



Academies Creating Teacher Scientists (ACTS)

Middle and High School Teachers from anywhere in the United States

June 7-July 20, 2010

8-5pm

The goal of the 3-year ACTS program is to provide an opportunity for teachers to participate in state-of-the-art research that can be utilized to create a classroom environment where students are actively engaged in science applications and encouraged to pursue STEM professions. Each participant is encouraged to share their experience beyond their classroom, becoming a leader in science education in their community.

The Advanced Materials Laboratory at Sandia National Laboratories in Albuquerque, NM specializes in the synthesis and characterization of new ceramic and glass materials, improving the processing methods for fabricating these materials, and evaluating their physical, optical, and electronic properties and reliability. The main technology thrusts are powder processing methods, electronic and optical materials development and integration, failure analysis and testing, rapid component prototyping, reactive composite processing, ceramic joining, glass technology support, 3D biological lithography, bio/inorganic interface manipulation, and ceramic packaging. Energy applications include lithium ion batteries, photovoltaics, catalysts for CO₂ sequestration and conversion, and transportation fuels. Applicants should have an interest in chemistry, biology, materials science, and/or physics.

Teachers may be assigned to various research projects depending on currently funded research opportunities, subject/content interest, and required skills. Teachers will have the opportunity to work with Sandia researchers, as well as postdocs, graduate, undergraduate, and high school student interns - creating a stimulating and unique research environment and developing a network of science professionals. Teachers will have the opportunity to form a teacher professional learning community with other ACTS participants. With the assistance of a Master Teacher, they will have the opportunity to share pedagogical skills, determine how to utilize the research experience in the classroom, and how to effectively utilize the ACTS experiences to improve science education beyond the classroom.

Selected participants will meet all Department of Energy/Office of Science ACTS program requirements (visit the website), participate in weekly meetings with researchers, attend professional development/leadership/enrichment sessions with other ACTS teachers, and present their research to their colleagues at the end of each summer.

Financial Benefits:

- \$800/week stipend
- Up to \$2000 in minigrants
- Limited housing and travel funds

For more information, contact Amy Tapia, astapia@sandia.gov, 505-284-5207.



Sandia National Laboratories

To apply on-line: <http://www.scied.science.doe.gov/scied/ACTS/about.htm>