

Alignment of Kentucky Core Content Test (KCCT) Items in Reading and Mathematics to the Common Core State Standards: Grades 3 through 5

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**ALIGNMENT OF COMMONWEALTH ACCOUNTABILITY STANDARDIZED TEST
(KCCT) ITEMS TO THE COMMON CORE STATE STANDARDS**

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**ALIGNMENT OF KENTUCKY CORE CONTENT TEST (KCCT) ITEMS IN READING
AND MATHEMATICS TO THE COMMON CORE STATE STANDARDS:
GRADES 3 THROUGH 5**

Introduction

The National Governor’s Association (NGA), in collaboration with the Council of Chief State School Officers (CCSSO), recently released the Common Core State Standards. This document came about as part of an initiative to establish consistent, high-quality educational standards delineating what students are expected to learn in Kindergarten through Grade 12. The Common Core Standards were derived from existing exemplary state standards from across the country as well as standards from other countries. The Common Core Standards are not mandatory for states and are not intended as a “national curriculum”; instead, these standards represent an effort to create clear, coherent goals and expectations as a guide for classroom teachers.

Kentucky is one of the 51 states and territories that has pledged to adopt the Common Core Standards. As with all other states, this commitment requires a comprehensive review of the current assessment system to determine how closely the Kentucky state standards and standardized assessments (required by the No Child Left Behind Act) marry with the Common Core expectations. As an initial evaluation, the Kentucky Department of Education (KDE) established a contract with the Human Resources Research Organization (HumRRO) to independently review the existing item pool of the Kentucky Core Content Test (KCCT) for Grades 3, 4, and 5 Reading and Mathematics. HumRRO conducted a test-to-standards alignment study to make this evaluation. This report includes the findings from that alignment study. This report is meant to complement the earlier alignment report for Grades 6, 7, and 8 (Taylor, Thacker, Koger, Koger, & Dickinson, 2010).

Method

HumRRO staff experienced with alignment research performed the item review and analyses. Staff reviewed the content area (Reading or Math) in which they hold the most expertise. The review consisted of an evaluation of KCCT items in Reading and Mathematics for each of Grades 3, 4, and 5 relative to the new Common Core Standards in the respective content areas.

Alignment Method

HumRRO evaluated alignment of KCCT Reading and Mathematics items to the Common Core State Standards by performing several tasks common to alignment methodologies. For the standards documents, reviewers collaboratively examined individual standards to determine the depth of knowledge (DOK) expected for students to demonstrate content proficiency. For assessment items, reviewers rated items independently on two dimensions: (a) standard match to identify primary content targeted by item, and (b) DOK to determine the extent of processing needed to respond successfully to items.

Materials

HumRRO used the following documents to conduct the alignment review.

Test Items

KDE requested an item review of the current item pool for Reading and Mathematics in Grades 3, 4, and 5. Table 1 and Table 2 present the general composition of each item pool per grade.

Table 1. Reading Test Item Characteristics per Grade

Grade	Total Items	Total Passages	Multiple Choice	Open Response
3	324	23	288	36
4	467	48	418	49
5	316	28	276	125
Total	1107	99	982	210

Table 2. Mathematics Test Item Characteristics per Grade

Grade	Total Items	Multiple Choice	Open Response
3	174	152	22
4	172	150	22
5	240	209	31
Total	586	75	511

Standards

HumRRO compared test items to the Common Core State Standards released June 2, 2010 in Reading and in Mathematics. These standards also can be found on the web at: <http://www.corestandards.org/> .

HumRRO intentionally eliminated the substrand Range of Reading and Text Complexity as a matching option to items across grades for several reasons. This substrand is unique because it consists of a single standard. This standard functions as a process standard specifying the level of knowledge students should be able to demonstrate, as opposed to specific content students should know. The standard indicates that students should be capable of reading certain texts at grade level, although the specific texts are left to the discretion of states. For these reasons, this substrand/standard is not easily matched to items since it serves as a very general expectation.

Table and

Table 3 display the content organization of the Common Core Standards for Mathematics and for Reading. Within each of these domains, the content expectations form a hierarchy of strands, substrands, and standards. The standards specify what students should be able to know and do (see Column 4 in tables for examples). Test items should target the content statements of the standards; hence, HumRRO matched KCCT items to the standards per strand.

The Common Core State Standards for mathematics are divided into five common strands per strands per grade (see Column 2 of

Table 3). The content is further divided into substrands and standards; however, the number and type of content expectations vary per grade level.

Table 3 displays examples of standards corresponding with each strand.

Table 3. Content Categories for Common Core Mathematics Standards

Grades	Strand	Substrand (content varies per grade)	Number of Standards per Substrand	Example Standard
3, 4, 5	Operations and Algebraic Thinking	4	1 to 4	Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. <i>For example, describe a context in which a total number of objects can be expressed as 5×7.</i>
3, 4, 5	Numbers and Operations in Base Ten	1 to 2	3	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of size $1/b$.
3, 4, 5	Numbers and Operations-Fractions	1 to 3	1 to 3	Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. <i>For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)</i>
3, 4, 5	Measurement and Data	3 to 4	1 to 3	Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.
3, 4, 5	Geometry	1 to 2	1 to 2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. <i>For example, partition a shape into 4 parts with equal area, and describe the area of each part as $1/4$ of the area of the shape.</i>

Reading is divided into two strands based on type of text: Literature and Informational Text. Within both strands, four substrands further identify different aspects of reading. Several content statements (standards) each define the specific expectations under each substrand.

HumRRO intentionally eliminated the substrand Range of Reading and Text Complexity as a matching option to items across grades for several reasons. This substrand is unique because it consists of a single standard. This standard functions as a process standard specifying the level of knowledge students should be able to demonstrate, as opposed to specific content students should know. The standard indicates that students should be capable of reading certain texts at grade level, although the specific texts are left to the discretion of states. For these reasons, this substrand/standard is not easily matched to items since it serves as a very general expectation.

Table 4. Content Categories for Common Core Reading Standards

Grades	Strand	Substrand	Number of Standards per Substrand	Example Standards
3, 4, 5	Literature	Key Ideas and Details	3	Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
3, 4, 5		Craft and Structure	3	Determine the meaning of words and phrases as they are used in a text, distinguishing literal from nonliteral language.
3, 4, 5		Integration of Knowledge and Ideas	3	Compare and contrast stories in the same genre (e.g., mysteries and adventure stories) on their approaches to similar themes and topics.
3, 4, 5		Range of Reading and Level of Text Complexity	1	By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 2–3 text complexity band independently and proficiently.
3, 4, 5	Informational Text	Key Ideas and Details	3	Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
3, 4, 5		Craft and Structure	3	Distinguish their own point of view from that of the author of a text.
3, 4, 5		Integration of Knowledge and Ideas	3	Explain how an author uses reasons and evidence to support particular points in a text.
3, 4, 5		Range of Reading and Level of Text Complexity	1	By the end of the year, read and comprehend informational texts, including history/social studies, science, and technical texts, at the high end of the grades 4–5 text complexity band independently and proficiently.

Ratings

HumRRO reviewers used electronic spreadsheets to apply item ratings. Reviewers rated items on two dimensions: (a) content match to the Core Content standards, and (b) depth-of-knowledge level. Content ratings involved entering a code representing the grade, strand, and standard corresponding with the selected content statement. If no match could be found for an individual item, reviewers entered a code of 9999.

Depth-of-knowledge ratings involved the use of a 4-point Likert scale using the scale values in Table 5. Reviewers had access to more in-depth explanation of each scale, including

examples, if needed (see Appendix A). These definitions are based on Norman Webb’s alignment method (2005).

Table 3. Depth-of-Knowledge Definitions

DOK Level	Definition
Level 1 (Simple Recall)	- Recognition (i.e., facts or terms); more automatic; sequencing.
Level 2 (Skills/Concepts)	- Beyond habitual response; applying concepts; problem-solving.
Level 3 (Strategic Thinking)	- Requires students to reason, plan, use evidence, synthesize.
Level 4 (Extended Thinking)	- Evaluation of multiple sources, often over extended time.

Examples of rating forms can be found in Appendix A.

Procedures

HumRRO conducted an alignment study of KCCT items using HumRRO alignment researchers experienced in the methodology and in the content areas under review. Reviewers initially performed the DOK analysis of the Common Core State Standards per content area through a consensus process. Following this task, reviewers worked independently to perform the item evaluations. The item analysis required reviewers first to determine the target of assessment for each item and locate the Common Core standard most closely reflecting this target. To do so, reviewers examined standards corresponding with the grade level of the item first to select a match; however, if no match was identified within grade, reviewers moved to the adjacent grade level standards. Reviewers could assign additional standards if the item assessed other standards *equally* to the primary standard selected. Conversely, reviewers assigned a rating of “no match” when none of the content standards across grades could be matched to items. Reviewers made notations on items in cases where no match could be found, or when a standard was selected but only loosely related to the item. Finally, reviewers determined the level of processing (DOK) required of students to respond to the item using a 4-point scale.

Results

In this section, we present findings on item content match and depth-of-knowledge (primarily based on frequency distributions) relative to the Common Core standards. Analyses focused on revealing any content clusters or gaps among KCCT items by examining patterns across and within grade-level items.

