Proposal:

1. Mini Professional Development Project Title: Beyond the STEM Challenge

2. School Name(s), Number of Educators Planning to Attend, Grade Level(s): Phil Campbell Elementary School, 3 Educators, 4th Grade, Science, Approximately 22 students in each class; Date of PD October 08, 2020

3. Justification. I selected option one to focus on content for 4th grade science. I want to focus data integration within a STEM unit. This is an area that did not come easily to me when planning for STEM activities, so I want to demonstrate to others how they can find ways to have students engaged with data. I believe the incorporation of the data moves our students' thinking to a deeper level of comprehension of their subject matter.

4. Brief Summary of Project: I will discuss with the teachers the value of incorporating data in a STEM unit. We will look at a unit that I developed on the Devastation of the Colorado River, and how data was used in that unit. I plan to have a list of data resources for the teachers to refer to when they are planning their own STEM units. Also, I plan to show them examples of ways they could use data. I want to be able to show the teachers how using the data aligns with our state standards as well.

5. How does the project integrate NASA assets and STEM content and/or pedagogy learned through Endeavor? Include links and descriptions of all NASA assets used. The PD will have a STEM unit that the teachers can use in their classroom. I plan to show the teachers websites that have been helpful to me and websites that can be used with the focus on land formations such as NASA Classroom; United States Geological Survey; Google Earth; NASA Earth Observatory. I hope that each teacher will find that incorporating data helps our students begin to think like scientists.

6. What obstacles do you foresee in your professional development choice? I want to make sure that I do a thorough job of explaining the importance of data integration in a STEM unit. Also, I want to be able to answer any of their questions knowledgeably. If questions cannot be answered right away, I hope to give them enough references where they might find an answer. My hope is that the teachers will feel confident with the information I give them so they can begin thinking about engaging their students with data.