

Summary of Progress from STEM Grant

I am excited to share the progress I have made with the grant I received, which supports five STEM projects aimed at my gifted and talented students. To date, we have successfully completed two of these innovative projects, both of which have significantly enriched my students' learning experiences.

The first project, titled **Broken Bones**, involved my 7th graders applying engineering principles to the field of medicine. In this hands-on activity, students evaluated a model of a broken femur alongside an X-ray. They were tasked with designing a procedure and a medical device to repair the broken bone, culminating in a simulated surgery to fix the model femur. This engaging project provided my students with valuable insights into biomedical engineering, the design process, and human anatomy. The level of enthusiasm and creativity displayed by my students was truly inspiring, and it reinforced their understanding of real-world applications of engineering in medicine.

The second project, **Fish Fitness**, was undertaken by my 6th graders. In this project, students investigated the characteristics of fish and designed clay models based on specific criteria and constraints to create the fastest fish possible for an aquarium setting. They calculated the speed of their designs while ensuring that their fish models did not deflect more than 5 degrees from their vertical support as they moved across the aquarium. This project not only captivated my students but also deepened their understanding of concepts such as adaptations, adaptive radiation, natural selection, and the principle of survival of the fittest. The excitement in the classroom during this activity was palpable, as students collaborated and learned from one another.

Looking ahead, I am eager to implement the remaining three STEM projects before the end of the year or at the start of the next academic year. I am confident that these upcoming projects will continue to engage my students and enhance their understanding of life sciences through interactive and practical experiences.

I am incredibly thankful to have been chosen for this grant, as it has allowed me to provide my students with hands-on learning opportunities that cultivate their curiosity and passion for science and engineering. I am committed to fostering their growth and development, ensuring that they gain the skills and knowledge necessary for their future endeavors.