We include summary-level results for content alignment analyses within this section in the form of figures to facilitate observation of data patterns. These results are based on the total items matched to each standard summed per strand. Findings for each KCCT grade-level item pool are presented first by Common Core strand/substrand irrespective of intended grade. We then separate the grade-level item distributions by grade-level strands. Next, we identify Common Core standards per strand and grade not matched to any items. Item-level results, including those items not matched to any Common Core standards in Grades 3, 4, and 5, can be found in Appendix B.

In addition to content alignment results, we present findings on depth-of-knowledge ratings. HumRRO analyzed the DOK level of items relative to the Common Core standards for degree of consistency.

For each set of findings, we present results for Mathematics first, followed by Reading, to maintain uniformity.

Mathematics Findings

Standard Match

Figure 1 through Figure 4 includes graphic displays of math item distributions per math content strand. Strand abbreviations used in the figures are as follows:

1	Operations and Algebraic Thinking	OA
2	Numbers and Operations in Base Ten	NBT
3	Numbers and Operations- Fractions	NF
4	Measurement and Data	MD
5	Geometry	G

Figure 1 displays the distribution of grade-level math items per Common Core strand (irrespective of grade content). Reviewers matched a comparable number of items to each strand overall for each grade-level item pool. However, items targeted the Operations and Algebraic Thinking strand most heavily. Note that the Grade 5 item pool includes twice as many items as Grades 3 and 4.

Those items rated as above and below grade level relative to the Common Core can be found in Appendix B.

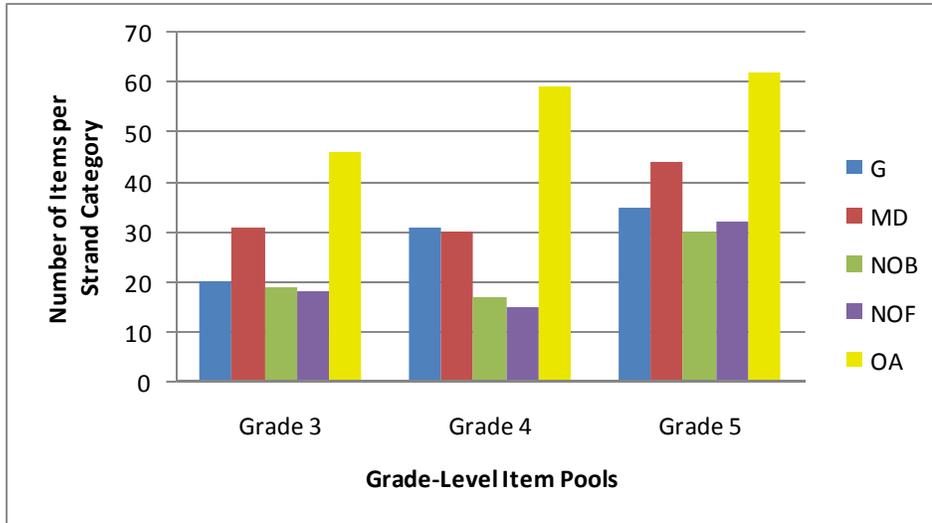


Figure 1. Frequency of Grade-Level Items per Common Core Math Strand

Figure 2 through Figure 4 present the grade-level KCCT items by grade-level Common Core strands. Several patterns are evident in these figures. First, as noted in Figure 1, items target the strand Operations and Algebraic Thinking more than other strands. Second, reviewers matched some grade-level items to Common Core strands above and below that grade. Finally, for Grade 5 items in particular, the majority of items were matched to Grade 4 strands (Grade 5 Items per Grade 3 Strands=44; Grade 4 Strands=111; Grade 5 Strands=48).

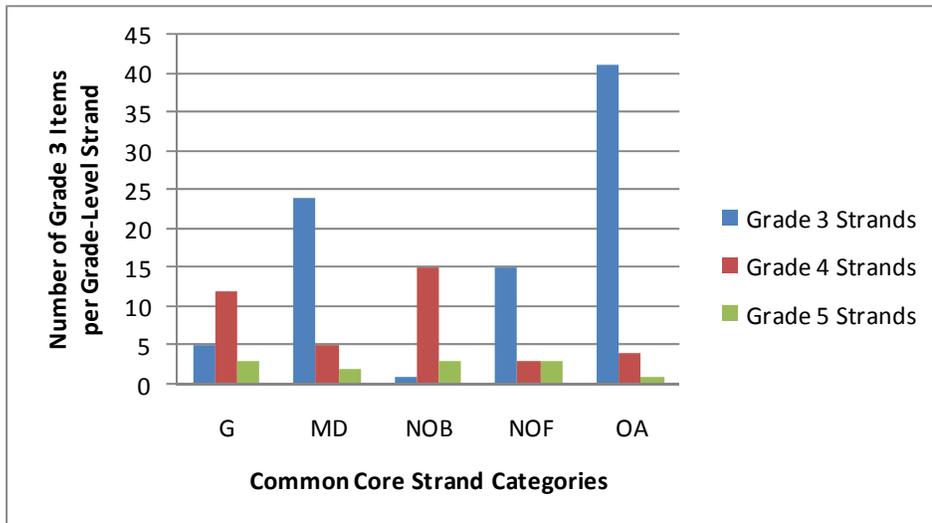


Figure 2. Frequency of Grade 3 KCCT Items Matched to Grade-Level Common Core Standards

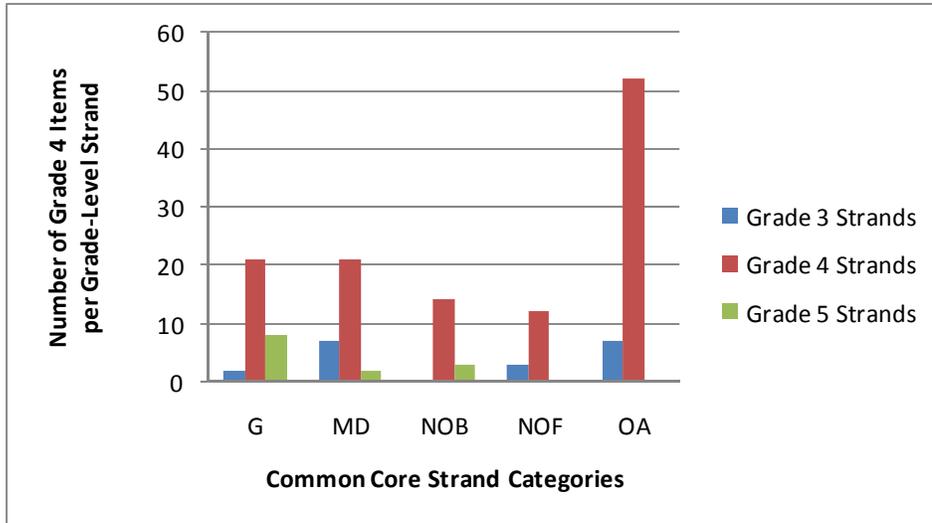


Figure 3. Frequency of Grade 4 KCCT Items Matched to Grade-Level Common Core Standards

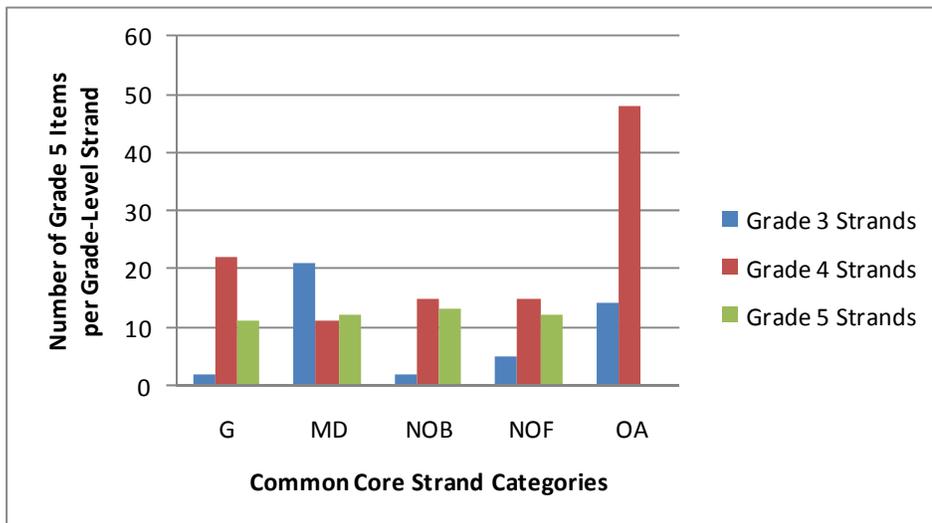


Figure 4. Frequency of Grade 5 KCCT Items Matched to Grade-Level Common Core Standards

Some math standards per strand could not be linked to any KCCT items. We list these grade-level standards in Table 6 by Common Core strand, grade, and standard (i.e., G3.1 refers to Geometry, Grade 3, standard 1).

