Math and Science Advisory Council Science, Technology, Engineering & Mathematics (STEM)
Strategic Framework for New Mexico

May 2019

Needs	Driving Statements	Strategies	Impacts	Goals
Unified Statewide Vision for STEM Education	Communicate the unified, statewide vision for STEM education that aligns with the CCSS-Math, the NGSS, and Computer Science standards to provide direction and collaboration opportunities for NM STEM stakeholders.	Convene with stakeholders to inform and communicate the Statewide Vision, and align education partners to collaborate on policies toward high academic standards, meaningful student learning and assessment, and fair teacher evaluations. Build public support for the Statewide Vision by collaborating with business/industry, government, higher education, non-profit and informal education organizations, and broader community to define workforce needs as well as available resources to help students and teachers in STEM activities.	Increase communication with stakeholders to ensure meaningful and coordinated action towards common goal of STEM education.	Continuous Improvement of all NM Students in STEM Proficiency & STEM Literate Citizens that are college and career ready
High Educational Performance for all NM students	Promote high educational performance through STEM subjects using culturally relevant evidence-based practices to increase student proficiency and close the achievement gaps for economic, ethnic, race, and gender subgroups.	Use data driven best practices to identify and implement culturally relevant pedagogy throughout NM schools in order to improve education policy to address the achievement gaps.	Increase high school graduation rates and student enrollment in STEM course pathways; decrease the achievement gap and post-secondary remedial courses.	
High Academic Standards & Aligned Assessments	Establish high academic and aligned assessments for NM students to boost NM's national and international student STEM performance rankings. STEM pedagogical content knowledge must be deepened for teachers and administrators with continued professional learning opportunities.	Collaborate within our state and research other states regarding best practices to inform policy on curriculum, student assessment, teacher evaluation, and teacher development. Support the CCSS-Math, NM STEM Ready! Science, and Computer Science Standards with adequate funding for teacher and administrator training, ongoing professional development, curriculum support, STEM instructional materials and equipment.	Increase high school graduation rates of students with strong STEM knowledge and skills.	
High Quality STEM Teachers for All Students	Improve STEM teacher preparation and continuing education programs to empower teachers to meet the unique challenges of the NM classroom. Innovative and robust teacher preparation, induction, and mentorship programs are needed throughout the state.	Develop a comprehensive statewide professional learning system to increase teacher knowledge, retention, and morale throughout the state. A robust system will prepare pre-service teachers with deep conceptual understanding of relevant content and pedagogy, support early career educators, and challenge veteran teachers to ensure continuous professional learning. Ensure administrators understand effective teaching and learning of STEM and support structures for school-based professional learning.	An increase in the number of qualified teachers of STEM content entering the profession. Educators engage regularly in high quality job-embedded professional learning with a focus on continuous improvement.	
STEM Learning Opportunities for Students at All Grade Levels	Provide STEM learning environments for students at all grade levels to ensure the college and career readiness of our children ultimately leads to the long term economic well-being of NM.	Ensure adequate time and resources for STEM learning at all grade levels to include integrated, hands-on experiential curriculum, materials, and equipment aligned to the content and practices of CCSS-Math, NM STEM Ready! Science, and Computer Science Standards.	Increase science contact time in preK-5 with an emphasis on integration of math, computer science, and literacy standards. Increase access to resources (time, curriculum, equipment and materials, staff, training).	
Out-of-School STEM Learning	Support Out-of-School STEM learning opportunities for all students, regardless of geographic area or economic status, in afterschool and summer programs, at science centers, museums, and natural environments, and through media, STEM events, and informal experiences in the home and greater community.	Ensure equitable public access to out-of-school STEM learning for all students and families. Leverage the capacity of informal science education (ISE) facilitators and organizations to support STEM learning for all New Mexicans.	Increase the number of students involved with community ISE's and create higher levels of engagement in school-based STEM learning.	