

Appendix C

Arkansas Lead State Agreement



Arkansas

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Organizations: STEM Works; Arkansas Tech University; University of Arkansas at Little Rock; University of Arkansas Fayetteville; University of Central Arkansas; Governor’s Workforce Cabinet; Arkansas Economic Development Commission; Arkansas Science and Technology Authority; Association of Two-Year Colleges.

Background In order to graduate from an Arkansas public high school a student must complete three science courses including a biology course, a physical science course, and an additional science elective. Arkansas has science curriculum frameworks for grades K–8 which cover the strands of Nature of Science, Life Science, Physical Science, and Earth and Space Science. These strands are comprised of content standards and grade level student learning expectations which are built upon each year. Grades 9–12 have course specific curriculum frameworks in the following subjects: anatomy and physiology, biology, chemistry, environmental science, physical science, and physics. Arkansas law requires that 20% of science instruction time be dedicated to inquiry and hands on investigations in grades K–8 and laboratory experiences in grades 9-12. Students are assessed in science through the Arkansas Comprehensive Testing, Assessment and Accountability Program (ACTAAP) in grades 5 and 7 and again in high school through an end of course assessment in biology. The current Arkansas Science Standards were most recently revised in 2005 and scheduled to be revised this year, but state education Commissioner Kimbrell will ask the Arkansas State Board of Education to delay revision until the release of the NGSS.

Commitment Arkansas has shown a strong commitment to standards based learning through its adoption of the Common Core State Standards (CCSS) and its position as a governing state in the Partnership for Assessment of Readiness for College and Careers (PARCC). Arkansas has also shown commitment to the NGSS by putting their statewide standards revision process on hold in order to wait to implement the NGSS when released. Arkansas recognizes that collaborating with other states on creating new standards will allow for more rigorous and relevant learning expectations and standards in science.

STEM Involvement Governor Beebe initiated the statewide program STEM Works which focuses on improving STEM education in order to better prepare high school graduates for careers in STEM disciplines. This will be achieved through the development of New Tech High Schools and Relevant Education for Active Learning (REAL) Schools, a program of Environmental and Spatial Technology (EAST) Schools.

STEM Works also has a teacher preparation component entitled UTeach where Arkansas universities offer specific secondary teacher training to college STEM majors in order to ensure an influx of qualified new teachers in STEM subjects. The program will be offered at Arkansas Tech University, University of Arkansas at Little Rock, University of Arkansas Fayetteville, and the University of Central Arkansas.

Alliances and Infrastructure Arkansas has relationships with numerous organizations which could prove useful in reviewing the NGSS, and could also assist the state with implementation efforts which include the Arkansas Economic Development Commission, the Arkansas Science and Technology Authority, and the Association of Two-Year Colleges. The Arkansas Department of Education, the Education Service Cooperatives, and partner organizations from across the state work together to provide communications on all efforts and projects using email, list-serv systems, interactive videos, video streaming, and blogs, among others. This communication network will prove useful in the implementation stages of the NGSS.

Source: Achieve, 2013