Table 4. Common Core Mathematics Standards Not Matched to Any KCCT Items

Grade 3	Grade 4	Grade 5
MD3.5	MD4.4	G5.2
MD3.6	MD4.5	MD5.2
NBT3.1	MD4.7	MD5.3
NBT3.3	NF4.1	MD5.4
OA3.5		MD5.5
		NBT5.2
		NBT5.5
		NF5.1
		NF5.4
		NF5.5
		NF5.7
		OA5.1
		OA5.3

Conversely, reviewers found some math items per grade that did not align to corresponding grade-level Common Core standards. The proportion of unmatched items per grade is presented in Table 5. Approximately 25% of Grade 3 KCCT items could not be matched to the Grade 3 Common Core standards. The specific items rated as unmatched can be found in Appendix B, Table B-16. Some of these items could be matched to off-grade Common Core standards, which are listed in Tables B-17 through B-19.

Table 5. Number of KCCT Math Items per Grade Unmatched to Common Core Standards

Grade	Total Number of Items	Number of Items Matched to Standards	Number of Unmatched Items	Percentage of Unmatched Items
3	174	132	42	24
4	172	149	23	13
5	240	196	44	18

Depth-of-Knowledge Match

Reviewers rated each math item on the level of processing required to demonstrate content knowledge. Item DOK ratings were compared to standard DOK ratings to determine whether students are assessed at the level of processing expected in the Common Core standards. Table 6 displays the percentage of items rated at the same DOK level as the corresponding standard, as well as the percentage of items rated below or above the matched standard, per grade level.

HumRRO follows the decision criterion that item depth-of-knowledge should match the cognitive complexity of the corresponding standard for at least 50% of items per strand. Based on this criterion, items matched to several grade-level Common Core strands fall below or above

the corresponding standards. For example, the cognitive complexity of over half of the items was lower than the matched standards under the Grade 3 Numbers and Operations—Fractions strand. Conversely, 43% of items matched to the Number and Operations in Base Ten strand were rated as more complex than the associated standard.

Table 6. Percentage of Math Items with DOK Below, At, or Above the Matched Standard

Item Grade Level	Strand Title	Below	Same	Above
3	Operations and Algebraic Thinking	20%	59%	22%
3	Number and Operations in Base Ten	0%	57%	43%
3	Number and Operations—Fractions	53%	41%	6%
3	Measurement and Data	39%	50%	11%
3	Geometry	0%	70%	30%
4	Operations and Algebraic Thinking	3%	67%	29%
4	Number and Operations in Base Ten	6%	94%	0%
4	Number and Operations—Fractions	23%	77%	0%
4	Measurement and Data	28%	66%	7%
4	Geometry	3%	77%	20%
5	Operations and Algebraic Thinking	20%	56%	25%
5	Number and Operations in Base Ten	22%	70%	8%
5	Number and Operations—Fractions	21%	72%	7%
5	Measurement and Data	29%	59%	12%
5	Geometry	0%	82%	18%

In Table 7, we present the distribution of items by DOK level based on HumRRO ratings compared with the DOK assigned to items by WestED. While the specific number of items per DOK level differs between HumRRO and WestEd, the distributions are proportionally similar. HumRRO reviewers considered only a small number of items per grade to assess student knowledge at DOK level 3, and this finding seems to correspond with the intended DOK level produced by WestED. No items assess student knowledge at DOK level 4.

Table 7. Comparison of HumRRO and WestED DOK Item Distributions

Item Grade Level	HumRRO Item DOK				WestED Item DOK			
	1	2	3	4	1	2	3	4
3	96	69	9	0	96	75	3	0
4	91	81	0	0	80	89	3	0
5	142	91	7	0	100	135	5	0

Reading Findings

Reading results are presented by substrand per strand due to the structure of the Common Core Reading Standards. Only two strands (Literary Text and Informational Text) exist within the Reading content area, and all substrands are exactly the same within each strand across grades. Separating the results into two sets of figures and tables corresponding with each of these strands will more easily distinguish between the content matched to standards.

Standard Match

Figure 5 and Figure 6 display the distribution of grade-level reading items per Common Core substrand (irrespective of grade content) for the Literature and Informational Text Reading strands. For Literature, Figure 5 indicates that the majority of items assess students on their ability to identify main ideas (Key Ideas and Details). Reviewers found few items matched to the substrand on Integration of Knowledge and Ideas, which emphasizes students’ ability to make comparisons between texts and also between types of media.

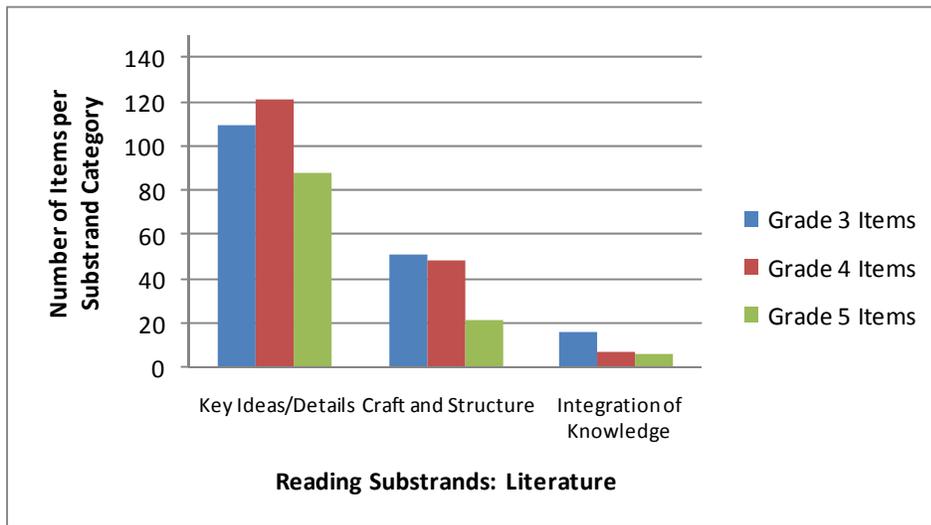


Figure 5. Frequency of Grade-Level KCCT Items in Literature Substrand

As with the strand for Literature, Figure 6 suggests that many items targeting Informational Text assess students on their ability to identify key details.

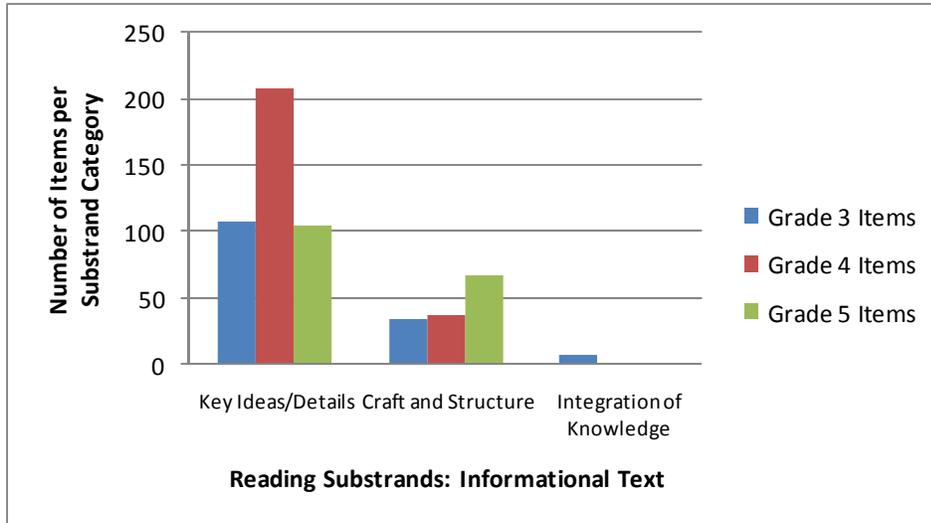


Figure 6. Frequency of Grade-Level KCCT Items in Informational Text Substrand

Figure 7 through Figure 12 present the grade-level item distributions by grade-level Common Core substrands and strands. Reviewers found that the majority of Grade 3 and Grade 4 items matched to the standards in the Key Ideas and Details substrand for both Literary Text and Informational Text. For Grade 3 items, Figure 7 and Figure 8 indicate that reviewers considered some items to target standards in the Grade 4 and Grade 5 Common Core strands. Thus, some content currently included on the KCCT assessment for Grade 3 in particular may fall at a higher grade level in the Common Core standards in some cases. In comparison, most Grade 4 items matched to Grade 4 Common Core standards, and virtually all Grade 5 items matched to Grade 5 standards. Finally, Figures Figure 11 and Figure 12 suggest that the Grade 5 items primarily target the Craft and Structure substrand for Literature and Informational Texts, and no items matched to the substrand on Integrations of Knowledge and Ideas.

