

**PRISM STRATEGIC
PROGRAM PLAN
July 18, 2011**

Basic PRISM Belief

PRISM partners believe science, technology, engineering, and mathematics (STEM) education success will be driven best by public-private partnerships between business and industry and our school systems. To this end, PRISM links the business community to schools through teacher and student recognition and reward programs, incentive grants to increase student participation in math and science competitions, idea exchanges, an industry outreach curriculum and instruction program, and a repository of STEM education engaging best practices to help students learn STEM concepts leading to exciting and rewarding higher education and career opportunities.

This document is a detailed summary of PRISM's program plan and identifies in more detail PRISM programs, key activities, time lines, and resource requirements.

PRISM Vision

To make Central Florida and the State of Florida a global leader in science, technology, engineering, and mathematics education leading to more STEM-related businesses, economic development, and employment.

PRISM Mission

To enhance Kindergarten through 12th grade STEM education and increase the supply of post secondary STEM graduates critical to retain related businesses and industries.

PRISM Partners

PRISM'S growing list of partners include: Central Florida School Boards' Coalition (CFSBC), Florida High Tech Corridor Council (FHTCC), Daytona College, DeVry University, Electronic Arts, Florida Department of Education, Florida Virtual School, Lockheed Martin, National Louis University, National Retail Properties, Orlando Regional Chamber of Commerce, Orlando Science Center, Planar Energy Services, Progress Energy, Regions Bank, Seminole Community College, Sumter Community College, University of Central Florida, Walt Disney World, Workforce Central Florida, and Valencia Community College,.

PRISM Project Metrics

PRISM objectives focus on specific learner outcomes developed jointly with the participating school districts of CFSBC – aiming to increase enrollments in higher level mathematics and science courses as well as state and national examination results – and sharing accountability for success (See metrics in Appendix A).

PROGRAMS, KEY ACTIVITIES, AND TIMELINES

Current Programs

Recognition of PRISM Outstanding Math and Science Teachers (Supports PRISM Goal 8)

PRISM will recognize one elementary math and one secondary math teacher and one elementary and one secondary science teacher – four per district – or 40 teachers on September 23, 2010. Key activities include:

1. Districts identify winning teachers – by July 30, annually – districts assume costs.
2. Speaker to be selected by August 15, annually.
3. Event venue for the event to be secured by June 1, annually.
4. Grants of \$500 will be provided to each teacher along with certificates and various teaching resources (teaching materials to be provided by one to two education companies without cost to PRISM) by September 22, annually.

PRISM Student Scholar Program (Supports PRISM Goal 7)

PRISM will recognize 7th, 8th, and 9th grade students who have met PRISM Scholar criteria – two most improved and two most outstanding in math and two most improved and most outstanding in science. Key activities include:

1. Districts identify a total of eighty 7th grade student completers; an anticipated sixty 8th grade completers and forty 9th and 10th continuing scholars (all students that continue meeting the PRISM criteria) by August 15, annually.
2. Schedule all school board meeting presentations – meeting dates and PRISM board member presenters by September 15, annually.
3. PRISM will recognize eight students per district (10 districts) and will continue to provide \$500 US Savings Bonds for this year's 7th grade continuing scholars and reduce the award to a \$250 Bond for all students who continue to meet the PRISM Criteria through 12th grade completion by December 1, annually -- \$20,000 for 7th grade completers, \$7,500 for 8th grade completers, and \$5,000. Secure total funding by September 30, annually.

PRISM Middle/High School Competition Grants (Supports PRISM Goal 6)

PRISM will provide matching grants to school districts to support increased middle and high school student participation in science, mathematics, and engineering competitions. Key activities include:

1. Each district will determine its greatest need for support – either middle schools or high schools and creates a letter describing their need for funding to be submitted by September 15, annually.
2. PRISM will provide matching grants of \$5,000 to the two largest member school districts and \$2,500 to all others – to be matched by the receiving school districts, schools, or both by December 31, annually.

