

Caitlyn Gironda  
Practicum Project Proposal

1. Professional Development Project Title:

More Than the “M”- Integrating STEM Pedagogy into the Mathematics Classroom

2. Justification. (Why did you select the topic?)

I selected this topic because I have learned so much about integrating the engineering design cycle and other STEM ideas into my mathematics classroom and I my district is generally very behind in integrating non-lecture based strategies. I have been given a 1 hour session during a staff development day to have teacher attend.

3. School Name(s), Number of Educators, Grade Level(s)

Saratoga Springs High School, 20-30 educators, Grades 7-12

4. Key Learning Goals for Educators

In this sessions, educators will discuss the benefits of integrating more well rounded STEM activities into the mathematics classroom and will be given time to work through an activity appropriate for their grade level. Each activity will be based around the NASA “Stomp Rockets” Lesson Plan, but will be differentiated by course taught.

5. Curriculum Topics and Standards Addressed including a summary of the NASA data/resources included.

Varies, depending on which options the teachers choose to work on during their time.

6. Brief Summary of Project (What did you do with teachers?). Include how the project indicates the integration of NASA assets and STEM content and pedagogy learned through Endeavor.

The original NASA lesson is found here:

<https://www.jpl.nasa.gov/edu/teach/activity/stomp-rockets/>

Teachers will be given time to work through the design process to create their model rockets. We will then launch them and teachers will be given varied tasks based on the level they teach.

7. How will you follow up with the teachers in attendance?

I will be following up with the teachers in attendance in multiple ways. First, I will have teachers complete an anonymous survey before they leave the session with their feedback on the material, what they learned, how they think it might be useful in their class, and suggestions for improvement. Secondly, my district requires teachers to complete an anonymous survey that is numerically based. Lastly, I will be able to check in with teachers who are within my department as they bring these ideas back to their classroom and be a resource to help them.