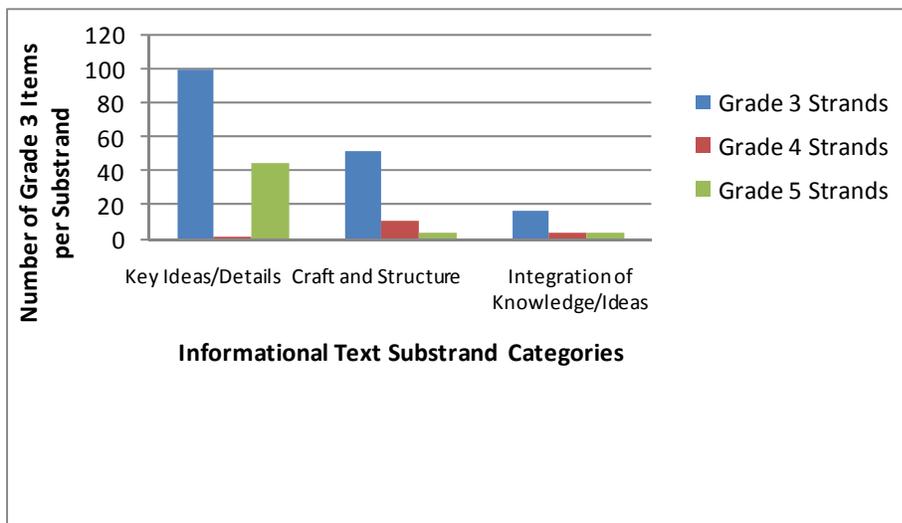


Figure 7. Frequency of Grade 3 KCCT Items Matched to Literary Text Substrands

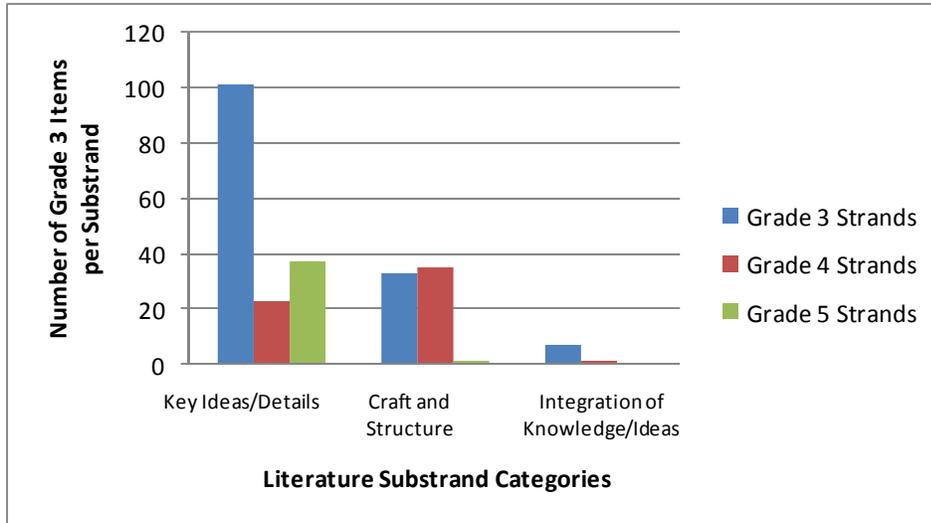


Figure 8. Frequency of Grade 3 KCCT Items Matched to Informational Text Substrands

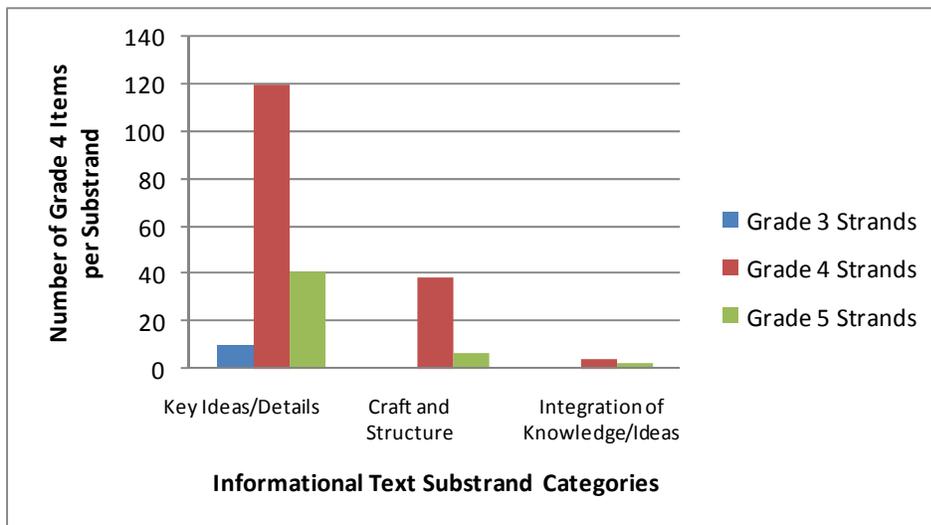


Figure 9. Frequency of Grade 4 KCCT Items Matched to Literary Text Substrands

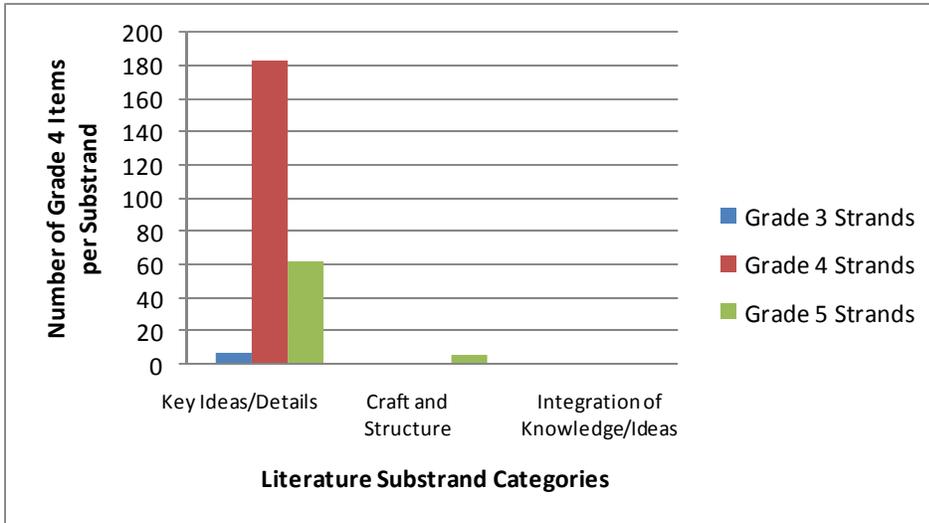


Figure 10. Frequency of Grade 4 KCCT Items Matched to Informational Text Substrands

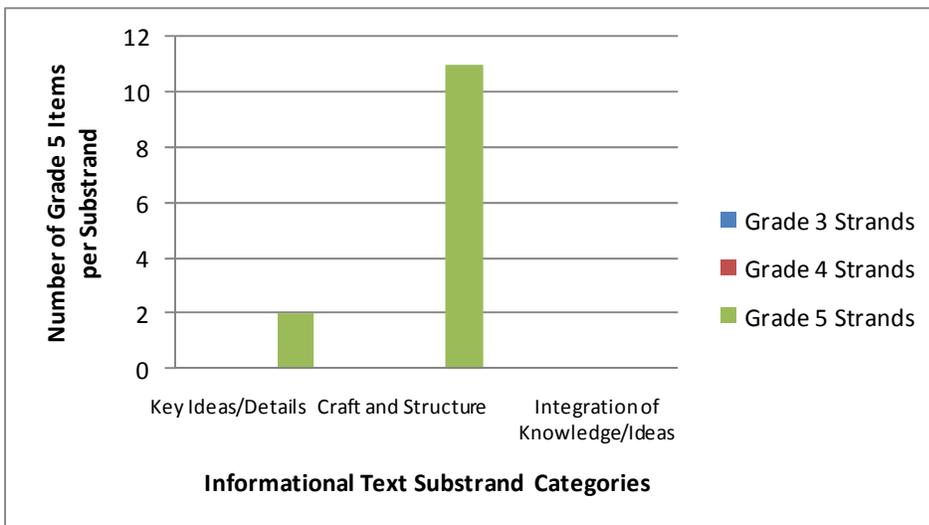


Figure 11. Frequency of Grade 5 KCCT Items Matched to Literary Text Substrands

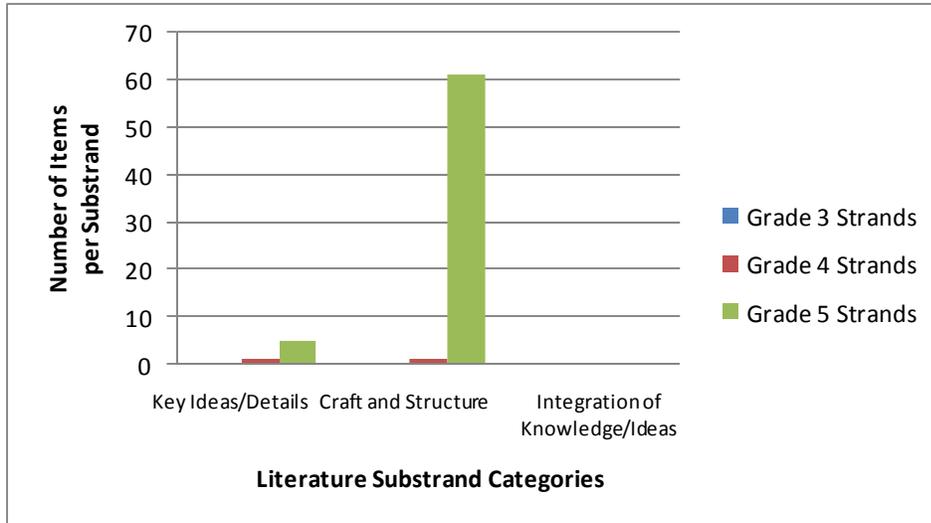


Figure 12. Frequency of Grade 5 KCCT Items Matched to Informational Text Substrands

Some Reading standards per strand could not be linked to any KCCT items. We list these grade-level standards by strand and standard number (i.e., LitText6.1=Literary Text strand, Grade 6, standard1).

