangle, and circle) according to number of sides, vertices, and right angles. | 12 |
| **MA.1.1.13** | **22** |
| The student will construct, model, and describe objects in the environment as geometric shapes (triangle, rectangle, square, and circle) and explain the reasonableness of each choice. | 22 |
| **MA.1.1.15** | **7** |
| The student will interpret information displayed in a picture or object graph, using the vocabulary more, less, fewer, greater than, less than, and equal to. | 7 |
| **MA.1.1.16** | **32** |
| The student will . . . classify concrete objects according to . . . shape . . . | 17 |
| The student will sort . . . concrete objects according to one or more attributes, including color, size, shape, and thickness. | 6 |
| The student will sort and classify concrete objects according to one or more attributes, including color, size, shape, and thickness. | 9 |
| **MA.1.1.17** | **15** |
| The student will recognize, describe, extend, and create a wide variety of growing and repeating patterns. | 15 |
| **MA.1.1.18** | **6** |
| The student will demonstrate an understanding of equality through the use of the equal sign. | 6 |
| **MA.1.1.2** | **49** |
| The student will count forward by . . . fives . . . to 100 . . . | 7 |
| The student will count forward by . . . tens to 100 . . . | 6 |
| The student will count forward by ones . . . to 100 . . . | 13 |
| The student will count forward by ones, twos, fives, and tens to 100 and backward by ones from 30. | 23 |
| **MA.1.1.3** | **8** |
| The student will identify the parts of a . . . region that represent fractions for halves . . . and fourths and write the fractions. | 6 |
| The student will identify the parts of a set . . . that represent fractions for halves . . . and fourths and write the fractions. | 2 |
| **MA.1.1.5** | **23** |
| The student will recall basic . . . subtraction facts. | 10 |
| The student will recall basic addition facts with sums to 18 or less . . . | 13 |
| **MA.1.1.6** | **84** |
| The student will . . . solve one-step story and picture problems using basic . . . subtraction facts. | 6 |
| The student will create and solve one-step story and picture problems using basic addition facts with sums to 18 or less and the corresponding subtraction facts. | 78 |
| **MA.1.1.7.a** | **4** |
| The student will identify the number of pennies equivalent to a nickel, a dime, and a quarter; and | 4 |
| **MA.1.1.7.b** | **4** |
| The student will determine the value of a collection of pennies, nickels, and dimes whose total value is 100 cents or less | 4 |
| **MA.1.1.8** | **2** |
| The student will tell time to the half-hour, using analog and digital clocks. | 2 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| **2** | **327** |
| **MA.2.2.1.a** | **7** |
| The student will read, write, and identify the place value of each digit in a three-digit numeral, using numeration models | 7 |
| **MA.2.2.1.b** | **7** |
| The student will round two-digit numbers to the nearest ten; and | 7 |
| **MA.2.2.1.c** | **14** |
| The student will compare two whole numbers between 0 and 999, using symbols (>, <, or =) and words (greater than, less than, or equal to) | 14 |
| **MA.2.2.10.a** | **4** |
| The student will count and compare a collection of pennies, nickels, dimes, and quarters whose total value is $2.00 or less; and | 4 |
| **MA.2.2.10.b** | **12** |
| The student will correctly use the cent symbol (¬¢), dollar symbol ($), and decimal point (.) | 12 |
| **MA.2.2.11.a** | **13** |
| The student will . . . measure length to the nearest . . . inch | 10 |
| The student will . . . measure length to the nearest centimeter . . . | 3 |
| **MA.2.2.11.b** | **7** |
| The student will estimate and measure weight/mass of objects in pounds/ounces and kilograms/grams, using a scale; and | 7 |
| **MA.2.2.12** | **6** |
| The student will tell and write time to the nearest five minutes, using analog . . . clocks. | 6 |
| **MA.2.2.14** | **2** |
| The student will read the temperature on a . . . Fahrenheit thermometer . . . | 2 |
| **MA.2.2.15.b** | **8** |
| The student will identify . . . figures with at least one line of symmetry | 8 |
| **MA.2.2.16** | **30** |
| The student will . . . compare . . . and contrast . . . solid geometric figures (. . . sphere, . . . cube, and . . . rectangular prism). | 9 |
| The student will identify, describe, compare, and contrast plane and solid geometric figures (circle/sphere, square/cube, and rectangle/rectangular prism). | 21 |
| **MA.2.2.17** | **25** |
| The student will use data from experiments to construct picture graphs, pictographs, and bar graphs. | 25 |
| **MA.2.2.19** | **13** |
| The student will analyze data displayed in picture graphs, pictographs, and bar graphs. | 13 |
| **MA.2.2.2.a** | **1** |
| The student will identify the ordinal positions first through twentieth, using an ordered set of objects; and | 1 |
| **MA.2.2.2.b** | **1** |
| The student will write the ordinal numbers | 1 |
| **MA.2.2.20** | **15** |
| The student will identify, create, and extend a wide variety of patterns. | 15 |
| **MA.2.2.21** | **7** |
| The student will solve problems by completing numerical sentences involving the basic facts for addition and subtraction . . . | 7 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| **MA.2.2.22** | **6** |
| The student will demonstrate an understanding of equality by recognizing that the symbol = in an equation indicates equivalent quantities and the symbol ,â† indicates that quantities are not equivalent. | 6 |
| **MA.2.2.3.a** | **25** |
| The student will identify the parts of a . . . region that represent fractions for halves . . . [and] fourths . . . | 6 |
| The student will identify the parts of a . . . region that represent fractions for halves, thirds, fourths, sixths, eighths, and tenths | 8 |
| The student will identify the parts of a set . . . that represent fractions for halves . . . [and] fourths . . . | 2 |
| The student will identify the parts of a set . . . that represent fractions for halves, thirds, fourths, sixths, eighths, and tenths | 9 |
| **MA.2.2.3.b** | **17** |
| The student will write the fractions; and | 17 |
| **MA.2.2.3.c** | **3** |
