



MSP UPDATE

Math Science Partnership of
Southwestern Pennsylvania

May 2008

NSF Support Continues for 6th Year of Math Science Partnership

The SW PA MSP is excited to announce the continued funding support for a sixth year. The Math Science Partnership grant funding was originally expected to last for five years (Fall 2003-Summer 2008). However, the National Science Foundation "No-Cost Extension" enables continued support for a sixth year, utilizing resources already granted. ALL of the districts/teachers that have previously been participating are invited and encouraged to continue to experience the professional development opportunities that help teachers to enable students to learn mathematics and science. Additional educators can be recruited to replace teacher leaders who have retired, left the district or taken other positions. The Early Learners, Elementary Math, Secondary Math, K-8 Science and Secondary Science Academies are all starting new cohorts of academies this summer. The focus of years 1-5 of the MSP was to build the capacity of district teachers to become leaders within their buildings to strengthen the teaching and learning of mathematics and science. This additional year of support can further the efforts of Teacher Leaders in their professional learning communities. District Leadership Action Teams can plan at the May Leadership Action Academies how to make the best use of this additional support during the upcoming year.

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MSC Coordinator Corinne Murawski, Teacher Leader Cathy Cecil and Riverview Superintendant Chuck Erdeljac attend the Teacher Leader Reception at the Carnegie Science Center on May 1.

Riverview Wins District Award for Excellence

For the third consecutive year, an MSP partner district has won the Carnegie Science Center "District Award". Look for an expanded article about Riverview in the *Math & Science Collaborative Journal*, which will appear in schools in early September. Past recipients of this award include Hopewell Area School District (2006) and Jeannette City School District (2007). Congratulations Riverview!

Be on the lookout for the *MSC Journal*. Arriving in your district by the end of August.



Data Alert!

Educator Spreadsheets

In April, the MSP-participating districts were e-mailed a request to update their "Educator Spreadsheets." The Educator Spreadsheet is simply a list of all of the teachers in your district who teach Mathematics and Science, the school they teach in, the grades they teach, their subjects, and other demographic information. ALL math and science teachers should be on this list, regardless of whether they participate in Teacher Leadership Academies or other MSP activities, and ALL MSP districts should complete this list, regardless of whether they are actively participating at the present time. The Math & Science Collaborative is required to collect this information for the National Science Foundation on an annual basis, as it informs measures of quantity, quality & diversity of our schools' teaching staff. The MSP will protect the confidentiality of our districts' teachers and carefully protect data gathered in the Educator Spreadsheet.

Please return the Educator Spreadsheet by May 16, 2008. If there are any questions, contact Valarie Becker at valarie.becker@aiu3.net.

Course Completion Data

Course completion data is known locally as the "District Profile for Math and Science Indicators for MSP Districts." In this report, each district provides data for graduating seniors that have successfully completed (passed) courses in Algebra I, Geometry, Algebra II, Biology, Chemistry, and Physics. The district provides enrollment as well as course completion data for these challenging courses. The Math & Science Collaborative is tracking long-term progress on all students having access to challenging coursework.

Your district will receive notice from the Allegheny Intermediate Unit during the month of May to submit your course completion data after the end of the school year. If you have any questions, please contact Leslie Kirby at leslie.kirby@aiu3.net.

On-Site Academy Hours

If your school/district has hosted on-site MSP training by your teacher leaders, please fax your sign-in sheets as soon as possible. The MSP must document and report the amount of in-district professional development done by the MSP partner districts. Sending in your sign-in sheets is also requisite to your teachers receiving their Act 48 credits. Send the fax to the attention to Barbara Ash at 412-394-4599.

Lesson Study Portfolios

If you have taken part in Lesson Study this year and have not completed your Lesson Study Portfolio, please do so and send an electronic copy to your MSC Coordinator. Your reflections are extremely helpful to the Coordinators in preparing Lesson Study Academies for new cohorts of Teacher Leaders.



MSP Teacher Leader Mark Nemchick giving instructions to his students at McKeesport Area High School



Teacher Leadership Academies

The Teacher Leadership Academies provide professional development for teacher leaders to support the building of professional learning communities within local school districts. The academies are staffed by the Math & Science Collaborative Coordinators and faculty from partner institutions of higher education. These academies start with a summer session, followed by follow-ups during the school year. **Please consider sending teachers not currently involved to the newly available year 1 academies.** All academies available for 2008-2009 include:

- Early Learners K-2 Math and Science, year 1- June 23-26 at Chatham.
- K-8 Science, year 1- July 8-11 at Chatham.
- Secondary Science, year 1- July 14-17 at Chatham.
- Elementary Mathematics, year 1- June 16-19 at Chatham
- Elementary Mathematics, year 2- June 24-27 at Carlow
- Secondary Mathematics, year 1- June 23-26 at AIU
- Secondary Mathematics, year 2- July 8-11 at Carlow
- Year 3 Lesson Study Academies, Math & Science- June 18-20 at AIU, June 18-20 at Robert Morris, June 25-27 at AIU, July 8-10 at Saint Vincent, July 22-24 at Saint Vincent, and July 29-31 at Chatham
- Quarterly Academies for years 4&5- Learning Lab June 16-18, and June 23-25

Lenses on Learning

Lenses on Learning is a research-based program that helps administrators develop the skills necessary to support effective mathematics teaching and learning through observation and supervision. *Lenses on Learning* is pending approval for the PDE's Principals' Induction and Continuing Professional Development requirements. At the Allegheny Intermediate Unit, the first two full days will be August 6 and 7, 2008. Dates in intermediate units 1, 7 and 27 are currently being scheduled. To register, email Samuel.shaneyfelt@aiu3.net or call 412-394-5759.

