



# **NYSED's Office of Curriculum and Instruction**

[www.nysed.gov/curriculum-instruction](http://www.nysed.gov/curriculum-instruction)

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Fall 2018



New York State  
**EDUCATION DEPARTMENT**

**Knowledge > Skill > Opportunity**



# Science Initiatives

[www.nysed.gov/curriculum-instruction/science](http://www.nysed.gov/curriculum-instruction/science)

## Standards

- [NYS P-12 Science Learning Standards](#)
  - Updated Connection Boxes
  - Intro to the NYS P-12 Science Learning
  - Standards Organized by; All standards, and P-2, 3-5, MS, HS



# Science Initiatives

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## NYS P-12 Science learning Standards Implementation Roadmap

- Overview

***Phase I – Raise Awareness Build Capacity 07/17- 08/2019***

Phase II – Transition and Implementation 09/2019- 08/2021

Phase III – Implementation and Sustainability 09-2021-08/2024

# Implementation Roadmap



## Roadmap Activity A3c:

- Ensure that the six critical components - **Standards, Curriculum, Professional Development to Enhance Instruction, Assessment, Materials and Resource Support, and Administrative and Community Support** - of the 5-year strategic plan are addressed concurrently during the implementation process.

## Focus Question:

- From your lens what Implementation Roadmap activities are a focus this school year?

## Prioritizing Phase I - Roadmap - Activity 1

- Based on your professional role & responsibilities, and from the lens of the organization you represent, identify in priority order the activities most important Phase I activities to address.

# Implementation Roadmap

## Roadmap Activity A3c:

- Ensure that the six critical components - **Standards, Curriculum, Professional Development to Enhance Instruction, Assessment, Materials and Resource Support, and Administrative and Community Support** - of the 5-year strategic plan are addressed concurrently during the implementation process.

## What Focus Question:

- Implementation Roadmap activities are a priority at the local, regional, and state levels?

## Prioritizing Phase I Roadmap - Activity 2

- Within your group, identify the priority activities at the local, regional and state levels in each of the key component areas.



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## Professional Development

### – Grants

- Math/Science High School Projects
- Teachers of Tomorrow Math, Science and Bilingual Educators
- Math and Science Partnership Program – Projects

### [Resource Networks:](#)

- NYS Science Education Ecosystems Network

# ESEA Title II Part B Mathematics and Science Partnership Program 2018-19



- 1. Albany City School District**  
*Mathematics Grades 1-2*  
College of St. Rose
- 2. Batavia City School District**  
*Math & Science Grades K-12*  
SUNY Brockport
- 3. Beacon City School District**  
*Mathematics Grades 6-9*  
Clarkson University
- 4. Brentwood Union Free School District**  
*Science - STEM Grades 7-9*  
SUNY – Stony Brook University
- 5. Buffalo City School District**  
*Math & Science Grades 3-5*  
SUNY Buffalo State College
- 6. Cheektowaga Central School District**  
*Mathematics - High School*  
SUNY - Buffalo State College
- 7. Dundee Central School District**  
*Math & Science Grades K-12*  
University of Rochester
- 8. Dunkirk City School District**  
*Math Grades 6-8, Science Grades K-5*  
SUNY Fredonia

- 9. Geneva City School District**  
*Science Grades K-12*  
University of Rochester
- 10. Liberty Central School District**  
*Mathematics and Science Grades 6-12*  
SUNY Sullivan County Comm College
- 11. Lyons Central School District**  
*Mathematics Grades 5-12*  
University of Rochester
- 12. Newark Central School District**  
*Mathematics Grades K-5*  
University of Rochester
- 13. NYCDOE**  
*Math & Science Grades K-8*  
City College of NY - Science  
Hunter College – Math
- 14. Peekskill City School District**  
*Mathematics Grades K-5*  
Pace University
- 15. Rochester City School District**  
*Math & Science Grades K-8*  
University of Rochester
- 16. Salmon River Central School District**  
*Mathematics Grades 6-12*  
Clarkson University

- 17. Schenectady City School District**  
*Mathematics Grades 6-12*  
University of Pittsburgh at Greensburg
- 18. Sodus Central School District**  
*Mathematics Grades 4-12*  
University of Rochester
- 19. Syracuse City School District**  
*Math & Science Grades 6-8*  
Lemoyne College - Science  
Syracuse University – Mathematics
- 20. Waterloo Central School District**  
*Mathematics K-8*  
University of Rochester
- 21. Westbury Union Free School District**  
*Science Grades K-12*  
New York Institute of Technology
- 22. Yonkers City School District**  
*Science Grade 6*  
Mercy College



