

Northeast Arkansas Education Cooperative and Harding University - K - 4th Grade Northeast Arkansas Science Initiative

The Northeast Arkansas Education Cooperative, Harding University and 14 high-need school districts have established an MSP K-4th grade Science Initiative. This three-year project (2015-18) is designed to address the classroom teachers' needs to teach science in a manner that motivates young children and meets the new Arkansas K-12 Science Standards. Teachers and administrators surveyed indicated a high need for intensive professional development for early elementary and science content knowledge. We are all scientists!

Goal I: Forty K-4th grade science teachers in the 14 Northeast Arkansas member school districts and three private schools will deepen their content knowledge of Arkansas K-12 Science Standards using hands-on lessons, technology tools, and project learning activities in their classroom instruction over a three-year period.

Year 1 Objective 1: The Northeast Arkansas Education Cooperative's Planning and Assessment Team will conduct a series of planning science project activities necessary to prepare the groundwork for an effective research-based MPS K-4 Physical Science training with a quasi-experimental evaluation design by January 31, 2015.

Year 1 Objective 2: Forty K-4th grade science teachers from 14 school districts and three private schools will gain greater content knowledge in Physical Science through involvement in 12 days of professional development and pre/post-test assessment of science content knowledge during 2015-16.

Activities in Year 1 include training of the forty MPS participants in both whole group and grade-level groups in the Science progression process. The long-term objective of this project will result in the development of interactive, technology-based, hands-on and project-based learning lesson plans and lessons which can be integratively taught, progressing from the kindergarten through fourth grade levels.

In Year 1, a Project Planning Team will work for six months to ensure that an effective formative and summative evaluation plan is refined. An external evaluator and internal

evaluator will be employed to oversee a quasi-experimental evaluation design and implementation. The design will compare participants with a control group. Student achievement will be measured using the new ACT Achieve Test given 3rd – 5th grade. The Reformed Teacher Observation Protocol will be used by the university mentors to measure classroom reform. The Physical Science content test developed by West Ed will be given to the teachers to measure the development of understanding in science concepts.