



Partnership to Rejuvenate and Optimize Mathematics and Science Education in Florida

Math and Science Matters

A Newsletter for Florida's Educators

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Florida PROMiSE is Making Strides

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Florida PROMiSE addresses the need to improve mathematics and science (M/S) achievement of students through professional development.

Florida PROMiSE is a partnership among the three Florida Public Research - Flagship Universities (USF, FSU, & UF), four large school districts (Miami-Dade, Hillsborough, Duval & Seminole), educational consortia (Heartland Educational Consortium (HEC), Northeast Florida Educational Consortium (NEFEC) & Panhandle Area Educational Consortium (PAEC), Florida Virtual School, and Horizon Research, Inc.

Florida PROMiSE has seen many accomplishments within the past few months, such as working to increase stakeholder familiarity with the new M/S Standards through the Florida PROMiSE website,

newsletters for both educators and parents, and parent workshops.

Leadership professional development has begun though the PROMiSE Principal Project, and teacher professional development modules are in the review stage. Performance specifications for a Curriculum Planning Tool and Lesson Planning Tool have been created and will be completed next year. Professional development modules for new teacher induction are currently being developed as well.

These components are all being developed to achieve the goal of increasing the knowledge and performance of students in mathematics and science.

Preparing Principals to Support the Math and Science Standards

The Florida PROMiSE Principal Project provides professional development activities designed to assist the principal in supporting and building capacity for teachers of mathematics and science. The primary focus is to increase student achievement by creating and fostering an environment that values the application of new knowledge, skills, and practices.

The training supports the implementation of the new mathematics and science standards with a focus on student achievement, data-driven decision-making, reflective practice, action research, and communities of practice. Ongoing collaboration with colleagues is a vital function of professional development.

Who is Participating in the Project?

Over six hundred principals have registered to participate in one of fourteen cohorts that will meet for four two-day sessions over the course of a year. An additional six cohorts of

fifty principals each will begin the professional development in 2009, followed by six cohorts that will begin in 2010. Principals who applied to participate but have not been contacted should expect to receive more details no later than June.

What has Happened so Far?

The first cohort of fifty elementary principals met on May 8th and 9th in Tampa for the inaugural session of this year-long professional development. The primary focus of the first session was an introduction to the Big Ideas and Supporting Ideas in grades K–5 mathematics, as well as associated evidence-based instructional strategies and assessments. This information was balanced with reflective activities that provided time for the principal teams to discuss and process the new information. The levels of engagement and energy throughout the first two days were remarkable and the feedback very positive.

What Happens Next?

The next meeting for cohort 1, to be held in Naples, FL on July 19-20, 2008, will include continued focus on mathematics, while the final two sessions will emphasize the new science standards. The first two-day meeting for secondary principals selected for cohort 2 will be held July 17-18 in Naples, FL. Ultimately, these professional development activities will increase the principal's understanding of:

- The new mathematics and science standards
- Content and pedagogical knowledge in mathematics and science
- The effective implementation of communities of practice focused primarily on improved teaching and learning

To register for one of the remaining openings, or for more information about the Florida PROMiSE Principal Project, please contact Laura Lang at llang@fsu.edu.

Preparing Teachers to Implement the Math and Science Standards

About Teacher Professional Development

School cohorts that include school leaders and teachers of mathematics and science will be recruited to participate in PROMiSE Professional Development (PD) programs. The overarching goal of teacher professional development is to support teachers in implementing high-quality, standards-based mathematics and science instruction aligned with Florida's new standards by:

- Increasing teachers' familiarity with the new mathematics and science standards, resources and tools through content-rich development
- Supporting teachers' skills, knowledge, and use of resources for mathematics and science teaching
- Supporting analysis of instructional strategies that promote student learning with understanding
- Supporting classroom implementation
- Supporting schools to build capacity through a cohort of trained teachers and principals

Professional Development Progress

Professional development design teams, consisting of district personnel and university faculty in mathematics, science, mathematics education, and science education met in Orlando April 11-14 to develop professional development modules in:

K-2 Mathematics	K-2 Science
3-5 Mathematics	3-5 Science
6-8 Mathematics	6-8 Science
Algebra	Biology
Geometry	Earth & Space Science
	Physical Science

The design teams have completed an initial iteration of the teacher professional development modules. These modules will be finalized after a thorough review is conducted by PROMiSE personnel, District Mathematics and Science Supervisors, and Mathematics and Science Teachers. The review process should be completed in June, and feedback will be synthesized and incorporated into the final professional development modules.