Table 8. Common Core Reading Standards Not Matched to Any KCCT Items

Grade 3	Grade 4	Grade 5
LitText3.8	InfoText4.6	InfoText5.1
LitText3.9	InfoText4.7	InfoText5.5
	InfoText4.9	InfoText5.6
	LitText4.4	InfoText5.7
	LitText4.7	InfoText5.8
	LitText4.8	InfoText5.9
	LitText4.9	LitText5.1
		LitText5.6
		LitText5.7
		LitText5.8
		LitText5.9

As with Mathematics items, reviewers found some Reading items per grade that did not align well to any Common Core standard. The proportion of unmatched items per grade is presented in Table 11. The specific items rated as unmatched can be found in Appendix B, Table B-22. Some of these items could be matched to off-grade Common Core standards, which are listed in Tables B-23 through B-25.

Table 9. Number of KCCT Reading Items per Grade Unmatched to Common Core Standards

Grade	Total Number of Items	Number of Items Matched to Standards	Number of Unmatched Items	Percent of Unmatched Items
3	324	301	23	7
4	467	413	54	12
5	316	279	37	12

Depth-of-Knowledge Match

Table 10 displays the percentage of items rated at the same DOK level as the corresponding standard, as well as the percentage of items rated below or above the matched standard, per grade level. These results are presented at the strand level.

A substantial number of KCCT reading items were rated as below the DOK level of the corresponding standard. For example, 82% (n=28) of Grade 3 items corresponding with standards under the Craft and Structure substrand received DOK ratings below that of the standard, while 91% (n=32) of Grade 4 items linked to Craft and Structure strand were below the DOK level of the standard. As noted with mathematics, at least 50% of items should match the DOK level of the corresponding standard per strand/substrand.

In most cases, these discrepancies involved adjacent mismatches (i.e., item DOK=1, standard DOK=2). The Grade 3 item pool did include some items (n=12) rated as two levels (i.e., item DOK=1, standard DOK=3) below the corresponding standards.

Table 10. Percentage of Reading Items with DOK Below, At, or Above the Matched Standard per Strand and Substrand

Item Grade Level	Strand	Substrand	Below	Same	Above
3	Literature	Key Ideas/Details	19%	76%	5%
3	Literature	Craft and Structure	82%	18%	0
3	Literature	Integration of Knowledge/Ideas	71%	14%	14%
3	Informational Text	Key Ideas/Details	32%	66%	2%
3	Informational Text	Craft and Structure	51%	43%	6%
3	Informational Text	Integration of Knowledge/Ideas	56%	44%	0
4	Literature	Key Ideas/Details	74%	25%	0
4	Literature	Craft and Structure	91%	9%	0
4	Literature	Integration of Knowledge/Ideas	100%	0	0

Item Grade Level	Strand	Substrand	Below	Same	Above
4	Informational Text	Key Ideas/Details	83%	16%	1%
4	Informational Text	Craft and Structure	66%	28%	6%
4	Informational Text	Integration of Knowledge/Ideas	43%	57%	0
5	Literature	Key Ideas/Details	3%	93%	4%
5	Literature	Craft and Structure	9%	87%	4%
5	Literature	Integration of Knowledge/Ideas	0	0	0
5	Informational Text	Key Ideas/Details	1%	99%	0
5	Informational Text	Craft and Structure	0	95%	5%
5	Informational Text	Integration of Knowledge/Ideas	50%	33%	17%

Table 11 displays the distribution of Reading items by DOK level based on HumRRO ratings compared with the DOK assigned to items by WestED. As for math items, the majority of items for Reading were rated as DOK level 1 or 2 by HumRRO. Furthermore, while the specific number of items falling into each category differed between HumRRO and WestED, the outcomes are proportionally similar.

Table 11. Comparison of HumRRO and WestED Item DOK Distributions

Item Grade Level	HumRRO Item DOK				WestED Item DOK			
	1	2	3	4	1	2	3	4
3	214	103	7	0	120	193	11	0
4	367	98	2	0	172	276	19	0
5	89	216	11	0	71	221	24	0

Discussion

HumRRO conducted a test item alignment review of the KCCT items in Grades 3, 4, and 5 to the Common Core State Standards in Mathematics and Reading for KDE. The purpose of this study was to evaluate where the current KCCT items fall relative to the Common Core standards. The alignment review examined the degree of match to content categories, as well as depth of knowledge, expected in the Common Core standards. Results can be used to inform item development as Kentucky attempts to align the assessment system with Common Core.

Regarding content match, overall the results indicate that the KCCT items in both Mathematics and Reading assess a variety of the Common Core standards. Items tend to cluster around some content more than others (i.e., Key Ideas and Details in Reading; Operations and Algebraic Thinking in Mathematics). While this outcome makes the range of content assessed relative to the Common Core standards somewhat narrow, the emphasis on this content in particular among KCCT does seem to correspond with intended emphasis in the Grades 3 through 5 Common Core standards. KDE may wish to review specific Common Core standards

that could not be linked to any KCCT items, as well as those KCCT items not matched to any Common Core standards.

Although content clustering and omission are concerns if Kentucky wishes to make use of the current item pools while connecting to the Common Core standards, no *major* gaps exist. Furthermore, some of the discrepancies found between the item pools and content standards simply stem from the organization selected (i.e., where content expectations are placed) for the Common Core standards document, which differs some from the organization of the Kentucky Core Content standards and that of many other states. For example, vocabulary knowledge and literary devices can be found in the Common Core English Language Arts standards; however, they exist under Language and Writing standards instead of Reading.

For both Reading and Mathematics, a number of items corresponded with Common Core standards above and below the grade level in which they are assessed. In these cases, KDE may consider moving items to better match the Common Core organization.

In addition to evaluating content categories assessed, HumRRO examined the level of processing required to respond to KCCT items relative to the level of processing expected in the Common Core standards. The results for Mathematics suggest that the consistency between the KCCT and Common Core standards is quite good overall because reviewers determined that many items assessed students at the same cognitive level as the corresponding standards. Math items matched to content expectations within several strands did fall below and also above the corresponding standard, which may prompt Kentucky to review these items for greater consistency with the Common Core if necessary. Many of these discrepancies identified count as adjacent mismatches (i.e., item rated as DOK 1 and standard rated as DOK 2). In comparison, a substantial number of Grade 3 KCCT reading items, as well as almost all of Grade 4 items, were rated at a lower DOK level than expected in the Common Core standards.

One consideration for Kentucky in general regarding item-level depth-of-knowledge is to consider increasing the number of items assessing higher-order thinking (DOK levels 3 and 4) on the assessment. Working towards items assessing students at a higher cognitive level has been a national trend in the last several years beyond the Common Core State Standards effort.

References

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Webb, N. L. (2005). Webb alignment tool: Training manual. Madison, WI: Wisconsin Center for Education Research. Available: <http://www.wcer.wisc.edu/WAT/index.aspx>.

Appendix A
Rating Materials

Example Rating Form

Reviewers entered ratings into electronic spreadsheets. The following form is an example of the spreadsheet format used for Mathematics and for Reading.

ItemNo	Primary Content Rating	Secondary Content Rating	DOK Rating	Notes
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

DOK Definitions

Reviewers received a DOK instruction sheet as a reference guide for making DOK ratings on standards and items. The instructions for Mathematics and for Reading are included here.

Mathematics DOK Levels

Level 1 (Recall) includes the recall of information such as a fact, definition, term, or a simple procedure, as well as performing a simple algorithm or applying a formula. That is, in mathematics, a one-step, well-defined, and straight algorithmic procedure should be included at this lowest level. Other key words that signify Level 1 include “identify,” “recall,” “recognize,” “use,” and “measure.” Verbs such as “describe” and “explain” could be classified at different levels, depending on what is to be described and explained.

Level 2 (Skill/Concept) includes the engagement of some mental processing beyond an habitual response. A Level 2 assessment item requires students to make some decisions as to how to approach the problem or activity, whereas Level 1 requires students to demonstrate a rote response, perform a well-known algorithm, follow a set procedure (like a recipe), or perform a clearly defined series of steps. Keywords that generally distinguish a Level 2 item include “classify,” “organize,” “estimate,” “make observations,” “collect and display data,” and “compare data.” These actions imply more than one step. For example, to compare data requires first identifying characteristics of objects or phenomena and then grouping or ordering the objects. Some action verbs, such as “explain,” “describe,” or “interpret,” could be classified at different levels depending on the object of the action. For example, interpreting information from a simple graph, or reading information from the graph, also are at Level 2. Interpreting information from a complex graph that requires some decisions on what features of the graph need to be considered and how information from the graph can be aggregated is at Level 3. Level 2 activities are not limited only to number skills, but may involve visualization skills and probability skills. Other Level 2 activities include noticing or describing non-trivial patterns, explaining the purpose and use of experimental procedures; carrying out experimental procedures; making observations and collecting data; classifying, organizing, and comparing data; and organizing and displaying data in tables, graphs, and charts.

