



**Arkansas STEM Coalition Mission, Vision  
And Advocacy Statements**

**Mission**

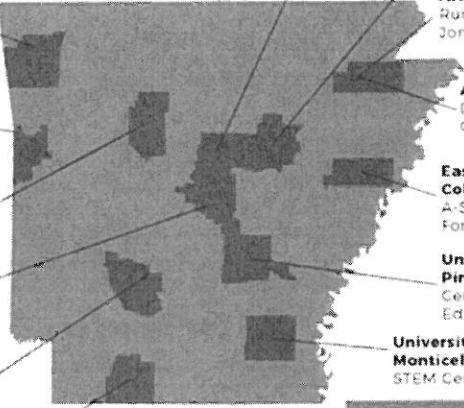
The Arkansas Science, Technology, Engineering and Math (STEM) Coalition is a statewide partnership of business, education, government and community leaders with a common agenda to graduate more Arkansas students prepared for the global economy.

The Arkansas STEM Coalition plans, encourages, coordinates and advocates policies, strategies, and programs supportive of excellence in STEM in order to expand the economy of Arkansas and produce higher paying jobs.

**Vision**

The Arkansas STEM Coalition is a catalyst providing the inspiration and opportunity to develop a well-trained STEM workforce that will make it possible for Arkansas to attract and maintain employers to the State as well as ensure that Arkansas is a key participant in the global workforce and economy.

**12 STEM Centers**



**University of Arkansas**  
Center for Math & Science Education / NASA Educator Resource Center, Fayetteville

**University of Arkansas - Fort Smith**  
Institute for Math & Science Education

**Arkansas Tech University**  
STEM Center, Russellville

**University of Arkansas at Little Rock**  
STEM Education Center

**Henderson State University**  
STEM Center, Arkadelphia

**Southern Arkansas University**  
STEM Center for K-12 Education, Magnolia

**University of Central Arkansas**  
STEM Institute, Conway

**Harding University**  
STEM Center for Mathematics and Science, Searcy

**Arkansas State University**  
Rural STEM Education Center, Jonesboro

**Arkansas State University**  
Delta STEM Education Center, Jonesboro

**East Arkansas Community College**  
A-State Satellite Location, Forrest City

**University of Arkansas at Pine Bluff**  
Center for Math/Science Education

**University of Arkansas at Monticello**  
STEM Center

The Arkansas STEM Coalition is a statewide partnership that engages the Arkansas Network of STEM Centers, which serve to enrich knowledge and teaching practices of teachers in STEM. The network links higher education institutions to K-12 public schools, educational service cooperatives, and businesses while also providing services and resources for teachers, administrators, and students.

For contact information, go to [ArkansasSTEMCoalition.com](http://ArkansasSTEMCoalition.com)

## STEM Girls Leadership Conferences 2015-2019 for Grades 7-12

### Characteristics –

- Held on College campuses
- Access to science and computer laboratories
- Scientists, Mathematicians, Engineers, Technologists
- Local business and industry representatives talk about STEM and STEM focused careers
- Students learn about high school pathways to 2- and 4 year colleges and the world of work
- Organized to increase underrepresented girls in STEM careers

