

National Science Resources Center

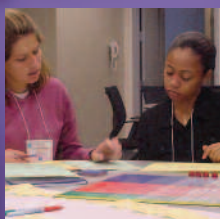
THE NATIONAL ACADEMIES  Smithsonian Institution

# NATIONAL LASER MIDDLE SCHOOL SCIENCE EDUCATION PLANNING SYMPOSIUM

*Helping School Districts Develop  
Middle School Science Education Programs  
That Align with Science Standards*

**December 5–9, 2006  
Birmingham, Alabama**

The LASER Center:  
Leadership and Assistance for Science Education Reform



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RC



**I**n an increasingly knowledge-driven world, all students should emerge from school with at least a basic understanding of science. The science-literate citizen evaluates and debates complex issues rationally; the skilled worker thinks critically, asks probing questions, and solves problems.



**A**n effective science education program is the bridge to science literacy for all students—and ultimately for all citizens. Research-based, inquiry-centered science learning and teaching—by promoting students’ active involvement in their learning experiences—not only help them develop and retain scientific concepts and skills but also prepare them to be members of the future workforce.

### ***Why middle school?***

Although U.S. elementary students’ science knowledge compares favorably with that of their peers in other countries, research shows that their interest and achievement in science wane as they move through middle and high school.



More than 800 forward-thinking school districts at the cutting edge of science education reform have participated in one or more of the 54 previous NSRC planning events, and are at various stages of implementing the strategic plans they developed there. Be part of this growing national movement: Participate in the **2006 National LASER Middle School Science Education Planning Symposium**.

# The National LASER Middle School Science Education Planning Symposium

## The Program

At the Symposium, you will learn about current research, models of reform, and resources for middle school science education reform to be used in the development of a strategic plan. Through an intensive program of interactive workshops and discussions, you will:

- ▶ Explore current research on how middle school students learn
- ▶ Examine exemplary inquiry-centered middle school science curricula
- ▶ Address the five elements of reform—curriculum, professional development, materials support, assessment, and administrative and community support—through the lens of middle school science
- ▶ Receive technical assistance in the strategic planning process and network with experts involved in science education reform

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

<i>Focus Question</i>	<i>Sessions</i>	<i>Faculty</i>
<i>What are the characteristics of an effective middle school science program?</i>	Vision building, inquiry-based science experiences, videotapes, and discussions	Symposium faculty includes teachers, school administrators, scientists, engineers, and science educators.  All are nationally recognized experts in science education.
<i>What research informs this way of teaching of science?</i>	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>	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 middle school science program?</i>	Strategies for implementing: <ul style="list-style-type: none"> <li>▶ Research-based instructional materials</li> <li>▶ Comprehensive professional development</li> <li>▶ Effective assessment</li> <li>▶ Science materials support systems</li> <li>▶ Administrative and community support</li> </ul>	
<i>How do we create a plan of action to guide and sustain future efforts?</i>	Time and technical assistance for developing a tailored strategic plan	

## School District Leadership Teams

Districts that wish to apply for participation in the Symposium will need to identify a four- to six-person leadership team of administrators, teachers, and community leaders. Team members must demonstrate that they collectively have the skills, commitment, and credibility to lead and sustain a local middle school science education reform program.

## Accommodations and Transportation

Leadership teams should make their own lodging reservations; information on obtaining reservations will be included with notification of acceptance. Participants are responsible for all lodging and transportation expenses. Continental breakfast and full lunch each day plus one evening meal are included for each participant.

## How to Apply

Download the application form from the NSRC Web site, [www.nsrconline.org](http://www.nsrconline.org). To be considered for participation, please return a completed application to the NSRC. Space is limited. Early applications will receive priority review. Teams that apply early and are accepted for participation will receive the discounted rate shown in the table below.

<i>Fee</i>	<i>Postmark date</i>	<i>Notification of acceptance</i>	<i>Payment date</i>
\$750/ team member	September 29, 2006	October 6, 2006	November 3, 2006
\$850/ team member	October 27, 2006	November 3, 2006	November 13, 2006

This Symposium 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 inquiry-centered science program. It will be a major step toward meeting your state’s science assessment goals. It will be a major step toward preparing your students for full participation in a complex world.

“Being here has truly reinforced the alliance concept. Our school district will benefit from inclusion in this process as community stakeholders are welcomed aboard.”

—Jenny Johnson  
North Franklin School District, Washington

“This productive, comprehensive, and wonderfully engaging event was a highly professional experience that left us all with much to contemplate and build on. It was a classic example of professional development strategies that work extremely well with educators.”

—Jerry Schierloh, consultant for PRISM  
(Professional Resources for Science and Mathematics)  
Montclair State University, New Jersey

For more information, please contact Mary Raucci, LASER Program Associate, at 202.633.2971 or [LASER@si.edu](mailto:LASER@si.edu)

## National Science Resources Center

The NSRC was established by the Smithsonian Institution and the National Academies\* to improve the learning and teaching of science for all students in the United States and throughout the world. The NSRC develops innovative science curriculum materials, provides professional development for teachers of inquiry science, and offers leadership programs and technical assistance to help school districts develop and sustain research-based science programs.

### NSRC's LASER Center

Through its Leadership and Assistance for Science Education Reform (LASER) Center, the NSRC has formed partnerships with eight regional sites, publishers of NSF-supported elementary and middle school science curriculum materials, corporations and private foundations, and the NSRC's parent institutions. The NSRC and its LASER partners offer programs, products, and services for initiating and implementing inquiry-centered science curriculum programs in school districts.

### NSRC LASER Sponsors

**National Science Foundation**—The National Science Foundation has provided major support for the NSRC's LASER Center since the inception of the Center in 1998. The LASER Center is a science education implementation and dissemination center of a former initiative of the NSF's Elementary, Secondary, and Informal Education Program.

**Corporations, Private Foundations, and Publishers**—The LASER Center also receives support from a combination of participant fees and contributions from corporations, private foundations, and science curriculum publishers. Since 1998, these sponsors have included:

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Smithsonian Education Outreach Fund

\*Four organizations comprise the Academies: National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council.

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Planning Symposium  
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THE NATIONAL ACADEMIES  Smithsonian  
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