

**Proposal
to
Enhance STEM Opportunities
for
Students with Disabilities**

Submitted to:

Randy Larry, RTP Director
Reaching the Pinnacle
College of Engineering
New Mexico State University

For the period

January 9/12 to May 25/12

Submitted by:

Maggie Romero,
Science Teacher,
Gadsden High School
6301 Highway 28
Anthony, NM 88021

Contact Person:

Maggie Romero,
575-882-6300 work,
915-526-0781 cell,
575-882-2370 fax,
maromero@gisd.k12.nm.us (school)
maggierome@hotmail.com (home)

Signature of approval of organization authorized official

Signature: _____

Printed Name: _____

Title: _____

Date: _____

1.0 Organization Submitting the Proposal

Gadsden High School
6301 Highway 28
Anthony, NM 88021

1.1 Project Coordinator and Contract Administrator

Maggie Romero
Science Teacher
6301 Highway 28
Anthony, NM 88021
915-526-0781
575-882-2370 fax
maromero@gisd.k12.nm.us (school)
maggierome@hotmail.com (home)

1.2 Coordinator Qualifications

Maggie Romero has been the MESA advisor at Gadsden HS for the past six years. As advisor she is responsible for guidance, instruction and recruitment of a diverse student body who is interested in any of the STEM fields of study. The group size has ranged from 20-70 members in the previous years, the current enrollment stands at 45 members for this school year. Responsibilities include preparing students for competition at the local, state and regional levels, providing students the opportunity to participate in college/career awareness and fieldtrips, organize and promote careers in STEM fields by providing guest speakers, as well as encouraging students to attend leadership workshops. She is also leading the engineering career pathway program (Project Lead the Way) at Gadsden HS. This position enables her to recruit from an array of students at the high school level that might be interested in perusing a career in the engineering field.

2.0 Proposed Activities

Students will have various projects that they will be engaged in. Projects include the continuation of the mentorship alliance with the elementary schools in the Gadsden Independent School District to promote interest in STEM. Students will also participate in a series of fieldtrips to expose and encourage possible careers in the STEM fields.

2.1 Reaching the Pinnacle Initiative to be Addressed

Initiative 1: Provide engaging science experiences in pre-college science education environments.

2.2 Description of Activities

The first project entails having students prepare for visits to elementary schools. Gadsden students will present various projects and explain science concepts to their audience. Students will be placed in groups of five to six members, with each group assigned to an elementary school site to present material. The undertaking would include building two Hovercrafts and several Model Rockets. They will also demonstrate different types of controlled robots. Students will generate informational pamphlets/brochures, power point presentation and a poster display explaining the scientific concepts as well as the engineering design process.

The second endeavor includes a series of field trips with the focus of increasing STEM awareness. Fieldtrips include; tour of the NMSU campus and academic services available at the university, a fieldtrip to Carlsbad Caverns. Students will also attend the natural science museum, zoo, and EXPLORA in Albuquerque. Members will also promote STEM awareness by participating in the Las Cruces Science Extravaganza EXPO.

2.3 Relationship to Existing Services or Initiatives

This project would be incorporated into our current PLTW classes. Students who are PLTW students will participate and actively recruit new members. All students are expected to be involved in all aspects of the project. MESA members will also be highly encouraged to participate. The PLTW group and the new members will meet on a weekly basis to prepare for activities previously mentioned. The group will be named GEARS (generating engineers and research scientists).

2.4 Persons to be Served

The current membership enrollment in the program is 40 students. All of the students are Hispanic with 60% being female and 40% male. All students qualify for free/reduced lunch. The program serves students from a large rural community. The program is open to the entire student population at Gadsden High School; membership consists of students with a wide range of disabilities, including students without disabilities. The target students for the program are students with disabilities.

2.5 Requirements for Participants

Students are required to attend and actively participate in weekly meetings, participate in at least one elementary visit and one fieldtrip. Students will also be required to contribute in some manner with the dissemination of the project's endeavors to the community as a whole. Possible tasks will include web design, generating flyers, and presenting the project's objectives and achievements during the end of the year parent night.

2.6 Recruitment

Students will generate group flyers and will distribute around the school campus. Members will also operate an information table during Parent/Teacher conference and sign up potential members. Announcement bulletin board found outside the meeting room will be kept current with pertinent information regarding the project and membership information. The program has no limits on membership.

2.7 Dissemination of Benefits

There will be several ways that people will be able to access the progress and the outcome of the project. Students will generate a website with current progress of projects. There will also be an end of the year Parent/Student gathering to celebrate successes, recognize accomplishment and outstanding GEARS member of the year.

2.8 Sustainability of the Project

As a result of the initial funding of the project, students will be able to continue the mentorship program with minimal financial carryover. The only expense would be the consumables which could be attained by fundraising, e.g. chocolate sales or a car wash. In regards to the fieldtrips, a partnership with other school entities might be established to continue providing students with the most beneficial fieldtrip as determined by the opportunity given by this project's funding.

3.0 Project Staffing

There is only one person that will be overseeing the project, Maggie Romero. She will be responsible for coordinating, advising and implementation of the proposal.

Project Budget

Requested Funds

Item	\$ Amount
Outstanding GEARS member award and Banquette	741
Presentation Laptop (2 @ \$1250)	2500
Presentation Shirts	
Polo Shirts 30 @ \$20	600
Albuquerque Fieldtrip 16 Students 2 Adults	
Rooms (6 @ \$60per/night)	360
Meals (72 @ \$6)	432
Transportation (2 suburbans)	360
Admissions (18 @ \$20)	360
Carlsbad Carverns Fieldtrip 24 Students 3 Adults	
Meals (27@ \$7)	189
Transportation (3 suburbans)	430
Alamogordo Space Museum/White Sands Fieldtrip	
Meals (27 @ \$7)	189
Transportation (3 suburbans)	200
Admissions (27 @ \$9)	243
Science Extravaganza Fieldtrip	
Meals (18 @ \$7)	126
Transportation (2 suburbans)	40
Transportation to Elementary Schools	30
Supplies (poster boards, ink, paper, stapler etc.)	200
Total	7000