Executive Summary

Humans have long been inspired by nature to provide us with technological solutions to various problems in our world. Plants are natural solar panels and Velcro was invented by a Swiss engineer who went for a walk in the woods and wondered how the burrs were able to attach to his pants and to his dog. These inventions were inspired by careful observations of our natural world. The Science, Technology, Engineering and Math (STEM) focus is not usually on the natural world. It often takes place more in the classroom than outside, but the inspiration and knowledge we gain from nature has historically been proven. This STEM in Action project aims to address this unique side of STEM education.

The Poudre Learning Center, Centennial BOCES, two local universities, and four local industries will collaborate to provide rural teachers with the professional development needed to improve STEM teaching and learning in their districts, and provide students with an awareness of career opportunities. Teachers of students in rural areas within Weld and Morgan Counties will be recruited, as they are representative of one-person science departments who may not have access to the same opportunities as other science teachers closer to urban areas. This project will build the capacity of teachers to meaningfully connect STEM learning outside of the classroom in the context of their natural world and inspire the solutions that nature provides for the everyday work of STEM professionals in Colorado. \_\_\_\_\_\_\_\_\_# of students who are typically underrepresented in STEM careers will benefit from this collaboration between their schools, industry and their community. Our collaborative model is based on a partnership approach that connects existing resources from these entities thereby enabling sustainability of STEM education over time.