Math and Science Advisory Council STEM Strategic Framework for New Mexico

Needs	Critical Issues	Strategies	Impacts	Outcomes
Unified Statewide Vision for STEM Education	A statewide vision for STEM education is needed to align state education policies and guide all partners toward the development of engaged citizens ready for the workforce.	Develop a Statewide Vision and align all education partners to promote 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.	Shared understanding 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	There is an achievement gap at all grade levels for economic, ethnic, race, and gender sub-groups in math and science subjects. Source: NMSBA 2014	Use data to identify culturally relevant and other best practices in NM and high performing schools in order to improve education policy to address the achievement gap.	Decrease in the achievement gap and post-secondary remedial courses; increase in high school graduation rates.	
High Academic Standards & Aligned Assessments	New Mexico students rank lower than average on national and international benchmarks in STEM at all grade levels. Source: NAEP, SAT, ACT 2014	Use lessons learned from the implementation of the Common Core State Standards in other states to inform policy on curriculum, student assessment, teacher evaluation, and systems for teacher support. Adopt Next Generation Science Standards with adequate funding for teacher and administrator training, ongoing professional development, curriculum support, and science materials and equipment.	Increase in high school graduation rates and the number of high school graduates with strong STEM knowledge and skills.	
Highly-Trained STEM Teachers for All Students	NM colleges and universities do not graduate sufficient numbers of classroom teachers who are qualified in STEM. No mechanism exists to ensure preK-12 and pre-service educators engage in continuous improvement.	Develop a comprehensive professional learning system that spans the continuum from pre-service education to in-service programs to ensure continuous professional learning for all teachers and administrators.	An increase in the number of qualified STEM teachers 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 in the School Environment	Curriculum materials and equipment are insufficient in STEM classes at all grade levels; elementary instructional time for science is insufficient.	Ensure adequate time and resources for STEM learning at all grade levels to include curriculum, materials, and equipment.	Increase in science contact time in preK-5 with emphasis on integration of math and literacy standards. Increase in resources (time, curriculum, equipment and materials, staff, training).	
Out-of-School STEM Learning	STEM learning is not only a K-12 responsibility. Significant STEM learning happens in after-school and in summer programs, at science centers, museums and natural environments, through media, competitions, and through informal experiences at home.	Ensure equitable public access to out-of-school STEM learning for all students and families. Leverage capacity of the informal science education (ISE) providers to support system-wide STEM learning efforts for all New Mexicans.	Increase in the numbers of students engaged by community resources and higher levels of interest for in-school STEM learning.	