PROMiSE

Partnership to Rejuvenate and Optimize Mathematics and Science Education in Florida

A Newsletter for Parents and Students

Volume 1, Issue 1 August 2008

Florida's New PROMiSE to Students

Your child or your child's teacher may have mentioned that some changes are being made in mathematics and science education. This newsletter prepares you for what your son or daughter may experience over the next few years.

What is Florida PROMiSE?

Florida recently updated its Math and Science standards for all students. These Florida Next Generation Sunshine State Standards (NGSSS) are one of the nation's best. Florida PROMiSE helps teachers understand the new standards and how to take the necessary actions for their students to learn to think critically, solve problems and increase their math and science success. Florida PROMiSE strives to improve the math and science achievement of all students.

Florida PROMiSE is a project designed and delivered by the following partners:

- Universities (USF, FSU, UF)
- School Districts (Duval, Hillsborough, Miami -Dade & Seminole)
- Educational Consortia (Heartland Educational Consortium, Northeast Florida Educational Consortium, & Panhandle Area Educational Consortium)
- Florida Virtual School
- Horizon Research, Inc.

Who Funds Florida PROMiSE?

In February 2008, The Florida Department of Education approved a proposal by the partnership. It will initially serve the partner districts and later all Florida schools. The Florida Department of Education has set aside $24,000,000 over three years for PROMiSE. These funds come from the U.S. Department of Education as part of the "No Child Left Behind" program.

Why is PROMiSE Necessary?

Florida's new standards are a great beginning but are only a first step. They provide a plan for what students should know and be able to do. PROMiSE will create the necessary programs that will change these plans into actions that will help students meet these goals.

New Standards + An Agenda for Action = Big Benefits to Students

Why are Science and Math So Important?

Business people, educators, and scientists agree that the future economy will be based in technology. They know that our children must become leaders in Science, Technology, Engineering and Math (STEM). Only then will America and Florida be able to compete globally.

Yet when comparing international student success in math and science, it shows that the U.S. is not doing well. American 15-year-olds test 21st among 30 countries on science literacy, and 25th on math literacy. Almost 30 percent of students in their first year of college must take remedial science and math classes. Few U.S. students major in and complete a degree in science, math or engineering.

Fourth graders seem to do pretty well. By high school, however, their performance has fallen off, and they are losing interest in science. Few graduates have a deep understanding of math and science, and as a result, are not ready for many well–paying jobs.

Florida's graduates are below national averages. Florida also graduates very few majors in the STEM fields. If we are to succeed in the future, we must increase student interest, learning, and achievement in STEM.

What Does PROMiSE Do?

Florida PROMiSE:

- Trains teachers on how to teach Florida's new math and science standards.
- Provides special support for middle and high school teachers who are new to teaching math and/or science.
- Trains principals to provide leadership so they can team with teachers in their schools to improve math and science instruction.
- Conducts a public awareness campaign to share the importance of math and science education.

What is New About the New Mathematics and Science Standards?

About the NGSSS

Florida educators and professionals were chosen by the FLDOE to write the Next Generation Sunshine State Standards (NGSSS). They used research from around the world to create these new standards.

The NGSSS emphasize:

- important concepts
- the nature of science
- scientific inquiry
- analytical thinking
- problem-solving

The NGSSS also reflect what business people and educators think will make students ready for college and high-paying jobs. The standards expect graduates to be good decision makers and will better prepare students for the future. Graduates will also be able to compete with other students from around the world if they have gained these abilities.

Math and Science Grades K—8

For grades K—8, the number of standards in each grade is greatly reduced, with each grade focusing on a few "Big Ideas." This means there will be much more in-depth teaching for each topic and more emphasis on problem-solving skills. The goal is to deepen students' understanding and to provide a stronger foundation for learning difficult and abstract concepts in upper grades and in high school.

The new standards also include Access Points for students with disabilities, allowing them access to the general education curriculum.

Math and Science Grades 9-12

For grades 9—12, the mathematics and science standards are organized differently. Instead of by grade level (as they were with the old standards), math and science topics are now organized into "Bodies of Knowledge" (major concept areas). These major concepts include the following:

High School Math Concept Areas:

- Algebra
- Geometry
- Probability
- Statistics
- Trigonometry
- Discrete Math
- Calculus
- Financial Literacy

High School Science Concept Areas:

- Nature of Science
- Life Science
- Earth and Space Science
- Physical Science

The Florida Next Generation standards and the standards set by national organizations such as the Advanced Placement Program (AP), the International Baccalaureate Program (IB), and Dual Enrollment standards will guide the development of advanced elective high school courses.

About Florida PROMiSE - For additional information, visit http://flpromise.org

Program Components and Coordination

University of South Florida
- Overall Program Implementation
- Public Awareness Campaign
- Professional Development for new teachers, including change-of-career teachers
- Tier 2 Mathematics and Science Teacher Professional Development

Contact: flpromise-USF@coedu.usf.edu

Florida State University
- School Leader Professional Development
- Development of CPALMS: Curriculum Planning & Learning Management System
- Tier 2 Mathematics and Science Teacher Professional Development

Contact: Florida_PROMiSE_FSU@lsi.fsu.edu

University of Florida
- Tier 1 Mathematics and Science Teacher Professional Development
- Tier 2 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

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Math and Science Matters

The mission of Florida PROMiSE is to capitalize on Florida's Mathematics and Science Next Generation Sunshine State Standards (NGSSS) 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.

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