THE IMPACT OF EXPOSURE TO SCIENCE TECHNOLOGY ENGINEERING MATHEMATICS CAREERS

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Introduction: The Next Generation Science Standards recommends integrating STEM content into science with a new component of engineering. Additionally, to be successful in a STEM career, students need to be aware of what careers are available and able to incorporate cooperative learning, and technology skills needed in the workplace.

Connection to Industry: During my time at SRP as a teacher summer employee, I learned many different skills and practices on how industry works and what my students need to be better prepared for future STEM careers. In my summer work at SRP, I observed that people work together on projects and share their work with each other through a program called SharePoint. To introduce working together, I have students use Google Docs to share their work similar to industry. As industry solves problems through committees and shared work, so did the students with gathering information and then presenting it as a group.

Investigation: I focused on teaching students' the skills, practices, and technology needed in the workplace. This was done by having the students complete tasks in groups while researching STEM careers to increase their STEM career interest.

I used a variety of surveys and drawings to gauge student interest in STEM careers. I used a hallway science bulletin board to display multiple career posters and excerpts from the *Sally Ride Science Career Books*. During the genetics, physics, and chemistry units the students completed a group research and presentation project on a STEM career. Throughout the presentations, students had to fill in a feedback form about the careers. After the three units the students redid the same surveys and drawings to see if a change of interest in STEM careers took place.

Findings: After comparing the pre-survey rankings and the post survey-rankings, the students showed a change in the positive outlook on the STEM categories. The post-survey negative rankings went down across all categories and the post-positive went up across the categories.

On the STEM career questionnaire, students answered with more post-positives under the categories of "family support." They also stated that they wanted and were going to get a STEM degree at a college. The career feedback forms provided the most useful information about the students' interest in STEM careers. The students indicated a desire for a STEM career that will use specific content in a hands-on way. The students found many interesting and fulfilling careers.

Action Plan: I will continually expose my students to a variety of STEM careers each year. This will allow students to have a better idea of what they like and do not like about STEM careers. Thus, students can make a more informed decision about a STEM careers. I will also get more videos and guest speakers in my classroom to share what they do and why they picked their career. Lastly, I will continue the career board in the hallway to highlight STEM careers and famous STEM professionals.