

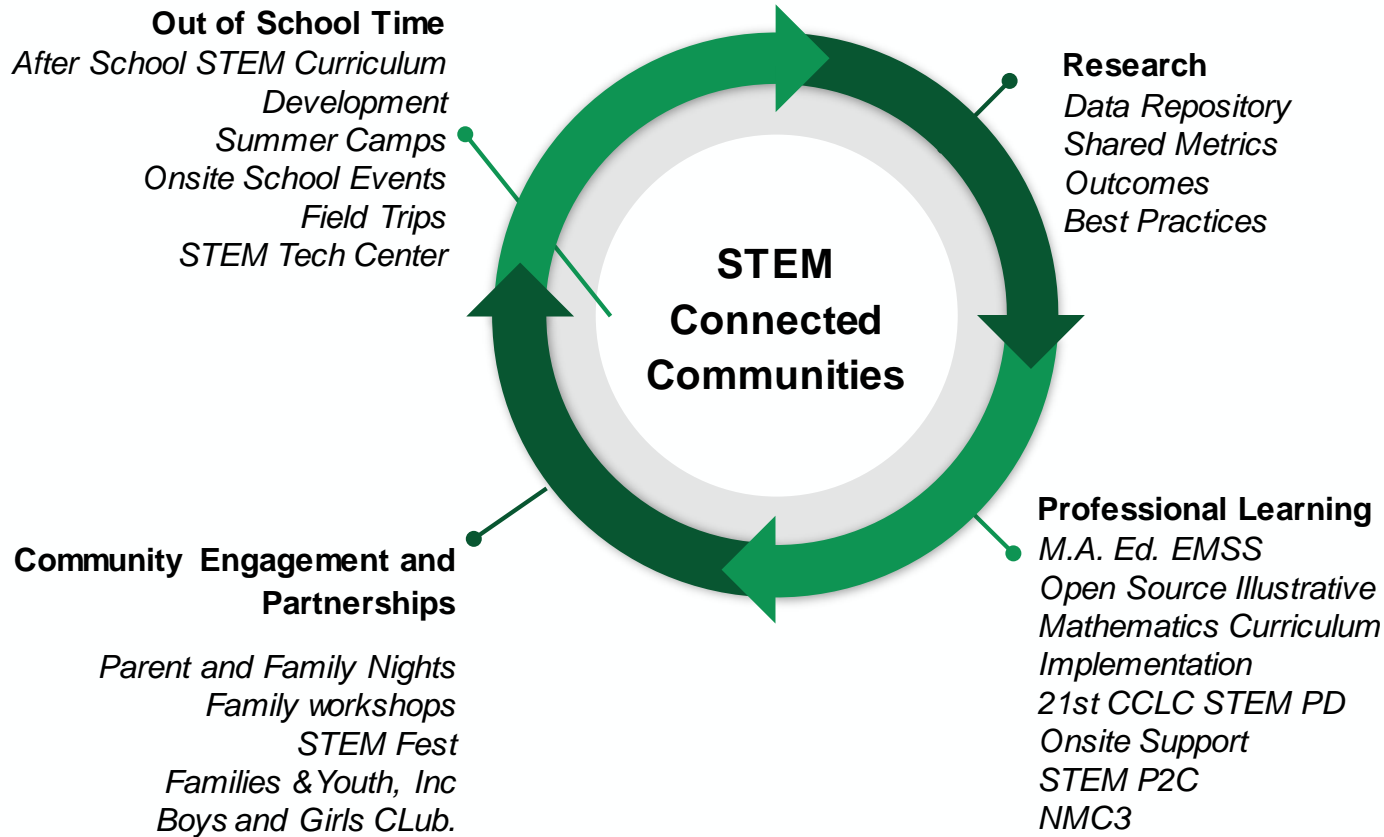
STEM Connected Communities

STEM Outreach Center
College of Health, Education, and Social Transformation

Director, Wanda Bulger-Tamez, PhD



BE BOLD. Shape the Future.



