



TO: P-12 Education Committee

FROM: Angelica Infante-Green *A. Infante - Green*

SUBJECT: Revision and Implementation of New Arts, Science, and Social Studies Standards

DATE: March 14, 2016

AUTHORIZATION(S): *Mary Ellen Elin*

SUMMARY

Issue for Discussion

Provide the Board of Regents with a timeline for revision and implementation of new New York State Standards in the Arts, Sciences, and Social Studies. For the arts, Department staff will provide an update on New York State's Statewide Strategic Plan for the Arts and a timeline for approval of this strategic plan and the consideration of arts standards by the Board of Regents. For the sciences, Department staff will describe the process undertaken to develop a draft set of New York State P-12 Science Learning Standards, how preliminary stakeholder feedback has been address, and proposed next steps. For social studies, Department staff will update the Board on the implementation of the New York State K-12 Social Studies Framework, production of supporting resources, status of professional development programs, and the development of the Regents Exam in Global History and Geography II.

Reason(s) for Consideration

Recognizing the need to continually improve the learning standards that guide education in New York State, the Department has been engaged in the process of revising arts, and science standards, and has been working with educators to implement the new Social Studies Frameworks.

Proposed Handling

This issue will come before the P-12 Education Committee for discussion at the March 2016 meeting.

Background Information – The Arts Update

In 2010, New York State joined as a partner in the development process of the National Core Arts Standards (NCAS) to advance arts education in New York State, better prepare students for college and careers, and provide pathways into dance, media arts, music, theatre and visual arts fields. The final draft of the National Core Arts Standards was released in June 2014. The standards describe what students should know and be able to do as a result of a quality curricular arts education program. These new interactive arts standards are available online at <http://nationalartsstandards.org/>.

Highlights of the NCAS include the following:

- The NCAS is composed of standards in each of the five arts disciplines in each grade level between PK – grade 8, and have arts standards at the Proficient, Accomplished, and Advanced levels in high school.
- The creation of the new arts standards was an inclusive process, with input from a broad range of arts educators and decision-makers. The revised standards are grounded in arts education best practices drawn from the United States and abroad, as well as a comprehensive review of developmental research.
- A learning framework that includes media arts as a discrete fifth arts discipline was developed to provide a foundation for 21st century PK-12 arts education that shapes student learning and achievement in the other four arts disciplines of dance, music, theatre, and visual arts.

Process and Field Engagement Strategy Thus Far: Preliminary Survey and Analysis

During the 2012- 2013 school year, New York State teachers participated in three reviews of the draft NCAS (one review for the PK-8 standards, one for the high school standards, and a third review that occurred later of the final PK-12 standards). After the release of the final version of the NCAS in June 2014, New York State professional arts associations worked with NYSED to develop a preliminary survey of the new standards in relation to the existing New York State Learning Standards for the Arts (see <http://www.nysaae.org/ncas-survey/>). Department staff, with the assistance of the arts professional associations, analyzed the responses.

The majority of respondents' comments expressed support for new standards. Sixty-three percent of respondents suggested that New York State adopt or adapt the NCAS to meet the State's arts education needs. The support provided by survey respondents was accompanied by concerns related to the professional development for implementation of the standards and the associated funding required to provide this professional development.

In October 2014, the Board of Regents discussed the newly released NCAS and New York State's process of surveying arts teachers for their feedback concerning the new standards in relation to the existing New York State Learning Standards for the Arts.

In March, 2015, the Board of Regents directed Department staff to draft a Statewide Strategic Plan for the Arts.

In April, 2015, a draft *New York State Statewide Strategic Plan for the Arts* was developed by representatives from the professional arts education associations of New York State to guide planning, implementation and further in-depth analysis of the standards in each arts discipline.

