

MATH & SCIENCE TEACHER INNOVATION AWARD

COUNTY OF SAN MATEO

PROGRAM DESCRIPTION

Funding Innovation

The Math & Science Innovation awards 4-6th grade public school teachers up to \$5,000 to fund their innovative hands-on projects and activities that stimulate student curiosity and excitement for these topics through a competitive grant process.

Interactive learning is an effective means of engaging all types of learners at a

critical time when math and

“TELL ME AND I FORGET,
TEACH ME AND I MAY
REMEMBER, INVOLVE ME
AND I MAY LEARN.”

BENJAMIN FRANKLIN

science interest and test scores begin to decrease in elementary school. Discovery of science and math concepts through experimentation builds a foundation of skills needed for youth to become the future generation of innovators in the

workforce.

Grant applications are released in May of each year.

PROGRAM HIGHLIGHTS

A Decade of Innovation

One hundred and seven teachers from 16 school districts throughout the County of San Mateo were awarded the Math & Science Innovation Grant. Their programs positively impacted 4,110 elementary and middle school students, the

year their programs were launched, many programs continued beyond the initial year of funding.

Innovative Teacher Projects

- **Fiesta Gardens International School** (San Mateo-Foster City Elementary School District) Digital imaging microscopes were used to foster student-

ENGAGING YOUTH IN SCIENCE



Studying Microbes



Making a 3D

Printer



Heart Dissection



Young Chemists



driven hands-on projects.
Students collected and
analyzed data



communicated the results and defended their positions with evidence. This grant also supported a district wide teacher workshop to inform & support teachers to incorporate digital microscopes in their classroom. Twenty five educators and teachers attended this successful event.

- **Brentwood Elementary**
(Ravenswood School District)
Teachers introduced students to design, manufacturing and engineering through a Maker Space. Techshop certified 4th grade students on the 3D printer, laser cutter and vinyl cutter. Students presented their projects at their school and community.

- **San Mateo Park Elementary**
(Jefferson School District)
Students designed and launched rockets.



Experienced a space station through role playing at the Chabot Science

Center. Students relaying information from Mission Control to the Space Shuttle.

- **El Granada Elementary**
(Cabrillo Unified School



District) Volunteers and high school students helped 105 fourth and fifth grade students dissect pig hearts and cow eyes to study anatomy.

Through the use of iPad movies and Visibly Body software students created animated documentaries of systems in the human body.



Vision for Math & Science

In 2002, the San Mateo County Board of Supervisors initiated a Task Force on Improving Access to Educational Opportunities to ensure San Mateo County youth can excel in the County and in the Bay Area. Acting on their recommendations, Supervisors Mark Church and Rose Jacobs Gibson initiated a Blue Ribbon Biotechnology Task Force a group of education and agency officials to explore the most effective County partnership to promote and improve student achievement and teacher excellence in math and science. The career emphasis then was to build the future biotechnology workforce to meet industry

needs. The Task Force recommended that the Board create an Innovation Fund. The Innovation Fund supports two hands-on math and science programs: Math and Science Teacher Innovation Award (\$36K) and Stanford University Summer Research Program for Teachers (\$14K).

Today Supervisors Carole Groom and Supervisor Warren Slocum Chair and Co-Chair of the Math & Science Workgroup give input and guidance to this program.

We are building Science, Technology, Engineering and Math (STEM) skills in youth so they are able to be the future workforce for the numerous STEM industries in the Bay Area. Activities funded by this award align with the Next Generation Science Standards and fosters critical thinking skills a component of the Common Core Standards.

For more information please visit our website:

<http://hsa.smcgov.org/stem> ,

or contact Josie Yu,

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