

# NEW YORK ECLIPSE

ENHANCING COLLABORATIVE LEADERSHIP  
FOR IMPROVED PERFORMANCE IN  
SCIENCE EDUCATION

## *Strategic Planning Institute: Developing a Tailored Science Education Strategic Plan*



JUNE 25–29, 2007  
CROWNE PLAZA ALBANY  
STATE AND LODGE STREETS  
ALBANY, NEW YORK



University of the State of New York  
State Education Department

*National Science Resources Center*

THE NATIONAL ACADEMIES  Smithsonian Institution

# NEW YORK ECLIPSE

## *Strategic Planning Institute: Developing a Tailored Science Education Strategic Plan*

The New York State Education Department (NYSED), in partnership with the National Science Resources Center (NSRC), is implementing a science education systemic change initiative that will build leadership within New York State school districts. This initiative will provide research-based products and services to assist New York State school districts in initiating, implementing, and sustaining effective inquiry-centered pre-kindergarten through grade twelve science programs for all students.

An effective science education program is the bridge to science literacy for all students. Research-based science learning and teaching—by promoting students’ active involvement in their learning experiences—help students develop and retain scientific concepts and skills, hone their critical thinking and reasoning abilities, and prepare them to be members of the future workforce.

### **Institute Goals**

This Institute will guide your school district leadership team through the rigorous process of developing a tailored strategic plan—a plan for initiating and implementing an effective research-based science education program. Your plan will be based on best practices and research about how children learn.

During this five-day program of interactive workshops and discussions, your leadership team will:

- Review and discuss research and its implications to the learning and teaching of science, to the process of change, and the implementation of a new program using a systems approach;
- Learn strategies for building awareness of a new vision for science learning and teaching with school and community leaders;
- Study the different ways in which people view change and develop plans for moving people from awareness to the establishment of programs that will result in student gains in achievement;
- Learn about promising practices related to the following areas:
  - Development of a curriculum framework based on learning progressions in science;
  - Selection and implementation of research-based instructional materials that align with the curriculum framework;
  - Development of differentiated professional development programs for teachers to move them from being novice to acquiring expertise;
  - Establishment of cost-effective and efficient methods for supplying teachers with supplies and equipment;
  - Assessment of research-based science learning and teaching; and
  - Development of support from school administrators, parents, and community leaders.
- Study and discuss district science education reform models representing how to integrate these critical components into a systems approach for improving PreK–12 science education programs;
- Develop five-year strategic plans for improving PreK–12 science education programs that incorporate a systems approach; and
- Network with and learn from other professionals committed to improving PreK–12 science education for all students.

This institute will be the 57<sup>th</sup> in a series of strategic planning leadership institutes conducted by the NSRC since 1989. More than 700 leadership teams from nearly every U.S. state and 12 foreign countries have drafted strategic plans for systemic science education reform at these events, and most of these school districts are at various stages of plan implementation. Where the plans have been consistently implemented, using all components, the result is enhanced student performance.

## Who Should Attend

*It is recommended that the team for the Strategic Planning Institute remain the same as the team sent from your district for the first two New York ECLIPSE events.* Team members consist of stakeholders in science education who demonstrate collective skills, commitment, and credibility to lead and sustain a district-wide, regional, and community-supported initiative for “renewal” of science education. The two previous events have laid the groundwork for teams to beginning a strategic plan for reform in your district.



## Program

The institute program will focus on five critical questions that school districts must address as they plan for and implement science education reform programs.

Focus Question	Sessions	Faculty
<i>What does a quality PreK–12 science program look like?</i>	Take part in vision building and inquiry-based science experiences.	Institute faculty includes teachers, school administrators, scientists, engineers, and science educators. All began working for science education reform by attending an NSRC Strategic Planning Institute.  All are nationally recognized experts in science education, and all have extensive experience in science education reform.
<i>What research informs this way of teaching science?</i>	Expand your knowledge of research on how people learn and the impact on teaching and learning.	
<i>How do we introduce a new instructional program into our school system?</i>	Participate in a simulation that informs participants about how to bring change into a school system.	
<i>How do we build an infrastructure that supports a high-quality PreK–12 science program?</i>	Learn about strategies for: <ul style="list-style-type: none"> <li>• Professional development;</li> <li>• Effective assessment;</li> <li>• Science materials support;</li> <li>• Administrative and community support; and</li> <li>• Collaborative inquiry.</li> </ul>	
<i>How do we create a plan of action to guide and sustain future efforts?</i>	Develop a tailored strategic plan with technical assistance from experts in science education.	

For an example of a past program, visit [http://www.laserscienceevents.si.edu/SPI/SPI\\_program.html](http://www.laserscienceevents.si.edu/SPI/SPI_program.html).

## When?

June 25–29, 2007

## Where?

Crowne Plaza Albany  
State and Lodge Streets  
Albany, New York

## NEW YORK ECLIPSE

**The New York ECLIPSE Strategic Planning Institute** is the third in a series of four coordinated events for leadership teams. These events are guiding the leadership teams through a research-based approach to learning and teaching science.

**October 25–26, 2006**    **New York ECLIPSE Leadership Conference: Building Awareness with Key Leaders and Stakeholders**

*The leadership teams were introduced to a new vision for science learning and teaching, and to the necessary systemic and systematic approaches to support this vision.*

**March 21, 2007**    **New York ECLIPSE Science Curriculum Showcase**

*Leadership teams learned about exemplary, research-based science curricula.*

**June 25–29, 2007**    **New York ECLIPSE Strategic Planning Institute**

*Leadership teams will develop a tailored strategic plan for initiating, implementing, and sustaining effective PreK–12 science education for the leadership team's district.*

**October 24–25, 2007**    **New York ECLIPSE Leadership Conference: Building Capacity with Key Leaders and Stakeholders**

*Leadership teams will revisit the strategic plan and learn more about how to sustain a renewed PreK–12 science education system.*

**The New York State Education Department** provides leadership for a system that yields the best-educated people in the world by raising the knowledge, skill, and opportunity of all the people in New York. The New York State Science Initiative, <http://www.emsc.nysed.gov/ciai/mst/sciinit.doc>, seeks to create a statewide learning community to support student achievement of the learning standards in science, leading to a scientifically literate population. The vision of the State's Science Initiative is to ensure learning in science for all PreK–12 students by providing equitable access to exemplary teachers, inquiry-centered curriculum and instruction, standards-based assessments, and a wealth of resources and community support.

New York State Education Department—<http://www.nysed.gov>  
Office of Elementary, Middle, Secondary and Continuing Education—<http://www.emsc.nysed.gov>  
Office of Curriculum and Instructional Support—<http://www.emsc.nysed.gov/cis/>  
Curriculum, Instruction and Instructional Technology—<http://www.emsc.nysed.gov/ciai/>  
Science Curriculum Homepage—<http://www.emsc.nysed.gov/ciai/mst/sci.html>  
New York ECLIPSE Homepage—<http://www.emsc.nysed.gov/ciai/mst/NYEclipse/EclipseHome.html>  
New York State Education Department Virtual Learning System—<http://www.nysvls.org>

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**The National Science Resources Center** was established in 1985 by the **Smithsonian Institution** and the **National Academies** to improve the learning and teaching of science for all children in the United States and throughout the world. The prestige and credibility of these two world-renowned institutions provide the NSRC with access to research, scientific expertise, and resources to inform our work, as well as an opportunity to engage and catalyze educators, business people, and scientists in all aspects of science education reform.

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