| The student will compare the unit fractions for halves, thirds, fourths, sixths, eighths, and tenths | 3 |
| **MA.2.2.4.a** | **16** |
| The student will count forward by twos, fives, and tens to 100, starting at various multiples of 2, 5, or 10 | 9 |
| The student will count forward by. . . fives . . . to 100, starting at various multiples . . . 5 . . . | 7 |
| **MA.2.2.4.b** | **7** |
| The student will count backward by tens from 100; and | 7 |
| **MA.2.2.4.c** | **2** |
| The student will recognize even and odd numbers | 2 |
| **MA.2.2.5** | **39** |
| The student will recall . . . the . . . subtraction facts. | 10 |
| The student will recall addition facts with sums to 20 or less . . . | 13 |
| The student will recall addition facts with sums to 20 or less and the corresponding subtraction facts. | 16 |
| **MA.2.2.6.b** | **8** |
| The student, given two whole numbers whose sum is 99 or less, will find the sum, using various methods of calculation | 8 |
| **MA.2.2.7.b** | **19** |
| The student, given two whole numbers, each of which is 99 or less, will find the difference, using various methods of calculation | 19 |
| **MA.2.2.8** | **6** |
| The student will create and solve one- and two-step addition and subtraction problems, using data from simple tables, picture graphs, and bar graphs. | 6 |
| **MA.2.2.9** | **7** |
| The student will recognize and describe the related facts that represent and describe the inverse relationship between addition and subtraction. | 7 |
| **3** | **441** |
| **MA.3.3.1.a** | **7** |
| The student will read and write six-digit numerals and identify the place value and value of each digit | 7 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| **MA.3.3.1.b** | **2** |
| The student will round whole numbers, 9,999 or less, to the nearest ten, hundred, and thousand; and | 2 |
| **MA.3.3.1.c** | **7** |
| The student will compare two whole numbers between 0 and 9,999, using symbols (>, <, or =) and words (greater than, less than, or equal to) | 7 |
| **MA.3.3.10.a** | **7** |
| The student will measure the distance around a polygon in order to determine perimeter; and | 7 |
| **MA.3.3.10.b** | **7** |
| The student will count the number of square units needed to cover a given surface in order to determine area | 7 |
| **MA.3.3.11.a** | **7** |
| The student will tell time to the nearest minute, using analog . . . clocks; and | 7 |
| **MA.3.3.13** | **2** |
| The student will read temperature to the nearest degree from . . . a Fahrenheit thermometer . . . | 2 |
| **MA.3.3.14** | **24** |
| The student will identify, describe, compare, and contrast characteristics of plane and solid geometric figures (circle, square, rectangle, triangle, cube, rectangular prism, square pyramid, sphere, cone, and cylinder) by identifying relevant characteristics, including the number of angles, vertices, and edges, and the number and shape of faces, using concrete models. | 24 |
| **MA.3.3.15** | **13** |
| The student will identify . . . representations of points, line segments, rays, . . . and lines. | 7 |
| The student will identify and draw representations of points, line segments, rays, angles, and lines. | 6 |
| **MA.3.3.16** | **6** |
| The student will identify . . . congruent and noncongruent plane figures. | 3 |
| The student will identify and describe congruent and noncongruent plane figures. | 3 |
| **MA.3.3.17.b** | **37** |
| The student will construct . . . a bar graph to represent the data . . . | 6 |
| The student will construct . . . a picture graph . . . to represent the data . . . | 6 |
| The student will construct a line plot . . . to represent the data . . . | 13 |
| The student will construct a line plot, a picture graph, or a bar graph to represent the data; and | 12 |
| **MA.3.3.17.c** | **12** |
| The student will read and interpret the data represented in line plots, bar graphs, and picture graphs and write a sentence analyzing the data | 12 |
| **MA.3.3.19** | **6** |
| The student will recognize and describe a variety of patterns formed using numbers, tables, and pictures, and extend the patterns, using the same or different forms. | 6 |
| **MA.3.3.2** | **14** |
| The student will recognize and use the inverse relationships between . . . multiplication/division to complete basic fact sentences. The student will use these relationships to solve problems. | 7 |
| The student will recognize and use the inverse relationships between addition/subtraction . . . to complete basic fact sentences. The student will use these relationships to solve problems. | 7 |
| **MA.3.3.20.a** | **8** |
| The student will investigate the identity and the commutative properties for addition and multiplication; and | 8 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| **MA.3.3.20.b** | **8** |
| The student will identify examples of the identity and commutative properties for addition and multiplication | 8 |
| **MA.3.3.3.a** | **32** |
| The student will name and write fractions (including mixed numbers) represented by a model | 32 |
| **MA.3.3.3.b** | **32** |
| The student will model fractions (including mixed numbers) and write the fractions' names; and | 32 |
| **MA.3.3.3.c** | **12** |
| The student will compare fractions having . . . unlike denominators, using . . . symbols (>, <, or =) | 10 |
| The student will compare fractions having like and unlike denominators, using words and symbols (>, <, or =) | 2 |
| **MA.3.3.4** | **31** |
| The student will estimate solutions to and solve single-step and multistep problems involving the sum or difference of two whole numbers, each 9,999 or less, with or without regrouping. | 31 |
| **MA.3.3.5** | **19** |
| The student will recall multiplication facts through the twelves table, and the corresponding division facts. | 19 |
| **MA.3.3.6** | **76** |
| The student will represent multiplication and division, using area, set, and number line models, and create and solve problems that involve multiplication of two whole numbers, one factor 99 or less and the second factor 5 or less. | 76 |
| **MA.3.3.7** | **8** |
| The student will add and subtract proper fractions having like denominators of 12 or less. | 8 |
| **MA.3.3.8** | **12** |
