

## NO CHILD LEFT BEHIND GRANT ABSTRACTS 2007-2008

Following is a list of sub-grants funded by the Arkansas Department of Higher Education through the federally funded No Child Left Behind grant program. The purpose of the grant funds is to improve the quality of teaching in Arkansas. The grant notifications were distributed in March 2008. For more information and to receive a registration form, contact the project director of the funded project using the email provided below.

**Arkansas State University** **\$41,670**

**Craighead County**

**Project Title: Healthy Heart, Healthy Lungs, Healthy Brain (“Healthy)**

**Contact Information: Dr. Cynthia Miller – [camiller@astate.edu](mailto:camiller@astate.edu)**

Healthy Heart, Healthy Lungs, Healthy Brain (“Healthy”) is a three-hour graduate course to be offered to Grades K – 8 Science teachers during the summer of 2008 with 45 hours of contact in the Summer Institute and 15 hours of follow-up in the 2007-2008 school year which includes two 6 hr. workshops, and classroom visits by mentors to observe participants teaching the course hands-on human body systems modeling lessons. This course will improve participants’ Life Science and Nature of Science content knowledge as related to teachers’ understanding of the circulatory, respiratory, and central nervous systems of the human body including these systems’ functions, organs, disease, malfunction, and integration with other body systems. Teachers will receive stipends of \$250 for the Sat. follow-up trainings, and classroom materials, models, and equipment valued at \$350. Participants will be allowed to bring their students to a Health Professions Fair to be held on the ASU campus.

**Arkansas State University** **\$38,678**

**Craighead County**

**Project Title: Together We Teach: Reading and Writing Across the Content Areas in the DELTA**

**Contact Information: Dr. Natalie Johnson-Leslie – [njohnson@astate.edu](mailto:njohnson@astate.edu)**

The purpose of this professional development activity is to provide high yield teaching and learning strategies in reading and writing across content areas for junior and high school teachers served by the Great Rivers Educational Services Cooperative. Instruction will be provided to current teachers in an effort to improve their content knowledge with effective pedagogical methods in reading and writing across content areas. Content of this professional development was drawn from scientifically-based research findings, indicating that teachers need to continually increase their knowledge of the material being taught. Specifically, fluency, vocabulary, comprehension and writing strategies across content areas will be reinforced. A total of 25-30 middle and high school teachers will participate in this week- long intensive workshop. The results of this week-long training will be teachers improving their content knowledge; being better equipped with reading and writing strategies; and the development of effective reading and writing teacher-made assessments. These skills learned by teachers will translate into students improving their performance on standardized tests. In return, schools served by the Great Rivers

Educational Services Cooperative that are currently on school improvement will see more students performing at the proficient and advanced levels on standardized assessments across content areas.

**Arkansas Tech University** **\$17,999**  
**Pope County**  
**Project Title: Kinetics, Energetics, and Redox Chemistry for Secondary Teachers**  
**Contact Information: Mr. Steve Zimmer – [szimmer@atu.edu](mailto:szimmer@atu.edu)**

This project will offer a total of 4 graduate hours in chemistry, stressing the topics as defined by strands 23-26 of the AR Chemistry Frameworks as the basic level of understanding in this core content area. Material and laboratory activities will be presented in a process-oriented guided-inquiry style to model a better pedagogy in teaching chemistry content. The project will offer a 3-hour graduate chemistry course during the summer of 2008 on Kinetics and Energetics and a 1-hour graduate chemistry course in the fall of 2008 on Oxidation-Reduction Chemistry.

**Arkansas Tech University** **\$24,823**  
**Pope County**  
**Project Title: Early Mathematical Thinking**  
**Contact Information: Ms. Sheryl Cox – [scox@atu.edu](mailto:scox@atu.edu)**

Early Mathematical Thinking is designed to be a mathematics professional development institute to improve teacher quality and student achievement. The professional development institute is aligned with the Arkansas Framework in Mathematics and Arkansas' initiative for closing the achievement gap. Using the concepts from Cognitively Guided Instruction (CGI), the institute will provide professional development in the content areas of number and operation and algebraic thinking for K-2 teachers of mathematics. Teachers will be given specific strategies to implement in the classroom. The information teachers gain and the strategies they will be asked to use in their classrooms are based on strategies students use to solve problems. Teachers will reflect on what students know and how to help children build up their concepts from within. The training provides a framework for assessing young children's thinking in whole number arithmetic and describes how thinking evolves over time. This approach will provide a unifying structure for understanding more detailed analysis of children's thinking. Technical support for implementing the strategies will be provided by the mathematics specialist and district math coaches.