Level 3 (Strategic Thinking) requires reasoning, planning, using evidence, and a higher level of thinking than the previous two levels. In most instances, requiring students to explain their thinking is at Level 3. Activities that require students to make conjectures are also at this level. The cognitive demands at Level 3 are complex and abstract. The complexity does not result from the fact that there are multiple answers, a possibility for both Levels 1 and 2, but because the task requires more demanding reasoning. An activity, however, that has more than one possible answer and requires students to justify the response they give would most likely be at Level 3.

Other Level 3 activities include drawing conclusions from observations; citing evidence and developing a logical argument for concepts; explaining phenomena in terms of concepts; and deciding which concepts to apply in order to solve a complex problem.

Level 4 (Extended Thinking) requires complex reasoning, planning, developing, and thinking, most likely over an extended period of time. The extended time period is not a distinguishing factor if the required work is only repetitive and does not require applying significant conceptual understanding and higher-order thinking. For example, if a student has to take the water temperature from a river each day for a month and then construct a graph, this would be classified as a Level 2. However, if the student is to conduct a river study that requires taking into consideration a number of variables, this would be a Level 4. At Level 4, the cognitive demands of the task should be high and the work should be very complex. Students should be required to make several connections—relate ideas *within* the content area or *among* content areas—and have to select one approach among many alternatives on how the situation should be solved, in order to be at this highest level. Level 4 activities include designing *and* conducting experiments and projects; developing and proving conjectures, making connections between a finding and related concepts and phenomena; combining and synthesizing ideas into new concepts; and critiquing experimental designs.

NOTE: Many on-demand assessment instruments will not include assessment activities that could be classified as Level 4. However, standards, goals, and objectives can be stated so as to expect students to perform thinking at this level. On-demand assessments that do include tasks, products, or extended responses would be classified as Level 4 when the task or response requires evidence that the cognitive requirements have been met. [added October 2009_LRT]

Reading DOK Levels

The reading levels are based on Valencia and Wixson (2000, pp. 909-935). The writing levels were developed by Marshá Horton, Sharon O’Neal, and Phoebe Winter.

Reading Level 1. Level 1 requires students to receive or recite facts or to use simple skills or abilities. Oral reading that does not include analysis of the text, as well as basic comprehension of a text, is included. Items require only a shallow understanding of the text presented and often consist of verbatim recall from text, slight paraphrasing of specific details from the text, or simple understanding of a single word or phrase. Some examples that represent, but do not constitute all of, Level 1 performance are:

- Support ideas by reference to verbatim or only slightly paraphrased details from the text.
- Use a dictionary to find the meanings of words.
- Recognize figurative language in a reading passage.

Reading Level 2. Level 2 includes the engagement of some mental processing beyond recalling or reproducing a response; it requires both comprehension and subsequent processing of text or portions of text. Inter-sentence analysis of inference is required. Some important concepts are covered, but not in a complex way. Standards and items at this level may include words such as summarize, interpret, infer, classify, organize, collect, display, compare, and determine whether fact or opinion. Literal main ideas are stressed. A Level 2 assessment item may require students to apply skills and concepts that are covered in Level 1. However, items require closer understanding of text, possibly through the item’s paraphrasing of both the question and the answer. Some examples that represent, but do not constitute all of, Level 2 performance are:

- Use context cues to identify the meaning of unfamiliar words, phrases, and expressions that could otherwise have multiple meanings.
- Predict a logical outcome based on information in a reading selection.
- Identify and summarize the major events in a narrative.

Reading Level 3. Deep knowledge becomes a greater focus at Level 3. Students are encouraged to go beyond the text; however, they are still required to show understanding of the ideas in the text. Students may be encouraged to explain, generalize, or connect ideas. Standards and items at Level 3 involve reasoning and planning. Students must be able to support their thinking. Items may involve abstract theme identification, inference across an entire passage, or students’ application of prior knowledge. Items may also involve more superficial connections between texts. Some examples that represent, but do not constitute all of, Level 3 performance are:

- Explain or recognize how the author’s purpose affects the interpretation of a reading selection.
- Summarize information from multiple sources to address a specific topic.

- Analyze and describe the characteristics of various types of literature.

Reading Level 4. Higher-order thinking is central and knowledge is deep at Level 4. The standard or assessment item at this level will probably be an extended activity, with extended time provided for completing it. The extended time period is not a distinguishing factor if the required work is only repetitive and does not require the application of significant conceptual understanding and higher-order thinking. Students take information from at least one passage of a text and are asked to apply this information to a new task. They may also be asked to develop hypotheses and perform complex analyses of the connections among texts. Some examples that represent, but do not constitute all of, Level 4 performance are:

- Analyze and synthesize information from multiple sources.
- Examine and explain alternative perspectives across a variety of sources.
- Describe and illustrate how common themes are found across texts from different cultures.

NOTE: Many on-demand assessment instruments will not include assessment activities that could be classified as Level 4. However, standards, goals, and objectives can be stated so as to expect students to perform thinking at this level. On-demand assessments that do include tasks, products, or extended responses would be classified as Level 4 when the task or response requires evidence that the cognitive requirements have been met. *[added October 2009_LRT]*

Appendix B
Grade-Level Results

Mathematics

We present the grade-level results for KCCT math items per Common Core strand.

Table B- 12. Frequency of Grade-Level Math Items Across Common Core Strands

Math Common Core Strands	Frequency of Items per Grade Matched to Each Strand Category		
	Grade 3	Grade 4	Grade 5
Operations and Algebraic Thinking (OA)	46	59	62
Number and Operations in Base Ten (NBT)	19	17	30
Number and Operations—Fractions (NF)	18	15	32
Measurement and Data (MD)	31	30	44
Geometry (G)	20	31	35

Table B-13. Frequency of Grade-level Math Items Across Common Core Strands, with Unused Common Core Strands Indicated

Common Core Standard Code	Number of Grade-Level Items Matched to Standard			Total Items Matched to Standard Across Grades
	Grade 3	Grade 4	Grade 5	
G3.1	5	1	2	8
G3.2	0	1	0	1
MD3.1	6	1	8	15
MD3.2	1	0	0	1
MD3.3	13	5	9	27
MD3.4	4	0	0	4
MD3.5				
MD3.6				
MD3.8	0	1	4	5
NBT3.1				
NBT3.2	1	0	2	3
NBT3.3				
NF3.1	3	0	1	4
NF3.2	5	1	4	10
NF3.3	7	2	0	9
OA3.1	4	0	0	4
OA3.2	0	0	1	1
OA3.3	3	0	4	7
OA3.4	4	0	1	5
OA3.5				

Common Core Standard Code	Number of Grade-Level Items Matched to Standard			Total Items Matched to Standard Across Grades
	Grade 3	Grade 4	Grade 5	
OA3.6	1	0	1	2
OA3.7	1	0	0	1
OA3.8	13	7	6	26
OA3.9	15	0	1	16
G4.1	0	6	10	16
G4.2	0	9	5	14
G4.3	12	6	7	25
MD4.1	0	6	4	10
MD4.2	5	8	3	16
MD4.3	0	7	2	9
MD4.4				
MD4.5				
MD4.6	0	0	2	2
MD4.7				
NBT4.1	0	4	1	5
NBT4.2	8	7	4	19
NBT4.3	7	1	2	10
NBT4.4	0	1	5	6
NBT4.5	0	1	1	2
NBT4.6	0	0	2	2
NF4.1				
NF4.2	1	4	8	13
NF4.3	0	2	2	4
NF4.4	0	0	1	1
NF4.5	0	0	1	1
NF4.6	0	1	2	3
NF4.7	2	5	1	8
OA4.1	0	0	1	1
OA4.2	0	4	3	7
OA4.3	0	15	5	20
OA4.4	4	7	17	28
OA4.5	0	26	22	48
G5.1	0	6	8	14
G5.2				
G5.3	2	2	2	6

Common Core Standard Code	Number of Grade-Level Items Matched to Standard			Total Items Matched to Standard Across Grades
	Grade 3	Grade 4	Grade 5	
G5.4	1	0	1	2
MD5.1	0	1	5	6
MD5.2				
MD5.3				
MD5.4				
MD5.5				
NBT5.1	2	1	1	4
NBT5.2				
NBT5.3	0	0	6	6
NBT5.4	1	0	0	1
NBT5.5				
NBT5.6	0	0	3	3
NBT5.7	2	3	10	15
NF5.1				
NF5.2	0	0	3	3
NF5.3	0	0	8	8
NF5.4				
NF5.5				
NF5.6	0	0	1	1
NF5.7				
OA5.1				
OA5.2	1	0	0	1
OA5.3				
No Match	42	23	44	109
Total	176	175	247	598

Note: Gray shading indicates Common Core standards which were not matched to any math items.