MSC Learning Laboratory

Teacher Leaders who have completed years 1, 2, and 3 in their academies will participate in the Learning Laboratory this summer. The Learning Laboratory incorporates the fishbowl approach for witnessing and analyzing student science/math thinking. This experience is designed to give participating educators an opportunity to observe and hear the math and science learning of students. In the academy experience, teachers learn from students, participating colleagues and the curriculum. After silently observing the students learning in the math/science lesson, teachers will engage in many activities, including engaging in accountable and constructive discussion between each other, sharing their interpretations of student content understandings, and adjusting pedagogical approaches to effectively address the student learning. Administrators who have completed Lenses on Learning are also encouraged to attend the Learning Laboratory. For more information, contact Sam Shaneyfelt at samuel.shaneyfelt@aiu3.net.

Leadership Action Academies, Days 1, 2 & 3

This autumn, similar to last, the Leadership Action Academy (LAA) Day 1 will be held in October, after the first Teacher Leadership Academy school year sessions. This will give Teacher Leaders an opportunity to provide the richest insights to their district's Leadership Action Teams. The schedule for the Fall 2008 LAAs will be posted on the MSC web site (www.aiu3.net/msc) as soon as it is confirmed with all of the partner IUs. The LAA Days 2 & 3 are MSC's *Network Connections*. The fall conference will be held on November 20, and the winter will be on February 12. **Both LAAs 2 and 3 (Network Connections) will be held at the Marriott—City Center.**



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MSP Calendar

May 6-27	Leadership Action Academies
June 16-18	Learning Laboratory Experience
June 16-19	Elementary Mathematics TLA year 1 @ Chatham
June 18-20	Lesson Study (Year 3) TLA @ AIU
June 18-20	Lesson Study (Year 3) TLA @ Robert Morris
June 23-25	Learning Laboratory Experience
June 23-26	Secondary Mathematics TLA year 1 @ AIU
June 23-26	Early Learners TLA year 1 @ Chatham
June 24-27	Elementary Mathematics TLA year 2 @ Carlow
June 25-27	Lesson Study (Year 3) TLA @ AIU
June 30-July 2	Data Analysis Content Short Course @ IU 1
July 8-10	Lesson Study (Year 3) TLA @ Saint Vincent
July 8-11	K-8 Science TLA year 1 @ Chatham
July 8-11	Secondary Mathematics TLA year 2 @ Carlow
July 9-11	Geometry Content Short Course @ AIU
July 13-18	Governor's Institute for Data Driven Practices for School Improvement
July 14-18	Secondary Science TLA year 1 @ Chatham
July 22-24	Lesson Study (Year 3) TLA @ Saint Vincent
July 28-Aug.1	STEM Governor's Institute
July 29-31	Lesson Study (Year 3) TLA @ Chatham
July 29-31	Functions Content Short Course @ IU 7
August 11-13	Investigations Materials Academy @ Charleroi S.D.
August 14-15	Everyday Mathematics Materials Academy @ IU 27
November 20	Fall Network Connections Conference @ Marriott City Center
February 12	Winter Network Connections Conference @ Marriott City Center

The Math & Science Collaborative (MSC)

The Math & Science Collaborative of Southwestern PA convenes representatives of teachers, administrators, non-profit organizations, institutions of higher education, and other committed stakeholders to strengthen the teaching and learning of mathematics and science. Originally established with foundation support within the Carnegie Museums, the Collaborative moved to the Allegheny Intermediate Unit in August 2002.

The Math & Science Collaborative was formed in 1994 at a regional "congress" of *stakeholders*, people with a stake in the quality of math & science education - teachers, school administrators, students, parents, school board members, corporations, foundations, universities, museums, and others.

Math Science Partnership (MSP)

The Southwest Pennsylvania Math Science Partnership is a collaboration which unites the collective experience and expertise of 53 school districts, 4 intermediate units, 4 colleges and universities, and experts in K-16 education to improve student learning in mathematics and science. The Partnership is based on the belief that the level of student achievement in mathematics and science can be strengthened by administrators and classroom teachers who are themselves willing to become learners and deepen their own conceptual understanding of the big ideas in mathematics and science.

The goal of the Partnership is for *all* students to attain the skills necessary for success in the 21st century, develop an understanding of how the "big ideas" are connected coherently in the disciplines of mathematics and science, make the connections of those "big ideas" to their everyday world, and develop problem-solvers who are prepared to be discerning citizens and productive employees.

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