Best Practices Business and School Idea Exchanges (/Supports PRISM Goals 1, 2, 3, 4, 5, 9, 11)

PRISM will facilitate periodic meetings of school district instructional leaders to exchange district and school level STEM program ideas.

1. PRISM will lead six meetings a year for district instructional leaders to review the PRISM vision, mission, and metrics, exchange best practices ideas, progress and challenges, and assist in developing and enhancing programs by June 1 annually
2. PRISM will work with the district instructional leaders to assess periodically the PRISM programs and annually provide information and data for evaluating program success by August 1, annually.

PRISM Industry Outreach/Teacher Internship Program (Supports PRISM Goal 9)

PRISM will support classroom teachers in all districts through inspiring classroom teaching materials and experiences that challenge and engage students. This will be done through industry developed lessons for teachers and visiting industry professionals serving as expert teacher partners. These STEM industry role models will use their knowledge and expertise to encourage students to pursue STEM-related careers and help teachers in their professional development as STEM instructors. Key activities include:

1. PRISM and districts will identify the three 3rd, 5th, and 8th grade FCAT state science standards students scored lowest on in PRISM's ten school districts and three key bio-medical standards for the new Science FCAT for 10th grade students to guide the selection and development of industry STEM programs to address the standards by December 1, 2012.

2. PRISM will employ a STEM Industry Program Project director to develop, implement, oversee, and evaluate the PRISM Industry Outreach Project and up to five teacher interns from different districts to work with the selected companies by March 1, 2012.
3. PRISM will seek five “best of breed” STEM industry companies and up to five pilot school districts and work with participating companies and districts to select at least two of their current STEM classroom presentations and experiments appropriate for each grade level that address the identified high need standards by April 1, 2011 – costs in operations and budget (2.) above.
4. PRISM will assist companies in updating the content and teaching strategies for existing presentations and experiments and/or developing new ones. This will include determining course or key principles and/or topics related to the targeted standards and grade levels as well as the most effective presentation methods. The business and school partners will insure the work is authentic and delivered at the appropriate place and time in the current school curriculum.

Products will be “shrink wrapped” with teacher and industry presenters training defined and provided. .

An evaluation process will be developed for assessing periodically the impact of the instruction. All to be ready to be implemented for the following grade levels and by the times designated below:

Grades 3, 4 and 9 and 10 -- September 1, 2012
Grades 5, 6 and 7 and 8 -- September 1, 2013

5. PRISM will develop a “roll out” plan for use in all districts and start expand the program for the following grade levels and the times designated below:

Grades 3, 4 and 9 and 10 -- January 1, 2013
Grades 5, 6 and 7 and 8 -- January 1, 2014

PRISM Repository Program (Supports PRISM Goal 10)

PRISM will develop a repository of effective STEM industry practices, including Best of Breed teacher/industry teaching partnership activities, ongoing progress reports on the PRISM Industry Outreach Program, and teacher lesson plans that emerge from it. Key activities include:

1. PRISM will develop or utilize a current repository for PRISM products and services or find or identify a suitable platform working with the state, a school district, or the Florida Virtual School. PRISM partners will develop

specifications that will include describing the vision, needs, goals, and activities of the programs by January 1, 2012.

2. PRISM will gather information on the ongoing Industry Outreach Program and all other PRISM projects and periodically report on their progress and outcomes through the Repository. It also will share lesson plans and activities emerging from the Industry Outreach Program by June 1, 2012.
3. PRISM will work with the participating STEM companies to identify key knowledge (high school courses needed for college), attitudes, and skills needed for selected STEM job categories. It will make this information available to superintendents, principals, teachers, counselors, parents, and other interested parties through the repository by June 1, 2012.
4. PRISM will work with the school districts and the Orlando Science Center to organize the repository by key-word tags – including state, national, or international standards being addressed, subject content, type of experiments, necessary materials and equipment, and appropriate grade level range. This will be completed by June 1, 2012.
5. PRISM will work with STEM related industries and five companies to develop information about these industries, their impact on Central Florida, the State, Nation, and the World, and job and earnings opportunities and make available on the repository by June 1, 2012.
6. PRISM will do an ongoing assessment of the use and impact of the Repository and adjust its content as guided by the results to be completed by June 1, 2012.