| The student will determine, by counting, the value of a collection of bills and coins whose total value is $5.00 or less . . . | 12 |
| **MA.3.3.9.a** | **20** |
| The student will . . . use . . . metric units to measure length to the nearest . . . centimeter . . . | 3 |
| The student will . . . use U.S. Customary . . . units to measure length to the nearest . . . inch . . . | 10 |
| The student will estimate and use U.S. Customary and metric units to measure length to the nearest 1/2-inch, inch, foot, yard, centimeter, and meter | 7 |
| **MA.3.3.9.c** | **7** |
| The student will estimate and use U.S. Customary and metric units to measure weight/mass in ounces, pounds, grams, and kilograms; and | 7 |
| **MA.3.3.9.d** | **25** |
| The student will . . . use U.S. Customary and metric units to measure . . . perimeter | 7 |
| The student will . . . use U.S. Customary and metric units to measure area . . . | 18 |
| **4** | **491** |
| **MA.4.4.1.a** | **7** |
| The student will identify orally and in writing the place value for each digit in a whole number expressed through millions | 7 |
| **MA.4.4.1.b** | **2** |
| The student will compare two whole numbers expressed through millions, using symbols (>, <, or =); and | 2 |
| **MA.4.4.10.a** | **13** |
| The student will identify . . . representations of points, lines, line segments, [and] rays . . . | 7 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will identify and describe representations of . . . angles. . . | 6 |
| **MA.4.4.10.b** | **6** |
| The student will identify representations of lines that illustrate intersection, parallelism, and perpendicularity | 6 |
| **MA.4.4.12.b** | **22** |
| The student will identify polygons with 10 or fewer sides | 22 |
| **MA.4.4.13.a** | **3** |
| The student will predict the likelihood of an outcome of a simple event; and | 3 |
| **MA.4.4.13.b** | **9** |
| The student will represent probability as a number between 0 and 1, inclusive | 9 |
| **MA.4.4.14** | **27** |
| The student will collect, organize, display, and interpret data from a variety of graphs. | 27 |
| **MA.4.4.15** | **7** |
| The student will recognize, create, and extend numerical and geometric patterns. | 7 |
| **MA.4.4.16.b** | **2** |
| The student will investigate and describe the associative property for addition and multiplication | 2 |
| **MA.4.4.2.a** | **12** |
| The student will compare . . . fractions . . . | 3 |
| The student will compare and order fractions . . . | 2 |
| The student will compare and order fractions and mixed numbers | 7 |
| **MA.4.4.2.b** | **14** |
| The student will represent equivalent fractions; and | 14 |
| **MA.4.4.2.c** | **6** |
| The student will identify the division statement that represents a fraction | 6 |
| **MA.4.4.3.a** | **7** |
| The student will read . . . [and] write . . . identify decimals expressed through thousandths | 7 |
| **MA.4.4.3.b** | **6** |
| The student will round decimals to the nearest whole number, tenth, and hundredth | 6 |
| **MA.4.4.3.c** | **8** |
| The student will compare and order decimals; and | 8 |
| **MA.4.4.3.d** | **7** |
| The student will given a model, write the decimal and fraction equivalents | 7 |
| **MA.4.4.4.b** | **66** |
| The student will add, subtract, and multiply whole numbers | 66 |
| **MA.4.4.4.c** | **51** |
| The student will divide whole numbers, finding quotients with and without remainders; and | 51 |
| **MA.4.4.4.d** | **59** |
| The student will solve single-step and multistep addition, subtraction, and multiplication problems with whole numbers | 59 |
| **MA.4.4.5.a** | **15** |
| The student will determine common multiples and factors, including least common multiple and greatest common factor of up to two fractions | 15 |
| **MA.4.4.5.b** | **15** |
| The student will add and subtract fractions having like and unlike denominators that are limited to 2, 3, 4, 5, 6, 8, 10, and 12, and simplify the resulting fractions, using common multiples and factors | 15 |
| **MA.4.4.5.c** | **18** |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will add and subtract with decimals; and | 18 |
| **MA.4.4.5.d** | **33** |
| The student will solve single-step and multistep practical problems involving addition and subtraction with fractions and with decimals | 33 |
| **MA.4.4.6.a** | **7** |
| The student will estimate and measure weight/mass and describe the results in U.S. Customary and metric units as appropriate; and | 7 |
| **MA.4.4.6.b** | **20** |
| The student will identify equivalent measurements between units within the U.S. Customary system (ounces, pounds, and tons) and between units within the metric system (grams and kilograms) | 20 |
| **MA.4.4.7.a** | **10** |
| The student will . . . measure length, and describe the result in . . . metric . . . units . . . | 3 |
| The student will . . . measure length, and describe the result in . . . U.S. Customary units . . . | 7 |
| **MA.4.4.7.b** | **12** |
| The student will identify equivalent measurements between units within the U.S. Customary system (inches and feet; feet and yards; inches and yards; yards and miles) and between units within the metric system (millimeters and centimeters; centimeters and meters; and millimeters and meters) | 12 |
| **MA.4.4.8.b** | **14** |
| The student will identify equivalent measurements between units within the U.S. Customary system (cups, pints, quarts, and gallons) | 14 |
| **MA.4.4.9** | **13** |
| The student will determine elapsed time in hours and minutes within a 12-hour period. | 13 |
| **5** | **502** |
| **MA.5.5.1** | **6** |
| The student, given a decimal through thousandths, will round to the nearest whole number, tenth, or hundredth. | 6 |
| **MA.5.5.10** | **6** |
| The student will determine an amount of elapsed time in hours and minutes within a 24-hour period. | 6 |
| **MA.5.5.11** | **6** |
| The student will measure right, acute, obtuse, and straight angles. | 6 |
| **MA.5.5.12.a** | **6** |
| The student will classify angles as right, acute, obtuse, or straight; and | 6 |
| **MA.5.5.12.b** | **3** |
| The student will classify triangles as right, acute, obtuse, equilateral, scalene, or isosceles | 3 |
| **MA.5.5.13.b** | **12** |
