

Priority 1: Equity and Access

Goal 1: Promote Equitable Opportunity for STEM Education Across Nevada

Key Strategies	Identify schools and programs with a proven track record of engaging underrepresented demographic groups in STEM, identify best practices involved, and disseminate information across the STEM community.	Develop a coalition to identify and apply for federal grants that fund the development and increase the scale of STEM programs that seek to increase equity.	Increase the number of high-quality informal/after school STEM programs. Identify and scale existing programs with positive results.	Increase the opportunities for applied learning, internships and apprenticeships in STEM disciplines develop outreach plans to underrepresented demographic groups.	Increase the availability of dual enrollment and distance learning programs within STEM disciplines to reduce inequities in access. Provide students with detailed information.	Increase STEM mentorship and provide increased access to role models, professional networks, and successful alumni.
Stakeholders	OSIT, SAC	OSIT, SAC	Non-profit Community, K-12, NDE, Legislature, OSIT	NDE, K-12, Business & Industry, OWINN	NDE, SBE, Legislature	OSIT, Business & Industry, K-12
Current Efforts	Start with designated STEM schools		NDE CCR Grant		OSIT/CSN/CCSD science dual enrollment project	Linking STEM Coalition's STEM Ambassador program to STEMHub website
Needed Efforts				NDE WBL funding OWINN beginning to work on apprenticeships		

Priority 2: Quality and Scope

Goal 1: Improve the Quality and Quantity of STEM Education in Nevada Schools

Key Strategies	Make science scores count more heavily in administrator and principal evaluations, once the state science test and state adopted science standards are in alignment.	Increase the use of hands-on, experiential STEM learning in all grades, with particular emphasis in grades 1-5.	Increase the percentage of elementary schools that teach science three plus hours per week.	Increase the percentage of high schools that require three years of science and four years of mathematics.	Increase the percentage of students taking and passing pre-calculus and calculus in high school.	Increase the number of STEM-focused CTE pathways in schools throughout Nevada.
Stakeholders	K-12, NDE, SBE	K-12, NDE, OSIT, Non-profits, RPDP	SBE, K-12, NDE	SBE, K-12, NDE	SBE, K-12, NDE	NDE, K-12
Current Efforts						
Needed Efforts						

Goal 1: Improve the Quality and Quantity of STEM Education in Nevada Schools (continued)

Key Strategies	Increase the number of internships, job shadowing, and summer research programs, and expand partnerships with local industry.	Restrict State K-12 STEM funding (College and Career Readiness Grant) to evidence-based, high-quality formal and informal STEM practices and programs. Create a stable, dedicated funding source for STEM and use State STEM funding to scale	Develop and promote the creativity in STEM via STEAM and design.			
Stakeholders	NDE, K-12, OSIT, DETR, Business, RDAs	NDE, SAC, Legislature, OSIT	SAC, OSIT, Business, Non-profit			
Current Efforts		OSIT/NDE Discussions				
Needed Efforts						

Goal 2: Increase the Quality and Quantity of STEM Professional Development Opportunities for Teachers and Administrators

Key Strategies	Create and advertise a certificate or endorsement for STEM for teachers.	Restrict the use of state funds (Great Teaching and Leading Fund) to evidence-based, proven professional development programs and curriculum.	Increase the number of teachers receiving STEM high-quality and researched-based professional development.	Develop STEM professional development for administrators, school board members, and other community leaders.	Identify teachers, classrooms, and schools that can serve as models for demonstrating exemplary STEM teaching and learning.	Provide greater support to pre-service teachers and administrators studying STEM.
Stakeholders	Commission on Professional Standards, RPDP, NSHE	SBE, K-12, Legislature, OSIT	K-12, NDE, RPDP	K-12, NDE, SBE, RPDP	K-12, RPDP, OSIT	Higher education, SBE, K-12
Current Efforts	OSIT/NDE Discussions	OSIT/NDE Discussions				
Needed Efforts					Start with STEM School designees	

Goal 2: Increase the Quality and Quantity of STEM Professional Development Opportunities for Teachers and Administrators (continued)

Key Strategies	Grow the number of STEM teachers trained by Nevada colleges and universities by starting or expanding innovative programs that market the teaching profession to students pursuing STEM majors.	Scale existing programs that provide alternative routes to licensure for STEM professionals.	Provide externship opportunities for teachers at STEM businesses that give real-world context to teachers and count towards requirements for professional development.			
Stakeholders	Higher education	NDE, K-12, RPDP	NDE, RPDP, K-12, Business			
Current Efforts	Nevada Institute on Teaching and Educator Preparation					
Needed Efforts						

Goal 3: Identify and Scale Best Practices

Key Strategies	Increase the number of schools that receive the Governor’s STEM School Designation each year.	Create a teachers’ forum that would serve as a statewide STEM professional learning community for educators to collaborate on best practices in teaching STEM.	Identify and support the best informal and out-of-school STEM learning opportunities that challenge students to develop critical thinking, problem solving, collaboration, and teamwork skills.			
Stakeholders	SAC, OSIT, K-12	OSIT	OSIT			
Current Efforts		STEMHub website	Subcommittee			
Needed Efforts	Create Nevada bluepring					

