



THE STATE EDUCATION DEPARTMENT / THE UNIVERSITY OF THE STATE OF NEW YORK / ALBANY, NY 12234

TO: Standards Work Group

FROM: John B. King, Jr.

SUBJECT: Update on the Common Core State Standards for ELA and Mathematics and the Development of "Next Generation Science Standards"

DATE: September 29, 2010

AUTHORIZATION(S):

SUMMARY

Issue for Discussion

Will the Board of Regents approve staff seeking public comment on the additional recommendations for English Language Arts (ELA), Mathematics and Prekindergarten Learning Standards through an online survey?

Will the Board of Regents continue to support the Department's effort to be engaged in the development of the "Next Generation Science Standards (NGSS)" through the National Research Councils (NRC) Conceptual Framework?

Reasons for Consideration

On July 19, 2010, New York State adopted the Common Core State Standards (CCSS) for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects and CCSS for Mathematics, with the understanding additional K-12 expectations and aligned prekindergarten standards may be added. This report provides an overview of the additional recommendations and seeks approval for staff to request public comment.

Proposed Handling

This item will come before the Standards Work Group for discussion at the October meeting.

Background Information

From July 20-23, 2010, groups of P-12 and higher education English Language Arts and Mathematics practitioners met in Albany to analyze the CCSS for ELA and Mathematics and make recommendations for any additions (up to 15%, as necessary) for New York State. During the meeting, the group also developed recommended prekindergarten standards, representing the year prior to kindergarten. As a part of the proceedings, Commissioner Steiner and Senior Deputy Commissioner King met with the ELA and Mathematics Workgroups to discuss the Regents reform agenda and implementation of new learning standards.

English Language Arts and Mathematics

Both the ELA Workgroup and the Mathematics Workgroup made recommendations for adding a small number of student achievement expectations unique to New York State. In both cases, the amount of recommended material does not exceed more than 15% of the total amount of standards. After completing an analysis, each workgroup developed a summary of their review and recommendations for additions to the Common Core State Standards. These recommendations are provided in more detail in the supporting materials (Attachments A and B). The Workgroups agree that the CCSS and additions represent what all students, including students with disabilities and English Language Learners, should know and be able to do to be prepared for college and careers. In both cases, the Workgroups expressed the need for additional supporting materials to assist teachers with implementing the standards in the classroom.

Prekindergarten (PreK)

Both the Draft PreK Learning Standards and Draft Early Learning Guidelines for Birth through Age Three have been developed collaboratively by Department staff and representatives from the NYS Office of Children and Family Services, the NYS Council on Children and Families, and other statewide partners linked to the Early Childhood Advisory Council (ECAC). The adoption and concurrent dissemination of both sets of standards will provide the impetus needed to begin to address high-quality early childhood education for children from birth through entry to kindergarten. Having a continuum of learning standards that define what all children, birth through three as well as four year olds, should know and be able to do, will also support the early identification of students who may become potential struggling readers and learners, and who may need access to additional support to succeed in K-12. Both sets of standards are organized into five specific developmental domains as follows:

- 1) Approaches to Learning
- 2) Physical Development and Health
- 3) Social and Emotional Development
- 4) Communication, Language and Literacy
- 5) Cognition and Knowledge of the World

The Early Education and Reading Initiatives Team worked closely with the ELA and Mathematics Workgroups to add Prekindergarten standards to the NYS Common Core Standards that provide foundational support. Additionally, standards and performance indicators from the Communication, Language and Literacy domain and the Cognition and Knowledge of the World domain were embedded into the NYS Common Core Standards.

The PreK Learning Standards document will connect to the P-12 Learning Standards, but will be a stand alone guide to early learning in all five domains. This document will assure easy access to standards-based curriculum, instruction and assessments for four-year old children across early care and education settings. A summary of New York State's Approach to PreK Learning Standards is given in supporting materials (Attachment C). Additionally, there are final steps that must be taken to complete the PreK Learning Standards (Attachment D).

Sciences

In January 2010, the National Academy of Sciences' Board on Science Education (BOSE), a standing board within the National Research Council (NRC), began the development of a Conceptual Framework for New Science Education Standards. The NRC posted "A Framework for Science Education" for public review and comment on July 12, 2010.

Department staff participated in a regional meeting convened by the Council of State Science Supervisors (CS³) in July 2010 to collectively develop comments regarding the draft NRC document, "A Framework for Science Education." Achieve, Inc. hosted a webinar providing an overview of the framework including the similarities and differences between the process that will be implemented to develop the "Next Generation Science Standards" and the Common Core State Standards project for ELA and Mathematics. Two key differences are: states are not being asked to "sign on" prior to development of the science standards; and states will decide after the standards are developed to adopt individually or in "common." Comments from New York were forwarded to the NRC via a summary of collective comments resulting from the CS³ regional meetings and an online survey posted by BOSE.

Recommendations

Finalizing English Language Arts, Mathematics and Prekindergarten Learning Standards

After the period of public feedback, the Department will summarize field input, make appropriate revisions to the proposed additions to the CCSS, and prepare drafts of NYS P-12 ELA (including the Common Core and additions), NYS P-12 Mathematics Learning Standards (including the Common Core and additions) and NYS PreK Learning Standards for the Board to consider by January 2011.