PRISM Student Internship Program (Supports PRISM Goal 1, 2, 3, 4, and 5)

PRISM will develop and implement a student summer internship model for future duplication and implementation throughout the PRISM region.

1. PRISM will identify and select up to five STEM industry companies and five 11th grade students from five participating school districts to work under the STEM Student Internship Program (\$1,500 per student) by April 15, 2012.
2. PRISM will work with the companies in developing an intern job description, learning objectives, and activities by February 15, 2012.
3. Students will keep a log and write a report on their experiences and the main things they learned from them, and share their stories at their schools and through the PRISM Repository by September 15, 2013

4. The student internship model and students' work products will be assessed during and after the experience and the model will be refined and shared with all PRISM districts and interested STEM industry companies by September 30, 2013.

Program Leadership and Operations (Supports PRISM Goals 1-11)

1. PRISM will employ an Executive Director to lead the PRISM Project, including overseeing the teacher recognition, student scholar, matching grant, and the instructional leaders idea exchange programs by November 1, 2011.
2. PRISM will secure paid office support services dedicated fully to its initiatives by November 1, 2012.

**PRISM Program Plan Budget Summary
Fiscal Year 2010-2011**

Program Leadership and Operations (PRISM Goals 1-11)	\$90,000
Recognition of PRISM Outstanding Math and Science Teachers (PRISM Goal 8)	\$45,000
PRISM Student Scholar Program (PRISM Goal 7)	\$32,500
PRISM Middle/High School Competition Grants (PRISM Goal 6)	\$30,000
Best Practices Business and School Idea Exchanges (PRISM Goals 1, 2, 3, 4, 5, 9, 11)	(Funding needs in operations budget)
PRISM Industry Outreach/Teacher Internship Program (PRISM Goal 9)	\$150,000
PRISM Repository Program (PRISM Goal 10)	(Funding needs in operations budget)
PRISM Student Internship Program (PRISM Goal 1, 2, 3, 4, and 5)	\$7,500
Total Budget Need	\$355,000

Appendix A

PRISM Goals 2011-2012

GOAL (1) PRISM school districts will either achieve a district-designated, enrollment threshold percentage or increase by 5% annually (for each category offered...through 2020) student enrollment in International Baccalaureate programs (any level); Advanced Placement math and science courses; Advanced International Certificate of Education (AICE) math and science courses; dual-enrollment math and science courses; and other advanced math and science courses (pre-designated).

Goal #1 Metrics

Data required from each school district by August 31 annually

- a) Total number of students enrolled in school district in fall semester (as of Oct. annually)
- b) Total number students enrolled in fall semester (as of Oct. annually) in following categories:
 - IB program (any level)
 - AP math and science courses
 - Advanced International Certificate of Education (AICE) math and science courses
 - Dual-enrollment math and science courses
 - Other (pre-designated) advanced math and science courses
- c) Total number of students listed in step 'b' successfully completing courses (as of June annually)
- d) Total number of students enrolled in school district in fall semester (as of Oct. annually)
- e) Total number of students enrolled in fall semester (as of Oct. annually) in following categories:
 - IB program (any level)
 - AP math and science courses
 - Advanced International Certificate of Education (AICE) math and science courses
 - Dual-enrollment math and science courses
 - Other (pre-designated) advanced math and science courses
- f) Total number of students listed in step 'e' successfully completing courses (as of June annually)

g) Threshold enrollment percentage (based on demographic, economic and other relevant factors)

Notes:

- 1) Course “success” is defined as passing course with grade of C or better (exam results not considered in this metric)
- 2) Assess each category separately vs. combining programs and courses
- 3) Each school district will need to annually determine their threshold enrollment percentage (based on demographic, economic and other relevant factors)

GOAL (2) PRISM school districts will increase by 3% annually (through 2020) the percentage of students scoring at the college level on the International Baccalaureate exam, Advanced Placement exams in math or science, end of course exams for dual-enrollment math and science courses, and Advanced International Certificate of Education (AICE) exams in math or science.