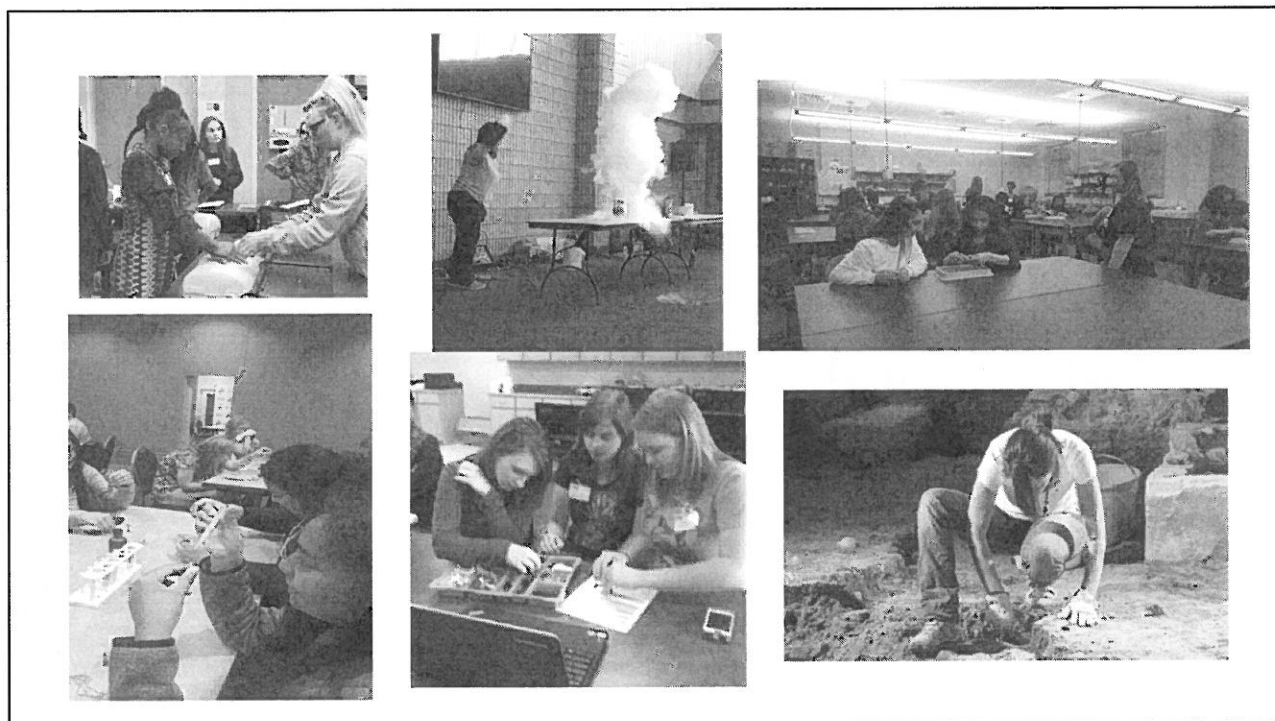




## STEM Girls Leadership Conferences

**Since 2014, 77 conferences across the state, serving more than 6,400 girls, have been hosted by the Arkansas STEM Coalition. This program was funded in part by the Arkansas Division of Career Education using Carl D. Perkins Funds.**





## Health Sciences Career Tech Days

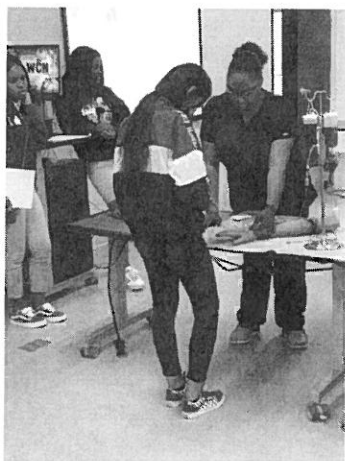
**These conferences kicked off for the first time this year 2018-2019. The STEM Centers**

**hosted eleven career tech days for 745 eighth graders (boys and girls) to introduce them to a variety of fields of study and career paths in health sciences. This program was funded in part by the Arkansas Division of Career Education using Carl D. Perkins Funds.**