**Harding University** **\$100,620**  
**White County**  
**Project Title: Strengthening Teacher Core Content Knowledge, Improving Pedagogy, Reflecting on Assessment of Student Achievement and Readyng Teachers to Become Highly Qualified in Core Subject Areas through the National Board for Professional Teaching Standards**  
**Contact Information: Dr. Clara Carroll – [ccarroll@harding.edu](mailto:ccarroll@harding.edu)**

The National Board candidate process is a high-stakes endeavor for educators. The goal of the certification process is greater core content knowledge and pedagogy resulting in improved student achievement. In partnership with the Cannon-Clary College of Education, College of Sciences, and Augusta, Brinkley, Newport and Norfolk Public Schools, this project provides highly rigorous, quality graduate studies in core content areas and is a respected voluntary licensure system which provides an opportunity for professional growth unlike any other for educators. The methodology includes: a 3-hour graduate course offered May 27-May 30, OR June 2-5, OR June 9-12, AND September 20, 2008 and twelve follow-up sessions during NBPTS candidacy. The state of Arkansas currently has 842 Nationally Board Certified Teachers and nationally 55,328 NBCTs. A study conducted with participants in the No Child Left Behind Grants of FY05, FY06, Dr. Clara Carroll found that Harding University is providing statistically significant research-based instruction for participants to be effective in providing the knowledge teachers need to become National Board Certified Teachers. These results were presented by Dr. Clara Carroll at the National 2005 and 2007 National Board for Professional Teaching Standards Conferences in Washington, D.C. and at the 2006 and 2007 Mid-South Educational Research Association Conference.

**Henderson State University**

**\$40,000**

**Clark County**

**Project Title: Arkansas History and Culture: K-8 Social Studies Professional Development**

**Contact Information: Dr. Charles Green – [green@hsu.edu](mailto:green@hsu.edu)**

This course will address the K-8<sup>th</sup> Grade Arkansas Social Studies Content Standards and the Student Learning Expectations for the social studies strands (Geography, Civics, History and Economics). Emphasis will be placed on utilizing human, environmental, and cultural resources available across the state to expand teachers' knowledge and instructional skills. Students will relate acquired knowledge to present-day Arkansas culture, diversity and values. The course will stress active, integrated learning which will involve problem-solving and critical thinking. The course will build foundation in content to show multiple connections between the relevant lessons learned in history and their modern day and future implications. There will be a variety of presentations by Arkansas social studies experts during the 45 classroom hours. Additionally, field trips to Historic Washington State Park and three historical sites in Little Rock will add to the diversity of the project. Each participant will prepare project-based learning lessons targeted to specific social studies strands and SLE's during the 15-hour course follow-up. Participants will present their projects to the class and at least 15 teacher-developed projects will be selected for presentation at the P-16 Regional Social Studies Conference at Henderson State University in June 2009.

**Henderson State University**

**\$41,173**

**Clark County**

**Project Title: The South Arkansas Mathematics and Science Teachers' Collaborative**

**Contact Information: Ms. Betty Ramsey – [ramseyb@hsu.edu](mailto:ramseyb@hsu.edu)**

The South Arkansas Mathematics and Science Center at Henderson State University is creating a Mathematics and Science Teachers' Collaborative. The primary goal of the collaborative is to provide mathematics and science teachers in grades 4 through 8 a chance to become part of a learning community. The first session will be held on the Henderson State University campus from June 9-12 and June 16-19, 2008 with follow up sessions held one day in September, November, January, March, and May. Professional development will be provided in the areas of earth, life, physical, and environmental science and the mathematics concepts that complement these areas. The emphasis during the first summer session will be on environmental design, naming and recognizing variables, hypothesizing, and graphing. These skills will be embedded in the Global Learning and Observations to Benefit the Environment (GLOBE) curriculum which teaches earth and environmental science through specific protocols that are easily implemented with students. Each of the following meeting days will contain instruction in mathematics and science content, use of graphing calculators, data loggers, probes, and sensors, inquiry-style teaching and the use of notebooks in mathematics and science. All lessons are based on the Arkansas Mathematics and Science Frameworks.

**University of Arkansas**

**\$111,098**

**Washington County**

**Project Title: Ideas, Innovations, and Inventions**

**Contact Information: Ms. Lynne Hehr - lhehr@uark.edu**

The I<sup>3</sup>: Ideas, Innovations, and Inventions project consists of two major parts.