Goal #2 Metrics

Data required from each school district annually by August 31

- a) Total number of students enrolled in fall semester (as of Oct annually) in targeted courses or programs.
- b) Total number of students enrolled in fall semester (as of Oct. annually) in targeted courses or programs who take qualifying exam.
- c) Total number of students scoring at college level on exams administered between Oct. and the following Sept. annually.
 - International Baccalaureate Exam
 - Advanced Placement Exam (level 3 or better)
 - End of course exams for dual-enrollment math and science courses
 - Advanced International Certificate Exam
- d) Total number of students enrolled in fall semester (as of Oct. annually) in targeted courses or programs.
- e) Total number of students enrolled in fall semester (as of Oct. annually) in targeted courses or programs who take qualifying exam.
- f) Total number of students scoring at college level on exams administered between Oct. and the following Sept. annually.
 - International Baccalaureate Exam
 - Advanced Placement Exam (level 3 or better)

- End of course exams for dual-enrollment math and science courses
- Advanced International Certificate Exam

GOAL (3) PRISM school districts will increase by 5% annually (or until achieving 90% of all students) the number of students successfully completing Algebra I by the end of the eighth grade by 2020.

Goal #3 Metrics

Data required from each school district by August 31 annually

- a) Total number of students graduating from 8th grade in spring 2009 and annually thereafter.
- b) Total number of graduates in step 'a' having successfully completed Algebra I (as of June 2009 and annually thereafter)

Notes:

- 1) Course "success" is defined as passing course with grade of C or better.
- 2) Algebra I, or may include any state-approved course equivalent or higher

GOAL (4) PRISM school districts will either achieve a district-designated, threshold percentage or increase by 3% annually the number of students scoring at proficiency level 3 and above on FCAT math and science exams through 2020.

Goal #4 Metrics

Data required from each school district annually by August 31

- a) Total number of students enrolled in fall semester as of Oct. 2007-annually thereafter
- b) Total number of students taking FCAT math exam as of June 2008 – annually thereafter
- c) Total number of students scoring at level 3 or above on math exam as of June 2008 – annually thereafter)
- d) Total number of students taking FCAT science exam (as of June 2008 – annually thereafter

e) Total number of students scoring at level 3 or above on science exam as of June 2008 – annually thereafter)

Notes:

- 1) Record similar data for grade levels 5, 8 and 10 for FCAT math exams.
- 2) Record similar data for grade levels 5, 8 and 11 for FCAT science exams.
- 3) As FCAT transitions to different testing types, this metric will be adjusted to accommodate.

GOAL (5) PRISM school districts' composite scores for FCAT math and science and completion percentages for advanced placement in math and science courses will rank equivalent to (or higher than) the top 10% of all school districts in the state by 2015. When/where comparable data is available, PRISM school districts' composite scores and completion percentages for math and science will also rank among the top 10% of other national scores by 2015.

Goal #5 Metrics

Data required from each school district annually by October 30

- a) FCAT math composite score for each school in given district as of June 2009 – annually thereafter
- b) FCAT science composite score for each school in given district as of June 2009 – annually thereafter
- c) Math advanced placement completion percentage for each school in given district as of June 2009 – annually thereafter
- d) Science advanced placement completion percentage score for each school in given district as of June 2009 – annually thereafter

Notes:

- 1) Record similar data for grade levels 5, 8 and 10 for FCAT math exams.
- 2) Record similar data for grade levels 5, 8 and 11 for FCAT science exams.
- 3) Standardized test scores for national comparisons might come from available ACT (Science) and SAT (Math) scores.

GOAL (6) PRISM school districts will increase the participation of middle school and high school students in math and science state and national competitions by 5% annually. PRISM school districts will also increase the number of teams placing (specific recognition) and placing first in state, national and international math and science competitions by at least one annually through 2020.

