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Leadership PD Proposal
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Title: Exploring Mars: A Twist on Writing

Why did you select this topic?

I am extremely passionate about finding ways to integrate multiple subjects together in order to show how they all connect with each other. I believe that when students can see how the things they are learning all impact one another it has far more meaning to them than learning topics in isolation. It's one of the things that draws me toward STEM. However, I began my courses with Endeavor prior to being hired in my new district where I teach only ELA to 4th graders. Being used to teaching all of the subjects and being able to integrate units across subject areas, it was a lot more challenging than I anticipated it would be to find moments to integrate the different subject areas. It was difficult to see how I could incorporate what I was doing in my STEM courses with strictly ELA content.

I chose this topic for my PD because it was the first time I really felt successful with integrating the resources from my classes with the content of what I was teaching instead of having what seemed like isolated STEM lessons in my ELA classes. Also, I wanted to find a way to combine writing, science, and social studies as they are the three subjects that get the least amount of attention allocated to them throughout the day. So, I started with the premise that many writers (no matter the genre) will conduct research prior to writing. Yet, in school we tend to only conduct research when needing to write a nonfiction report. Research is also becoming an increasingly important aspect for students to learn how to do, why not allow students to conduct research in order to help them build background knowledge prior to a creative writing project.

I used the Mars resources from NASA with our realistic fiction writing unit, and I found that even my most reluctant writers were excited about doing research and writing a story. Students who I was lucky to get a paragraph from before were writing pages and were excited to start writing class every day. They were adding far more detail to their stories and were more willing to go through the revising and editing process because they really wanted to have a great product in the end. They did so well that we extended what we were doing into writing Pourquoi Tales. They were using what they learned about Mars and did additional research on other planets to create great writing pieces on how Mars and Earth battled over water or the sibling rivalry that occurred between the planets that resulted in their current order.

I am hoping that by sharing my experiences and by presenting science topics that are current and relevant for students that we will see an increased interest in writing, and that will ultimately work to improve students' ability to write and conduct research overall.

How does your PD integrate NASA assets and/or content from the Endeavor courses?

I plan to start my PD with a focus on the Mars Curiosity and The Red Planet websites from NASA and the National Geographic's Mars site that I used with my own class. I would then give them time to explore the sites on their own while also pointing out some of the links for the Insight lander, Google Mars, and the Artemis Program. They will also be able to explore NASA's Space Place as a great resource for students to do research and learn about our planet and the Universe. These were all sites that are connected to my Exploring Mars class.

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

I work in an elementary school that has grades 3-5. So, my proposed audience is everyone who teaches ELA or something connected to ELA in my elementary school. The people involved would include six 3rd grade teachers, three 4th grade teachers, three 5th grade teachers, the librarian, five learning support

teachers, the reading specialist, and the gifted and talented teacher. The six, 3rd grade classroom teachers have approximately 25 students in each class homeroom. The 4th and 5th grade ELA teachers each have two classes of about 25 students. The learning support teachers each have between 5-15 students that they see each day for reading/writing support.

What STEM concepts or learning goals will you and your materials address which can potentially replace other classroom activities? List NGSS and CCSS or your state standards.

Right now, the research done by students at each grade level is contained in one unit per year where students write a nonfiction report. My goal is that teachers will see a connection between scientific research and the act of writing on a larger scale than simply conducting a report. Not only will it help to build background knowledge that will help in other content areas, but through writing, become better communicators as well.

NGSS

4-ESS1 Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.

State Standards

3.3.4.A1 Describe basic landforms; Recognize that the surface of the earth changes due to slow processes and rapid processes.

3.3.4.A6. MODELS/SCALE Identify basic landforms using models and simple maps

3.3.4.B1. Identify planets in our **solar system** and their basic characteristics.

CC.1.4.4.M Write narratives to develop real or imagined experiences or events.

CC.1.4.4.N Orient the reader by establishing a situation and introducing a narrator and/or characters.

CC.1.4.4.O Use dialogue and descriptions to develop experiences and events or show the responses of characters to situations; use concrete words and phrases and sensory details to convey experiences and events precisely.

CC.1.4.4.P Organize an event sequence that unfolds naturally, using a variety of transitional words and phrases to manage the sequence of events; provide a conclusion that follows from the narrated experiences and events

CC.1.4.4.Q Choose words and phrases to convey ideas precisely.

CC.1.4.4.R Demonstrate a grade- appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling.

CC.1.4.4.T With guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, and editing.

CC.1.4.4.U With some guidance and support, use technology, including the Internet, to produce and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to type a minimum of one page in a single sitting.

CC.1.4.4.V Conduct short research projects that build knowledge through investigation of different aspects of a topic.

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?

We have an hour for planning and meetings every morning before the students arrive. My principal is giving me the hour that we have in the morning for our monthly ELA meeting for all grade levels to do my PD on Nov. 6th. I will also be offering to meet with individuals or teams to help them plan a possible lesson/unit or brainstorm graphic organizers and materials for their lessons. The main PD will be held in either my own classroom or the school library (as yet to be determined).

While we have an hour, I anticipate that the main PD will be approximately 45 min. as there will be other topics that will need to be addressed at the meeting. However, I would also meet with individuals and teams to continue planning with teachers after that. I already know that my 4th grade team has asked me to go over the NASA resources prior to starting our next writing unit.

All teachers will be asked to bring their school issued laptops so they can explore the resources as groups during the professional development. Anyone who doesn't have their laptop can use one of the student laptops found in the classroom or library.

What, in general, will your pre-survey and post-survey ask?

Pre-survey:

I plan to ask general questions about teachers familiarity with NGSS and NASA resources. I also plan to ask them about ways in which they currently use research within the classroom.

Post-survey:

I plan to ask them about which resources they found most helpful/useful, and if there are other areas they are still interested in exploring. If so, then would they like to meet as a team or individually. I plan to ask them if they feel more knowledgeable or comfortable using the NGSS and/or NASA resources to plan units. I will also ask them about areas that I could improve on for any additional professional developments.

What outcomes or expectations do you hope to see for your educators?

I hope that they are inspired by some of the resources they were able to explore and can see a way to incorporate them into some of their own writing units. I hope that they are able to then see some of the same changes I saw in students, particularly the ones that struggle to write.

How will you follow up with the teachers in attendance?

I will have the post-survey as well as encourage them to email me with questions. I am hoping that there will be several that wish to have follow up meetings with me and then I can continue to touch base with them throughout the year.

What data collection methods (e.g. surveys, interviews) will you use to analyze the PD's success?

I will use the post-survey initially. In the post-survey, I plan on asking anyone if they would be interested in meeting with me to discuss