Strategic Plan for the Arts

The draft Statewide Strategic Plan for the Arts was developed to guide planning and implementation if the Board of Regents elects to adopt new arts standards. The strategic plan includes mission and vision statements and incorporates four critical components that need to be addressed if new standards are adopted and/or existing standards are updated: Standards, Professional Development to Enhance Instruction (Curriculum, Assessment, and Instruction), Materials and Resource Support, and Administrative and Community Support. Within various components of the strategic plan, NYSED plans to utilize members of the Blue Ribbon Commission on the Arts to:

- Develop the Arts Pathway Assessment System Processes.
- Support regular and substantive teaching and learning of core arts content, conceptual understandings, and practices through artistic inquiry and authentic engagement with artistic works across the arts disciplines, by providing access to New York State's culturally rich institutions including performances and exhibitions both in and out of school.
- Provide mentorships and research opportunities for teachers and students through incentives to build partnerships between business and industry, higher education institutions, and/or other arts community stakeholders (i.e., museums, community organizations).
- Build NYSED's capacity to enhance arts education and ensure lifelong learning career readiness by involving cultural and community stakeholder partnerships and alliances between school districts, institutions of higher education, arts education professional organizations, business and industry, informal education organizations, government agencies, parents and the larger learning communities: local, regional, state, national, and international arenas.
- Review the Commissioner's Regulations pertaining to arts programs and diploma requirements, and consider amendments to reflect the knowledge and skills required of high school graduates, as well as Department capacity. In order to streamline the Department's support of arts programs, the requirements in CR 100.5(b)(7)(iv)(e) regarding approval of locally adopted syllabi need to be aligned with all other content areas, which since 2001 allows local school districts and BOCES to be responsible for reviewing and approving local courses and instructional programs.

- Utilize parents, museums, community organizations, businesses and P-12 schools, institutions of higher education, business and industry, cultural arts centers and their resources to promote and support new and existing innovative art education initiatives (i.e., fellowships, internships, mentorships, research opportunities).

This draft strategic plan will soon be shared with members of the education field who have been invited to provide feedback for consideration related to the strategic plan’s goals, objectives, and activities in a survey that will be available at <http://www.p12.nysed.gov/ciai/arts/>. After full analysis of the survey data by the New York State Coalition of Arts Education Associations, recommendations will be reflected in a revised plan.

Proposed Revision and Implementation Strategy – The Arts

Timeframe	Task
March 2016	NYS Strategic Plan for the Arts Survey opens; Call for nominations of standards writers from NYS arts educators; Standards Writing Teams Selected and BFM’s submitted
April 2016	Review & analysis of survey responses; Revision of Strategic Plan by the NYS Arts Coalition representatives
May 2016	Present updated Statewide Strategic Plan for the Arts for adoption by Board of Regents; Draft a discipline specific plan for updating the PK-12 NYS Learning Standards in Dance, Media Arts, Music, Theatre and Visual Arts
July & August 2016	Discipline specific Standards Writing Teams revise NYS Learning Standards for the Arts
Fall 2016	Survey arts stakeholders on draft Revised NYS Arts Standards
Winter 2017	Finalize revised arts standards and rollout strategy; Develop articulated P-12 guidance to support curriculum development, assessment development and implementation

Next Steps – The Arts

Department staff will post a draft of the Statewide Strategic Plan for the Arts for public comment, review comments received during the public comment period, incorporate comments into the Statewide Strategic Plan for the Arts as appropriate, and present a final version to the Board of Regents for adoption.

Department staff will move forward with a process to update and develop New York State learning standards that unify the existing New York State Learning Standards for the Arts and the National Core Arts Standards, as appropriate, and propose these new arts learning standards for adoption in early 2017. A draft timeline will be released to the public that outlines the steps the Department intends to take to ensure a gradual and thoughtful transition to new standards.

It is also recommended that the Board of Regents direct staff to form an Arts Content Advisory Panel and align the arts education requirements in CR 100.5(b)(7)(iv)(e) with all other content areas.

Background Information – Sciences Update

In January 2015, the Board of Regents approved the Statewide Strategic Plan for Science (available online at <http://www.p12.nysed.gov/ciai/mst/sci/strplan.html>) and directed the Department to develop new draft New York State P-12 Science Learning Standards. The item presented to the Board is available online at <http://www.regents.nysed.gov/common/regents/files/115p12a1.pdf>.

Draft New York State P-12 Science Learning Standards

During the spring of 2015, Department staff requested leaders of the New York State Science Education Consortium to convene members of their organizations and recommend to the Department the core science content, conceptual understandings, and practices required of all students using the Next Generation Science Standards (NGSS) as a foundation. These recommendations, as well as, those from other science education stakeholders across the State, were used in conjunction with the feedback received from the 2013 survey related to science learning standards to develop a draft set of New York State P-12 Science Learning Standards.

