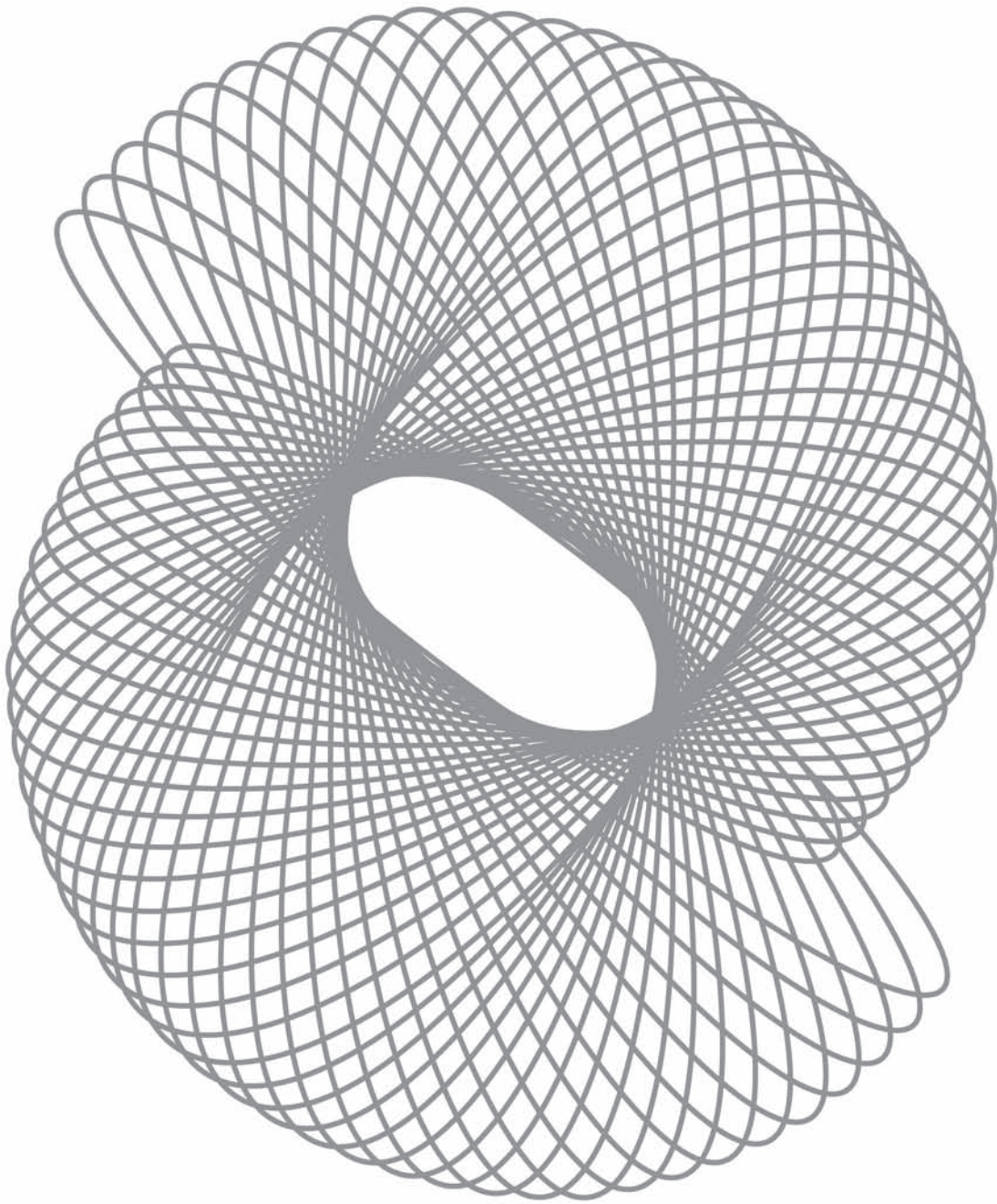


# LINKING LEADERS

Community for Change:

Celebrating Ten Years



nasa

science

technology

engineering

mathematics

education

nassmc

# LINKING LEADERS HISTORY

## **The Education Challenge**

In the mid 1990's, worrisome gaps were identified in the mathematical, scientific, and technological literacy of the U.S. population. Issues such as the under-representation of women and minorities in technical fields, student performance on international assessment instruments, and student readiness for the workplace emerged as critical weaknesses of the U.S. system. In conjunction, state educational standards for almost every subject became a nationwide trend.