The CCSS for ELA and Literacy in History/Social Studies, Science, and Technical Subjects includes a cross-content grades 6-12 literacy component that relates to instruction in those subjects. In the fall, the Department will convene a workgroup of teachers, administrators, and college professors from those subject areas to analyze the CCSS for History/Social Studies, Science, and Technical Subjects and determine the necessary materials and guidance needed for the field to implement these expectations. Additional teacher training and professional development will be necessary for teachers in those content areas.

In spring 2011, statewide rollout and implementation of the new P-12 ELA, Mathematics and PreK Learning Standards will begin through an established network of partners (including BOCES and the Big 5 districts). Additionally, the development of new English Language Arts, Mathematics and PreK curriculum models and additional guidance based on the P-12 Learning Standards will commence in early 2011, with the final versions ready for schools in fall 2012.

Science

The National Research Council Framework Committee has begun the process of summarizing the wide variety of suggestions it received during the feedback period. The committee is currently revising the framework and completing a report regarding the submitted comments. This process will take several months. Once the revisions are complete, the framework will undergo the traditional NRC confidential review by a diverse group of experts. After the committee revises its report in response to reviewers' comments, the framework report will be finalized and released to the public. The committee expects that the final version will be publicly available in early 2011.

Achieve, Inc. will then work with a group of states to develop a set of standards for K-12 science education based on and guided by the final NRC Framework Committee report. Achieve, Inc. has already commenced planning and is currently developing a network of state partners. Further opportunities for public comment will be managed by Achieve, Inc. as the science education standards are developed.

With the Regents' approval, the Department will continue to actively participate in all available phases of the work to develop and implement the "Next Generation Science Standards."

Next Steps

Request for Proposals (RFPs) funded by Race to the Top will address both the ELA and Mathematics Workgroup recommendations that additional materials and guidance be created to assist the field throughout implementation of the CCSS. The RFPs will produce:

- Curriculum models, formative instruction/assessments and corresponding professional development for ELA, Mathematics and PreK:

- Professional Development to improve: teaching methods, higher level questioning techniques, teaching styles, and lesson development; and
- Support materials to help teachers implement the new P-12 Standards. These materials need to provide curriculum guidance with specific examples that further illuminate the standards and suggested instructional activities. Additionally, these support materials should provide insights and guidance for addressing the needs of all students, including those with disabilities and English Language Learners (ELLs), who lack adequate fluency, comprehension and pre-requisite skills, but are expected to perform at a specific grade level.

Attachments:

- Executive Summary for English Language Arts (Attachment A)
- Executive Summary for Mathematics (Attachment B)
- Executive Summary for PreK (Attachment C)
- Final steps to complete PreK Learning Standards (Attachment D)

Summary of the July 2010 ELA Group's Recommendations

The English Language Arts Common Core Workgroup, comprised of P-12 and higher education representatives, including leadership from the Standards Review Initiative, reviewed the CCSS ELA Standards document, created prekindergarten standards within the strands of Reading, Writing, Speaking and Listening, and Language, and made the following general recommendations for additions:

- Two additional standards (college- and career-readiness standards) for responding to literature (reading P-12 and writing grades 5-12), with related grade-specific standards.
- Additional grade-level expectations for inquiry and culture and diversity that build upon the Common Core grade-specific standards.

The workgroup only added items if they determined there were serious deficiencies at either the anchor standard level (the 32 College and Career Readiness Standards) or within the grade-level standards in the CCSS. The group agreed that the recommended additions are necessary and do not exceed the 15% amount for additions to the Common Core.

After reviewing the Common Core, the workgroup determined that the study of literature should be more fully addressed in the Common Core ELA Standards; therefore, new literature standards and related grade-level standards are necessary additions. The recommended addition of two new College and Career Readiness standards for literature, representing college- and career-readiness in reading for literature (P-12) and writing for literature (5-12), can be included in the reading and writing strands already established by the Common Core. These additions will support and deepen New York State students' understanding of literature.

The workgroup also agreed that the CCSS document did not adequately address important skills related to inquiry; therefore, they recommend broadening and deepening the grade-level standards by adding some expectations for student-generated inquiry skills to promote thinking in grades 5-12. These expectations can be embedded within the already existing grade-level CCSS and do not appear as separate sections.

The group also developed some new P-12 grade-level expectations around student understanding of culture and diversity. The introduction to the CCSS for ELA states that students will "come to understand other perspectives and cultures." The group agreed that the Common Core State Standards do not adequately support this area. To reflect the importance of student understanding of the variety of cultures within their state and across the globe, some grade-level expectations on culture and diversity have been added to already existing grade-level expectations.

Additionally, a P-4 group created prekindergarten expectations that align to the CCSS kindergarten level to ensure prekindergartners have the knowledge and understanding necessary to be prepared for kindergarten. Workgroup members with experience teaching English Language Learners and Students with Disabilities participated to ensure that any recommended expectations are appropriate for all students. The Standards Review Initiative's ELA/ESL Standards (2009) document and other resources were available to workgroup members as they drafted their recommendations.