Goal #6 Metrics

Data required from each school district annually due by October 30

- a) Total number of students enrolled (all district schools) in fall semester as of Oct. 2008 – annually thereafter
- b) Number of middle school students (all district schools) participating in math or science competitions during 08-09 AY – annually thereafter
- c) Number of high school students (all district schools) participating in math or science competitions during 08-09 AY – annually thereafter
- d) Number of teams (all district schools) placing in state competitions during 08-09 AY – annually thereafter
- e) Number of teams (all district schools) placing in national competitions during 08-09 AY – annually thereafter
- f) Number of teams (all district schools) placing in international competitions during 08-09 AY – annually thereafter
- g) Number of teams (all district schools) placing 1st in state competitions during 08-09 AY – annually thereafter
- h) Number of teams (all district schools) placing 1st in national competitions during 08-09 AY – annually thereafter
- i) Number of teams (all district schools) placing 1st in international competitions during 08-09 AY – annually thereafter

Notes:

- 1) Must define (specify) qualifying competitions (TBD).
 - 2) Team will be defined as any participation of one or more students.
-

GOAL (7) PRISM (through its PRISM Scholar Program) will annually recognize the most outstanding student, and most improved student, for math and for science starting in the 2009-2010 academic year through 2020.

Goal #7 Metrics

Data required from each school district annually by August 31

- a. Names of most outstanding students and most improved students in math and in science for each school district

Notes:

1. Individual school districts will determine student award winners.
2. Individual school districts will determine qualifying criteria for each award.
3. PRISM finances will drive award numbers, award values and award scheme. Preferred scheme would be a “large” initial award with smaller follow-on award for repeat winners.
4. Award values TBD by PRISM budget.

GOAL (8) PRISM will annually recognize 40 outstanding math and science teachers who will be asked to share best practices with other teachers throughout their school districts by (a) conducting local seminars (when possible) and (b) submitting white papers (summarizing their best practices) to PRISM’s central resource repository.

Goal #8 Metrics

Data required from each school district by August 31

- a) Names of most outstanding math and science teachers for each district.
- b) Track and report completion of local seminars (discussing best practices) during 09-10 AY and annually thereafter. Also submit number of attendees and qualitatively assess impact of presentation.
- c) Track and report submission of white papers (summarizing best practices) to PRISM central resource repository during 09-10 AY and annually thereafter.

Notes:

- 1) Individual school districts will determine their outstanding math and science teachers.
 - 2) PRISM finances will drive award numbers, award values and award scheme.
-

GOAL (9) PRISM will work with business and industry to provide meaningful internships related to math and science careers for a minimum of 25 teachers and 25 students by 2010 and annually thereafter.

Goal #9 Metrics

Data required from each school district by August 31

Notes:

- a. Track and report completion of meaningful internships (lasting at least two months and related to math and science careers) for teachers and for students during 09-10 AY and annually thereafter.

GOAL (10) PRISM will create, in cooperation with industry, higher education, and PRISM school districts, a central resource repository to house a collection of best practice white papers, innovative course material and other relevant STEM information for use by any teacher in the PRISM school districts. The repository will be accessible via the web; on-line by the end of the 2010-2011 AY, and updated annually through 2020.

Goal #10 Metrics

Data required from PRISM staff by August 30 annually

- a) Track and report listing of PRISM CENTRAL repository resources on an annual basis
 - b) Qualitatively assess number and major themes of best practice papers
 - c) Highlight innovative processes that resulted in submission of high quality papers (or large quantity of high quality papers)
-

GOAL (11) PRISM will conduct membership meetings/symposiums on STEM education needs and opportunities on a quarterly or other scheduling cycle as a precursor to refining strategic goals and updating annual action plans.

Goal #11 Metrics

Data required from PRISM staff on outcomes by June 1 annually

Notes:

- a) Meeting content and results to be prepared, ideas for improving the strategic plan will be prepared and presented to the PRISM Board of Directors for consideration at the Annual Meeting of the Board.