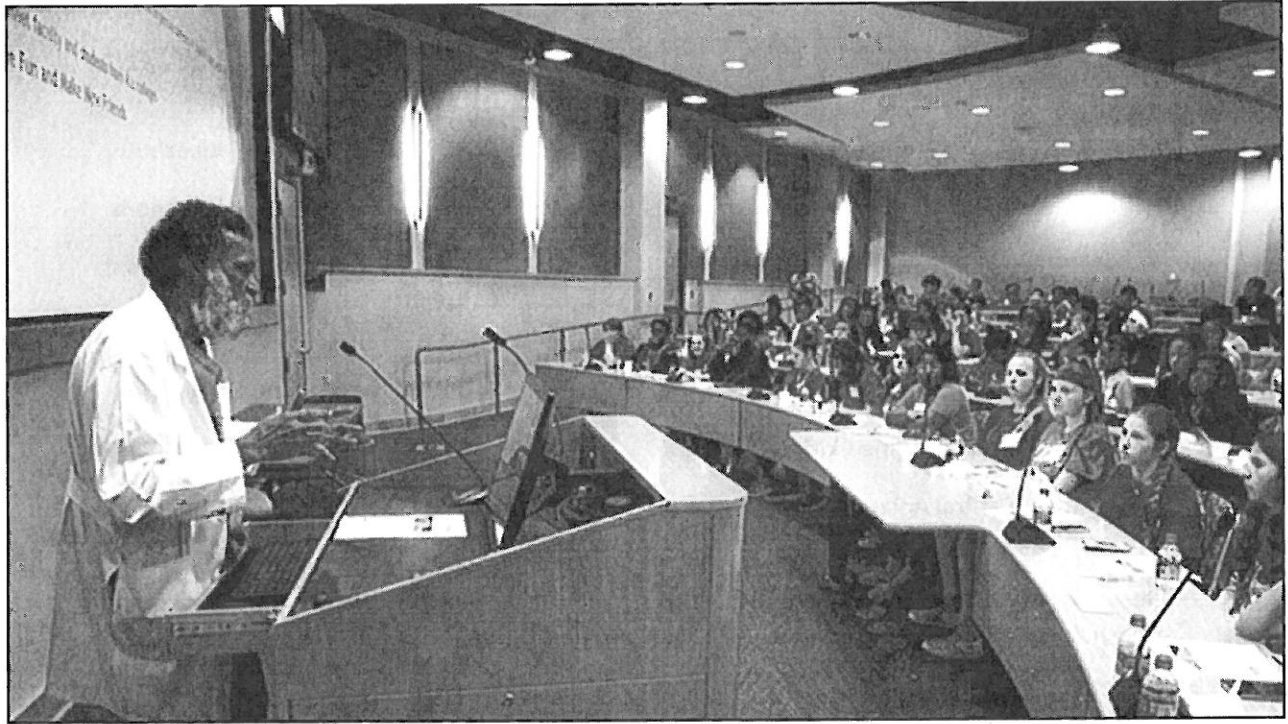
## STATEWIDE HEALTH SCIENCES CAREER TECH DAY CONFERENCES – 8<sup>th</sup> grade students

• Arkansas State University – Delta	May 2, 2019	Jonesboro
• Arkansas State University – Rural	March 29, 2019	Jonesboro
• Henderson State University	May 20, 2019	Arkadelphia
• Southern Arkansas University	April 18, 2019	Magnolia
• University of Arkansas Fayetteville	March 30, 2019	Fayetteville
• University of Arkansas Little Rock	May 4, 2019	Little Rock
• University of Arkansas Pine Bluff	May 3, 2019	Pine Bluff
• University of Central Arkansas	May 1, 2019	Conway
• University of Arkansas Medical Sciences #1	May 2, 2019	Little Rock
• University of Arkansas Medical Sciences #2	June 20, 2019	Little Rock
• University of Arkansas Medical Sciences #3	June 3-28, 2019	Little Rock



UAPB Health Sciences Career Tech Day

May 2, 2019





## AR STEM Coalition Laptop Loan Program



**Laptop Loan Program:** Community based programs such as museums, faith based organizations and Out-of-School Time (OST) programs as well as schools and universities can check out up to 130 laptops to provide coding or computer science workshops to youth. Funded by ATT and eSCO Recycling and Processing Corp.

