M. Nonaka Leadership PD Proposal Spring 2020

1. What is the title of your mini STEM professional development?

What is NGSS and What is Great STEM Instruction?

2. Why did you select the topic?

At my school, there has been a huge lack on STEM and NGSS support for our teachers. Our state's plan was that by the year 2019-2020, all schools would be using NGSS standards. Unfortunately the teachers at my school have not had much support in this area and do not fully understand what the standards are as well as how to design instruction around the ideas of NGSS and STEM.

3. Who is your proposed audience? Which teachers will you serve with your PD and activities? What grades, subjects, and how many students do they teach?

The audience for this PD is 24 PreK-5 teachers that teach a total of approximately 550 students.

4. What "general" science or mathematics concepts or learning goals will you and your materials address which can potentially replace other classroom activities?

- Teachers will have a better understanding of the NGSS Framework.
- Teachers will have an understanding of STEM Instruction and what STEM Literacy means.
- Teachers will learn about the 5E Inquiry Model of lesson planning.
- Teachers will learn how to use data sources to enhance a topic that is being taught in order to support engagin contexts.
- Teachers will be given NASA resources as well as other high quality resources to support their teaching.

5. How and where do you intend to carry out your PD? How long will the session be? When will it be held? Will teachers have access to computers?

This PD will be rolled out in small groups by grade levels or grade level bands to provide a more meaningful conext for teachers. If teachers are engaged with content and activities for the grade level that they teach, it is more likely that they will use what is learned in the session and apply it in class. Each session will be approximately 90 minutes long during grade level PLC (professional learning community time) or in an afterschool format. There will be 4 sessions (PreK-1, Grades 2-3, Grade 4, Grade 5) and each session will have between 4-8 attendees. Each teacher will bring their own laptop to the session.

6. What outcomes or expectation do you hope to see for your educators?

By the end of the session, it is hoped that teachers have a better understanding of NGSS and STEM education so that they are more confident in understanding how to design effective instruction. In addition, with the resources provided, it is also hoped that teachers try out some of the ideas presented in their own classrooms.

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

Since I am a long-time classroom teacher at my school, I have developed strong relationships with the staff. It is very natural for me to continue these conversations with teachers since many already consider me as someone who is knowledgable in the areas of NGSS and STEM. In addition, it looks as though my administrator will be creating a STEM position at my school for school year 2020-2021. This will allow me to continue working with teachers to develop units of instruction as well as support teacher with creating more STEM focused classrooms.