| The student, using plane figures (square, rectangle, triangle, parallelogram, rhombus, and trapezoid), will investigate and describe the results of combining and subdividing plane figures | 12 |
| **MA.5.5.16.a** | **11** |
| The student will describe mean, median, and mode as measures of center | 11 |
| **MA.5.5.16.b** | **11** |
| The student will describe mean as fair share | 11 |
| **MA.5.5.16.c** | **13** |
| The student will find the mean, median, mode, and range of a set of data; and | 13 |
| **MA.5.5.16.d** | **11** |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will describe the range of a set of data as a measure of variation | 11 |
| **MA.5.5.17** | **7** |
| The student will describe the relationship found in a number pattern and express the relationship. | 7 |
| **MA.5.5.18.a** | **52** |
| The student will investigate and describe the concept of variable | 52 |
| **MA.5.5.18.b** | **7** |
| The student will write an open sentence to represent a given mathematical relationship, using a variable | 7 |
| **MA.5.5.18.c** | **7** |
| The student will model one-step linear equations in one variable, using addition and subtraction; and | 7 |
| **MA.5.5.19** | **2** |
| The student will investigate and recognize the distributive property of multiplication over addition. | 2 |
| **MA.5.5.2.a** | **7** |
| The student will recognize and name fractions in their equivalent decimal form and vice versa; and | 7 |
| **MA.5.5.2.b** | **24** |
| The student will compare . . . decimals in a given set from least to greatest and greatest to least | 8 |
| The student will compare . . . fractions . . . in a given set from least to greatest and greatest to least | 7 |
| The student will compare and order fractions . . . in a given set from least to greatest and greatest to least | 2 |
| The student will compare and order fractions and decimals in a given set from least to greatest and greatest to least | 7 |
| **MA.5.5.3.a** | **2** |
| The student will identify . . . prime and composite numbers . . . | 2 |
| **MA.5.5.3.b** | **15** |
| The student will identify . . . even and odd numbers | 2 |
| The student will identify and describe the characteristics of even and odd numbers | 13 |
| **MA.5.5.4** | **59** |
| The student will create and solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division with and without remainders of whole numbers. | 59 |
| **MA.5.5.5.a** | **42** |
| The student will find the sum, difference, product, and quotient of two numbers expressed as decimals through thousandths (divisors with only one nonzero digit); and | 42 |
| **MA.5.5.5.b** | **42** |
| The student will create and solve single-step and multistep practical problems involving decimals | 42 |
| **MA.5.5.6** | **15** |
| The student will solve single-step and multistep practical problems involving addition and subtraction with fractions and mixed numbers and express answers in simplest form. | 15 |
| **MA.5.5.7** | **7** |
| The student will evaluate whole number numerical expressions, using the order of operations limited to parentheses, addition, subtraction, multiplication, and division. | 7 |
| **MA.5.5.8.a** | **19** |
| The student will . . . volume in standard units of measure | 6 |
| The student will find . . . area . . . in standard units of measure | 6 |
| The student will find perimeter . . . in standard units of measure | 7 |
| **MA.5.5.8.b** | **19** |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will differentiate among perimeter, area, and volume and identify whether the application of the concept of perimeter, area, or volume is appropriate for a given situation | 19 |
| **MA.5.5.8.c** | **40** |
| The student will identify equivalent measurements within the metric system | 40 |
| **MA.5.5.8.e** | **47** |
| The student will choose an appropriate unit of measure for a given situation involving measurement using U.S. Customary and metric units | 47 |
| **MA.5.5.9** | **4** |
| The student will identify and describe the diameter, radius, chord, and circumference of a circle. | 4 |
| **6** | **331** |
| **MA.6.6.1** | **10** |
| The student will describe . . . data, using ratios, and will use appropriate notations, such as a/b . . . and a:b. | 10 |
| **MA.6.6.10.a** | **8** |
| The student will define "pi" (pi) as the ratio of the circumference of a circle to its diameter | 8 |
| **MA.6.6.10.b** | **4** |
| The student will solve practical problems involving circumference and area of a circle, given the diameter or radius | 4 |
| **MA.6.6.10.c** | **20** |
| The student will solve practical problems involving area and perimeter; and | 20 |
| **MA.6.6.10.d** | **15** |
| The student will . . . determine the volume . . . of a rectangular prism | 9 |
| The student will describe and determine the volume and surface area of a rectangular prism | 6 |
| **MA.6.6.11.a** | **13** |
| The student will identify the coordinates of a point in a coordinate plane; and | 13 |
| **MA.6.6.11.b** | **13** |
| The student will graph ordered pairs in a coordinate plane | 13 |
| **MA.6.6.14.c** | **3** |
| The student, given a problem situation, will compare and contrast graphs that present information from the same data set | 3 |
| **MA.6.6.15.a** | **13** |
| The student will describe mean as balance point; and | 13 |
| **MA.6.6.15.b** | **13** |
| The student will decide which measure of center is appropriate for a given purpose | 13 |
| **MA.6.6.16.b** | **4** |
| The student will determine probabilities for dependent and independent events | 4 |
| **MA.6.6.18** | **7** |
| The student will solve one-step linear equations in one variable involving whole number coefficients and positive rational solutions. | 7 |
| **MA.6.6.19.a** | **2** |
| The student will investigate and recognize the identity properties for addition and multiplication | 2 |
| **MA.6.6.19.b** | **2** |
| The student will investigate and recognize the multiplicative property of zero; and | 2 |
| **MA.6.6.2.a** | **10** |
| The student will investigate and describe fractions, decimals, and percents as ratios | 10 |
| **MA.6.6.2.b** | **13** |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will identify a given fraction, decimal, or percent from a representation | 13 |
| **MA.6.6.2.c** | **19** |