Part I: Four summer sessions will be held for teacher professional development:

- NASA *Elementary GLOBE* - Inquiry-based and content driven, this weeklong institute will provide primary/elementary level (K-4) Arkansas teachers with environmental science, math and technology integration as it relates to science, math and literacy.
- *Geometry and Measurement* - Standards-based and content driven, this week will provide middle level (5-10) Arkansas teachers with math and technology integration.
- *Ideas, Innovations, and Inventions* - Inquiry-based and content driven, this week will provide middle level (5-8) teachers with physical science content, lessons, materials and resources as they relate to such topics as Rube Goldberg inventions, chain reactions, PICO Crickets, and amusement park physics. Math and technology will be integrated into the science content, when applicable.

- **Active Learning with Technology** - This K-6<sup>th</sup> grade 45 hour weeklong workshop with 15 hours follow-up will utilize all forms of technology related to content for science classroom implementation: KIDSPIRATION /INSPIRATION/INSPIREDATA, graphing calculators, data probes, PowerPoint, GPS and various NASA related materials will be used.

Each of these workshops will have the possibility of being a three-hour science graduate level course from 45 hour workshop with 15 hours follow-up at the partnering schools. Follow-up will occur as teachers implement the science, math, and technology strategies covered during the summer through email, on-campus professional development offerings, classroom visits to assist participants in implementation, evaluation, and modification of lessons to insure classroom implementation of best practice science, math, and technology.

PART II: Seven monthly evening workshops during spring and fall 2008 will focus on math, science and technology content for both in-service and pre-service mathematics and science educators (PMASE). This is an extension of the monthly CMASE and PMASE weeknight sessions with mathematics, science and technology classroom methodology and implementation as a continued focus.

**University of Arkansas at Little Rock**  
**Pulaski County**

**\$65,234**

**Project Title: DATA Analysis for Teachers in Arkansas II (DATA II)**

**Contact Information: Dr. Sally Robison - [sarobison@ualr.edu](mailto:sarobison@ualr.edu)**

The purpose of this course is to provide high-level learning opportunities in data analysis for current mathematics, science and literacy teachers in grades 5-12 in Central Arkansas and former schools from the Northeast Arkansas region. **Data-Based Decision Making II** will provide instruction to current teachers (specifically intended for teachers with less than 10 years experience) in an effort to increase content knowledge through the use of technology and cutting-edge pedagogical methods in instruction. The primary focus of this course is to provide teachers with data analysis tools that are need to comprehend standardized test results and to provide teachers with the tools necessary to create generate their own research projects and analyze results within their classroom research. Content of the course is based on research indicating that teachers need to continually increase content knowledge of the material being taught. This project has proven to be of great need to teachers in the state of Arkansas and will continue in 2008 with multiple sections offered in various regions. Dr. Sally Robison at the University of Arkansas-Little Rock and Dr. Mike Hall at Arkansas State University will teach the courses in the central Little Rock area and in the Northeast Region.

**University of Arkansas at Little Rock**  
**Pulaski County**

**\$51,498**

**Project Title: Arkansas STRIVE 2008: Teachers Learning Inquiry and Problem Solving**

**Contact Information: Dr. Jim Winter - [jdwinter@ualr.edu](mailto:jdwinter@ualr.edu)**

Arkansas STRIVE places science, math, and computer teachers from middle, junior high, and senior high schools (6-12<sup>th</sup> grades) into summer research positions or on

projects in industry, government agencies, universities, research facilities, and nonprofit organizations. Teachers work with professionals in the field for eight weeks and learn how professionals solve problems facing their organizations. We support about 28 teachers per summer in our program with a variety of private and public funding sources. We request matching monies from the No Child Left Behind (NCLB) Program for fifteen teachers to work on research projects in the ADHE-supported Centers for Math and Science Education at Arkansas universities and at other nonprofit organizations. We also present workshops to the teachers on inquiry and problem-based teaching, and on using computers for data analysis. In addition, we help the teachers develop inquiry-based or problem-based lessons using the new skills and experiences that the teachers acquired during the summer.

The main expected outcomes are that teachers will experience real-world research and problem solving, learn methods of inquiry and problem-based teaching, and develop two inquiry-based and problem-based lessons that they will use in their own classrooms. We place the STRIVE teachers' lessons on computer CDs and give a CD to each teacher so that they have a library of good inquiry and problem-based lessons.

