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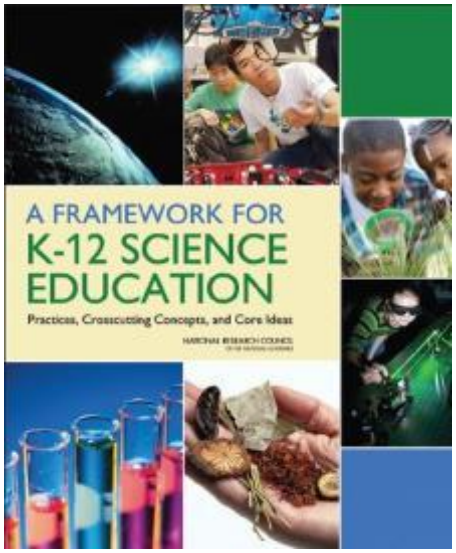
Our Students. Their Moment.

Science Standards Survey Update

March 2014

Brief History



NEXT GENERATION SCIENCE STANDARDS

- Framework developed by National Research Council finalized in July 2011
- NGSS development was coordinated by Achieve, Inc.
  - 26 Lead State Partners
  - 41 member writing team
  - Numerous partners, sponsors, and critical stakeholders
  - Finalized in April 2013

NYSED Survey

Comparing Current NYS Science Learning Standards and the Next Generation Science Standards to Certain Criteria

Survey Design

The survey collected:

- Demographic data
- Quantitative and qualitative data for both sets of science standards reflective of criteria organized in four key categories
  - **Organization of the Standards**
  - **Coherence**
  - **Clarity and Specificity, and**
  - **Content and Rigor**
- Qualitative feedback about both sets of science standards and implementation

Survey Highlights: Respondents

- 2,554 respondents rated the standards
- Those from Western NY, New York City, and Central NY make up 64% of all respondents
- About one-third were from Capital Region, North Country/Adirondacks, Lower Hudson Valley, Mid-Hudson Valley, and Southern Tier
- Teachers make up 78% of respondents
- A plurality of respondents (39%) were certified in Adolescent Science (grades 7-12)

Survey Highlights: Comparisons

In comparison to key criteria, respondents:

- **Rated the NGSS statistically higher on three of the five dimensions for Organization of the Standards**
- **Rated the NGSS statistically higher on all three of the dimensions for Coherence**
- **Rated the NYSSLS statistically higher on five of the six dimensions for Clarity and Specificity**
- **Rated the NGSS statistically higher on five of the seven dimensions for Content and Rigor**

Consider

- **Achieve, Inc. states there are seven conceptual shifts integral to the implementation of instruction aligned to the NGSS:**
  - **K-12 science education should reflect the interconnected nature of science as it is practiced and experienced in the real world.**
  - **The NGSS are student performance expectations – NOT curriculum.**
  - **The science concepts in the NGSS build coherently from K–12.**
  - **The NGSS focus on deeper understanding and application of content.**
  - **Science and engineering are integrated in the NGSS, from K–12.**
  - **The NGSS are designed to prepare students for college, career, and citizenship.**
  - **The NGSS and Common Core State Standards (English Language Arts and Mathematics) are aligned**

Consider

- **A NYSED P-12 science education systemic change initiative would involve substantial curricular and instructional shifts.**
- **These shifts require a long term strategic plan simultaneously addressing six critical components:**
  - **Standards**
  - **Curriculum**
  - **Professional Development to Enhance Instruction**
  - **Assessment**
  - **Materials and Resource Support**
  - **Administrative and Community Support**

Strategic Plan Synopsis

- **Includes mission and vision statements.**
  - **Mission – Describes the desired result**
  - **Vision – Describes the path to achieve the mission**
- **Includes the six critical components shown on previous slide.**
  - **Each critical component includes:**
    - A single goal with a few measurable objectives
    - Each objective is further defined by discrete activities
- **Initial draft included substantial input from the NYS Science Education Consortium during their Twelfth Science Education Summit in July 2013.**
- **Additional stakeholders continue to provide input.**

Next Steps

NYSED staff and stakeholders will:

- **continue to analyze both quantitative and qualitative feedback from the public survey,**
- **develop and provide a comprehensive and detailed analysis of the survey,**
- **continue to develop the strategic plan, and**
- **develop and provide a recommendation to the Board regarding the adoption or update of New York's science standards, as well as a proposed strategic plan to guide their implementation.**