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Research Brief

TO: Representative Lynn Gattis
FROM: Susan Haymes, Legislative Analyst
DATE: May 31, 2013
RE: A Comparison of National and Alaska Common Core Education Standards
LRS Report 13.391

You asked for a comparison between the Common Core State Standards and the Alaska Common Core Standards.

The Common Core State Standards (CCSS) for English/Language Arts and Mathematics is the result of a state-led effort to establish a single set of educational standards for grades kindergarten through 12th that states may voluntarily adopt.¹ The CCSS initiative was led by the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO), with input from educators, parents, and state leaders. According to the CCSS, the standards are 1) research and evidence based, 2) aligned with college and work expectations, 3) rigorous, and 4) internationally benchmarked. To date, 45 states, the District of Columbia, four territories, and the Department of Defense Education Activity have adopted the Common Core State Standards.² The five states that have not adopted the CCSS are Alaska, Minnesota (adopted reading standards only), Nebraska, Texas, and Virginia. These five states, including Alaska, have adopted their own core standards.

The Alaska Board of Education adopted new core standards for Alaska in June 2012.³ The Alaska standards were developed by the Alaska Department of Education and Early Development (DEED) with the support of educators, parents, and other experts.⁴ According to the DEED, Alaska educators and policymakers wanted to develop state standards based on the "unique context of our state." Educators and DEED staff reviewed the CCSS, evaluated Alaska Grade Level Expectations (GLEs), and developed the Alaska English/Language Arts and Mathematics Standards. According to the DEED, Alaska standards and the CCSS are very similar and equal in rigor. The DEED prepared a comparison of the CCSS and Alaska standards, which we include as Attachment A. Generally, where differences exist between the standards, it is for the following reasons:

1. Alaska educators were focused on making sure that the standards had clarity to ensure that teachers would easily understand the focus and purpose of each standard; and
2. Alaska educators wanted key Alaskan standards retained, especially math standards in measurement for the elementary grades.

Pages 2-4 of the document describe the differences in the English/Language Arts standards. Pages 5-10 describe the differences in Math standards. The DEED highlights in gray the Alaska standards that do not have a counterpart in the CCSS.⁵

We hope this is helpful. If you have questions or need additional information, please let us know.

¹ More information on the CCSS can be accessed at www.corestandards.org/.

² While the majority of states have approved the CCSS, the standards have not been without controversy. Several state legislatures have considered blocking the standards and other states have expressed concerns about the costs of implementing them (<http://abcnews.go.com/Politics/wireStory/lawmakers-push-back-standards-19268688>).

³ Alaska's core standards can be accessed at <http://education.alaska.gov/tls/assessment/2012AKStandards.html>.

⁴ Karin Hess, senior associate, from the nonprofit National Center for the Improvement of Educational Assessment provided leadership throughout the process.

⁵ Elizabeth Davis, Assessment Administrator, DEED, 907.465.8431, is the contact person for questions regarding Alaska's core standards.

How the Alaska English/Language Arts and Mathematics Standards Differ from the Common Core State Standards

Driven by a desire to better prepare graduates for college and careers, the Alaska Department of Education and Early Development (EED), with the support of Alaska educators and stakeholders, have created new English/Language Arts and Mathematics Standards to adequately prepare Alaskan students for college and careers. The new, more rigorous, academic standards clearly outline what students should know and be able to do at each grade level to be globally competitive. The State Board of Education adopted the standards in June 2012.

Forty-five states have adopted a common set of academic standards, the Common Core State Standards (CCSS), which are designed to help prepare students with the knowledge and skills they need to succeed in college and careers. Alaska did not choose to adopt the CCSS; it was important to Alaskan educators to have the opportunity to adjust portions of the standards based on the unique context of our state. Educators from across the state assisted department staff in reviewing the CCSS, evaluating Alaska Grade Level Expectations (GLEs), and, based on this rich review of information, developing the new Alaska English/Language Arts and Mathematics Standards.

Across the nation, many educational materials and resources aligned to the Common Core State Standards are being created. Educators and others have asked if Alaska will be able to take advantage of these materials. The answer is yes. One goal of Alaska's standards revision process was to ensure that Alaskan schools would be able to use the materials produced for the CCSS. Alaska standards and the CCSS are very similar, and Alaska took great care to make sure that its standards are equal in rigor. Although the sets of standards are equivalent, they are not identical. In general, where differences exist, it is for the following reasons:

Acronym Guide

CCSS: Common Core State Standards

ELA: English Language Arts

GLE: Grade Level Expectation

EED: The Alaska Department of Education & Early Development

1. Alaska educators were focused on making sure that the standards had clarity to ensure that teachers would easily understand the focus and purpose of each standard; and
2. Alaska educators wanted key Alaskan standards retained, especially math standards in measurement in the elementary grades.