During the summer of 2015, New York State science education specialists employed by the Department to develop the State's science assessments prepared a preliminary draft of K-12 New York State Science Learning Standards (NYSSLS). This preliminary draft was based on the recommendations received from the science education stakeholders noted above and on feedback received from the 2013 survey (available online at <http://www.regents.nysed.gov/common/regents/files/314p12d1%5b3%5d.pdf>). The starting point for this preliminary draft, based on 2013 survey feedback, was the Next Generation Science Standards and the tenets of the National Research Council's *Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas*. New York State's Learning Standards for Mathematics, Science, and Technology and the six associated core curriculum resource guides were also referenced during the development of this preliminary draft.

The roster of team members who contributed to the preliminary draft is included in Appendix A.

In mid-August 2015, members of the Science Education Steering Committee, a team established by the Department to ensure fidelity of ongoing science initiatives with the Statewide Strategic Plan for Science, convened in Albany. In addition to discussions surrounding the strategic plan, members reviewed the preliminary draft of the K-12 NYSSLS and provided the Department with recommendations for revisions. These recommendations were considered and incorporated into a new draft of K-12 NYSSLS.

The roster of Science Education Steering Committee members is included in Appendix B.

The Science Standards' Writing Team, a team established by the Department to finalize the draft science learning standards, met in late September 2015 to review the new draft of K-12 NYSSLS. Over the course of the two-day meeting, the team provided

the Department with recommendations regarding the draft set of science learning standards. Their recommendations were considered and incorporated, as appropriate, into a third iteration of draft K-12 NYSSLS that was prepared for public review and comment.

The roster of the Science Standards Writing Team present for the September 2015 meeting is included in Appendix C.

Considering the growing population of prekindergarten services throughout New York State and the inclusion of prekindergarten standards in the NYS P-12 Common Core Learning Standards for English Language Arts and Literacy and the NYS P-12 Common Core Learning Standards for Mathematics, Department staff from the Office of Early Learning and the Office of Curriculum and Instruction back-mapped performance expectations included in kindergarten and grade 1 of the draft K-12 NYSSLS to develop a set of prekindergarten performance expectations in the physical sciences, life sciences, and Earth and space sciences. Similar to the collection of K-12 performance expectations, these prekindergarten performance expectations were developed based on the NGSS architecture.

In mid-November 2015, the Department posted the draft New York State P-12 Science Learning Standards for public preview. An introduction to the draft science learning standards and a link to the standards is available online at <http://www.p12.nysed.gov/ciai/mst/sci/nys-p12-science-ls-intro.html>.

In early-December 2015, the Department posted a public survey to rate the draft New York State P-12 Science Learning Standards against a set of research-based standards evaluation criteria. Respondents rated the draft NYS P-12 Science Learning Standards using the same criteria included in the 2013 survey. The feedback received will be used to inform revisions to the draft science learning standards prior to presenting new New York State P-12 Science Learning Standards to the Board of Regents for discussion and eventual adoption. The survey closed in early-February 2016.

Survey Analysis

During the survey, respondents were asked to provide demographic information about themselves or their group. They were then asked to rate the draft NYS P-12 Science Learning Standards against a set of research-based standards evaluation criteria. The criteria were grouped into four key categories – Organization of the Standards, Coherence, Clarity and Specificity, and Content and Rigor.

Of the 2,666 respondents who started the survey, 1,849 (69%) provided a rating for at least one criterion. The maximum number of “valid respondents” (a respondent who rated as least one criterion) is 1,849.

Of the respondents who provided demographic information:

- The majority of respondents were from Long Island (28%), followed by Western New York (20%), New York City (13%), the Lower Hudson Valley and Capital Region (~10% each), and the Mid-Hudson Valley, North Country/Adirondacks, Central New York, and Southern Tier (~5% each).
- 96% described themselves as an individual, not as a group/organization.
- 80% described themselves as teachers, 5% described themselves as curriculum directors, 4% described themselves as principals, and 2% described themselves as post-secondary educators.
- Many (1,605) indicated they held certification in Adolescent Science – Grades 7-12. Childhood Education certificate holders numbered 619, followed by Students with Disabilities certificate holders accounting for 377 responses. (Please note respondents were able to choose multiple certificates.)

