



Performance Series K-2 Foundations Assessments

by the Assessment Services Team, Scantron Corporation

Performance Series K-2 Reading and Mathematics Foundations assessments are aligned to a set of skills, which were developed specifically for the Common Core State Standards (CCSS), and involved a review of standards documents from state and national organizations including: the National Assessment of Educational Progress (NAEP), the National Reading Panel (NRP), the National Council of Teachers of English (NCTE), the International Literacy Association (ILA; formerly the International Reading Association), and the National Council of Teachers of Mathematics (NCTM). This review included unpacking the Common Core State Standards--identifying at a more granular level what students will know and be able to do when they have mastered the standard.

The Common Core English language arts standards for grades K, 1, and 2 address the early reading skills which prepare students for complex reading comprehension at higher grade levels where there is a greater emphasis on critical thinking skills. Reading units included in the K-2 Reading Foundations assessments include phonological awareness, phonics, text comprehension, and vocabulary.

The Common Core mathematics standards include important mathematical practices which also emphasize critical thinking skills in the early grades. Math units included in the K-2 Mathematics Foundations assessments include geometry, data analysis and probability, algebra, measurement, and numbers and operations.

Overall, the Common Core State Standards are more rigorous than many states' existing standards; they focus on fewer skills and emphasize a deeper understanding of content. To address the rigor and depth of the Common Core and other 21st-century-skills, the K-2 assessments are developmentally-appropriate, challenging, and engaging; these assessments also introduce increasingly complex content and texts.

The computer-adaptive testing environment supports young students throughout the assessment process by integrating rich images and on-demand audio. This allows even emergent readers to demonstrate content knowledge. Scantron's Performance Series K-2 assessments provide the support necessary to assess skills that would traditionally have required one-to-one teacher-student interaction.

This capability allows districts the benefit of administering periodic assessments and utilizing their feedback, while leaving teachers free to focus on instruction, rather than test administration.

English Language Arts

The Performance Series K-2 Reading Foundations assessment product was designed and created according to the rigor set forth in the Common Core State Standards. Key points from these standards that are addressed by the reading assessment include: a focus on fewer concepts, the inclusion of reading informational and functional texts, an incorporation of sophisticated vocabulary and complex sentence structure, and the inclusion of texts representing a variety of contexts. Students in grades K-2 are presented with a variety of genres, including fables, folk tales, realistic fiction, functional texts (such as recipes and directions), and non-fiction science and social studies topics.



Students are asked to analyze texts closely and to find evidence to answer “who, what, where, when, and why” questions. In grade K, items range from simple concepts of print (such as constructing meaning from signs) to more complex tasks (such as identifying details, setting, characters, and problem/solution) from fictional texts read aloud and independently. By grade 2, students are asked to compare and contrast two versions of a folktale, analyze how a historical time influences context, and determine the connection between, or steps, in a procedure.

The progression of complexity in texts is drawn from Appendix A detailed in the Common Core English Language Arts Standards, which clearly explains the need for “increasing text complexity in successive years of schooling.”

Text complexity is determined by the qualitative and quantitative aspects of the text, as well as “variables specific to particular readers” and the “complexity of the task” associated with the text. Students in these early grades are exposed to complex texts read aloud, which mirrors classroom instruction and “lays the necessary foundation for students’ reading and understanding of increasingly complex texts on their own in subsequent grades” (Common Core State Standards, 2010).

Meeting the expectations of the Common Core State Standards for English Language Arts means that students are introduced to text with more rigorous quantitative measures beginning in the elementary grades. As described in Appendix A, page 9, “...many students just entering grade 2 will need some support as they read texts that are advanced for the grades 2-3 text complexity band.” The texts are more challenging, and the following progression of support is recommended:

- **Kindergarten:** “Actively engage in group reading activities with purpose and understanding.”
- **Grade 1:** “With prompting and support, read prose and poetry [informational texts] of appropriate complexity for grade 1.”
- **Grade 2:** “By the end of the year, read and comprehend literature [informational texts] in the grades 2-3 text complexity band proficiently, with scaffolding as needed at the high end of the range.”

In addition to the Common Core standards, the National Reading Panel recommendations also influenced the development of the K-2 Reading Foundations assessment. Learning Point Associates notes in its article “A Closer Look at the Five Essential Components of Effective Reading Instruction: A Review of Scientifically Based Reading Research for Teachers,” that after conducting “decades of research,” the NRP recommends that reading instruction include five components of reading: phonemic awareness, phonics, vocabulary, comprehension, and fluency (2004). All but fluency (which cannot be appropriately assessed in a computer-adaptive environment) are included in the K-2 reading assessments.

