1. Project Title: Healthy Clean

2. Total Amount Requested: $1000

3. When do you anticipate implementing this project? November of 2017 and March of 2018

4. Approximately how many students will be affected by this project?
I will have approximately 110 students that will go through my Health Science classes this year. The class is a semester long class and their will be another set of classes for spring of 2018.

5. Please describe your project.
1. The purpose of the Healthy Clean Project is three fold. The components include understanding of chemistry concepts, entrepreneurial aspects of a small business, and promoting our style of education during a school wide health fair for our community in the spring of 2018. It is unique because this project is a real-world application that incorporates chemistry and business content that is applicable in their daily lives.

2. This projects incorporates content students are learning in their current science classes in terms of inorganic chemistry (lewis dot structures, bonding, etc) and hopefully spark an interest in high school chemistry with the focus on organic chemistry, which is somewhat covered in high school. The first component of the project is to provide a knowledge base of both inorganic and organic chemistry. The concepts that will be covered over the course of 6 weeks includes:
- Acids and Bases
- Polarity (Hydrophilic versus Hydrophobic properties)
- Chemical breakdown of triglycerides to create free fatty acids and glycerol and their uses
- Use of surfactants
- Exothermic Reactions
- Covalent, Ionic, and Hydrogen Bonding
- Oxidation and Reduction Reactions between various salts, acids, and bases

3. The second component is to create a variety of health products, packaging of the products, and marketing the products to create a sustainable small business model that will allow the business to continue indefinitely without additional funding. The health products include the following: soap (solid and liquid), shampoos, conditioners, lip balm, facial scrubs, and facial masks. All of these products are organic without any preservatives or other allergenic chemicals normally found in store bought products that have been identified as allergenic chemicals by different consumer groups. Our Art Club will be creating unique packaging labels for all of our products to enhance the presentation of them. Last year, my students and I were able to successfully refine our techniques in creating soaps and shampoos and now are ready to expand the product line to liquid hand soap, bath bombs, lip balms, facial scrubs, and facial masks.

The final component of this project is to promote a project-based education at the school to the community. In the spring of 2018, Our school will be hosting a health fair for the community. During the health fair, my students will have a spa-like station in which the community have the opportunity to test our products (soaps, shampoos, facial scrubs, and masks) and buy them as well. Our students will not only run the stations and act as beauticians, but explain the chemistry behind the products. It will be messy, but that will be half the fun.

4. In terms of the cultural compass of District 49, I feel I am always trying to shoot for innovation and creativity to inspire students to become life long learners. I always explain to my students that I am always looking to learn and apply new ideas in everyday life. That is the point of this project. Soap is not just soap. It is the breaking of triglycerides into free fatty acids and glycerol that has 15 different applications in the health and medical field. This project allows our students to understand the science behind health products, how to use that knowledge to create the health products, and what it takes to open and maintain a small business venture to help supplement their income or become their primary means of income. In other words, this is a real-world application of knowledge.