Table B-14. Math Items Not Matched to Any Common Core Standards, by Grade

Grade	Question Type	Item ID No.
3	MC	67155
3	MC	67025

Grade	Question Type	Item ID No.
3	MC	67474
3	MC	67264
3	MC	67156
3	MC	67371
3	MC	84528
3	MC	67154
3	MC	84728
3	MC	84713
3	MC	67374
3	MC	67481
3	MC	67311
3	MC	67137
3	MC	67320
3	MC	67379
3	MC	84802
3	MC	84798
3	MC	84796
3	OR	84734
3	MC	84714
3	MC	84709
3	MC	84730
3	MC	45331
3	MC	85037
3	MC	85313
3	MC	85318
3	MC	3573
3	MC	84804
3	MC	85312
3	MC	85049
3	MC	67375
3	MC	67370
3	MC	67141
3	MC	106711
3	MC	106754
3	MC	106895
3	MC	106815
3	MC	106809
3	MC	106871
3	MC	106709
3	MC	114502
4	MC	67414

Grade	Question Type	Item ID No.
4	MC	67428
4	MC	67281
4	MC	67427
4	OR	84803
4	MC	84877
4	MC	84759
4	MC	84966
4	MC	84967
4	MC	84887
4	MC	84791
4	MC	84823
4	MC	85140
4	MC	85062
4	MC	85196
4	OR	84766
4	MC	106798
4	MC	107079
4	MC	107078
4	MC	106884
4	MC	106804
4	MC	106912
4	MC	106887
5	MC	60425
5	MC	37037
5	MC	80489
5	OR	28141
5	MC	37069
5	MC	28213
5	MC	80472
5	MC	80496
5	MC	37047
5	MC	80479
5	MC	60414
5	MC	60444
5	MC	60426
5	MC	80486
5	MC	80490
5	MC	70471
5	MC	80476
5	OR	80538
5	MC	50488

Grade	Question Type	Item ID No.
5	MC	85228
5	MC	28159
5	OR	80537
5	MC	70462
5	MC	84884
5	MC	85170
5	MC	85123
5	MC	85161
5	MC	85125
5	OR	85075
5	MC	70473
5	MC	37067
5	MC	107117
5	MC	5288
5	MC	107114
5	MC	106861
5	MC	70461
5	OR	107016
5	MC	107008
5	OR	107143
5	MC	106863
5	MC	107139
5	MC	107045
5	MC	107018
5	MC	107047

Table B-15. Off-grade Items, Grade 3 Math

Item ID No.	Question Type	Common Core Standards Matched to Items
3573	MC	G2.1
45317	MC	MD2.8
45331	MC	MD1.4
67023	MC	MD2.8
67025	MC	MD1.4
67137	MC	OA2.3
67141	MC	NBT2.1
67154	MC	G2.1
67155	MC	G2.1
67156	MC	None
67264	MC	MD1.4
67311	MC	G2.1

Item ID No.	Question Type	Common Core Standards Matched to Items
67320	MC	None
67370	MC	OA2.3
67371	MC	OA2.3
67374	MC	OA2.3
67375	MC	NBT2.1
67379	MC	G2.1
67474	MC	OA2.3
67481	MC	MD1.2
67482	MC	MD2.8
84528	MC	G2.1
84709	MC	NBT2.1
84713	MC	OA2.3
84714	MC	G2.1
84728	MC	None
84730	MC	G2.1
84733	OR	MD2.8
84734	OR	G2.1
84763	MC	None
84796	MC	MD2.8
84798	MC	G2.1
84802	MC	G2.1
84804	MC	G2.1
84812	MC	None
85037	MC	NBT2.1
85049	MC	OA2.3
85070	MC	None
85312	MC	MD2.6
85313	MC	G2.1
85317	MC	G2.1
85318	MC	G2.1
106709	MC	G2.1
106710	MC	G2.1
106711	MC	MD2.6
106747	MC	None
106754	MC	G2.1
106761	MC	None
106809	MC	MD2.8
106815	MC	None
106871	MC	G2.1
106895	MC	OA2.3
106939	OR	MD2.8

Item ID No.	Question Type	Common Core Standards Matched to Items
107066	OR	G2.1
114502	MC	MD2.8

Table B-16. Off-grade Items, Grade 4 Math

Item ID No.	Question Type	Common Core Standards Matched to Items
67281	MC	OA2.3
67414	MC	G2.1
67427	MC	SP 6, 7, 8
67428	MC	None
84759	MC	None
84766	OR	None
84791	MC	SP 6, 7, 8
84803	OR	SP 6, 7, 8
84823	MC	SP 6, 7, 8
84877	MC	SP 6, 7, 8
84887	MC	G2.1
84966	MC	G2.1
84967	MC	SP 6, 7, 8
85062	MC	G2.1
85140	MC	SP 6, 7, 8
85196	MC	None
106798	MC	G2.1
106804	MC	None
106884	MC	OA2.3
106887	MC	G2.1
106912	MC	None
107078	MC	None
107079	MC	None

Table B-17. Off-grade Items, Grade 5 Math

Item ID No.	Question Type	Common Core Standards Matched to Items
5288	MC	SP6.5
28141	OR	SP6.5
28159	MC	SP6.5
28213	MC	None
37037	MC	SP 6, 7, 8
37047	MC	SP6.5
37067	MC	G8.1
37069	MC	G1.2

Item ID No.	Question Type	Common Core Standards Matched to Items
50488	MC	None
60414	MC	G8.1
60425	MC	SP6.5
60426	MC	None
60444	MC	SP6.5
70461	MC	G1.2
70462	MC	SP 6, 7, 8
70471	MC	SP 6, 7, 8
70473	MC	SP6.5
80472	MC	G8.2
80476	MC	G8.1
80479	MC	G8.1
80486	MC	None
80489	MC	SP6.5
80490	MC	SP6.5
80496	MC	SP 6, 7, 8
80537	OR	SP 6, 7, 8
80538	OR	None
84884	MC	G8.1
85075	OR	G1.2
85123	MC	SP6.5
85125	MC	SP 6, 7, 8
85161	MC	None
85170	MC	SP 6, 7, 8
85228	MC	G8.2
106861	MC	G1.2
106863	MC	G8.1
107008	MC	G8.2
107016	OR	G8.2
107018	MC	SP6.5
107045	MC	G8.2
107047	MC	SP 6, 7, 8
107114	MC	G8.2
107117	MC	SP 6, 7, 8
107139	MC	None
107143	OR	SP 6, 7, 8

Table B-18. Number of Grade-Level Items Matched to Grade-level Common Core Standards

Number of Grade 3 KCCT Items per Strand			
	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
OA	41	4	1
NBT	1	15	3
NF	15	3	3
MD	24	5	2
G	5	12	3
Total	86	39	12
Number of Grade 4 KCCT Items per Strand			
	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
OA	7	52	0
NBT	0	14	3
NF	3	12	0
MD	7	21	2
G	2	21	8
Total	19	120	13
Number of Grade 5 KCCT Items per Strand			
	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
OA	14	48	0
NBT	2	15	13
NF	5	15	12
MD	21	11	12
G	2	22	11
	44	111	48

Reading

We present the grade-level results for KCCT reading items per Common Core content strand. Tables B-21 and B-26 provide summary-level statistics. Tables B-22 through B-25 list items by item ID per grade rated as ‘no match’ or matched an off-grade standard.

Table B-19. Frequency of Items to Common Core Standards, by Grade

Common Core Content Code	Number of Grade-Level Items Matched to Standard			Total Items Matched to Standard Across Grades
	Grade 3	Grade 4	Grade 5	
InfoText3.1	57	1	45	103
InfoText3.2	23	0	0	23
InfoText3.3	19	0	0	19
InfoText3.4	35	0	0	35
InfoText3.5	11	10	4	25
InfoText3.6	5	0	0	5
InfoText3.7	10	3	3	16
InfoText3.8	4	0	1	5
InfoText3.9	2	0	0	2
LitText3.1	45	3	30	78
LitText3.2	22	1	0	23
LitText3.3	34	19	7	60
LitText3.4	31	35	0	66
LitText3.6	2	0	1	3
LitText3.7	7	1	0	8
LitText3.8				
LitText3.9				
InfoText4.1	8	106	31	145
InfoText4.2	1	5	7	13
InfoText4.3	1	9	3	13
InfoText4.4	0	31	0	31
InfoText4.5	0	7	6	13
InfoText4.6				
InfoText4.7				
InfoText4.8	0	4	2	6
InfoText4.9				
LitText4.1	7	160	41	208
LitText4.2	0	8	8	16
LitText4.3	0	15	13	28
LitText4.4				

Common Core Content Code	Number of Grade-Level Items Matched to Standard			Total Items Matched to Standard Across Grades
	Grade 3	Grade 4	Grade 5	
LitText4.5	0	1	4	5
LitText4.6	1	0	1	2
LitText4.7				
LitText4.8				
LitText4.9				
InfoText5.1				
InfoText5.2	0	0	1	1
InfoText5.3	0	0	1	1
InfoText5.4	0	0	11	11
InfoText5.5				
InfoText5.6				
InfoText5.7				
InfoText5.8				
InfoText5.9				
LitText5.1				
LitText5.2	0	0	3	3
LitText5.3	0	1	2	3
LitText5.4	0	1	60	61
LitText5.5	0	0	1	1
LitText5.6				
LitText5.7				
LitText5.8				
LitText5.9				
No Match	0	54	37	91
Total	325	475	323	1123

NOTE: Gray shading indicates that no items were coded with the respective Common Core strand.