## **The Perfect Partnership**

During this time, the National Aeronautics and Space Administration's (NASA) Educational Office concluded that a monolithic, one-size-fits-all model was inappropriate and ineffective for supporting technical education across America. NASA's education leadership sought to support the source of a coherent voice for the states' improvement agendas.

The National Alliance of State Science and Mathematics Coalitions (NASSMC) provided NASA with the perfect partnership opportunity. Initially formed in 1994, NASSMC grew out of a project sponsored by the Mathematical Sciences Education Board of the National Research Council. The purpose of NASSMC was to bring state coalitions of business, education, and policy leaders under one national umbrella. NASSMC set out to develop strategies to strengthen existing coalitions while at the same time building new ones.

## **Linking Leaders Emerges**

The Linking Leaders program was established by NASA in collaboration with NASSMC. This partnership provided the ideal vehicle to support the separate and diverse reform efforts of individual state coalitions as a strategy for systemic change. NASA's commitment to education is based on the support of each state's education vision. If the sectors of education, state government, and business share a collective vision, then NASA resources can be aligned to support it. On the other hand, if education, policy, and business leaders are all working hard but at cross-purposes to improve education, then the vector sum of their efforts may be zero.

Linking Leaders for Systemic Reform was launched in 1995 and the first Linking Leaders Workshop was held in Cleveland, Ohio in 1996. With the assistance of NASA funding, NASSMC has extended the Linking Leaders program to twenty-three states. In addition to building new coalitions, the program has evolved in recent years to offer specialized support and technical assistance to the older, more well-established coalitions. Now called Linking Leaders for Systemic Improvement, the program has changed the dynamics of NASA's interaction with the states and has led directly to the establishment of coalitions in four states where no organization existed prior to the NASSMC/NASA presence.

From Linking Leaders I in 1996 to Linking Leaders IX in 2004, the program has been conducted in the states of Alabama, Colorado, Florida, Idaho, Illinois, Iowa, Kentucky, Maryland, Minnesota, Mississippi, Nebraska, New Hampshire, New Mexico, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

# NASSMC HISTORY

The National Alliance of State Science and Mathematics Coalitions (NASSMC) is an umbrella organization for state coalitions of business, education, and public policy leaders united for the improvement of mathematics, science, and technology education (MSTE) for all students. NASSMC is a network of thirty-seven state coalitions and serves as the national advocate for its member organizations.

## **Vision and Goals**

A non-profit association, NASSMC works state-by-state in pursuit of its vision that all U.S. students will have the necessary knowledge of, understanding of, and skills in mathematics, science, and technology, so they can be productive in their personal, work, and civic lives. The nation will have a competent and competitive workforce that continues to meet the challenges of the global economy. NASSMC's member coalitions work to bring coherence and added value to the separate efforts of many individuals and organizations. Coalitions pursue goals not achievable by any one organization or sector working alone. All Americans need and deserve to receive the best possible education in mathematics, science, and technology for their personal and civic lives.

To this end, NASSMC performs a variety of beneficial activities:

- Helping each coalition develop a state-specific strategy to improve mathematics, science, and technology education;
- Linking state coalition leaders to each other and to major national initiatives;
- Serving as the national ears and voice of its member coalitions;
- Providing a national forum for the discussion of critical issues relevant to continuous and systemic improvement of mathematics, science, and technology education; and
- Supporting timely dissemination of information relevant to the continuous and systemic improvement of mathematics, science, and technology education.