English/Language Arts Differences

The primary differences between the Alaska and CCSS ELA Standards are found in the five standards described below. The coding of the CCSS ELA Standards and the Alaska ELA Standards is identical.

Reading

Standard 2 for Reading

CCSS Anchor Standard 2 is about themes and summaries of texts. The Alaska Anchor Standard is more specific about how to restate and summarize text.

For example, in the grade 7 Reading Literature standards in the chart below, the Alaska Standard provides teachers with additional information about what students should know and be able to do after reading a text.

CCSS Grade 7 Standard 2 for Reading Literature code: RL.7.2	Alaska's Grade 7 Standard 2 for Reading Literature code: RL.7.2
Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.	Determine a theme or central idea of a text and analyze its development over the course of the text; restate and summarize main ideas or events, in correct sequence, after reading a text.

Similarly, Alaska's Standard 2 for grade 7 Reading Informational Text (below) provides clarity for teachers. In addition, Alaska removed the word "objective" in the standard because a summary, by definition, is objective.

CCSS grade 7 Standard 2 for Reading Informational Text code: RI.7.2	Alaska's grade 7 Standard 2 for Reading Informational Text code: RI.7.2
Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.	Determine the central idea and subtopics in a text and analyze their development over the course of the text; restate and summarize the central idea or events, in correct sequence when necessary, after reading a text.

Standard 10 for Reading

One key difference between the CCSS and Alaska standards is found in ELA Anchor Standard 10 in Reading Standards for Literature and Reading Standards for Informational Text. Below is the CCSS Standard 10 for Reading for Literature for grade 4 and grade 5 (emphasis added).

Grade 4: By the end of the year, read and comprehend literature, including stories, dramas, and poetry, in the grades 4–5 text complexity band proficiently, **with scaffolding as needed at the high end of the range.**

Grade 5: By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band **independently and proficiently**.

This pattern of decreasing supports given to students occurs throughout the grades in the CCSS standards. In the lower grades students read with scaffolding, as needed, when reading text at the high end of the range. In the adjacent grade, the students read independently and proficiently. Alaska educators chose *not* to include this division of support offered to students; they felt that this artificial division assumes that text can be divided up neatly into two-year grade bands. Instead, the Alaska Standard 10 recognizes that students are always reading a range of text and that teachers recognize when scaffolding is appropriate or needed at each grade. The Alaska Standard 10 for Reading for Literature also includes the phrase “from a variety of cultures” to emphasize that is important to draw upon a wide range of texts.

Below is the grade 5 CCSS and corresponding Alaska Standard 10 for Reading Standards Literature.

CCSS grade 5 standard 10 for Reading Literature	Alaska’s grade 5 standard 10 for Reading Literature
RL.5.10	RL.5.10
By the end of the year, read and comprehend literature, including stories, dramas, and poetry, at the high end of the grades 4–5 text complexity band independently and proficiently.	By the end of the year, read and comprehend a range of literature from a variety of cultures, within a complexity band appropriate to grade 5 (from upper grade 4 to grade 6), with scaffolding as needed at the high end of the range.

Writing

Writing Standard 3

The CCSS Writing Anchor Standard 3 states that students “Write narratives....” The Alaska Writing Anchor Standard 3 states that students “**Use** narrative writing...”(emphasis added). Additionally, the Alaska standard does not restrict Standard 3 to the creation of stories; it includes the use of narrative writing in nonfiction accounts.

CCSS grade 3 Writing Standard 3	Alaska’s grade 3 Writing Standard 3
W.3.3a-d	W.3.3a-d
Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences. a. Establish a situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use dialogue and descriptions of actions, thoughts, and feelings to develop experiences and events or show the response of characters to situations. c. Use temporal words and phrases to signal event order.	Use narrative writing to develop real or imagined characters, experiences, or events using effective narrative techniques (dialogue, description, elaboration, problem-solution, figurative language), and clear event sequences (chronology). a. Establish a context or situation and introduce a narrator and/or characters; organize an event sequence that unfolds naturally. b. Use narrative techniques, such as dialogue, description and elaboration, and concrete and sensory details to describe actions, thoughts, and

d. Provide a sense of closure.	<p>feelings and to develop experiences and events showing the response of characters to situations or problems.</p> <p>c. Use transitional words and phrases to signal event sequences (e.g., later, soon after).</p> <p>d. Provide a sense of closure (e.g., how a problem was solved or how the event ended).</p>
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Language

Language Standard 1.a.