**University of Arkansas at Little Rock**

**\$49,118**

**Pulaski County**

**Project Title: Standards at Work: Connecting Presentational Language to the Communities Standard**

**Contact Information: Dr. Dave McAlpine - [dcmcalpine@ualr.edu](mailto:dcmcalpine@ualr.edu)**

This proposal will provide professional development opportunities for second language teachers through a series of day-long sessions designed to assist them in applying, throughout their curriculum, their knowledge of National Standards in Foreign Languages to student outcomes in presentational language intended for “communities” as defined in the standards. These national student standards which are replicated in the Arkansas frameworks for second languages remain particularly challenging for in-service teachers to implement well since many teachers completed their formal education prior to the imposition in 2002 of very different and more rigorous requirements for initial licensure in second languages. Specifically, this project will have two goals: 1) to focus on strategies for teaching presentational language, and 2) to learn to apply this language both within and beyond the school setting as required by the “communities” standard. The instruction and activities in all sessions will focus on using technology to develop presentational print and video language materials and for the dissemination of these materials to appropriate audiences. The outcome of the development sessions will be products representing students’ meeting the presentational standard. The work of the participants will be archived electronically and all activities developed will be shared with project participants.

**University of Arkansas at Monticello**

**\$50,000**

**Drew County**

**Project Title: Spanish for Teachers**

**Contact Information: Ms. Kim Level - [level@uamont.edu](mailto:level@uamont.edu)**

Spanish for Teachers will provide a 3-hour graduate credit course to Arkansas teachers to learn the application of linguistics to mainstream curricula through the study of a foreign language, which in this case is Spanish. The class will meet in July 2008, and continue to meet for follow-up sessions during the Fall 08 and Spring 09 semesters. The students will be primarily instructed by faculty from the School of Arts and Humanities and support instruction will be provided by faculty from the School of Education. The teachers that participate in this grant will learn Spanish by gaining knowledge on the acquisition of a second language. The teachers will apply the skills through this foreign language study to any content area and any grade level that they are currently teaching. It will greatly benefit teachers teaching diverse student populations.

**University of Arkansas at Pine Bluff**  
**Jefferson County**

**\$31,087**

**Project Title: UAPB Southeast Arkansas P-16 Education Partnership-08**

**Contact Information: Dr. Shelton Fitzpatrick - [fitzpatrick@uapb.edu](mailto:fitzpatrick@uapb.edu)**

Education in Arkansas schools is dependent upon a teaching population that is trained and retrained to address student needs through the use of educational standards and by incorporating technology as a management tool or as a method to enhance instruction. With the current movement towards higher standards for student performance, improved curricula, and assessment strategies, Arkansas schools are desperately in need of high quality professional development programs that will address the expressed needs of their teachers and administrators. This program will facilitate activities which are aligned with the Arkansas Curriculum Frameworks and national standards. The activities proposed will be teacher preparation for pre-service teachers (undergraduate) and professional development for career teachers (graduate). Teachers will receive training in regard to recognized teaching techniques and best practices in working effectively with low-income, minority, and academically challenged middle to high school students. Professional development activities will include, but not be limited to, a three-hour curriculum-based course where participants may receive graduate or undergraduate credit; summer workshops to reinforce or introduce new and innovative technology-based teaching materials; and follow-ups on classes/sessions/workshops to evaluate material usage. Altheimer-Dollarway and Pine Bluff are the targeted districts for recruiting teachers into the program.

**University of Central Arkansas**  
**Faulkner County**

**\$68,569**

**Project Title: Service Learning in the Secondary Math and Science Classroom with Geographic Information Systems and Remote Sensing**

**Contact Information: Dr. Brooks Pearson – [bpearson@uca.edu](mailto:bpearson@uca.edu)**

The project will establish beginning and advanced workshops designed to improve student proficiency in mathematics and natural sciences by training secondary teachers during weeklong summer workshops to use GIS and remote sensing technologies to convey core concepts. Research has shown that active learning with these technologies greatly increases student motivation and achievement. Participants will be provided with appropriate digital data as well as with copies of major remote sensing and GIS software for use in their classrooms. Throughout the following school year, project team members will provide individualized assistance to the secondary teachers to help them infuse these teaching tools into their curricula and will visit each teacher's classroom. The advanced

workshop and course follow-up will allow participant teachers to share their experiences implementing these teaching tools and to develop service learning-based unit plans using GIS and remote sensing in their classrooms. Teachers can readily adapt the training in these technologies to support lessons in at least the following subjects: atmospheric sciences, ecology, forestry, geometry, habitat loss and urban sprawl, land cover and change dynamics, optics, physics, plant sciences, soil conservation, and water resources management.