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## Curriculum, Professional Development

### – Collaborations

- [Teacher Centers](#) – 126 Regional Centers
- [BOCES](#) – SCDN Science State-wides - PD Sessions
- [DEC Invasive Species](#) – K-12 Educators Resources
- [DEC's Invasive Species Pilot Curriculum](#)





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## Curriculum, Professional Development

### – Collaborations

- [NY State Museum](#) - Cultural Education Center
- [SUNY Master Teachers Program](#)
- [Science Professional Organizations](#)
- [PAEMST](#)

# NY State Science Education Ecosystems Network



## [Board of Cooperative Education Services/SCDN/BOCES](#)

The 37 BOCES regions are colored in different shades on the map with pins linking to the website.



## [Science Teachers Association of New York State/STANYS](#)

The 16 STANYS sections are outlined in red. Each region links to a section website/contact.



## [New York State Teacher Centers](#)

Pins mark and link to centers that indicated science standard support as a 2017-2018 focus area.



## [New York State Master Teacher Program](#)

Pins mark the location and link to regional websites/contacts.



## [Parks, Recreation + Historic Preservation](#)

Pins mark the locations and link to websites for the New York State Nature Centers.



## [PBS Learning Media](#)

Pins mark the locations and link to websites for local TV stations.



## [STEM Partnerships](#)

### [STEM Ecosystems](#)

Collaborations offering an array of learning opportunities. Designed pathways enable young people to become engaged, knowledgeable and skilled in the STEM disciplines.



[New York State STEM Hubs](#) interconnect business, higher education, community organizations



## [New York State Department of Environmental Conservation; Environmental Education Centers](#)

Pins mark the locations and link to websites for the regional Environmental Education Centers.



## [New York State Science Education Consortium](#)

A Cooperative Association of Professional Science Education Organizations. Their website contains collated resources to facilitate standards implementation.



## [Math Science Partnership \(MSP\) Programs](#)

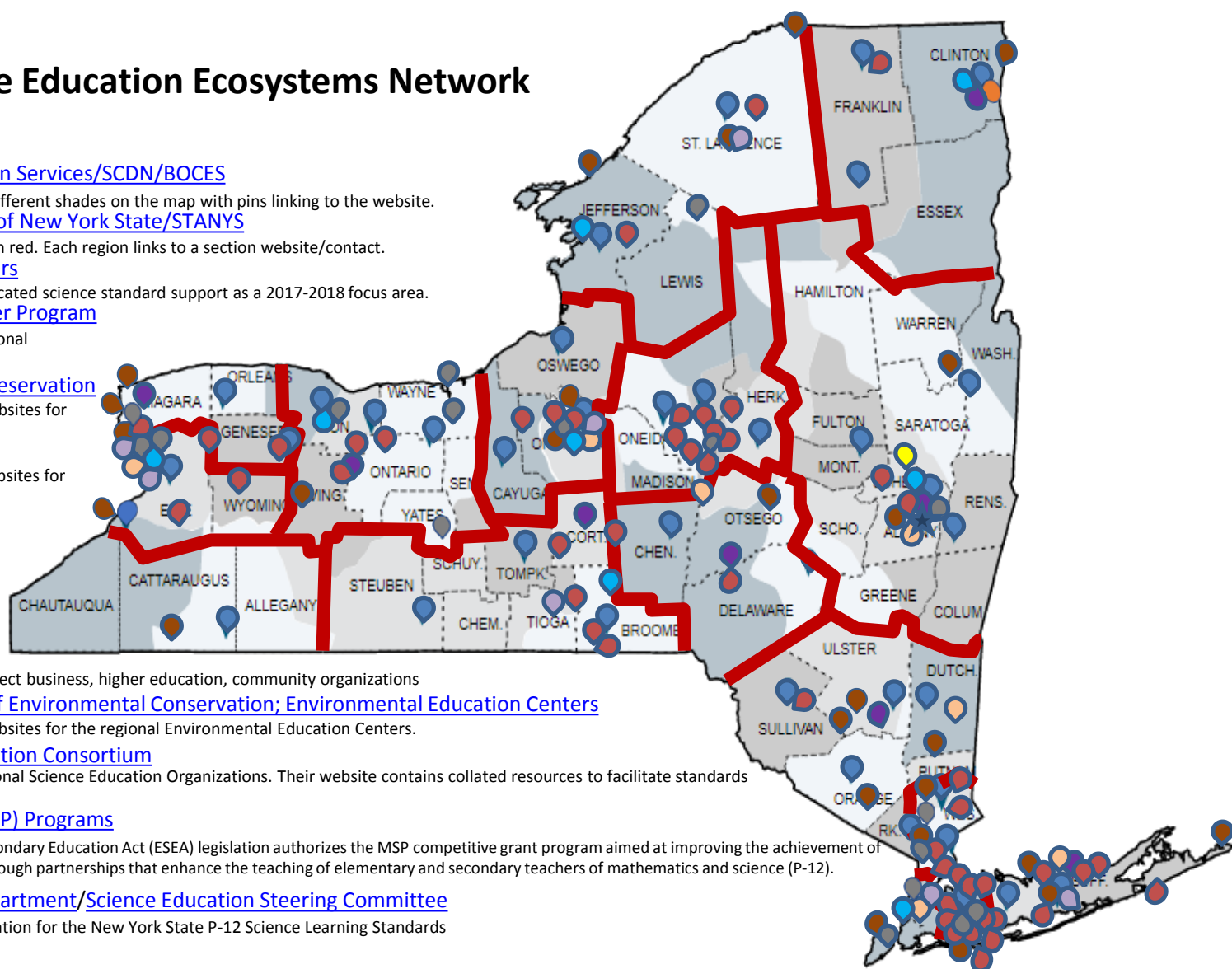
Title II, Part B of the Elementary and Secondary Education Act (ESEA) legislation authorizes the MSP competitive grant program aimed at improving the achievement of students in mathematics and science through partnerships that enhance the teaching of elementary and secondary teachers of mathematics and science (P-12).