In grades K-2, a number of the Common Core English Language Arts standards specify that skills and understanding are developed “with prompting and support” and “exposure to a range of texts and tasks” (Common Core State Standards, 2010).

Examples of standards from these grades that specify “with prompting and support” include the following standards:

- RL.K.1 With prompting and support, ask and answer questions about key details in a text.
- RL.K.2 With prompting and support, retell familiar stories, including key details.
- RL.K.3 With prompting and support, identify characters, settings, and major events in a story.
- RI.K.1 With prompting and support, ask and answer questions about key details in a text.
- RI.K.2 With prompting and support, identify the main topic and retell key details of a text.
- RI.K.3 With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
- RL.1.10 With prompting and support, read prose and poetry of appropriate complexity for grade 1.
- RI.1.10. With prompting and support, read informational texts appropriately complex for grade 1.

The addition of audio support in grades K-1 is an important feature of the Scantron Performance Series K-2 Reading Foundations, given that “K-1 texts are not amenable to quantitative measure,” (Appendix A, page 10); however, qualitative factors are important considerations. Scantron’s assessment developers followed these guidelines as texts were analyzed and selected for inclusion. As a result, the assessment includes a variety of passages within a range of complexity for each grade level. These passages include appropriate support for readers, allowing students access to the content and providing an opportunity to assess students’ application of skills needed to understand complex text.

Audio support is gradually reduced when moving from Kindergarten to Grade 2, based on passage readability, vocabulary, and the complexity of the content. Passages that address independent reading skills do not include audio support in grades K and 1. Additionally, for skills which require students to “read independently,” audio is not made available. Furthermore, all passages in grade 2 are read

independently. Passages included in the Scantron Performance Series K-2 Reading Foundations are evaluated for readability (using the SPACHE, Powers-Sumner Kearsley, Fry, and Flesch Grade Level reading programs), complexity, and age appropriateness.

Mathematics

Similar to the Performance Series K-2 Reading Foundations items, Performance Series K-2 Mathematics Foundations items¹ were designed and created according to the academic rigor set forth in the Common Core State Standards. Key concepts from the Common Core that are addressed by the Mathematics Foundations include whole numbers, addition, subtraction, fractions, geometry, measurement and data.



The Common Core states that its standards “provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals*—which help young students build the foundation to successfully apply more demanding math concepts and procedures, and move into applications” (Common Core State Standards, 2010). Specifically in grades K, 1 and 2, the Common Core emphasizes the understanding of the number core (how a number corresponds to a quantity and how numbers can be taken apart and put together) and Mathematics Foundations assesses this concept. Additionally, not only does Mathematics Foundations assess the procedural understanding of skills, but it also assesses conceptual mastery of skills and content.

In grades K-2 the Common Core standards group math standards according to domain. All domains are addressed in the Mathematics Foundations product. These domains include: Counting and Cardinality, Operations and Algebraic Thinking, Number and Operations, Measurement and Data, and Geometry.

Because of the student age/ grade, Scantron intentionally designed meaningful graphical and audio support around this product. Limited words are used in the math items, especially in grades K and 1. Text is limited only to what is actually necessary for the question to be understood by the student. This ensures the focus of the assessment is on mathematical understanding rather than reading proficiency. The product substitutes the need for text with strong graphical support within its questions. To reinforce vocabulary in the context of math (when appropriate) words and images are presented together.

Scantron’s content development team is made up of individuals who have strong backgrounds in education. All Performance Series Reading and Mathematics Foundations content development has followed Scantron’s rigorous item review

¹ A key difference between K-2 Math and K-2 Reading is that rather than being a separate test, the K-2 math items are part of the complete mathematics test (grades K–9). Please see [Reading Foundations to Reading Linking Study and Recommendations](#) on our website for details on the differences between the Reading Foundations and Reading tests.

process. This process is led by English language arts/reading and mathematics subject matter experts with additional reviewers comprising of certified classroom teachers and professors across the country.

Scantron is pleased to offer this technologically-advanced product and its developmentally-appropriate, challenging, and engaging content. The Scantron Performance Series K-2 Reading and Mathematics Foundations Assessments enable districts to feel confident that they are armed with the tools necessary to track and improve achievement in each and every student they serve with the academic rigor needed to be prepared for the transition to Common Core State Standards.

References

Daggett, Willard R. and Gendron, Susan. (2010) International Center for Leadership in Education Common Core State Standards Initiative Classroom Implications for 2014. Retrieved from <http://www.leadered.com/pdf/Common%20Core%20Standards%20Paper%20FINAL.pdf>.

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National Reading Panel. Publications and Materials “Put Reading First: The Research Building Blocks for Teaching Children to Read” (2001). Retrieved from <http://www.nationalreadingpanel.org/Publications/researchread.htm>

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