

Action Plan Ideas

Science Education Group

Supporting Beginning Teachers with Resources

- Develop and maintain high quality electronic resources for science/math educators
 - DESE call to science/math faculty (e.g., Hal Harris-UMSL & Ron Beinick – Rolla types) to locate locally developed web-based resources on content/pedagogy with annotation/consumer report
 - Organize a review board to evaluate sites & give “red stamp of approval”—feedback from users
 - Consolidate at one site – e.g., www.teach-math-or-science.org
 - Use these sites in methods class to “advertise” their existence

Supporting Beginning Teachers through Mentoring

- Develop online peer-peer mentoring forums (e.g., discussion board) in preservice program (and with partner preservice programs). Maintain these forums into the induction years.
- Link beginning teachers in face to face beginning teacher sessions at MCTM, STOM, and Interface.

Mentoring (cont.)

- Link veteran teacher leaders (identified via STOM, MCTM, Math Academy, STARR, MU TLA, etc.) to these forums.
- Design information bulletin (perhaps on DESE website) on needs of beginning math/science teachers (differentiated across the first several years of teaching) and best practices in mentoring (including mentor training models) to disseminate to school administrators and school/district PD chairs and RPDCs.

Supporting Beginning Teachers through PD

- Need for differentiated PD for elementary, middle and high school science teachers.
- PD should be delivered through multiple modes combining distance and hands-on experiences.
- PD should be delivered jointly by master teachers and university personnel.
- PD should include pedagogical content knowledge.

PD (cont.)

- Develop relations among DESE, DHE, and RPDCs—work with universities to develop strong PD programs that can be delivered regionally through the RPDCs, universities (for graduate credit), and via technology in order to reach all math and science teachers in the state.

Supporting Beginning Teachers through Professional Organizations

- Teacher preparation institutions develop NSTA and NCTM student chapters.
- Science teacher educators encourage membership to these chapters for middle and secondary science education majors.
- These chapters then require their student members to attend one state science conference (e.g. STOM, Interface, NSTA-regional, MCTM).
- The NSTA student chapter members return and share out about their experiences and develop a plan of action for becoming actively involved in the state science conferences the following year—feedback to preservice program.

Professional Organizations (cont.)

- Develop a seamless connection from preservice through the beginning years of teaching and beyond in relation to membership and participation in professional organizations.
- Encourage school districts to support beginning teachers to participate in professional organizations.

Immediate Action Steps

1. Connections with Professional Organizations.
2. Resource Links.

Longer Term Action Steps

- Mentoring
- PD