| The student will demonstrate equivalent relationships among . . . decimals . . . and percents . . . | 6 |
| The student will demonstrate equivalent relationships among fractions . . . [and] decimals . . . | 6 |
| The student will demonstrate equivalent relationships among fractions . . . and percents . . . | 7 |
| **MA.6.6.2.d** | **23** |
| The student will compare . . . decimals . . . | 7 |
| The student will compare . . . fractions . . . | 7 |
| The student will compare and order . . . decimals . . . | 7 |
| The student will compare and order fractions . . . | 2 |
| **MA.6.6.20** | **12** |
| The student will graph inequalities on a number line. | 12 |
| **MA.6.6.3.c** | **6** |
| The student will identify and describe absolute value of integers | 6 |
| **MA.6.6.4** | **22** |
| The student will demonstrate multiple representations of multiplication and division of fractions. | 22 |
| **MA.6.6.5** | **6** |
| The student will investigate and describe concepts of positive exponents and perfect squares. | 6 |
| **MA.6.6.6.a** | **15** |
| The student will . . . divide fractions . . . | 7 |
| The student will multiply . . . fractions . . . | 8 |
| **MA.6.6.6.b** | **29** |
| The student will estimate solutions and then solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division of fractions | 29 |
| **MA.6.6.7** | **42** |
| The student will solve single-step and multistep practical problems involving addition, subtraction, [and] multiplication . . . of decimals. | 12 |
| The student will solve single-step and multistep practical problems involving addition, subtraction, multiplication, and division of decimals. | 30 |
| **MA.6.6.8** | **7** |
| The student will evaluate whole number numerical expressions, using the order of operations. | 7 |
| **7** | **329** |
| **MA.7.7.1.a** | **6** |
| The student will investigate and describe the concept of negative exponents for powers of ten | 6 |
| **MA.7.7.1.b** | **7** |
| The student will determine scientific notation for numbers greater than zero | 7 |
| **MA.7.7.1.c** | **21** |
| The student will compare . . . decimals . . . | 14 |
| The student will compare . . . fractions . . . | 7 |
| **MA.7.7.1.d** | **2** |
| The student will determine square roots; and | 2 |
| **MA.7.7.1.e** | **6** |
| The student will identify and describe absolute value for rational numbers | 6 |
| **MA.7.7.10** | **4** |
| The student will determine the probability of compound events, using the Fundamental (Basic) Counting Principle. | 4 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| **MA.7.7.11.a** | **2** |
| The student, given data for a practical situation, will construct and analyze histograms; and | 2 |
| **MA.7.7.11.b** | **3** |
| The student, given data for a practical situation, will compare and contrast histograms with other types of graphs presenting information from the same data set | 3 |
| **MA.7.7.12** | **25** |
| The student will represent relationships with . . . rules . . . | 13 |
| The student will represent relationships with tables, graphs, [and] rules . . . | 6 |
| The student will represent relationships with tables, graphs, rules, and words. | 6 |
| **MA.7.7.13.a** | **26** |
| The student will write . . . sentences as equations . . . | 7 |
| The student will write verbal expressions as algebraic expressions . . . | 5 |
| The student will write verbal expressions as algebraic expressions and sentences as equations and vice versa; and | 14 |
| **MA.7.7.13.b** | **7** |
| The student will evaluate algebraic expressions for given replacement values of the variables | 7 |
| **MA.7.7.14.a** | **9** |
| The student will solve one- and two-step linear equations in one variable; and | 9 |
| **MA.7.7.14.b** | **9** |
| The student will solve practical problems requiring the solution of one- and two-step linear equations | 9 |
| **MA.7.7.15.a** | **2** |
| The student will solve one-step inequalities in one variable; and | 2 |
| **MA.7.7.15.b** | **12** |
| The student will graph solutions to inequalities on the number line | 12 |
| **MA.7.7.16.a** | **14** |
| The student will apply the following properties of operations with real numbers the commutative and associative properties for addition and multiplication | 14 |
| **MA.7.7.16.b** | **7** |
| The student will apply the following properties of operations with real numbers the distributive property | 7 |
| **MA.7.7.16.c** | **7** |
| The student will apply the following properties of operations with real numbers the additive and multiplicative identity properties | 7 |
| **MA.7.7.16.d** | **14** |
| The student will apply the following properties of operations with real numbers the additive and multiplicative inverse properties; and | 14 |
| **MA.7.7.3.a** | **26** |
| The student will model addition, subtraction, multiplication, and division of integers; and | 26 |
| **MA.7.7.3.b** | **26** |
| The student will add, subtract, multiply, and divide integers | 26 |
| **MA.7.7.4** | **31** |
| The student will solve single-step and multistep practical problems, using proportional reasoning. | 31 |
| **MA.7.7.5.a** | **5** |
| The student will describe volume and surface area of cylinders | 5 |
| **MA.7.7.5.b** | **20** |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will solve practical problems involving the volume and surface area of rectangular prisms and cylinders; and | 20 |
| **MA.7.7.5.c** | **15** |
| The student will describe how changing one measured attribute of a rectangular prism affects its volume and surface area | 15 |
| **MA.7.7.6** | **5** |
| The student will determine whether plane figures,Äîquadrilaterals and triangles,Äîare similar and write proportions to express the relationships between corresponding sides of similar figures. | 5 |
| **MA.7.7.8** | **18** |
| The student, given a polygon in the coordinate plane, will represent transformations (reflections, dilations, rotations, and translations) by graphing in the coordinate plane. | 18 |
| **8** | **271** |
| **MA.8.8.1.a** | **6** |
| The student will simplify numerical expressions involving positive exponents, using rational numbers, order of operations, and properties of operations with real numbers; and | 6 |
| **MA.8.8.1.b** | **21** |