Table B-20. Reading Items Not Matched to Any Common Core Standards, by Grade

Grade	Question Type	Item ID No.
3	MC	3787
3	MC	86094
3	MC	86114
3	MC	86147
3	MC	86156

Grade	Question Type	Item ID No.
3	MC	86199
3	MC	86249
3	MC	86261
3	MC	90027
3	MC	90029
3	MC	90035
3	MC	90059
3	MC	90067
3	MC	90078
3	MC	90119
3	MC	90144
3	MC	96332
3	MC	105843
3	MC	106354
3	MC	106502
3	MC	106529
3	MC	106543
3	MC	106553
4	MC	12953
4	MC	45011
4	MC	45023
4	MC	45025
4	MC	47986
4	MC	50019
4	MC	50032
4	MC	50115
4	MC	50120
4	MC	50123
4	MC	60009
4	MC	60068
4	MC	60074
4	MC	64019
4	MC	70006
4	MC	70023
4	MC	70026
4	MC	70051
4	MC	70068
4	MC	70069
4	MC	80001
4	MC	80007
4	MC	80026

Grade	Question Type	Item ID No.
4	MC	80121
4	MC	83829
4	MC	84592
4	MC	86733
4	MC	90404
4	MC	90438
4	MC	90452
4	MC	90463
4	MC	90480
4	MC	95224
4	MC	95301
4	MC	95312
4	MC	95338
4	MC	95348
4	MC	95362
4	MC	95363
4	MC	95367
4	MC	96320
4	MC	105265
4	MC	105340
4	MC	105429
4	MC	105431
4	MC	105502
4	MC	105512
4	MC	105598
4	MC	105980
4	MC	106107
4	MC	106632
4	MC	106639
4	MC	106647
4	MC	106651
4	OR	106654
5	MC	3245
5	MC	3366
5	MC	3385
5	MC	85687
5	MC	85718
5	MC	85767
5	MC	86003
5	MC	86004
5	MC	91203

Grade	Question Type	Item ID No.
5	MC	91208
5	MC	91209
5	MC	91210
5	MC	91289
5	MC	91303
5	MC	91309
5	MC	91330
5	MC	91350
5	OR	96097
5	MC	96366
5	MC	105321
5	MC	105323
5	MC	105472
5	MC	105697
5	MC	105699
5	MC	105999
5	OR	106000
5	MC	106006
5	MC	106149
5	MC	106169
5	MC	106219
5	MC	106229
5	MC	106230
5	MC	106305
5	MC	106678
5	MC	107165
5	MC	107166
5	MC	107174

Table B-21. Off-grade Items, Grade 3 Reading

Item ID No.	Question Type	Common Core Standards Matched to Items
3787	MC	Language Standards, K-5
86094	MC	Language Standards, K-5
86147	MC	Language Standards, K-5
86156	MC	Language Standards, K-5
86199	MC	Language Standards, K-5
86249	MC	Language Standards, K-5
86261	MC	Language Standards, K-5
90027	MC	Language Standards, K-5
90029	MC	LitText, Grades 6-8
90035	MC	Language Standards, K-5
90059	MC	Language Standards, K-5
90067	MC	LitText, Grades 6-8
90078	MC	Language Standards, K-5
90119	MC	LitText, Grades 6-8
90144	MC	Language Standards, K-5
96330	MC	Language Standards, K-3
96332	MC	LitText, Grades 6-8
105843	MC	LitText, Grades 6-8
106354	MC	Language Standards, K-5
106502	MC	LitText, Grades 6-8
106529	MC	Language Standards, K-5
106543	MC	LitText, Grades 6-8
106553	MC	Language Standards, K-5

Table B-22. Off-grade Items, Grade 4 Reading

Item ID No.	Question Type	Common Core Standards Matched to Items
12953	MC	Language Standards, Grade 3
45011	MC	LitText, Grades 6-8
45023	MC	InfoText2.6
45025	MC	Language Standards, Grades 3-5
47986	MC	Language Standards, Grade 2
50019	MC	LitText K.5
50032	MC	LitText K.5
50115	MC	LitText, Grades 6-8
50120	MC	InfoText2.6
50123	MC	Language Standards, Grade 2
60009	MC	Language Standards, Grade 2
60068	MC	InfoText2.6

Item ID No.	Question Type	Common Core Standards Matched to Items
60074	MC	Language Standards, K-5
64019	MC	Language Standards, K-5
70006	MC	Language Standards, Grade 2
70023	MC	InfoText2.6
70026	MC	LitText K.5
70051	MC	Language Standards, K-5
70068	MC	LitText K.5
70069	MC	Language Standards, Grade 2
80001	MC	LitText6.6
80007	MC	Language Standards, K-5
80026	MC	LitText K.5
80121	MC	LitText, Grades 6-8
83829	MC	InfoText2.6
84592	MC	LitText, Grades 6-8
86733	MC	LitText, Grades 6-8
90404	MC	Language Standards, K-5
90438	MC	LitText K.5
90452	MC	Language Standards, K-5
90463	MC	InfoText2.6
90480	MC	InfoText2.6
95224	MC	Language Standards, K-5
95301	MC	LitText6.6
95312	MC	LitText K.5
95338	MC	InfoText2.6
95348	MC	LitText, Grades 6-8
95362	MC	LitText K.5
95363	MC	LitText, Grades 6-8
95367	MC	InfoText2.6
96320	MC	Language Standards, K-5
105265	MC	InfoText2.6
105340	MC	InfoText2.6
105429	MC	InfoText2.6
105431	MC	LitText K.5
105502	MC	LitText K.5
105512	MC	LitText6.6
105598	MC	LitText6.6
105980	MC	LitText, Grades 6-8
106107	MC	LitText, Grades 6-8
106632	MC	LitText, Grades 6-8
106639	MC	Language Standards, K-5
106647	MC	LitText, Grades 6-8

Item ID No.	Question Type	Common Core Standards Matched to Items
106651	MC	Language Standards, K-5

Table B-23. Off-grade Items, Grade 5 Reading

Item ID No.	Question Type	Common Core Standards Matched to Items
3385	MC	Language Standards, K-5
85687	MC	LitText6.6
85718	MC	LitText6.6
85767	MC	Language Standards, K-5
86003	MC	None
86004	MC	LitText6.6
91203	MC	LitText6.6
91208	MC	None
91209	MC	Writing Standards
91210	MC	InfoText1.5
91289	MC	LitText6.6
91303	MC	Language Standards, K-5
91309	MC	LitText6.6
91330	MC	LitText6.6
91350	MC	LitText6.6
96097	OR	InfoText, Grades 1 and 2
96366	MC	InfoText1.5
105321	MC	InfoText6.5
105323	MC	LitText6.6
105472	MC	LitText6.6
105697	MC	LitText6.6
105699	MC	InfoText1.5
105999	MC	None
106000	OR	None
106006	MC	None
106149	MC	LitText6.6
106169	MC	None
106219	MC	LitText6.6
106229	MC	Writing Standards
106230	MC	LitText6.6
106305	MC	LitText K.5
106678	MC	Writing Standards
107165	MC	LitText K.5
107166	MC	Language Standards, K-5
107174	MC	Language Standards, Grade 2

Table B-24. Number of Reading Items per Grade Matched to Grade-level Common Core Substrands per Strands

Grade 3 KCCT Items Matched to Grade-Level Common Core Standards			
Lit Text Substrands	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
Key Ideas/Details	101	23	37
Craft and Structure	33	35	1
Integration of Knowledge	7	1	0
Range of Reading/Text Complexity	0	0	0
Info Text Substrands	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
Key Ideas/Details	99	1	45
Craft and Structure	51	10	4
Integration of Knowledge	16	3	4
Range of Reading/Text Complexity	0	0	0
Grade 4 KCCT Items Matched to Grade-Level Common Core Standards			
Lit Text Substrands	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
Key Ideas/Details	7	183	62
Craft and Structure	1	1	5
Integration of Knowledge	0	0	0
Range of Reading/Text Complexity	0	0	0
Info Text Substrands	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
Key Ideas/Details	10	120	41
Craft and Structure	0	38	6
Integration of Knowledge	0	4	2
Range of Reading/Text Complexity	0	0	0
Grade 5 KCCT Items Matched to Grade-Level Common Core Standards			
Lit Text Substrands	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
Key Ideas/Details	0	1	5
Craft and Structure	0	1	61
Integration of Knowledge	0	0	0
Range of Reading/Text Complexity	0	0	0
Info Text Substrands	Grade 3 Strands	Grade 4 Strands	Grade 5 Strands
Key Ideas/Details	0	0	2
Craft and Structure	0	0	11
Integration of Knowledge	0	0	0
Range of Reading/Text Complexity	0	0	0