About PROMiSE PD Provider Academies

The PROMiSE project utilizes both direct PD

Provider training and a train-the-trainer model. PROMiSE Lead Trainers and PROMiSE PD Providers will come from Florida school districts and consortia, and will be the experts in implementing PROMiSE PD.

The first round of PROMiSE PD Provider Academies for Lead Trainer and PD Provider training will be provided at the University of Florida in Gainesville. Upon completion of the Academy, participants will be certified to:

- Deliver PROMiSE PD to teachers, and
- Train individuals identified by districts and consortia who will serve as PROMiSE Professional Development Providers

University of Florida Academy Dates:

Academy 1: July 21–July 25 2008

Academy 2: July 28–August 1, 2008

Academy 3: August 4–August 8, 2008

Non-partner school districts who are interested in these sessions should contact the University of Florida Team at FloridaPROMiSE_UF@coe.ufl.edu.

The Transition to Teaching: Supporting New Math and Science Teachers

Why is an Induction Program Necessary for New Teachers?

The transition to teaching is complex and challenging for all new teachers, regardless of their content background. Florida hires about 2,900 new Math and Science (M/S) teachers every year (FLDOE, February 2007). These vacancies are filled from three sources: new graduates from college/university education programs, transfer of experienced teachers from other states, and alternative entrant teachers seeking regular status through programs such as district level alternative certification programs or university coursework.

The majority of new positions are filled by teachers with little or no previous teaching experience seeking or holding temporary certification (alternative entrants).

PROMiSE'S Induction Program

The Florida PROMiSE Induction program will

focus on meeting the needs of all three groups of new teachers, with an emphasis on the needs of alternative entrants. An initial five-day institute that will precede the 2008-2009 school year will be offered to partner school districts/consortia followed by a sequence of six half-day workshops during the academic year. Modules will be written in three-hour components so that districts can modify the schedule if needed.

Topics addressed in the program will include, but are not limited to:

- Planning instruction based upon knowledge of subject matter, students, the community and curriculum goals
- Orchestrating, promoting, and enhancing mathematical discourse and scientific inquiry
- Assessing and analyzing teaching and learning, both formally and informally

- Creating a learning environment that respects and values the ideas of all students
- Content specific classroom management and time management
- Understanding the expectations of your district and the state of Florida.

As part of the induction program, participating new teachers, particularly change-of-career teachers, will receive mentoring from highly-qualified, experienced teachers who can support them, which is important during the first few months of the school year.

Mentors will receive mentoring training that will help them understand their roles as mentors and be provided a guide for how they might be helpful. The content of the Mentor Professional Development modules will concentrate on the role of the mentors in facilitating and supporting new teachers in the areas described above.

About the Florida PROMiSE Curriculum Planning Tool

The Curriculum Planning Tool

With the introduction of the new mathematics and science (M/S) standards, it is important that teachers and other stakeholders have access to information that will help them understand the nature and content of the standards, as well as their implications for curriculum, instruction and assessment.

These new standards represent a significant shift in terms of the nature of the subject matter (i.e., the focus on fewer topics with more depth), the organizational structure of the content (i.e., some topics have been moved to another grade level), and implied instructional approaches to support their implementation. Since current curriculum materials do not address fully the nature of content of the new standards, teachers will need to access additional information in order to support learning.

Working with the Florida Center for Research (FCR-STEM), PROMiSE will build on and extend web-based resources to serve and reach a large number of teachers and others in the state who have a stake in implementing the new M/S standards. Web-based resources developed by PROMiSE will be continuously updated to reflect current, accurate, and peer-reviewed information.

The goal is to provide resources to enhance understanding about the content of the new standards, support decision-making related to the standards, and provide technical assistance to support the implementation of the standards.

PROMiSE is creating a Curriculum Planning Tool (CPT) to support statewide implementation of the revised standards by all K–12 teachers of mathematics or science.