| The student will compare . . . decimals . . . | 14 |
| The student will compare . . . fractions . . . | 7 |
| **MA.8.8.10.b** | **12** |
| The student will apply the Pythagorean Theorem | 12 |
| **MA.8.8.11** | **6** |
| The student will solve practical area and perimeter problems involving composite plane figures. | 6 |
| **MA.8.8.12** | **4** |
| The student will determine the probability of independent and dependent events with and without replacement. | 4 |
| **MA.8.8.13.a** | **5** |
| The student will make comparisons, predictions, and inferences, using information displayed in graphs; and | 5 |
| **MA.8.8.13.b** | **7** |
| The student will construct and analyze scatterplots | 7 |
| **MA.8.8.14** | **27** |
| The student will make connections between any two representations (tables, graphs, words, and rules) of a given relationship. | 27 |
| **MA.8.8.15.a** | **14** |
| The student will solve multistep linear equations in one variable with the variable on one and two sides of the equation | 14 |
| **MA.8.8.15.b** | **5** |
| The student will solve two-step linear inequalities and graph the results on a number line; and | 5 |
| **MA.8.8.15.c** | **9** |
| The student will identify properties of operations used to solve an equation | 9 |
| **MA.8.8.16** | **7** |
| The student will graph a linear equation in two variables. | 7 |
| **MA.8.8.2** | **6** |
| The student will describe orally and in writing the relationships between the subsets of the real number system. | 6 |
| **MA.8.8.3.a** | **50** |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| The student will solve practical problems involving rational numbers, percents, ratios, and proportions; and | 50 |
| **MA.8.8.3.b** | **7** |
| The student will determine the percent increase or decrease for a given situation | 7 |
| **MA.8.8.4** | **7** |
| The student will apply the order of operations to evaluate algebraic expressions for given replacement values of the variables. | 7 |
| **MA.8.8.5.a** | **2** |
| The student will determine whether a given number is a perfect square; and | 2 |
| **MA.8.8.5.b** | **3** |
| The student will find the two consecutive whole numbers between which a square root lies | 3 |
| **MA.8.8.6.a** | **6** |
| The student will verify by measuring and describe the relationships among vertical angles, adjacent angles, supplementary angles, and complementary angles; and | 6 |
| **MA.8.8.6.b** | **6** |
| The student will measure angles of less than 360¬∞ | 6 |
| **MA.8.8.7.a** | **20** |
| The student will investigate and solve practical problems involving volume and surface area of prisms, cylinders, cones, and pyramids; and | 20 |
| **MA.8.8.7.b** | **5** |
| The student will describe how changing one measured attribute of a figure affects the volume and surface area | 5 |
| **MA.8.8.8.a** | **18** |
| The student will apply transformations to plane figures; and | 18 |
| **MA.8.8.8.b** | **18** |
| The student will identify applications of transformations | 18 |
| **9 to 12** | **76** |
| **MA.9-12.A.11** | **6** |
| The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve real-world problems, using mathematical models. Mathematical models will include linear and quadratic functions. | 6 |
| **MA.9-12.A.4.e** | **14** |
| Graphing calculators will be used both as a primary tool in solving problems and to verify algebraic solutions. The student will solve multistep linear . . . equations in two variables, including solving systems of two linear equations in two variables . . . graphically; and | 1 |
| Graphing calculators will be used both as a primary tool in solving problems and to verify algebraic solutions. The student will solve multistep linear . . . equations in two variables, including solving systems of two linear equations in two variables algebraically . . . | 6 |
| Graphing calculators will be used both as a primary tool in solving problems and to verify algebraic solutions. The student will solve multistep linear and quadratic equations in two variables, including solving systems of two linear equations in two variables algebraically and graphically; and | 7 |
| **MA.9-12.A.4.f** | **14** |
| Graphing calculators will be used both as a primary tool in solving problems and to verify algebraic solutions. The student will solve multistep linear . . . equations in two variables, including solving real-world problems involving . . . systems of equations | 7 |
| Graphing calculators will be used both as a primary tool in solving problems and to verify algebraic | 7 |

| Sum of Number of Items per *i-Ready* Standard and per SOL: MATHEMATICS | |
|---|---|
| **Row Labels** | **Total** |
| solutions. The student will solve multistep linear and quadratic equations in two variables, including solving real-world problems involving equations and systems of equations | |
| **MA.9-12.A.6.a** | **13** |
| The student will graph linear equations and linear inequalities in two variables, including determining the slope of a line when given an equation of the line, the graph of the line, or two points on the line. Slope will be described as rate of change and will be positive, negative, zero, or undefined; and | 13 |
| **MA.9-12.A.6.b** | **6** |
| The student will graph linear equations and linear inequalities in two variables, including writing the equation of a line when given the graph of the line, two points on the line, or the slope and a point on the line | 6 |
| **MA.9-12.A.7.d** | **13** |
| The student will investigate and analyze function (linear and quadratic) families and their characteristics both algebraically and graphically, including x- and y-intercepts | 13 |
| **MA.9-12.AFDA.1.f** | **10** |
| The student will investigate and analyze function (linear, quadratic, exponential, and logarithmic) families and their characteristics. Key concepts include intervals in which the function is increasing/decreasing | 10 |
| **Grand Total** | **3279** |

# Appendix B: BRIGANCE® *Inventory of Early Development III (IED III) Standardized* Correlations and Item Counts

The BRIGANCE ® *IED III* addresses the Virginia Foundation Blocks for Early Learning listed in the table below, with the number of items stipulated for each.

