

Region 11 Math and Science Teacher Academy Proposal

Sponsoring and Training Partners:

Responding to the Minnesota Department of Education request for proposals (RFP) to operate a *Math and Science Teacher Academy*, two established regional education agencies, three higher education institutions, and SciMath MN have created a partnership for Region 11 (the Twin Cities Metro area). The RFP designated the total amount available for Region 11 (up to \$1,614, 600) to be distributed between two teacher centers, and this partnership has submitted one proposal to operate collaboratively two centers at a requested budget of \$1,584,651.

In the design of the centers, the regional education agency sponsors—the Grants and Research Office (GRO) of Intermediate Districts 287 and 916 and the Metro Educational Cooperative Service Unit (ECSU)—would coordinate training and communicate with districts. The higher education partners—the University of Minnesota (U of M), Hamline University, and Normandale Community College—would provide content expertise and training corps members. SciMath MN would disseminate grant products and work with business partners to support the centers. The fiscal agent would be Intermediate District 287.

The proposal was submitted April 2, 2008. The anticipated award period is May 9, 2008 to June 30, 2009.

School District Partners for 6-8 Algebra Related to Number Training:

Among the 48 school districts in the region (42 of which are members of GRO and/or Metro ECSU) a minimum of 20 school districts would receive significant support for training through this proposal. The work plan has been written to include 35 schools or at least 525 teachers. Districts would apply to be a partner based on their commitment to sponsor one or more sites:

- up to four schools for districts with 30,000+ students,
- up to three schools for districts with 20,000 – 30,000 students,
- up to two schools for districts with 10,000 – 19,999 students, and
- one school for districts with fewer than 10,000 students.

Applications would be screened for commitment to:

1. **include all math teachers at the school in module training and Professional Learning Communities (PLCs)***

The 2008-2009 module will be 6-8 Algebra Related to Number. All math teachers would attend five days of training and participate in professional learning communities between training days to deepen their understanding of concepts.* Participants could choose among 12 day and location options for days 1, 2, and 3 of module training and among six options for days 4/5. Module training would consist of 30 hours of pedagogical content and instructional strategies.

The lead module author is Dr. Terry Wyberg, Associate Education Specialist, U of M Curriculum and Instruction Department. Additional authors include: Tamara Moore, Gillian Roehrig, Tom Muchlinski, Brian Lindeman, Jonathon Rogness. This group as well as other math specialists and leaders in the region would further develop the materials and conduct the training.

2. **identify PLC leaders** who would receive training and support to coordinate the PLC work for each group of 5-7 participating teachers
3. **include the school principal in a forum series** (four, two-hour sessions) preparing him or her to lead the process of aligning school goals with teacher center training and PLC work
4. **include the district curriculum director** (or equivalent administrator who acts in that capacity) **and district math specialist** (or teacher or administrator who could act a districtwide capacity to

provide subject-specific leadership) **in a forum series** (four two-hour sessions) so they can understand the instructional strategies and mathematics pedagogy to include in ongoing training they lead

5. **include all participating teachers and PLC leaders, the principal, the district curriculum director and math specialist in a September kick-off event**
6. **provide financial match** that includes: all teacher participant travel; teacher PLC meeting time and space; and principal, curriculum generalist, and math specialist time and travel

If more than 35 sites or 525 teachers and at least 20 districts are represented by applications, criteria for selection would give preference to schools that:

1. have *not* made adequate yearly progress,
2. have clear goals aligned to project, and
3. have an established structure to support Professional Learning Communities.

Districts unable to meet application criteria or not selected based on preference criteria would have the opportunity to include staff in training on a fee basis.

Additional Benefits to Region 11 School Districts:

In addition to the *6-8 Algebra Connected to Number* module and related training, the proposal also includes support for:

- STEM (Science, Technology, Engineering, and Math) Communities of Practice whereby school districts that have already received STEM grants will meet to advise on best practice for integrating the STEM disciplines, reinforcing science and math understanding in the region
- Science Museum of Minnesota training on STEM integration and standards and membership in Science House, a resource center for STEM educators, for math teachers from partner districts
- Development of two additional training modules related to science and math education. All centers around the state will develop modules in coordination with the MDE with the goal of delivering training in future years
- Analysis of Algebra curriculum materials to make recommendations for no or low cost options in assimilating the new state mathematics standards

**Except in the case of junior high schools where the 9th grade teachers would participate in the PLCs but not the 6-8 module training.*