



**IDAHO STATE BOARD OF EDUCATION
2014-2018
Science, Technology, Engineering, and Math
(STEM)
Education
Statewide Strategic Plan
Approved October 2014**



Vision Statement

The State Board of Education envisions a diverse citizenry with the STEM knowledge and skills needed for critical and creative thinking, problem solving, innovation and collaboration.

Mission Statement

Advance STEM for the future of Idaho by: increasing all students' interest, engagement, and success in STEM education; preparing students for STEM and related careers; and firmly establishing the partnerships between industry, education, and government to make these goals a reality.

Diversity Statement

Equitable access to P-20 STEM education opportunities and increased diversity will contribute to the success of students and employees entering STEM fields. Diversity and equal access are critical components of each goal within this plan.

Goal One

All students will have equitable access to P-20 STEM education opportunities, curriculum, programs, and policies that will improve P-20 student content knowledge, academic performance, and interest in STEM, contributing to the success of students and employees entering STEM fields.

Objective A: Increase student awareness, interest, participation and achievement in STEM.

***Performance Measure:** Number of students majoring in STEM CIP codes (by demographic)*

***Performance Measure:** Ratio of STEM degrees to non-STEM degrees*

Objective B: Assess and identify effective, innovative, and sustainable programs for delivering STEM education.

***Performance Measure:** Completion rate of STEM majors (by demographic)*

Objective C: Develop processes for "scaling up" STEM education delivery models.

***Performance Measure:** Number of students taking classes identified as STEM classes*

Performance Measure: *Number of sections of STEM-related courses*

Objective D: Provide students, parents, and teachers with clear guidelines and advising on the academic requirements for a student to be prepared for STEM programs at the postsecondary level.

Performance Measure: *Percentage of students meeting science benchmark on ACT (by demographic)*

Performance Measure: *Percentage of students meeting math benchmark on SAT and ACT (by demographic)*

Objective E: Adopt framework for identifying and recognizing and programs aligned with 21st Century Skills in STEM.

Performance Measure: *STEM graduates employed in Idaho 1, 3, and 5 yrs after graduation*

Goal Two

P-20 educators will be diverse and of high quality and be prepared and able to incorporate and integrate STEM education in their curriculum and instruction.

Objective A: Develop meaningful system-wide professional development and mentoring programs for all education professionals designed to increase content knowledge as well as pedagogy.

Performance Measure: *Number of courses of STEM professional development offered*

Performance Measure: *Enrollment in STEM professional development courses*

Objective B: Create a STEM database that catalogs and recommends effective STEM teacher development programs (STEM Pipeline) and pedagogy

Performance Measure: *Number of education graduates teaching STEM courses by institution*

Objective C: Increase interest and participation in STEM education outreach activities offered by schools, colleges and universities, and industry.

Performance Measure: *Number of STEM outreach activities by institution*

Objective D: Increase the supply and influence of effective STEM teachers.

Performance Measure: *Pass rates of K-12 educators on mathematics and science subtests of certification exams.*

Objective E: Develop policies that promote innovative instructional practices to increase student achievement.

Performance Measure: Percentage of students meeting science benchmark on ACT

Performance Measure: Percentage of students meeting math benchmark on SAT and ACT

Performance Measure: Math remediation rates in postsecondary education

Goal Three

Create awareness and support for STEM education across the state.

Objective A: Develop diverse and culturally relevant communication messages and tools to highlight the importance of STEM.

Performance Measure: Number of STEM outreach activities by institution

Objective B: Identify and showcase STEM events statewide.

Performance Measure: Number of STEM outreach activities by institution

Goal Four

Develop a diverse STEM talent base that is prepared to meet the demands of a globally competitive economy and is informed by and aligned with statewide economic and workforce development initiatives.

Objective A: Align secondary and postsecondary STEM content and programs with workforce and societal needs.

Performance Measure: Number of schools with a STEM-centric charter

Objective B: Increase STEM postsecondary degree production.

Performance Measure: Number of degrees awarded in STEM CIP codes

Performance Measure: Ratio of STEM degrees to non-STEM degrees

Objective C: Develop clear and meaningful processes for business engagement and learning at the elementary/secondary and postsecondary levels.

Performance Measure: Number of students participating in STEM internships

Performance Measure: Number of students participating in STEM undergraduate research

Performance Measure: Number of schools with a STEM-centric charter