## **NASSMC's Development**

NASSMC evolved from a 1989 project of the Mathematical Sciences Education Board of the National Research Council. For five years, the project focused on developing coalitions of state-level leaders committed to promoting adaptation and implementation of new state standards for school mathematics and later, science based upon national models. In 1994, directors of the state coalitions initiated by the project decided to establish NASSMC as a national nonprofit organization with headquarters in Washington, DC. At the direction of its Board, NASSMC adopted a larger mission of supporting its member coalitions in the promotion of systemic improvement of mathematics, science, and technology education for all students in grades K-16.

In pursuit of its mission, NASSMC has designed and executed projects testing processes and materials for strengthening the structure and programs of its member coalitions. In collaboration with the Education Commission of the States and the NASA, it has developed a state-based model for working with business, education, and policy leaders to address continuous improvement in school mathematics, science, and technology. NASSMC also established the NASSMC Briefing Service, an Internet-based service providing leaders across the nation with concise and timely information about programs, research results, and public opinion relating to mathematics, science, and technology education.

In August of 2002, NASSMC moved its offices to the National Science Teachers Association (NSTA) Building at 1840 Wilson Boulevard, in neighboring Arlington, Virginia. In this new location, NASSMC works in close proximity to the Triangle Coalition for Science and Technology Education and with the programs and operations of NSTA. The organization continues, through the efforts of its member coalitions, to support comprehensive and coordinated change in mathematics, science, and technology education and to promote public awareness and understanding of the need for such change.

# FLORIDA COALITION FOR IMPROVING MATHEMATICS AND SCIENCE LITERACY

## VITAL STATISTICS

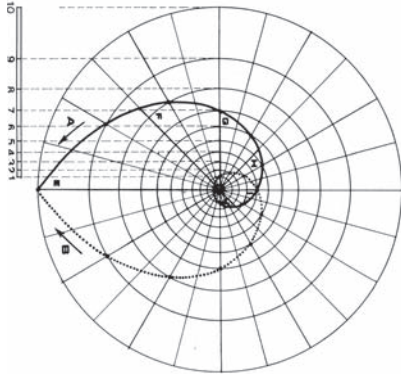
Linking Leaders Class  
1998

Coalition Milestones  
Founded - 1998

Incorporated - 1999

NASSMC Membership  
1999

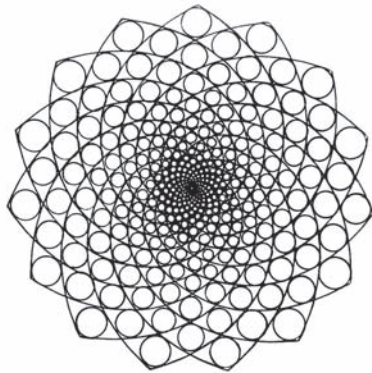
Website URL  
[http://web.usf.edu/~sl/  
CIMS/CIMS\\_index.htm](http://web.usf.edu/~sl/CIMS/CIMS_index.htm)



The Florida Coalition for Improving Mathematics and Science Literacy (CIMS) was founded to help shape legislative and policy priorities and decisions to strengthen education in mathematics and science in Florida's public schools. The Coalition was formed as a result of the Linking Leaders invitation to participate in the Cleveland workshop. After the group returned from Cleveland, a number of meetings were held in Florida, leading to the establishment of CIMS.

CIMS is committed to addressing a crisis problem in education. Many members' motivation stems from a sense that Florida's workforce is not up to the challenges posed by Florida's plans to enhance its presence in technology-related areas.

CIMS is the only state-level coalition of business, education, and policy leaders that is committed to the long-term, continuous improvement of the state's system of mathematics, science, and technology education from kindergarten through college.



## FEATURE STORY: *SURVEY SAYS... IT'S ELEMENTARY*

CIMS initiated and co-sponsored (along with the Coalition for Science Literacy at USF) a pre-FCAT baseline survey of elementary school teachers to ascertain what effect high-stakes statewide tests (i.e., FCAT) had on the time devoted to science in Florida elementary schools. The survey results found that:

- 87% devote less than three hours to science every week.
- 73% received less than five hours of science in-service in the last five years.
- 56% felt that undergraduate courses had not prepared them to teach the Sunshine State Standards.
- 42% were comfortable teaching life sciences.
- 9% were comfortable teaching physical sciences.