**Since 2014 over 1500 laptops have been loaned out to organizations.**

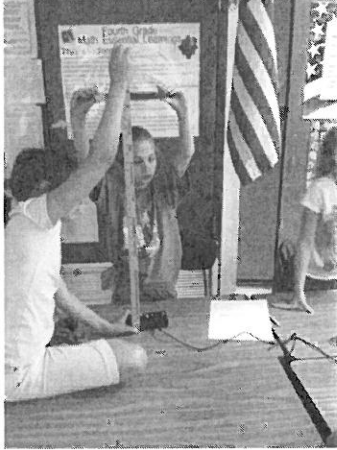
## Arkansas STEM Coalition Science Equipment Grants



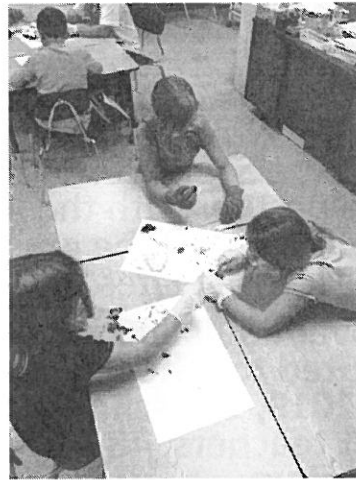
**Science Equipment Grants:** Grants to support the purchase of science equipment for 3<sup>rd</sup>-6<sup>th</sup> grade students are distributed to the STEM Centers from the Arkansas STEM Coalition. We partner with the Arkansas Committed to Education Foundation. The grants are funded from the sale of Education License Plates.

**Since 2011 over \$800,000 worth of science equipment has been distributed to schools and districts across the state. As of spring 2019, 178 school districts and 235 schools, serving 1,571 teachers; 48,313 students have benefited from this program.**

## Badger Elementary School and Pangburn Elementary School



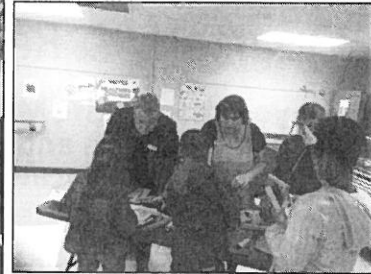
## Use of Science Kits



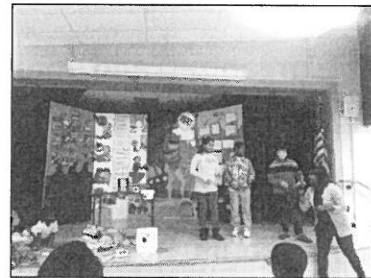


## Other STEM Center Activities: Family STEM Nights

- **Teacher professional development**
- **Project STRIVE**
- **Robotics Competitions**
- **Science Fairs**
- **Mathematics Competitions**
- **Science equipment check-out**
- **Assistance with family math and science nights**



Forest Heights STEM  
Academy  
Little Rock, AR  
December 4, 2018



## Other STEM Center Activities:

- **Through donations from business and industry, the AR STEM Coalition provided 17 rural middle schools with funds to train a teacher, purchase the first robotics kit, organize the first team of middle school students and pay for the registration at the first competition.**
- **The STEM Centers work directly with the Colleges of Education, Arts and Sciences and Engineering. In particular, the STEM Centers support the mathematics and science pre-service teachers through rigorous content, methods and modeling excellent teaching practices K-12.**
- **The collaboration of the Educational Service Cooperatives and the STEM Centers at the universities completed the PK-20 pipeline of STEM students who are prepared to enter the workforce. More human resources are needed.**
- **The STEM Centers connect business and industry with K-12 and higher education using hands-on applications in real-business problems and to real life problems.**