Language Standard 1.a. frequently refers to using parts of speech or explaining parts of speech. The Alaska standard includes the phrase “in order to apply the conventions of English” to emphasize that the purpose of studying parts of speech is always to increase students’ ability to apply usage rules; the focus of all the language standards is application.

CCSS Language Standard 1.a. grade 7	Alaska Standard 1.a. grade 7
Explain the function of phrases and clauses in general and their function in specific sentences.	Explain the function of phrases and clauses in general and their function in specific sentences in order to apply the conventions of English.

Language Standard 4.a.

The Alaska Language Standard 4.a. for Vocabulary Acquisition and Use contains multiple, specific strategies for determining the meaning of unfamiliar words. The CCSS Language Standard 4.a. only references using context as a clue to the meaning of a word or phrase.

CCSS Grade 5 Language Standard 4.a	Alaska’s Grade 5 Language Standard 4.a
L.5.4a	L.5.4a
<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.</p> <p>a. Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.</p>	<p>Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 5 reading and content, choosing flexibly from a range of strategies.</p> <p>a. Determine meaning of unfamiliar words by using knowledge of word structure (root words, prefixes, suffixes, abbreviations) and language structure through reading words in text (word order, grammar, syntax), use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.</p>

Mathematics Differences

Most of the differences for the math standards are found in grades K-8. There are few differences between the two sets of standards at the high school level. As noted in the introduction to the document, where differences between the two documents exist, it is for the following reasons: (1) Alaska educators were focused on making sure that the standards had clarity to ensure that teachers would easily understand the focus and purpose of each standard; and (2) Alaska educators wanted key Alaskan standards retained, especially math standards in measurement found in the early grades.

Example of Difference in Mathematics in Grades K-2

The Grade 2 Measurement and Data Standard 9 below is an example of the Alaska Standard using simpler and more direct language. The Alaska standard also allows data to be collected from multiple sources and not specifically limited to length measurements.

CCSS Mathematics Standard 2.MD.9.	Alaska Mathematics Standard 2.MD.9.
Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole number units.	Collect, record, interpret, represent, and describe data in a table, graph or line plot.

Example of Difference in Mathematics in Grades 3-5

The Grade 4 Number and Operations in Base 10 Standard 3 below is an example of the Alaska Standard language providing additional information for the standard. The Alaska standard encourages the use of estimation and the ability to provide explanations about possible solutions.

CCSS Mathematics Standard 4.NBT.3.	Alaska Mathematics Standard 4.NBT.3.
Use place value understanding to round multi-digit whole numbers to any place.	Use place value understanding to round multi-digit whole numbers to any place using a variety of estimation methods; be able to describe, compare, and contrast solutions.

Example of Difference in Mathematics in Grades 6-8

The Grade 6 Geometry Standard 2 below shows another example of the Alaska Standard using simpler and more direct language. The Alaska standard does not provide the specifics of the figure, fractional edge lengths and volume formulas. The Alaska Standard also includes cylinders.

CCSS Mathematics Standard 6.G.2.	Alaska Mathematics Standard 6.G.2.
<p>Find the volume of a right rectangular prism with fractional edge length by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Apply the formulas $V = l w h$ and $V = b h$ to find the volume of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems.</p>	<p>Apply the standard formulas to find volumes of prisms. Use the attributes and properties (including shapes of bases) of prisms to identify, compare or describe three-dimensional figures including prisms and cylinders.</p>

Example of Difference in Standards for Mathematical Practice

To provide additional clarity for the Standards for Mathematical Practice, Alaska educators have provided grade-span proficiency descriptors as appropriate. These descriptors are meant to help students, parents and educators to picture how these practices might be demonstrated by students. Below is an example of two grade span descriptors for Standards for Mathematical Practice #1. The CCSS do not include grade-span descriptors for the Standards for Mathematical Practice.

1. Make sense of problems and persevere in solving them.
<p>In grades K-2 mathematically proficient students will:</p> <ul style="list-style-type: none"> • focus on the problem and check for alternate methods • check if the solution makes sense •
<p>In grades 3-5 mathematically proficient students will:</p> <ul style="list-style-type: none"> • explain correspondences between equations, verbal descriptions, tables, and graphs • draw diagrams of important features and relationships, graph data, and search for regularity or trends • use concrete objects or pictures to help conceptualize and solve a problem • understand the approaches of others to solving complex problems • identify correspondences between different approaches • check if the solution makes sense

Mathematics Coding Differences

Almost all the coding is the same for the mathematic CCSS and Alaska standards. The following list provides a quick reference to all of the coding differences at each grade level.

