

Emily McAfee and I will be parenting this practicum presentation together. We have a professional development that we hosted this summer that we would like to adjust to meet the needs of our practicum.

1. Mini Professional Development Project Title

STEM and the 5E Model

2. School Name(s), Number of Educators Planning to Attend, Grade Level(s) (If you picked option #3, this is just your target audience for your manuscript).

Our professional development will be hosted Oct. 26th at GRREC (SOKY Robotics Rumble) for any Southcentral Kentucky School Districts to attend. As of right now, we are unsure about the number of participants. However, our target audience will include secondary math/science educators.

3. Justification. (Why did you select the option/topic?)

Emily and I developed this professional development to help bridge the gap between STEM related topics within the secondary classroom. Thus, we determined that the main tool for educators is to utilize the 5E education model to create/implement engaging and rigorous lessons within the secondary classroom.

4. Brief Summary of Project (What will you do with teachers?).

The professional development starts with Emily specifically walking through each step of the 5E model as she demonstrates her Carbon Cycle lesson. Emily will be discussing how each activity meets the individual five E's and allowing the participants to be in the student model and actually complete some of the 5E's of the lesson. Afterwards, I will be presenting my physics review unit as if the participants were my students. Participants will investigate the terrain of mars and requirements for a mars rover, they then will design a mars rover to meet the specific requirements and constraints. For the elaborate and evaluation portions, participants will not be able to complete in-person due to lack of time, thus they will view evidence of the lesson within my personal classrooms. At the end, we will discuss the lesson they just completed related to the 5E instructional model.

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.

Emily will be utilizing NASA graphs and data tables related to the Carbon Dioxide levels of different locations. I will be utilizing a NASA resource that I discovered during my endeavor experience <http://accessmars.withgoogle.com/>

6. What obstacles do you foresee in your professional development choice?

This professional development is structured more for higher secondary educators, thus, if any primary educators attend not all resources will be helpful. Also, if educators are already well educated in the 5E model and STEM education, this specific professional development will not be helpful.