## Arkansas STEM Coalition Quarterly & Regional Meetings, STEM Summits

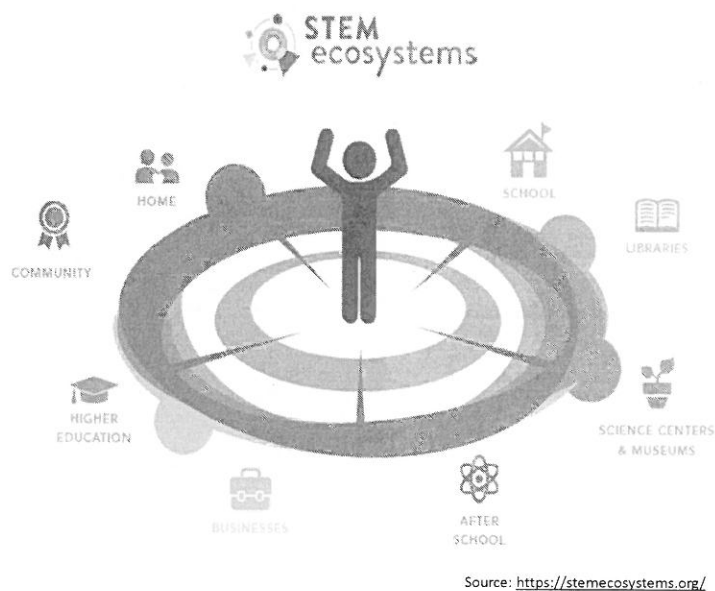
- ✓ Each year the AR STEM Coalition hosts 4 -6 or more local and statewide quarterly meetings and we have hosted 9 regional meetings involving local K-12 and higher education teachers, administrators and business leaders.
- ✓ We organized and implemented 3 statewide STEM Policy Summits in 2010 -2012 and 3 Best Practices STEM Summits in 2017-2019.
- ✓ We organized and implemented 4 annual statewide Computer Science Conferences in 2015-2018.
- ✓ The STEM Coalition partners with other STEM organizations and coordinates STEM services. (Museums, libraries, Womens' Foundation, Girls Scouts, Boys Clubs, other out-of-school time organizations).

The Arkansas STEM Coalition is partnering to organize upcoming STEM events and initiatives:

- **Solving the Data Sciences Riddle** – a 3 part series of institutes to promote 2- and 4-year colleges and universities to work together on developing certificates and degrees in Data Science – Arkansas Center for Data Sciences
- **Techtober 2019** – a series of over 60 technology events statewide taking place from September 13 to November 9 (Techtober.com)
- **Regional STEM meetings** in Searcy, El Dorado, and Russellville in the next year collaborating with partners such as local Chambers of Commerce.
- Designing the **Arkansas Venture Academy** for 10<sup>th</sup> grade students.
- Developing resources around **STEM on the Arkansas River** with partners such as the Port Authority and Civil engineers
- Identifying STEM resources and gaps using the **Arkansas STEM Ecosystem**

## What are STEM Learning Ecosystems?

- Cross sector learning to support STEM skill development
- Strong STEM Learning Ecosystems feature dynamic collaborations among All SECTORS
- Strengthen access points and pathways of STEM learning



## Arkansas STEM Learning Ecosystem Initiative

### Vision

*The Arkansas STEM Ecosystem envisions a state where all people have equal access and opportunity to engage in quality science, technology, engineering, and mathematics learning experiences that increase their ability to succeed in education, career, and community, leading to a vibrant and dynamic economy.*

### Goals:

- Increase collaboration across sectors to support STEM education and to coordinate STEM and workforce initiatives.
- Increase numbers of underrepresented youth pursuing STEM careers or fields of study.
- Increase business and industry participation in STEM and workforce learning.
- Identify current STEM resources and programs across the state, assess gaps in opportunities.
- Increase awareness of STEM learning and access to resources.

**12 STEM Centers**

The map displays the following STEM Centers:

- University of Arkansas**: Center for Math & Science Education / NASA Educator Resource Center, Fayetteville
- University of Arkansas - Fort Smith**: Institute for Math & Science Education
- Arkansas Tech University**: STEM Center, Russellville
- University of Arkansas at Little Rock**: STEM Education Center
- Henderson State University**: STEM Center, Arkadelphia
- Southern Arkansas University**: STEM Center for K-12 Education, Magnolia
- University of Central Arkansas**: STEM Institute, Conway
- Harding University**: STEM Center for Mathematics and Science, Searcy
- Arkansas State University**: Rural STEM Education Center, Jonesboro
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# Arkansas STEM Coalition

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