## [New York State Education Department/Science Education Steering Committee](#)

Webpage and most up to date information for the New York State P-12 Science Learning Standards

## [New York State Museum](#)



Pin locations are approximations.



# Science Initiatives

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## Assessment

- **Draft** Proposed Science Assessments Timeline
- 4 High School Science Course Maps
- Interested educators who wish to participate in test development activities can complete an [on-line application](#)
- Assessment Questions? Email [EMSCASSESSINFO@nysed.gov](mailto:EMSCASSESSINFO@nysed.gov)

# **DRAFT** Proposed Timeline Science Assessments



*DRAFT*

- 2022 Elementary Level: Grade 5  
Intermediate Level: Grade 8

*DRAFT*

- 2023 Earth and Space Sciences  
Life Science: Biology

*DRAFT*

- 2024 Physical Science: Chemistry  
Physical Science: Physics

Fall 2018

# Educator Opportunity



## Office of State Assessment

Interested educators who wish to participate in test development activities can complete an [on-line application](#).

The screenshot shows the NYS Office of State Assessment (OSA) website. The main heading is "OSA Office of State Assessment". Below this, there is a search bar and a navigation menu. The page is titled "Teacher Participation Opportunities" and contains the following text:

New York State Education Department Teacher Participation Opportunities

The New York State Education Department (NYSED) asks all educators who wish to participate in test development activities to complete our online application located at <http://www.osa.nysed.org/nytsd/teacher>.

The Department offers many opportunities for New York State (NYS) certified teachers and administrators and other qualified professionals (including higher education faculty and administrators) to contribute to the creation and review of state assessments including:

- Item Writing/Development
- Educational Passage Review
- Test Form Construction
- Item Review
- Final Exam Review
- Bias Review
- Rasch/Targeting/Marker Response
- Standard Setting and verification
- Performance Level Description Development
- Scoring Material Development

These activities, and others that arise on an ad-hoc basis, are key steps in the NYSED Test Development Process. NYSED relies on expert guidance from hundreds of educators every year to successfully develop assessments for NY's students. The teachers' and administrators' expertise in their subject areas, and their knowledge of their students' needs and proficiencies, make it possible for the Department to achieve the critical goal of developing fair, reliable and valid tests.

Participation in each of these activities provides an excellent opportunity for professional development as educators learn more about New York State Testing Program (NYSTP) assessments and