| Sum of Number of Items per BRIGANCE® *IED III Standardized* and per VDOE Foundation Block for Early Learning | |
|---|---|
| **Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds** | Total |
| **Literacy Foundation Block 1 Oral Expression** | |
| a) Listen with increasing attention to spoken language, conversations, and stories read aloud | 1 |
| b) Correctly identify characters, objects, and actions in a picture book, as well as stories read aloud, and begin to comment about each | 2 |
| c) Make predictions about what might happen in a story | 1 |
| d) Use two words to ask and answer questions that include actions | 31 |
| e) Use appropriate language for a variety of purposes, e.g., ask questions, express needs, get information | 6 |
| f) Engage in turn taking exchanges and rules of polite conversation with adults and peers | 1 |
| g) Listen attentively to stories in a whole class setting | 1 |
| **Literacy Foundation Block 2 Vocabulary** | |
| a) Use single words to label objects | 70 |
| b) Listen with increasing understanding to conversations and directions | 4 |
| c) Follow simple, one-step oral directions | 2 |
| d) Engage in turn taking exchanges with adults and peers | 1 |
| e) Use new vocabulary with increasing frequency to express and describe feelings and ideas | 4 |
| f) Expose children to a wide-variety of experiences to build vocabulary | 19 |
| **Literacy Foundation Block 3 Phonological Awareness** | |
| a) Discriminate similarities and differences in sounds (environmental, letter) | 10 |
| b) Identify words that rhyme, generate simple rhymes | 3 |
| c) Successfully detect beginning sounds in words | 5 |
| d) Listen to multi-syllable words | 8 |
| **Literacy Foundation Block 4 Letter Knowledge and Early Word Recognition** | |
| a) Correctly identify 10-18 alphabet (uppercase) letters by name in random order | 26 |
| d) Read simple/familiar high-frequency words, including his or her name | 36 |
| **Literacy Foundation Block 5 Print and Book Awareness** | |
| a) Identify the front of a book | 1 |
| d) Demonstrate directionality of reading left to right on a page | 1 |
| **Literacy Foundation Block 6 Written Expression** | |
| b) Copy or write letters using various materials | 29 |

| Sum of Number of Items per BRIGANCE® *IED III Standardized* and per VDOE Foundation Block for Early Learning | |
|---|---|
| **Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds** | Total |
| c) Print first name independently | 1 |
| d) Print 5 - 8 letters with a writing tool | 28 |
| **Mathematics Foundation Block 1 Number and Number Sense** | |
| a) Count objects to 20 or more | 17 |
| b) Count a group (set/collection) of three to five objects by touching each object as it is counted and saying the correct number (one-to-one correspondence) | 17 |
| c) Count the items in a collection of one to five items and know the last counting word tells "how many" | 17 |
| d) Compare two groups (sets/collections) of matched objects (less than five) and describe the groups using the terms more, fewer, or same | 1 |
| **Mathematics Foundation Block 2 Computation** | |
| a) Describe changes in groups (sets/collections) by using more when groups of objects (sets) are combined (added together) | 10 |
| b) Describe changes in groups (sets/ collections) by using fewer when groups of objects (sets) are separated (taken away) | 9 |
| **Mathematics Foundation Block 3 Measurement** | |
| d) Use appropriate vocabulary when describing duration of time, e.g., hour, day, week, month, morning, afternoon, night, day | 1 |
| **Mathematics Foundation Block 4 Geometry** | |
| a) Match and sort shapes (circle, triangle, rectangle, and square) | 3 |
| d) Describe the position of objects in relation to other objects and themselves using the terms next to, beside, above, below, under, over, top, and bottom | 3 |
| **Mathematics Foundation Block 5 Data Collection and Statistics** | |
| b) Use descriptive language to compare data in objects and picture graphs by identifying which is more, fewer, or the same | 6 |
| **Mathematics Foundation Block 6 Patterns and Relationships** | |
| a) Sort and classify objects according to one or two attributes (color, size, shape, and texture) | 4 |
| **Science Foundation Block 1 Scientific Investigation, Reasoning, and Logic** | |
| a) Identify basic properties of objects by direct observation | 82 |
| b) Describe objects using pictures and words | 37 |
| d) Separate a set of objects into two groups based on one physical attribute | 2 |
| **Science Foundation Block 3 Matter** | |
| a) Identify colors (red, orange, yellow, green, blue, purple) and white and black | 22 |
| d) Describe relative size and weight (big/little, large/small, heavy/light, wide/thin, long/short) | 2 |
| e) Describe position (over/under, in/out, above/below) and speed (fast/slow) | 3 |
| **History and Social Science Foundation Block 1 History/Similarities and Differences** | |
| d) Engage in pretend play to understand self and others | 1 |

| Sum of Number of Items per BRIGANCE® *IED III Standardized* and per VDOE Foundation Block for Early Learning | |
|---|---|
| **Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds** | Total |
| **History and Social Science Foundation Block 2 History/Change Over Time** | |
| e) Recount episodes from stories about the past | 2 |
| **History and Social Science Foundation Block 3 Geography/Location** | |
| b) Engage in play where one item represents another – miniature vehicles, people, blocks | 1 |
| **History and Social Science Foundation Block 4 Geography/Descriptive Words** | |
| a) Use words to indicate relative location | 6 |
| b) Use words to describe features of locations in the environment and manmade structures found in stories and seen in everyday experiences | 6 |
