soliver@uga.edu
Patricia Hembree, 828/227-3651, phembree@wcu.edu
Description: Sapelo Island is one of the few barrier islands in North America that has remained in a protected and mostly natural state. Georgia contains one-third of the remaining salt marsh ecosystems on the East Coast, with Sapelo protecting one of the richest and most studied. The emphasis of the S.A.P.E.L.O. project will be on teacher-scientist collaborations in conducting field research through a National Science Foundation-funded Long-Term Ecological Research (LTER) Project. Participants will study the general ecology of the island and work on a research project in a field setting in collaboration with LTER scientists. With the support of the entire cadre of participants, teachers will develop parallel research projects for their classes using real-world, Georgia-based science and mathematics.

Key Teacher Education Innovations:
- The project involves teacher-scientist collaborations.
- Teachers investigate general ecology of a barrier island and work on research projects in a field setting.

Anticipated Impact:
- Teachers learn about the unique and delicate life of Sapelo Island, with its distinct science history.
- Students of the teacher participants will experience an enriched ecological learning environment.

Deeper Explorations of Mathematics — Richmond County

Principal Investigator:
Chandra Orrill, 706/583-0879, corrill@uga.edu
Description: This project offers a follow-up experience for participants in the current Technology Integration in Mathematics Project. Activities in this year-long workshop will include a combination of summer and after-school workshops with ongoing support to impact teachers' use of open-ended problems, hands-on manipulatives and technology for improving student mathematics learning. Professional development activities include exploration of case studies focused on student thinking, model lessons and consideration of what it means to use standards-based practices.

Key Teacher Education Innovations:
- The project features a year-long learning experience for teachers of mathematics in a single Georgia county.
- Features of the project include exploration of case studies of mathematics teaching and model lessons.

Anticipated Impact:
- The project will better prepare teachers to use open-ended problems, hands-on manipulatives and technology when teaching mathematics.
- The ultimate outcome of the project is improved student learning of mathematics.

Exploring Math — Richmond County

Principal Investigator:
Chandra Orrill, 706/583-0879, corrill@uga.edu
Description: This project offers a combination of summer and after-school workshops with ongoing support to impact teachers' use of open-ended investigations, hands-on manipulatives and technology for improving student mathematics learning. We focus on the use of open-ended investigations, supported with technology, to promote problem-solving and standards-based practices. Professional development activities include exploration of case studies focused on student thinking, model lessons and development of standards-based lessons for use in teachers' classrooms.

Key Teacher Education Innovations:
- The project features a year-long learning experience for teachers of mathematics in a single Georgia county.
- Features of the project include use of open-ended investigations, supported with technology to promote problem-solving and standards-based practices.

Anticipated Impact:
- The project will better prepare teachers to use open-ended investigations when teaching mathematics.
- The ultimate outcome of the project is improved student learning of mathematics.

Creating Meaningful Contexts for Science and Literacy Learning: A PreK-8 Co-Reform Project

Principal Investigators:
Deborah Tippins, 706/542-1763, dtippins@uga.edu
Amy Johnson, 706/542-1212, ajohnson@uga.edu
Description: This project involves a collaboration between the Taliaferro County Public Charter School and science educators, language educators and scientists at the University of Georgia. Using a school-based, embedded model of professional development and the "Lesson Study" design, the project aims to strengthen PreK-8 teachers' classroom practices with respect to inquiry science teaching and the application of reading, writing, speaking and listening skills to science. The project provides opportunities for all PreK-8 teachers at this year-round school to develop appropriate content and pedagogy to support literacy-based science practices through co-teaching, learning community workshops, the "Lesson Study" process and field-trip experiences.

Key Teacher Education Innovations:
- This project involves the collaborative participation of science educators, language educators and scientists to provide professional development for PreK-8 teachers.
- The project is school based and involves all teachers in the system's only elementary school.
- Professional development experiences include workshops, field trips and Japanese-style lesson study.

Anticipated Impact:
- The project will lead to teachers who are more knowledgeable about how to plan, implement and assess inquiry-based science.
- The project will also result in improved teacher understandings about appropriate strategies and content for teaching science in a manner that is aligned with the Georgia Performance Standards in both science and language arts.

The Endangered Plant Stewardship Network (EPSN)

Website: www.uga.edu/~botgarden/GEPSN.html
Principal Investigator:
Anne Shenk, 706/542-6158, ashenk@uga.edu
Description: This project is a professional development program that emphasizes native and rare plants, threatened habitats, and conservation biology as a training ground for science education. More than 200 Georgia teachers have received professional development credit by participating in three-day EPSN workshops since the program's inception in 1997. Staff from the State Botanical Garden (SBG) of Georgia have developed resources for teachers that include lesson plans that address the Georgia Performance Standards while utilizing the Understanding by Design 'backward' design. Participating classes receive an official state permit from the Georgia Department of Natural