



## News Release

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### **NORTHERN ARIZONA STUDENTS TO BENEFIT FROM FUNDING FOR ENGAGING, INTERACTIVE SCIENCE, MATH AND CAREER-TECH PROGRAM**

Funding to come from state, through Science Foundation Arizona

(FLAGSTAFF, AZ) High school students in Coconino County will soon benefit from hands-on programs designed to help them use local outdoor environments to analyze problems and devise solutions using math and science, thanks to a \$400,000 competitive grant administered by Science Foundation Arizona (SFAz) and made possible by the State Board of Education.

Titled "Harnessing the Power of Data (POD): The POD Project," the program pairs career technology and education (CTE) instructors and science teachers and helps students understand math and science applications through the use of geospatial technologies, as they gather and analyze data to develop solutions to everyday problems. The POD Project partners Coconino Association for Vocations, Industry and Technology (CAVIAT), middle and high schools from Flagstaff, Tuba City, Sedona, Rimrock, Page, the Verde Valley and Williams, Northern Arizona University's Center for Science Teaching and Learning, and will use resources and technology handily available in Flagstaff at NAU's School of Geology.

Math or Science Achievement Grants (MSAG) were awarded to K-12 partnerships that utilize creative and inspirational programs designed to engage students in science and math and increase student achievement. MSAGs, like the POD project, help not only build students' fundamental understanding of science, technology, engineering and mathematics (STEM) but also develops 21<sup>st</sup> century skills, such as teamwork, problem solving, and critical thinking, vital to success in careers of the future.

The POD Project is unique because it exposes students to an interactive curriculum using geographic information systems (GIS) and geospatial analysis of statistics and information to evaluate and solve problems. A GIS allows users to capture, store, analyze and manage data linked to location, and geospatial data is anything that can be mapped.

As an example, participants might gather data from a specific site about soil composition, groundwater use and flood hazards to determine whether the area could safely support a physical structure. In everyday situations, students could apply their acquired data analysis skills to plot out the safest route to school, or whether the number and condition of trees in their neighborhoods pose a fire hazard.

"The work in which student participants will engage is important to inspire them to become our next generation of teachers, cutting-edge scientists and researchers," said William C. Harris, SFAz President and CEO. "These students have the capacity to be the individual or member of a team that makes discoveries that change the world – whether it is in earth sciences, sustainable energies, engineering or biomedicine – they are embarking on a learning expedition that will serve them well throughout life."

“Any time we can provide a mix of core subjects and hands-on courses, it is far better for the students in retention and learning,” said Jac Heiss, superintendent of CAVIAT. “This type of study is an important component of where the world is going, and where students’ learning should be focused.”

“The application for this type of science training has reach in so many different career fields, even areas such as criminal justice, where investigators conduct crime pattern analysis in their work,” said Lori Rubino-Hare, of the NAU Center for Science Teaching and Learning. “There is a great need for STEM workers trained in geospatial data analysis, on the scientific side, and on the technology side, dealing with information systems.”

With today’s grant announcements, Northern Arizona schools have received a total of \$950,000 in MSAG funds: \$400,000 previously awarded to Flagstaff Unified School District for the Northern Arizona Challenger Center and \$50,000 to Four Corners School, in partnership with Montessori Charter School of Flagstaff, Leupp Elementary and Junior High Schools and Dzil Libei Elementary School for the Bioregional Outdoor Education Project (BOEP).

NAU President John Haeger, a member of the Arizona State Board of Education, congratulated the project’s partners on setting the bar high to prepare students with life skills focused on innovation, critical thinking and data-driven decision making. He also called NAU a “natural partner” in this initiative for its place at the forefront of providing creative and effective learning techniques that can be scaled and replicated across Arizona. “This grant will prepare students for both the workforce and postsecondary education,” he said. “It is the perfect example of what constitutes a program based on career and college readiness.”

“The POD program is a great example of the programs that will truly benefit students across Arizona,” said Darcy Renfro, SFAz Vice President and Executive Director of SFAz’s STEM Initiative. “The POD model enables teachers to develop and apply project-based learning that is key to developing the 21<sup>st</sup> skill set that is so necessary for young people of today and tomorrow.”

The POD Project is the final of six among a pool of 28 applications chosen for the highly competitive MSAG awards, all of which are required to undergo a rigorous selection process. SFAz provides fiscal oversight and management of the grant monies to ensure grantees adhere to timelines, funding requirements and established metrics.

Previous MSAG awards have gone to Tucson Schools for implementation of a program to bring high school students into University engineering schools, Metro Tech High School in Phoenix for a sustainable energy curriculum and to Navajo County Education Service for a STEM-intensive curriculum incorporating native habitats and wetlands.

**About Science Foundation Arizona:** Science Foundation Arizona (SFAz) is a 501(c)(3) non-profit organization initiated in 2006 by the Greater Phoenix Leadership Inc., Southern Arizona Leadership Council and the Flagstaff Forty in conjunction with the executive and legislative branches of state government. SFAz serves as a catalyst for high-wage, knowledge-based jobs and economic diversity through administration and strict oversight of research, development and education grants to public education and other non-profit research performing institutions. For more information, visit [www.sfaz.org](http://www.sfaz.org).