| c) Develop control in using direction words<br>-on, under, over, behind, near, far, above, below, toward, and away | 4 |
| d) Develop control in using comparison words<br>- closer, farther away, taller, shorter, higher, lower, alike, different, inside, and outside | 1 |
| **History and Social Science Foundation Block 5 Economics/World of Work** | |
| e) Role-play the job of workers | 1 |
| **History and Social Science Foundation Block 6 Economics/Making Choices** | |
| c) Choose daily tasks | 1 |
| **History and Social Science Foundation Block 7 Civics/Citizenship** | |
| a) Cooperate with others in a joint activity | 10 |
| b) Recognize the need for rules to help get along with others | 3 |
| f) Share thoughts and opinions in group settings | 4 |
| g) Demonstrate responsible behaviors in caring for classroom materials | 1 |
| h) Identify the needs of other people by helping them | 1 |
| **Physical and Motor Development Foundation Block 1 Skilled Movement** | |
| **Locomotor Activities** | |
| a) Demonstrate progress in performing the mature level of selected locomotor skills. | 30 |
| b) Demonstrate initial, elementary and mature forms of walking and running. | 8 |
| **Non-locomotive Skills** | |
| a) Maintain a stable static position while practicing specific balances. | 9 |
| d) Maintain balance while climbing up steps and walking on a horizontal ladder placed on the floor. | 10 |
| **Manipulative Skills** | |
| a) Manipulate a variety of objects during structured and unstructured physical activity settings. | 15 |
| b) Manipulate small objects using one hand independently, the other hand independently, and both hands working on the same task. | 30 |
| **Physical and Motor Development Foundation Block 2 Movement Principles and Concepts** | |
| a) Apply knowledge of movement concepts by performing various locomotor movements while changing directions (right, left, up, down, forward and backward), levels (high, medium, and low), pathways (straight, curved, and zig-zag), and effort (fast, slow, hard, and soft). | 10 |

| Sum of Number of Items per BRIGANCE® *IED III Standardized* and per VDOE Foundation Block for Early Learning | |
|---|---|
| **Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds** | Total |
| **Physical and Motor Development Foundation Block 3 Personal Fitness** | |
| a) Participate in activities that allow the child to experience a rise in the heart rate and breathing rate. | 20 |
| c) Participate in activities designed to strengthen major muscle groups. | 32 |
| d) Participate in activities that enhance flexibility. | 1 |
| **Physical and Motor Development Foundation Block 4 Responsible Behaviors** | |
| a) Demonstrate safe behaviors by applying rules regarding behaviors in a physical activity setting. | 6 |
| b) Share equipment and space, and take turns with help from the teacher. | 3 |
| c) Work well with all children. | 13 |
| d) Listen to and follow simple directions. | 4 |
| **Physical and Motor Development Foundation Block 5 Physically Active Lifestyle** | |
| a) Identify the activities that they like and dislike. | 4 |
| **Personal and Social Development Foundation Block 1 Self-Concept** | |
| a) Demonstrate knowledge of personal information including first and last name, gender, age, and birthday. | 10 |
| b) Begin to recognize and express own emotions using words rather than actions. | 2 |
| c) Recognize self as a unique individual and respect differences of others. | 5 |
| e) Demonstrate self-direction in use of materials. | 2 |
| f) Develop increased independence in school activities throughout the day. | 1 |
| **Personal and Social Development Foundation Block 2 Self-Control** | |
| b) Follow rules and routines within the learning environment. | 9 |
| c) Use classroom materials purposefully and respectfully. | 2 |
| e) Develop positive responses to challenges. | 11 |
| **Personal and Social Development Foundation Block 3 Approaches to Learning** | |
| a) Show interest and curiosity in learning new concepts and trying new activities and experiences. | 3 |
| c) Increase attention to a task or activity over time. | 3 |
| d) Seek and accept help when needed. | 3 |
| **Personal and Social Development Foundation Block 4 Interaction with Others** | |
| a) Initiate and sustain interactions with other children. | 9 |
| b) Demonstrate verbal strategies for making a new friend. | 1 |
| c) Interact appropriately with other children and familiar adults by cooperating, helping, sharing, and expressing interest. | 28 |
| d) Participate successfully in group settings. | 21 |
| e) Demonstrate respectful and polite vocabulary. | 1 |
| f) Begin to recognize and respond to the needs, rights, and emotions of others. | 8 |
| **Personal and Social Development Foundation Block 5 Social Problem-Solving** | |
| a) Express feelings through appropriate gestures, actions, and words. | 4 |

| Sum of Number of Items per BRIGANCE® *IED III Standardized* and per VDOE Foundation Block for Early Learning | |
|---|---|
| **Foundation Blocks for Early Learning: Comprehensive Standards for Four-Year-Olds** | Total |
| b) Recognize conflicts and seek possible solutions. | 2 |
| c) Allow others to take turns. | 2 |
| d) Increase the ability to share materials and toys with others over time. | 3 |
| e) Include others in play activities. | 3 |

## Appendix C: *i-Ready Diagnostic* Student Profile Report

We have included a sample *i-Ready Diagnostic* Student Profile Report in the attached file titled "Appendix C_VA Student Growth Report Sample".

# Appendix D: *i-Ready Diagnostic* System Requirements

We have provided recommended *i-Ready Diagnostic* system requirements in the attached file titled “Appendix D_i-Ready System Requirements”.