

Leadership Proposal

By

Tammy Martinez

Endeavor: STEM Teaching Certificate Project

Practicum in STEM Leadership

Ashley Hollern

Leadership Proposal

Title

"Little Innovators: Creating a STEM-rich Kindergarten Experience!"

Leadership Project Option

Option 1: Implement a Professional Development Experience

Currently, there is a high focus on Math and Reading instruction. In the ten years I have taught at AES, there has never been a science curriculum or discussions about implementing it across content areas. For most teachers in my building, teaching science is a low priority. Teachers are feeling stressed with implementing a new math and reading curriculum. Most teachers do not know where to begin when it comes to integrating STEM into other subjects. There is also a need for more understanding of STEM and the importance of getting our young learners to develop the skills necessary for success in the future.

Proposed Audience

The focus group for the professional development session will be the Alamosa Elementary School (AES) kindergarten team. The team is composed of 8 kindergarten teachers, each serving 17 to 19 students.

How will your project demonstrate integration of STEM in the classroom?

The professional development experience will give teachers the tools and resources to implement STEM across math and reading content areas. Teachers will learn what STEM is and its importance in creating critical thinking and problem-solving skills, collaboration among students, and the application of knowledge in real-world contexts. Participants will look at the Next Generation Science Standards (NGSS) and compare and contrast them to the Colorado Department of Education Kindergarten Science standards.

Engineering will be the focus of STEM lessons in this session. Using the NGSS, teachers will engage in a unit for *K-PS2 Motion and Stability: Forces and Interactions*. Teachers will also be shown an example of implementing Engineering into *K-LS1: From Molecules to Organisms: Structures and Processes*. Participants will walk through each part of the lesson and identify which parts of STEM is being integrated into content areas.

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

Educators will be able to use NASA resources to integrate STEM across content areas in their lessons.

How will you follow up with the teachers in attendance?

The initial follow-up after the session will include a survey that attendees can fill out with an open-ended section where they can make comments and request information or additional resources. All teachers who will attend this professional development session are part of my team. We will work together to plan for STEM integration across our content areas. There will be scheduled bi-weekly check-ins with teachers to attend. These sessions will allow teachers to ask questions and get clarification.