The Purpose of the CPT will be to:

- Provide teachers and instructional leaders access to high quality information and resources aligned with the new standards
- Support the delivery of teacher professional development
- Support teacher application of new content and knowledge in the classroom

Elements of the Curriculum Planning Tool

- Explanations of (a) the Mathematics/Science concepts in the benchmarks and (b) levels of cognitive complexity and their implications for instruction (as part of the standards database from the Florida Department of Education (FLDOE)

- Resources (print, audio, video) linked to big/supporting ideas and benchmarks. These may include model lessons, teaching activities or teaching sequences; videos demonstrating instruction to the appropriate level of cognitive complexity; simulations, games and other technologies that can be used to teach concepts at different levels of cognitive complexity
- Assessment/sample questions for monitoring student understanding of the content and skills or benchmarks at the appropriate level of complexity (this will be done by FLDOE)
- Notification of events (e.g., professional development, Webinars) that are designed to help teachers and instructional leaders implement the revised standards
- Lesson Planning Tool to facilitate the preparation of quality lessons. Teachers will have access to a template with fields that prompt them to address content at the appropriate level of complexity using inquiry and other pedagogical approaches taught as part of the professional development program
- References to state-adopted textbooks and to supplemental materials that would assist teachers in preparing lesson plans

Important Features of the Curriculum Planning Tool

The Curriculum Planning Tool (CPT) will be designed for mathematics and science teachers statewide. Mathematics content will be added in Year 1 and the Science content will be added in Year 2.

The first phase of the electronic Curriculum Planning Tool to support elementary teachers' implementation of the mathematics standards is due out in January 2009. Additional content will be added as a review of additional BOK content is completed.

The adoption of Florida's Next Generation Mathematics Standards creates new opportunities for mathematics teachers.

Addressing teachers' needs to provide in-depth instruction of the Big Ideas/Supporting Ideas, the Curriculum Planning

Tool will offer a user-friendly internet site of resources aligned with the benchmarks.

What Special Features of the CPT Will Help Teachers?

First teachers will set up their personalized teacher portal. At their portal, they will enter the course or benchmark that they will teach. With another click, a list of resources linked to their grade level course and benchmark will be displayed, making it easy to access the appropriate resources.

These resources will have passed a panel of experts' quality review evaluation. The ease with which teachers locate the available resources that are tied to the benchmarks will save them valuable time.

Additional Features of the CPT

Teachers will be offered on-line opportunities for dialogues within Professional Learning Communities. Timely events, such as professional development opportunities, will also be posted.

Teachers will also be solicited to contribute to the pool of benchmark-linked resources by submitting their own original, standards-based lesson plan/s or unit. If the lesson or unit is used, a prize will be awarded.



About Florida PROMiSE

Partner Organizations and Leadership Council Members

Universities

University of South Florida - Dr. Gladis Kersaint

Florida State University - Dr. Laura Lang

University of Florida - Dr. Thomas M. Dana

School Districts

Duval County - Kathy LeRoy

Hillsborough County - Lynn Fell

Miami-Dade County - Melanie Megias

Seminole County - Dr. Anna-Marie Cote

Educational Consortia

Heartland (HEC) - Dr. Frank Gibbs

North East Florida (NEFEC) - Nancy Thompson

Panhandle Area (PAEC) - Tony Anderson

Others

US Department of Education

FLDOE: Office of Math & Science - Todd Clark

Horizon Research, Inc. - Dr. Iris Weiss

Florida Virtual School - Julie E. Young

Program Components and Coordination

University of South Florida

- Overall Program Implementation
- Public Awareness Campaign
- Professional Development for new teachers, including change-of-career teachers

Contact: flpromise-USF@coedu.usf.edu

Florida State University

- School Leader Professional Development
- Development of the Curriculum Planning Tool

Contact: Florida_PROMiSE_FSU@lsi.fsu.edu

University of Florida

- Mathematics and Science Teacher Professional Development

Contact: FloridaPROMiSE_UF@coe.ufl.edu

Program Evaluation

Internal Evaluation—Coalition for Science Literacy at USF

External Evaluation—Westat

Contact Florida PROMiSE



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The mission of Florida PROMiSE is to capitalize on Florida's Mathematics and Science New Generation Sunshine State Standards by combining technology-based and face-to-face professional development for teachers and by increasing school capacity to create change.

PROMiSE will enhance teacher effectiveness in leading students to: become analytical and creative thinkers; reason logically by seeking and using reliable evidence; and improve their overall proficiency in mathematics and science.

Florida PROMiSE

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For additional information visit:

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