

PROPOSAL SUBMISSION

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STEM Leadership Seminar

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## Professional Development in 5E Lesson Planning and Implementation

Above is the title of my proposal as a STEM leader. I selected this because of interest found among my fifth-grade team of colleagues during casual conversation. For this PD, I will utilize what resources I gained during my NASA experience to include 5E Lesson Planning Model with recommendations to many apps that will support STEM learning. Attendees will participate in a 5E lesson, completing a quick STEM challenge for some hands-on learning. Finally, participants will have time for planning so each attendee can walk away with a written 5E lesson in STEM. The proposed audience will consist of the fourth and fifth-grade teams of teachers to include the following. Confirmed to date are the two fourth grade teachers, two of the fifth-grade teachers, one teacher assistant, and a paraprofessional.

The STEM concepts and materials that I will utilize will be the 5E Lesson Plan model, the NGSS standards, and how to find STEM ideas through various sites shared through the Endeavor program. This session will last approximately one hour and 30 minutes. The recruited audience arose through casual conversation through interest. The principal will share my PD through email with others in building for anyone else to join if interested. The pre and post-surveys will address the following questions. How much do you know about the 5E model of lesson planning? What is the NGSS, and how can we utilize it in our planning? Do you implement STEM activities into your workweek? If yes, how often? Will implementing STEM into your workweek increase with the new information that you have learned today?

The standards of the presentation will include the introduction of the NGSS standards, along with the lesson standard “5-PS2-1. Support an argument that the gravitational force exerted by Earth on objects is downward. PS2.B: Types of Interactions- The gravitational force of Earth

**PROPOSAL SUBMISSION**

acting on an object near Earth's surface pulls that object toward the planet's center". Along with the activity, participants will learn to integrate CCSS into STEM lessons to include "ELA/Literacy -RI.5.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text. (5-PS2-1) RI.5.9 Integrate information from several texts on the same topic in order to write or speak about the subject knowledgeably. (5-PS2-1) W.5. Write opinion pieces on topics or texts, supporting a point of view with reasons and information. (5-PS2-1)".

The expectation of outcomes for educators will be the increased interest in creating and instructing STEM activities, the familiarity of NGSS standards, the 5E lesson plan format, and the Engineering design process. Participants will have a follow-up after the PD in a grade-level PLC to inform the presenter of what is working and what is not. Support offered to individuals as needed. After the professional development, the participants will partake in a Google Form Survey about the entire presentation. This process will give the presenter (me) feedback and support the growth of the presenter as a leader.