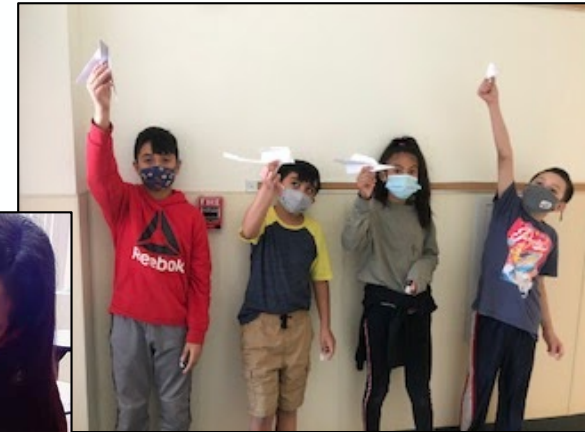
K-12 and Higher Education Partnership

- Partner with school districts to provide teacher professional learning and out-of-school time programs
- Collaborating with UNM, NM Tech, Highlands, and WNMU to develop programs of study for elementary math and science specialists (**Goal: 1000 Elementary/MS Specialists in ten years**)
- Partnering with New Mexico PED (Community Schools Bureau & College and Career Readiness) and Regional Education Cooperatives to provide professional learning opportunities for teachers



“Out-of-School-Time” Programs

- STEM Curriculum Resources
- Extended Learning – academic support for regular school concepts
- Enrichment opportunities that students may not otherwise have
- Children explore their passions and creativity in STEM Fields

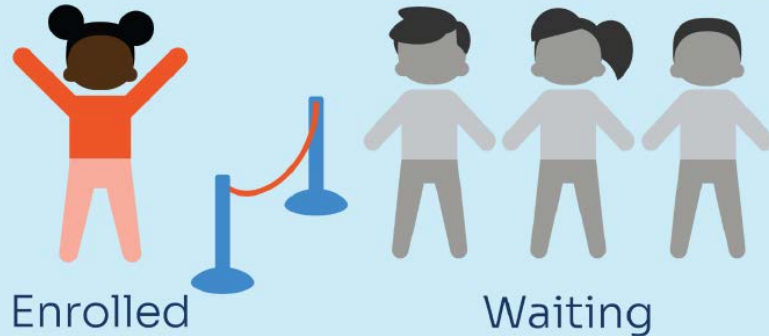


We are making a difference in southern NM!!

Children in our districts have access to quality after-school programs that are not available in many other regions.



For every child in afterschool in New Mexico, **3 are waiting** for an available program.



Elementary Math and Science Specialization

- Collaboration with Higher Ed partners and PED on developing competencies for Elementary Math Specialist.
- First Cohort of 29 teachers graduated this summer.
- 2nd Cohort of 15 began this Fall
- Needs:
 - Elementary Science Specialization Competencies
 - Continued collaboration in Higher Education to establish programs of study (online and hybrid)
 - Teacher Scholarships



Articulated Education To Career Pathways

- Developing events and access to strengthen students' pathways to high-value careers.
- Building a NMSU Outreach Program K-16 pipeline including:
 - Summer Science/Engineering Lab for K-6 students
 - STEM trailers to support rural communities in accessing innovative technologies and science experiences to help students see themselves in STEM fields
 - Design and implement 6-12 career exploration curriculum which provides a message of benefits of technical and higher education programs to support career goals
 - Collaboration with experts on NM and national Labor Market Information (Bridge of Southern NM, NS4Ed)



Summer Science & Tech Camps and Field Trips

Summer Camps

- Maker Spaces (Cruces Creatives)
- Zombie Apocalypse
- STEM Sisterhood / STEM Explorers
- Drones / Rocketry
- Coding and Quilting

Hands-on Tech and Maker Space Labs

Upcoming

- Game Design Curriculum(Coding, Tech Problem-Solving, Careers)



Example of Impact on Schools and Students

60 schools in Southern New Mexico providing STEM-based **out of school time programs** serving over **5000 students**. Over 400 **teachers** participating in STEM professional learning events.

Demographic Data

- ❑ After-school and summer programs mirror district demographic data.
- ❑ For Dona Ana County this includes:
 - ❑ Hispanic: 83.5%
 - ❑ Caucasian: 13%
 - ❑ English Learners: 22%

Results

- ✓ Over **85 percent** of students enrolled in stem-based after-school programs show improvement in academic learning.
- ✓ Schools/districts making **significant gains** in student learning.
- ✓ Schools requesting **expansion of outreach** in southern and northern New Mexico.



Riverside Elem., GISD

Potential Impact of Additional Funding...

- Expand Elementary Math and Science Specialization (Program Development and Teacher Scholarships)
- Expand Summer and OST STEM curriculum and camps for middle and high schools.
- Space (warehouse) and staffing to serve schools and expand STEM curriculum statewide.
- Establish a system of teacher professional learning in STEM that can be accessed year-round (PD, micro-credentials, on-demand courses).

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