

# Rivier College

## Developing a Cadre of Teacher Leaders in Elementary and Middle School Science

The project extends activities initiated as a result of funds received through a Mathematics/ Science Partnership grant awarded in 2007 which proved useful to teachers in grades k-9 with teaching responsibilities in science. Activities will include a Summer Physical Science Institute for teachers (K-8): the development a southern New Hampshire Science Teacher Collaborative-a professional learning community; and content support for teachers of physical science. Establishing a cadre of teacher-leaders is an explicit goal of current project. Specifically, the project will develop a team of teacher-leaders within each district for each grade span at the elementary and middle levels. Teacher-leaders will (a) take a lead role in developing the 2008 Summer Science Institute; (b) provide in-service workshops, aligned with the NH Science Curriculum Frameworks, within their own districts; (c) receive in-depth training in content-focused coaching; and (d) mentor a new or beginning teacher in science. The project will support participants understanding of the Inquiry Learning Cycle and utilize an inquiry approach to mentoring. Each "team" will serve as a district resource.

Goals of year one is to develop the mentoring abilities of participating teacher and to develop an understanding of the inquiry learning cycle. In year two teacher teams will collaborate on the design and implementation of an inquiry-based learning experience for students around a scientific concept identified in the New Hampshire literacy standards. Teachers will gather data on student learning and present findings at local conferences.

Additional professional development activities will support the content knowledge and science process skills of teachers, K-8. Dr. David Burgess, professor of chemistry, will develop online and classroom modules to support teachers' content knowledge in physical science; and Dr. Susan Barbaro will provide opportunities for classroom teachers to participate in authentic scientific research.