

MISSION STATEMENT

The Mission of the FHSU Science and Mathematics Education Institute is to inform, reform, and improve science and mathematics education, awareness, and appreciation in K-12 schools, the University, and the community in western Kansas. The Science and Mathematics Education Institute serves as a bridge between FHSU, K-12 schools, and the community by supporting, facilitating, and promoting outreach programs.

GOALS

- Provide professional development in science and mathematics content for pre-service and in-service science and mathematics teachers strengthening subject matter knowledge and developing pedagogical skills.
- Seek external funds to support science and mathematics education programs.
- Function as a central coordination for outreach activities and professional development offerings in science and mathematics available through the FHSU Mathematics and Science departments and community programs.



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SCIENCE AND MATHEMATICS EDUCATION INSTITUTE

FORT HAYS STATE UNIVERSITY



FORT HAYS STATE UNIVERSITY
SCIENCE AND MATHEMATICS
EDUCATION INSTITUTE

UNIVERSITY

The FHSU Science and Mathematics Education Institute hosts many different continuing education opportunities for pre-service and in-service teachers.

MAKERSPACE

Provides a space for any FHSU student or Hays community member to build, tinker and explore projects and ideas within the STEM fields. We provide access to our 3D printers, 3D scanner, Laser printer, Ipads, LEGO Robotics, computers, tools. We also maintain numerous projects that anyone can participate in including Lego Robotics, rocket building, Arduinos, soldering, and computer programming.

HIGH ALTITUDE BALLOON WORKSHOPS

Ballooning provides an opportunity for teachers and students to take part in engineering and research. Teachers and students define the research they aim to complete, and operate within the volume, weight, and cost constraints of the high altitude balloon. After the launch teachers and students retrieve the materials and analyze the collected data.



DIGITAL PLANETARIUMS

The Science and Mathematics Education Institute has two digital planetarium that can be checked out and used for programs through the region.

K-12 OUTREACH

The FHSU Science and Mathematics Education Institute offers many different opportunities for the youth in western Kansas. These opportunities give the local youth the ability to see how mathematics and science are present in everything from building robots to how objects fly.



SMEI 2023 SUMMER CAMPS (grades 2-8)

- Robot O Rama Camp & Robo Challenge Camp: Students learned to build, program, and test LEGO robots using LEGO EV3 software.
- Main Street Math Camp: Students working as a team with hands-on activities to design, build, and run their own store on Main Street.
- Animal Science Camp: Students create a solution to the problem of animals cut off from their habitat by highways.
- Camp North Star: Students do team projects and experiments with engineering, nanotechnology, and rockets.

LEGO ROBOTICS COMPETITION

Annual competition for 5-8 grades students have the opportunity to compete against schools in a variety of challenges designed for the LEGO Robotics kits.

MODELING WORKSHOPS

Teachers are instructed to use the Modeling teaching methods to teach their students in physics and chemistry. Teachers are provided with materials and equipment to help them implement the Modeling curriculum.

COMMUNITY

Many of the events and workshops the Science and Mathematics Education Institute host are open to the public.



Science Café presents
"Eclipses: the How, Why, and Where of these Events"
Come and learn about the eclipses over North America. All you need to know about the two upcoming solar eclipses and how to safely view them.
Presenters: Mr. Dean Stramski, Adjunct Professor in Chemistry, FHSU and Dr. Kendall Krug, Hays, KS

ANNULAR SOLAR ECLIPSE
OCTOBER 14, 2023
TOTAL SOLAR ECLIPSE
APRIL 8, 2024

September 25, 2023 7:00 PM
"The Venue" @ Thirsty's, 2704 Vine Street, Hays, KS 67601

FHSUScienceCafe X FHSUScienceCafe
Contact: Carl Rohleder, crohleder@fhsu.edu, www.fhsu.edu/emel

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SCIENCE CAFÉ

Science Café is a monthly event hosted by the Institute. During Science Café current issues in science are presented and discussed.

PLYMOUTH SCHOOLHOUSE

Built in 1874 in eastern Russell County, Kansas, from hard post-rock limestone, the schoolhouse has lasted more than a century and provides younger generations with a look into educational history. Come by at Christmas to look at a holiday in the past.

STEM-Ed ANNUAL CHRISTMAS SHOW

In December the Fort Hays State University Student STEM-Ed chapter, in coordination with the Science and Mathematics Education Institute, present a science themed Christmas show. A Christmas story is read and science demonstrations explain different aspects of the story.