Additionally, the survey sought to achieve a better understanding of the current teaching practices in elementary science education.

This information provided a vital data component for making the case for more and better in-service in Science and for better preparation of elementary school teachers in the science knowledge base. A follow-up survey was conducted in September of 2000 with very similar results.

Under grants from The National Alliance of State Science and Mathematics Coalitions and from the Aerospace States Association, CIMS continues to conduct periodic surveys of elementary-level teacher perceptions concerning the effect of state policies on mathematics, science, and technology education in Florida.

# COALITION RESULTS



In 1999, CIMS led the advocacy for a legislative effort to require the Department of Education to include Science as a full, third component (in addition to Language Arts and Mathematics) of the Florida Comprehensive Assessment Test (FCAT) beginning in 2003.



CIMS has reviewed and successfully urged substantial revisions in a proposed core curriculum for teacher education that was developed by a statewide committee in response to a legislative mandate. The revisions will allow integrated science courses to fulfill the science requirement for elementary education majors.



In January of 2002, CIMS worked successfully with teacher organizations to halt a Department of Education plan to replace the current secondary certification areas in Biology, Chemistry, Earth Sciences, and Physics with a single interdisciplinary certification requiring

only shallow preparation. The key activity in this endeavor was CIMS Board members meeting with high level Department of Education staff in Tallahassee.



CIMS was instrumental in forcing a complete revision of newly drafted content standards for teachers that were inconsistent with student needs and the reform movement in math and science.



CIMS members, with considerable assistance from NASSMC staff, developed a five-page document giving bullets and citations of major studies and comments supporting the need for more and better preparation in math and science as a requisite for an effective workforce.



CIMS conducted a statewide conference of 72 business, political, and education leaders in January of 2000. This meeting led to a list of priorities for strengthening K-12 education in Science and Mathematics.

## MEMBER AFFILIATIONS

### *Executive Committee*

Bob Bedford  
Emergent Design, Inc.

Penny Haskins  
Radiation Technologies

Marshall Heard  
Florida Aviation Aerospace Alliance

John Koenig  
O-force Orlando

Bob Potter  
USF/Florida Higher Es.  
Consortium for M&S

Marsha Winegarner  
FDOE – Science Supervisor

# FUTURE GOALS

CIMS has identified two key goals for the years ahead:

- 1) Translate the outcomes of the February 2005 Statewide Summit into action by the legislature, State Department of Education, and District Superintendents.
- 2) Secure legislation and state funding for a meaningful, systemic approach to investment in teacher growth and increased effectiveness.

### CONTACT INFO

Gerry G. Meisels  
Chairman & Interim Exec. Director

University of South Florida  
4202 East Fowler Avenue HMS456  
Tampa, FL 33620  
(813) 974-7183  
(813) 974-7128 (fax)  
meisels@csl.usf.edu



## LESSONS LEARNED

Over the years, CIMS has learned from other coalitions a number of ways to reach legislators.

While CIMS does not run training programs or projects, there are very few other coalitions who are as focused on the policy-legislative mission.



---

**NASSMC Staff & Contact Info**

Jim McMurtray  
Executive Director  
jmcmurtray@nassmc.org  
(703) 516-5973

Jessica Venable  
Program Officer  
jvenable@nassmc.org  
(703) 516-5974

Deborah Jones  
Senior Program Officer  
dtjones@nassmc.org  
(703) 516-5971

Jane A. George  
Program Officer  
jgeorge@nassmc.org  
(703) 516-5972

Write, telephone, or send a fax to  
NASSMC's headquarters office:

**NASSMC**  
1840 Wilson Blvd., Suite 200  
Arlington, VA 22201-3000  
(703) 516-5970  
(703) 516-5979 (fax)  
info@nassmc.org