## *University of Arkansas at Fayetteville, College of Education – University of Arkansas Science and Engineering (UASEP)*

The University of Arkansas Science and Engineering Partnership (UASEP) team includes UA faculty and administrators from the College of Engineering, Honors College, and College of Education and Health Professions, plus an elementary math and science curricular specialist at Rogers Public Schools, an LEA in Rogers, plus UA STEM faculty consultants. The overarching goals of the UASEP program are to:

- Provide K-4 teachers additional and deeper content knowledge in science across multiple grade levels and cross-cutting science, math and literacy boundaries, by incorporating the practices of AR K-12 Science Standards and Common Core State Standards
- Provide teachers with highly effective pedagogy and teaching tools for significantly more effective teaching and learning in classrooms
- Train teachers on the 5E Instructional Model
- Increase teacher confidence, teaching style adaptation and enthusiasm when implementing AR K-12 Science Standards and Common Core State Standards, and
- Assess teacher and student progress and the effectiveness of the grant activities for continual improvement and dissemination of best practices.

All of these goals for teachers are expected to provide students with a learning environment that is motivational, stimulates student's creativity and critical thinking, challenges students to learn more deeply and perform at their best, and to apply their knowledge and creativity every day to solving problems in the real world.

The program objectives to achieve these goals include delivering deeper content knowledge that crosses grade levels and the science, math and literacy boundaries; using inquiry-based activities to integrate science, math and literacy content in a real world engineering content; emulating the student-centered classroom where instructional decisions are determined by formative assessment; and evaluating

effectiveness through teacher testing and student testing. By using inquiry-based activities, students will solve real world problems through the application of math, science and technology.

External evaluation will be used to assess student and teacher achievement. As a result, a measurable increase in teacher content knowledge, teacher pedagogy and student achievement in science, math and literacy are expected, along with an increase in teacher and student appreciation and enthusiasm for math, science, and engineering.