Table 1 shows the percentage of valid respondents who rated the draft NYS P-12 Science Learning Standards against each criterion as “Adequately meet this criterion” or “Meet this criterion to a great extent.”

Table 1. Percentage of valid respondents* who rated the draft NYS P-12 Science Learning Standards against each criterion as “Adequately meet this criterion” or “Meet this criterion to a great extent”.

Valid respondents rated the draft NYS P-12 Science Learning Standards on 21 research-based standards evaluation criteria. For each criterion, valid respondents rated the draft NYS P-12 Science Learning Standards as: <ul style="list-style-type: none"> •Do not meet this criterion, •Minimally meet this criterion, •Adequately meet this criterion, •Meet this criterion to a great extent Please note that the actual number of responses is not constant across all criteria.	% who rated the draft NYS P-12 Science Learning Standards as “Adequately meet this criterion” or “Meet this criterion to a great extent”
Organization of the Standards	
The standards provide model pathways/sequences of student outcomes through elementary, middle, and high school that reflect progression in sophistication of content, concepts, and practices, that recur, as necessary, yet are not redundant.	77%
Standards provide alignment with New York State P-12 Common Core Learning Standards in Mathematics and English Language Arts & Literacy.	78%
Standards are systematic and clearly presented.	68%
Standards documents are easy to access and navigate.	69%
Standards are presented to provide access and use in multiple ways to address curriculum, instruction, and assessment.	63%
Coherence	
Standards include connections among science content, concepts, and practices.	77%
Standards include connections across science disciplines.	65%
Standards include connections in science to other learning standards (engineering/technology, mathematics, English language arts & literacy, social studies, etc.).	74%
Clarity and Specificity	
Standards are measurable through various forms of assessment.	56%
Standards provide clear guidance for curriculum and assessment development.	56%

Standards provide articulated boundaries and parameters for content, concepts, and practices.	67%
Standards are assessable at different "grain sizes" with respect to content, concepts, and practices at a particular grade or grade-band.	60%
Standards are clearly written and lead to consistent interpretations drawn by educators.	60%
Standards include accurate content.	73%
Content and Rigor	
Standards include defined outcomes for career & college readiness in science at: High school grade levels, Intermediate grade levels, and Elementary grade levels.	69%
Standards outline essential content and cognitive demand either grade by grade or grade banded.	69%
Standards providing for depth and breadth of content, concepts, and practices are evident and balanced.	68%
Standards provide opportunities to engage in scientific inquiry and practices.	78%
Standards provide opportunities to experience interdisciplinary themes within the sciences.	72%
Standards include subject specific disciplines at each grade band in: Biology, Chemistry, Earth and space sciences, and Physics.	71%
Standards include connections to engineering/technology at each grade band.	73%

* A valid respondent is any respondent who rated the draft NYS P-12 Science Learning Standards against at least one criterion.

Quantitative survey results from valid respondents show:

- 15 of the 21 (71%) criteria were rated by more than two-thirds of the valid respondents as “adequately meet this criterion” or “meet this criterion to a great extent.”
- Collectively, three out of the four key categories – Organization of the Standards (71%), Coherence (72%), and Content and Rigor (71%) – on average, were rated by approximately three-fourths of the valid respondents as “adequately meet this criterion” or “meet this criterion to a great extent.”

Qualitative feedback from valid respondents shows:

- General support for considering the adoption of the draft NYS P-12 Science Learning Standards with pertinent guidance and relevant clarifications.
- A need for clarity pertaining to teacher certification, instructional program implementation, P-12 assessment system development, and associated fiscal resources for science.
- A call to articulate a timeline to address the critical components of the Statewide Strategic Plan for Science.

Next Steps – the Sciences

Department staff and science education stakeholders will continue to analyze survey and other stakeholder feedback, revise the draft science learning standards, and prepare a final set of New York State P-12 Science Learning Standards for Board of Regents consideration.

