

2002-2003 PDS Study Group Inquiry Projects

Proposal – Bartlett High School Science Department

Research Question/Problem and Relationship to Overall School Improvement

Bartlett High School is engaged in a multi-year smaller-learning-communities project. The goal is to group the students in ways that will permit Bartlett faculty and staff to ensure that “no child is left behind” or gets lost in the large-school crowds. One model being considered calls for houses organized around the four core curriculum areas—mathematics, science, English, and social studies. Whatever the organization, faculty in the Bartlett Science Department recognize that their curriculum must be coherent across the smaller learning communities, must be aligned with Alaska content and performance standards, must effectively integrate technology, and must provide faculty (especially those new to Bartlett) with course content guides that support their instructional planning.

Four concurrent benefits of a curriculum that meets these criteria will be:

1. Counselors and academic advisors will be better able to guide students’ choices if prerequisites are clear for the courses;
2. If the curriculum is aligned to standards, individual smaller learning communities can specialize in courses other than the traditional offerings. These would be available to any student and could be in response to student or teacher interest. Students might even be able to develop a consistent theme throughout their science classes, or pursue a strong interest in a particular field of study.
3. Faculty will be able to identify foci for professional development, particularly as they position Bartlett High School to respond to *No Child Left Behind*.
4. Bartlett faculty will be better able to articulate their science curriculum with the middle schools.

The Science Department faculty will thus be able to pilot for their colleagues in other departments the process for achieving a coherent curriculum that thoroughly grounds Bartlett High School students in the scientific ways of knowing while developing their ability to use science’s modes of inquiry to learn about their world and live productive lives.

Plan of Inquiry

Step One: Design of Project

Who: Bartlett High School Science Department Faculty; ASD Science Coordinator (Texas Gail Raymond); any other resource people who can contribute expertise

When: November 1, 2002 to January 17, 2003 (end of ASD first semester)

What: The study group will meet every other week. Members will have “assignments”: research on standards-based science curriculum in their

particular area; review of national and state standards and ASD frameworks; research on assessments, both district and state; cross-referencing specific standards for what students must know and be able to do with Bartlett's current courses, units, lessons, or activities. The work of the study group will be coordinated with other Bartlett design work for the smaller-learning-communities initiative.

When school is in back in session in January, 2003, the study group will finalize the plan for re-designing the science curriculum to meet the four criteria stated in the Problem section above. The plan will specify who will work on the curriculum re-design, a timeline for the work, and the criteria for the final product.

If any study group member wishes to receive UAA credit, Kate O'Dell will be instructor-of-record for a 500-level course, or, if the individual wishes graded, graduate credit, O'Dell will facilitate these arrangements.

Funding for Step One—Design of the Project—will be used for the following:

Item	Amount	Total
Purchase materials (e.g., copies of national, state standards, published standards-based science curricula, professional resources such as publications from NSTA)	\$500.00	\$500.00
Study Group member stipends (total amount will be divided evenly among the members who participate fully)	\$500	\$1,000
Travel (round trip Juneau to Anchorage for Department of Education and Early Development staff member—consult on No Child Left Behind Improving Teacher Quality State Grant opportunities and science curriculum alignment with standards)	\$500	\$1500

Step Two: Curriculum Re-Design Project

Who: BHS Science Department faculty and any others included in the plan from Step One

When: February 1, 2003-May 30, 2003

What: The Bartlett High School Science Department will carry out the plan to re-design their curriculum to meet the four criteria. The curriculum must:

- be coherent across the smaller learning communities,
- be aligned with Alaska content and performance standards,
- effectively integrate technology,
- provide faculty (especially those new to Bartlett) with course content guides that support their instructional planning.

The re-designed curriculum is intended to become part of the Bartlett High School curriculum for the smaller learning communities, which is being developed by other BHS teams. BHS Science Department faculty will become peer mentors for colleagues in other departments that plan to re-design their curriculum.

Funding for Step Two—Re-Design of the Curriculum—will be used for the following:

Item	Amount	Total
Curriculum Re-Design Team member stipends (total amount will be divided evenly among the members who participate fully)	\$500	\$2,000