KEY to the Coding Difference List

- 1) Domains, clusters, or standards highlighted in gray do not have counterparts in the CCSS standards.

For example, in Kindergarten, Operations and Algebraic Thinking (OA) is a domain found in both the CCSS and the Alaska Mathematics Standards. The cluster “Identify and continue patterns” and standard K.OA. 6 are found only in the Alaska standards, as shown by gray highlighting.

Operations and Algebraic Thinking K.OA

Identify and continue patterns.

K.OA.6.

- 2) Standards found in both the CCSS and the Alaska Mathematics Standards that have identical wording but different numbering are linked with an —>. These numbering differences occurred when standards inserted by Alaska caused the numbering to shift.

For example, in the domain of Measurement and Data, the first grade CCSS Standard 1.MD.4 is the Alaska standard 1.MD.7.

Represent and interpret data.

CCSSStandard 1.MD.4—>Alaska Standard 1.MD.7

This shift occurred due to the inclusion of Alaska Standards for time and money.

Note: All numbering coding differences are found in the Measurement and Data domain, with the exception of 7.NS.2.e. (Number System, grade 7).

Kindergarten Coding Differences

Operations and Algebraic Thinking K.OA

Identify and continue patterns.

K.OA.6.

Measurement and Data K.MD

Work with time and money.

K.MD.4.

K.MD.5.

K.MD.6.

First Grade Coding Differences

Counting and Cardinality, 1.CC

Know ordinal numbers.

1.CC.1.

1.CC.2.

1.CC.3.

Count to tell the number of objects.

1.CC.4.

Compare numbers.

1.CC.5.

1.CC.6.

Operations and Algebraic Thinking 1.OA

Identify and continue patterns.

1.OA.9.

Measurement and Data 1.MD

Work with time and money.

1.MD.4.

1.MD.5.

1.MD.6.

Represent and interpret data.

CCSS Standard 1.MD.4. —> Alaska Standard 1.MD.7.

Second Grade Coding Differences

Operations and Algebraic Thinking 2.OA

Identify and continue patterns.

2.OA.5.

Third Grade Coding Differences

Measurement and Data 3.MD

Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

3.MD.3. (L)

Represent and interpret data.

CCSS Standard 3.MD.3.—> Alaska Standard 3.MD.4.

CCSS Standard 3.MD.4.—> Alaska Standard 3.MD.5.

3.MD.6. (L)

Geometric measurement: understand concepts of area and relate area to multiplication and to addition.

CCSS Standard 3.MD.5.—> Alaska Standard 3.MD.7.

CCSS Standard 3.MD.6.—> Alaska Standard 3.MD.8.

CCSS Standard 3.MD.7.—> Alaska Standard 3.MD.9.

Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.

CCSS Standard 3.MD.8.—> Alaska Standard 3.MD.10.

Fourth Grade Coding Differences

Operations and Algebraic Thinking 4.OA

Generate and analyze patterns.

4.OA.6. (L)

Measurement and Data 4.MD

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit, and involving time.

4.MD.4. (L)

Represent and interpret data.

CCSS Standard 4.MD.4.—> Alaska Standard 4.MD.5.

4.MD.6. (L)

Geometric measurement: understand concepts of angle and measure angles.

CCSS Standard 4.MD.5.—> Alaska Standard 4.MD.7.

CCSS Standard 4.MD.6.—> Alaska Standard 4.MD.8.

CCSS Standard 4.MD.7.—> Alaska Standard 4.MD.9.

Fifth Grade Coding Differences

Measurement and Data 5.MD

Convert like measurement units within a given measurement system and solve problems involving time.

5.MD.2. (L)

Represent and interpret data.

CCSS Standard 5.MD.2.—> Alaska Standard 5.MD.3.

5.MD.4 (L)

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

CCSS Standard 5.MD.3.—> Alaska Standard 5.MD.5.

CCSS Standard 5.MD.4.—> Alaska Standard 5.MD.6.

CCSS Standard 5.MD.5.—> Alaska Standard 5.MD.7.

Seventh Grade Coding Differences

The Number System 7.NS

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.

7.NS.2.e. Convert between equivalent fractions, decimals, or percents.

Note

As shown in this document, the difference between the CCSS and the Alaska Standards in ELA and Math are primarily additions for clarity, Alaskan context, and standards that Alaskan teachers value. Independent studies have also been done to compare the equivalency of the Alaska Standards to the CCSS. If you are interested in receiving a copy of these reports, or other resources regarding the Alaska Standards in ELA and Math, please contact the content specialists at the Alaska Department of Education & Early Development.