Background Information – Social Studies Update

New York’s Content Advisory Panel for social studies, consisting of a wide range of experts from the field, was formed in 2011 to advise the Department on suggested revisions to the New York State Social Studies Resource Guide with Core Curriculum to ensure alignment to the New York State Common Core Learning Standards. The panel created the New York State K-12 Social Studies Framework, which was adopted by the Board of Regents at their April 2014 meeting. The Framework clearly delineates the courses of study as follows:

- Global History and Geography I (typically Grade 9) begins with the Paleolithic Era and continues to a period of Global Interactions from approximately 1400 to 1750.
- Global History and Geography II (typically Grade 10) begins with a snapshot of the world at 1750, incorporates the Enlightenment and Industrial Revolution, and continues to the present.

This two-unit sequence provides students with a comprehensive and rigorous course of study in global history and geography. In January 2015, the Board approved changes to sections 100.2 and 100.5 of the Regulations of the Commissioner of Education establishing a two-year Global History and Geography course requirement and the assessment aligned to the second year of the course, entitled Regents Exam in Global History and Geography II (1750 to the present). The course requirement is effective for students entering ninth grade in September 2016. The first administration of the Regents Exam in Global History and Geography II (1750 to the present) will be June 2018.

In March 2015, a field memo was released indicating the schedule of implementation of the new Regents Exam, as well as the subsequent new Regents Exam in United States History and Government in June 2019. Additionally, the development of local curriculum and instruction aligned to the New York State K-12 Framework in Social Studies was directed to commence for ALL other grades not subject to a state assessment. It was stated that the importance of social studies instruction at all grades served as the foundation for the commencement level assessments. Instruction in ELA modules with social studies content cannot replace instruction aligned to the Framework.

Assessment Development

The Office of State Assessment has been working closely with members of the Content Advisory Panel to develop the new Regents Examination in Global History and Geography II.

This assessment is using an Evidence-Centered Design model for constructing the assessment. Use of this model provides comparability across test forms which was not found previously in the standards-based model for assessment. This group has worked to develop claims, evidence and performance level indicators for the new assessment as well as suggested question format.

The Content Advisory Panel designed a suggested format for the new assessment and this was posted for comment via a public survey. The survey, conducted from the end of October 2015 through the month of November, elicited responses from over 2,000 educators. The comments provided were reviewed by the Content Advisory Panel and taken into consideration as they continued working on developing task models and prototype test items. These test items will be shared with the field and a survey soliciting input from teachers will be conducted. Sample questions will be made available later this year.

Resource Development and Professional Development

In the spring of 2015, a Memorandum of Understanding was developed between Binghamton University and the New York State Education Department to develop resources aligned to the framework and developed by New York State teachers. This has been referred to as the Resource Toolkit Project.

S.G. Grant, John Lee and Kathy Swan, the primary authors of the national Career, College and Civic Life Framework for Social Studies (known as the C3 Framework), worked with New York State teachers to design and write Inquiries that align to the New York State K-12 Social Studies Framework and the C3 Framework using the Inquiry Design Model (IDM). The work was reviewed and piloted by other New York State teachers and published on the C3 Teachers website: <http://www.c3teachers.org/new-york-hub/>.

Professional development resources are also made available on this website including power point slide decks which explain the elements of the Inquiry Design Model. These were used at the 2015 New York State Council for the Social Studies Summer Institute. Additionally videos were produced which introduce the project and focus on three design elements: Questions, Argumentation and Taking Informed Action. These videos feature New York State teachers along with the project managers, S.G. Grant, John Lee and Kathy Swan.

The work of the Resource Toolkit Project was featured in the November/December 2015 issue of Social Education, the official journal of the National Council for the Social Studies.

Presentations about implementing the Framework, the instructional shifts suggested by its implementation, the use of inquiry and assessment development have been occurring throughout the state, at state and local social studies council meetings, BOCES instructional support staff meetings and administrator meetings, cultural educator and librarian meetings, as well as in various districts throughout the state. In addition, the Staff/Curriculum Development Network (S/CDN) has provided a series of workshops focusing on social studies and is working closely with the Office of Curriculum and Instruction.