Summary of the July 2010 Mathematics Group's Recommendations

The Mathematics group included elementary, middle, and high school practitioners (teachers, curriculum specialists, and administrators) who have experience teaching, developing, or implementing curriculum and standards. Participation also included key statewide professional organizations related to mathematics. These members were split into three grade band groups (P-4, 5-8, and 9-12). Key individuals from the NYS Mathematics Advisory Council were placed within each of these subgroups to guide the groups and ensure a clear message to the field as we implement the CCSS for Mathematics. The groups were representative of a cross-section of districts in NYS with participants from the Big 5, rural, small city, large city, upstate, and downstate. In order to preserve continuity with New York State's current Mathematics Core Curriculum (Revised 2005), there was representation from the 2004 NYS Mathematics Standards Committee.

The consensus of the Mathematics group was to add minimal standards to the CCSS. Each sub-group unpacked (analyzed, separated, compared, and elaborated) the standards within the CCSS for Mathematics and provided the following recommendations:

- The P-4 group added Prekindergarten standards to provide foundational support for kindergarten standards and beyond. In addition, one grade level standard was added at the kindergarten level under the domain of Counting and Cardinality and another was added at grade one under the domain of Measurement and Data.
- No new standards were recommended as additions to the rest of the grade levels.

Additionally, the groups analyzed each grade level of the Mathematics CCSS to determine what topics and expectations are different from the current NYS grade-level expectations. As an example, polynomials no longer appear in grade eight and have been moved to grade nine. Topics and expectations that are new to NYS's Mathematics Core Curriculum (Revised 2005) were also noted at each grade level.

Two guidance documents were started during this process to assist NYS educators in developing revised curriculum and improved instructional programs aligned to the CCSS. As the teams analyzed the standards, they created instructional recommendations around the CCSS standards as well as clarification of some of the standards by defining some of the language within the CCSS. The 9-12 team unpacked the standards (there are no grade-level standards at this level) and created outlines for courses titled Integrated Algebra, Geometry, and Algebra 2 that incorporate all the CCSS except the additional standards that students should learn in order to take courses such as calculus, advanced statistics, or discrete mathematics. The group recommended that these standards be incorporated into a fourth year of mathematics at the high school level. As a final note, the whole group recommended that additional materials be created around these initial documents to further guide the field throughout implementation of the final set of standards.

Summary of New York State's Approach to PreK Learning Standards

Background

The staff from the Early Education and Reading Initiatives Team has been collaborating with statewide partners to develop Draft Early Learning Guidelines for Birth through Age Three which are aligned with the current PreK Learning Standards. Both sets of standards are organized into five specific developmental domains as follows:

1. Approaches to Learning: *How children become involved in learning and acquiring knowledge*
2. Physical Development and Health: *Children's physical health and their ability to engage in daily physical activities*
3. Social and Emotional Development: *Children's competence and ability to regulate their emotions, behavior and attention, and to form positive relationships with peers and adults*
4. Communication, Language and Literacy: *Children's ability to understand, create and communicate meaning*
5. Cognition and Knowledge of the World: *What children need to know and understand about their world and how they apply what they know*

Rationale for PreK Learning Standards

The PreK Learning Standards for four-year olds, in the year prior to kindergarten, function as the bridge between the birth through three-year old early learning standards and the K-12 learning standards. It is during these early years that cognitive development and brain development are integrally linked. Young children are able to make sense of their world by acquiring, adapting, practicing, applying and transferring knowledge in order to construct new or expanded concepts. It is through play, active engagement, experimenting, observing, exploring, manipulating, creating, listening, reflecting, problem solving, reasoning, and using logic that children's capacity for more complex thinking is expanded.

The PreK Learning Standards will also support the early identification of students who may become potential struggling readers and learners, and who may need access to additional support to succeed in K-12. Clear expectations as outlined in the five domains are needed to strengthen the instructional core and to ensure developmentally appropriate transitions between preschool and kindergarten, as well as across diverse early childhood settings.

Alignment with the Common Core Standards for ELA and Mathematics

Standards and performance indicators from the Communication, Language and Literacy domain and the Math section of the Cognition and Knowledge of the World domain of the PreK Learning Standards were embedded into the NYS Common Core Standards as part of the up to 15% additional expectations permitted in this process.

Final Steps to complete the PreK Learning Standards

Before the PreK Learning Standards are ready to be presented in final form to providers of early childhood education, the following recommendations need to be completed:

- Early Learning experts/researchers will complete a final review and benchmarking of PreK Learning Standards;
- A comprehensive report compiling the recommendations of stakeholders will be completed and incorporated into the final draft;
- The final draft will be correctly formatted and aligned with the Common Core State Standards for ELA and Mathematics; cross references will be built directly into the draft; and
- All statewide networks will be involved in the “roll-out” of the PreK Learning Standards. This “roll-out” may also include face to face presentations around the State, webinars and TA phone calls as well as documents to be viewed on the UPK website. The draft document should also be posted on the websites of UPK partner agencies, as well as the Department of Health, Head Start, and the Office of Special Education.