Goal 4: Increase Scope

Key Strategies	Integrate Arts, Culture, and Computer Science programs, activities and curricula into STEM, both during the school day and after school.	Develop and adopt computer science standards for K-12. Provide necessary professional development to teachers and adopt course requirements for pre-service teachers.	Allow advanced/rigorous Computer Science courses (Advanced Placement CS A, a dual enrollment computer science class, and CS III in CTE) to fulfill a requirement for graduation, NSHE admission and Millennium Scholarship.			
Stakeholders	SBE, SAC NDE, K-12, Business Community, Non-profit Community Subcommittee	NDE, SBE, SAC, K-12, RPDP, Higher Education	NDE, SBE, SAC, NSHE			
Current Efforts		Subcommittee SB200	SB200			
Needed Efforts						

Priority 3: Interest and Awareness

Goal 1: Increase Student, Parent, and Teacher Interest In and Awareness of STEM

Key Strategies	Develop an ongoing, robust STEM marketing campaign targeting students, parents, teachers, business, and other community leaders disseminating information about pathways to STEM careers.	Develop and promote a dedicated STEM website with career pathways, STEM teaching, and corporate engagement resources targeting students, parents, job seekers and employers.	Scale and coordinate existing STEM outreach efforts to students, parents, teachers, counselors, and other stakeholders under a common message regarding formal and informal opportunities to learn about STEM and for STEM careers.	Develop and administer a survey to STEM stakeholders such as students, parents, teachers, and employers.		
Stakeholders	OSIT, SAC, NDE, OWINN, Non-profit Community	OSIT, GOED, DETR, NSHE, K-12	Higher education, K-12, OSIT, NDE, Non-profit Community, Business	OSIT		
Current Efforts	STEMhub and OSIT budget	STEMHub website	Northern Nevada Career Tech promotion effort			
Needed Efforts			Similar effort in Southern Nevada			

Goal 2: The Creation of a Society that Recognizes the Importance of STEM Education in Creating a Vibrant Economy

Key Strategies	Educate stakeholders about the STEM strategic plan.	Work with local governments to incorporate STEM into urban and regional plans.	Increase corporate philanthropy in STEM to scale evidence-based, effective and coordinated programs.			
Stakeholders	OSIT, SAC	OSIT, SAC, Higher Education, K-12	Business Community			
Current Efforts						
Needed Efforts						

Priority 4: Engagement and Alignment

Goal 1: Align Curriculum and Programs with the Skills Required by STEM Employers

<p>Key Strategies</p>	<p>Promote the delivery and quantity of STEM education that aligns with Nevada’s industry and workforce needs, including Career and Technical Education.</p>	<p>Align secondary and postsecondary STEM content and programs with workforce and economic needs.</p>	<p>Use NPWR and/or GOED data, and employer feedback to identify STEM workforce needs and gaps in the educational pipeline, and reallocate resources to effective, proven programs in K-12/higher education that lead to skills in targeted industry sectors and away from programs that do not.</p>	<p>Invest in workforce training programs that provide education and training for in-demand, targeted STEM occupations.</p>	<p>Align STEM degree and certificate attainment with industry needs.</p>	<p>Increase training and educational opportunities at the worksite, including internships and apprenticeships. Allocate credit toward a degree or credential for relevant work-based-learning.</p>
<p>Identified Stakeholders</p>	<p>OSIT, GOED, OWINN, Sector Councils, DETR, Governor’s Workforce Development Board, NDE, K-12</p>	<p>NDE, K-12, Higher Education, GOED, DETR, OSIT, SBE</p>	<p>OWINN, DETR, GOED, NSHE, NDE, K-12, Business Community, OSIT</p>	<p>Legislature, OSIT, DETR, Governor, NDE, K-12</p>	<p>Higher education, NDE, K-12, Governor</p>	<p>Business Community, K-12, NDE, DETR, Higher education</p>
<p>Current Efforts</p>				<p>OSIT/GOED workforce training funding</p>		<p>NDE/OWINN have legislative mandate</p>
<p>Needed Efforts</p>						

Goal 2: Increase STEM Education, Workforce Development, and Economic Development Coordination and Cooperation Amongst State and Local Government, Higher and K-12 Education, Businesses, and Other Stakeholders

Key Strategies	Increase communication and cooperation among government, business, and non-profit STEM actors and advocates in order to align efforts and avoid duplication and waste, using the STEM Advisory Council as a central hub for communication and coordination.	Encourage the establishment of university presidents'/K-12 superintendents' presences in the business community and encourage the establishment of educational liaisons from business to formalize relationships with schools.	Incentivize and provide time for faculty teachers to engage in business and community STEM partnerships. Teachers should receive professional development in developing partnerships, including partnerships outside the geographic region. Efforts to establish partnerships with STEM businesses and community organizations should be tracked and reported on as a part of school leaders' evaluations.	Promote local chambers' and regional economic development organizations' engagement by assisting with brokering and maintaining industry-school/university partnerships. Develop a list of partnerships between businesses and schools.	Develop and promote teacher summer externships at STEM businesses.	
Identified Stakeholders	Everyone	SAC, OSIT, Business, Higher education, K-12	SAC, OSIT, K-12, RPDP	SAC, OSIT, GOED	SBE, NDE, Legislature, Business, K-12, OSIT	
Current Efforts						
Needed Efforts						

Goal 3: Promote the Effective Leveraging of State and Federal Funding, such as Funding Found in the Every Student Succeeds Act

Key Strategies	Include STEM as a main component of the Nevada's Every Student Succeed Act (ESSA) plan.					
Identified Stakeholders	NDE, Governor					
Current Efforts						
Needed Efforts						