Proposed Revision and Implementation Strategy – Social Studies

Timeframe	Task
April 2016	Prototype test questions released to educators across the state; public comment period begins.
2016-17 School Year	Extensive detailed information about the new Global History Regents Exam II released to the State throughout the year.
Spring 2017	New Global History Regents Exam II questions field tested across the State.
June 2018	Rollout of new Global History Regents Exam II.

Next Steps – Social Studies

Department staff and the Social Studies Content Advisory Panel will continue collaborating to create the new Global History Regents Exam II, and use lessons learned from the educator-centered process in the development of other new Regents Exams, including the new U.S. History and Geography Regents Exam.

Appendix A – Preliminary Science Draft Writing Team

Preliminary Draft Writing Team – Convened by SED to develop a preliminary draft of NYS K-12 Science Learning Standards	Organization
Donna Bolner	Lakeland CSD
Greg Borman	City College of New York
Frank Busce	Sherburne-Earlville CSD
Glen Cochrane	Half Hollow Hills CSD (retired)
Sarah English	Sweet Home CSD
Lori Givney	Hoosick Valley CSD
Meagan Hughes	Niskayuna CSD
Elaine Jetty	Ravena-Coeymans-Selkirk CSD (retired)
Judy Kubik	Cohoes CSD
Tom Ladd	Averill Park CSD
Stefanie Loomis	Catskill CSD
Amy Mahar	Cooperstown CSD
Todd Rosenberg	Saratoga Springs CSD
Kelly Ryan	North Colonie CSD
Laura Tedesco	Troy CSD
Charles Ungar	NYCDOE
Jessica Vaccaro-Piper	North Colonie CSD
Margaret Vadala	Syracuse CSD

Appendix B – Science Education Steering Committee

Science Education Steering Committee (SESC) – Convened by SED to provide advice regarding the implementation of the Statewide Strategic Plan for Science	Organization
Kristen Ames	Canton CSD
Sheila Appel	IBM
Celeste Barker	Schroon Lake CSD
Kelly Baudo	Buffalo Public Schools
Michael Chan	Rochester CSD
Natasha Cooke-Nieves	American Museum of Natural History
Kenneth Huff	Williamsville CSD
Karen Huffman-Kelly	Genesee Community College
Krista Hunter	Syracuse CSD
Diane Irwin	Ballston Spa CSD
Michael Jabot	SUNY Fredonia
Okhee Lee	NYU
Laura Lehtonen	Capital Region BOCES
Jason Lindley	Pelham UFSD
Mary Loesing	Connetquot CSD
Denise McNamara	NYC DOE
Timothy Newton	Union-Endicott CSD
Kate Perry	Robert C. Parker School
Lisa Perry	Yonkers Public Schools
Ann Rivet-Stanley	Columbia University
Doug Schmid	Western Suffolk BOCES
Susan Scigliabaglio	Bethpage UFSD
Kathy Southwell	East Syracuse Minoa CSD
Bruce Tulloch	NYS Science Education Consortium
Mark Vaughn	Corning Incorporated

Appendix C – Science Standards Writing Team Present at September 2015 Meeting

Science Standards Writing Team – convened by SED to develop a new draft of NYS K-12 Science Learning Standards	Organization
Benjy Blatman	NYCDOE
David Chizzonite	Chittenango CSD
Laura Dierken	Buffalo Public Schools
Daniel Dragula	Lyndonville CSD
Paul Fedoroff	Burnt Hills-Ballston Lake CSD
Carrie Flanagan-Watson	Belfast CSD
Prin Furst	Auburn CSD
Sherlyne Gilles	NYCDOE
Lesia Kaszczak	Yonkers Public Schools
David Knuffke	Deer Park UFSD
Ingrid Lafalaise	NYCDOE
CarrieAnn Lindstadt-Iurka	Port Washington UFSD
Kevin Maser	Sewanhaka CSD
Michael Mecca	Buffalo Public Schools
James Nolan	Odessa Montour CSD
Marc Ouimet	Arlington CSD
Darius Romero	Corning Painted Post CSD
Nancy Rypkema	Valley CSD
Alfred Snider	Monroe-Woodbury CSD
Kevin Tarbert	Odessa Montour CSD
Bobbie Trudeau	Indian River CSD