

Academy for Science and Design 2017-2022 Accountability Plan

Mission Statement:

Through our innovative STEM-focused program, the Academy for Science and Design fosters an environment that inspires, nurtures, and challenges every student; cultivating their individual abilities to lead advancements in science and technology, as well as to become thoughtful, compassionate, and engaged citizens.

1. The school is making progress toward achieving its mission		
Criteria	Objectives	Measures
Academic Excellence	<ol style="list-style-type: none"> Students will demonstrate high interest and outstanding achievement in the subjects of science, mathematics, engineering, and design, including their applications in real-world settings. Students will develop skills and deep understanding across the curriculum, with emphasis on academic, social, and personal preparation for success in college as well as for active and responsible leadership in career and community life. 	<p>Progress toward academic excellence as defined in the school's mission is demonstrated by the following and detailed further under Guideline #3:</p> <ul style="list-style-type: none"> - Sustaining numbers of students who apply to and enroll in the school - Exceptional levels of achievement on standardized tests in mathematics and science - Increasing numbers of students who excel in project-based and extended learning - Exceptional levels of achievement on standardized tests in reading - Documentation of growth in students' self-efficacy, social skills, preparation for college, and leadership
Program Quality & Innovation	<ol style="list-style-type: none"> The school will offer a high-standard, college-preparatory program specializing in mathematics, applied lab sciences, and design. The school will provide subject-specific and cross-disciplinary opportunities for students to engage in project-based/inquiry learning, real-world laboratory experiences, internships with industry partners, advanced coursework through area colleges and online resources, and other effective practices in active, engaged learning. 	<p>Progress toward programmatic quality as defined in the school's mission is demonstrated by the following and detailed further under Guideline #3:</p> <ul style="list-style-type: none"> - The school's established course offerings across the STEM subject areas - Documentation of engaged, "anytime, anywhere" learning opportunities provided by individual teachers, by collaborating groups of teachers, and by the school as a whole
Organizational Strength & Innovation	<ol style="list-style-type: none"> The school's Board of Trustees will set policy and make decisions that serve the mission and vision of the school. Board committees and advisors will pursue opportunities to link the academics and program of the school with industry and higher education partners to provide extended learning opportunities for students. The school will be open to all interested students and organized to facilitate learning in a small, personalized setting The school's faculty and staff will include strong representation by individuals with significant work experience in the STEM subject areas The school will encourage and support job-embedded, collaborative forms of professional growth for teachers focused especially on improving students' motivation, achievement, and persistence in STEM learning as students move through the program. The school's administration will strengthen school organization in terms of its culture of professional collaboration, responsiveness to parents and students, openness to innovation, and its position of state leadership as a unique model of STEM-focused quality education. 	<p>Progress toward organizational capacity to achieve the mission of the school is demonstrated by the following and detailed further under Guideline #4:</p> <ul style="list-style-type: none"> - Parent satisfaction with the actions of the Board to govern the school appropriately and in line with the school's mission - Parent satisfaction that students are offered significant opportunities for off-campus, project-based, and blended learning related to the STEM disciplines - Consistent levels of student enrollment - Ongoing parent satisfaction with the school's climate for learning - Records to specify personnel with unique, mission-related work experience - Records to describe professional growth plans and activities of teachers to strengthen their content knowledge, teaching skills, and capacity to collaborate effectively with their colleagues. - Parent, faculty, and staff satisfaction with the quality of leadership demonstrated by the school's administrative personnel
2. The school is using public funds responsibly		
Criteria	Objectives	Measures
Quarterly Financial Reports	<ol style="list-style-type: none"> The school's quarterly financial reports will comply with accepted standards of public school accounting. The school's quarterly financial reports will demonstrate reasonable and prudent planning. 	<ul style="list-style-type: none"> - State financial reports are determined compliant with acceptable standards - State financial reports of account balances are determined to show that expenditures are in line with available resources
Purchasing and Billing	The school's purchasing and billing practices will meet acceptable standards for public school accounting.	- Internal and external audits reflect acceptable standards
External Audits	The school will provide an annual external audit with no material defects.	- Annual audits are approved as submitted
Board Minutes	The school's Board minutes will indicate clear communication of accurate information about the school's financial condition.	- Board minutes are determined to contain accurate information about the school's finances
3. The school promotes student attainment of expected knowledge and skills		
Criteria	Objectives	Measures

APPENDIX B: ASD ACCOUNTABILITY PLAN

<p>State Proficiency Standards</p>	<ol style="list-style-type: none"> The school's curriculum will be aligned with state-adopted content and performance standards for all applicable subject areas. Students will exceed the average performance of New Hampshire students on standardized testing at the middle and high school levels Students will show continuous improvement in their performance on state assessments of mathematics, science, and reading. 	<ul style="list-style-type: none"> Ongoing faculty review of materials, methods, and student work to confirm alignment or make appropriate adjustments in applicable courses to include the following: <ul style="list-style-type: none"> Applied Mathematics through Calculus Applied Laboratory Science & Engineering Biological Science Chemistry Physics Engineering Computer Science English/Literature World Language and Cultural Studies Social Science/History Visual and Performing Arts Health and Fitness Personal Program State test scores to indicate the following performance levels each year: <ul style="list-style-type: none"> >75% of students proficient or advanced in science and mathematics >75% of students proficient or advanced in reading >75% of students scoring higher than the state average on the PSAT and SAT >75% of students showing an increase in their performance in science and mathematics over the prior year >75% of students showing an increase in their performance in reading over the prior year 	
<p>ASD Proficiency Standards</p>	<ol style="list-style-type: none"> Students will master the content of the STEM gateway course of Algebra I Students will demonstrate deep understanding of subject-specific content and interdisciplinary topics across the curriculum. Students will develop interest and competence in advanced STEM fields that often lie beyond the typical course offerings in public schools. Students will succeed in meeting the individual objectives of extended STEM or STEM-related learning opportunities such as internships and collaborative projects with science professionals, industry leaders, and local entrepreneurs; early college coursework; and e-learning experiences through online resources. All seniors will complete a capstone project that represents a culmination of each student's learning and research within STEM, while also incorporating skills and understandings from other subjects across the curriculum. 	<ul style="list-style-type: none"> Teacher-designed assessments to indicate >80% of students demonstrating >80% mastery of the content of mathematics courses Teacher-designed tests and performance assessment results to indicate students' conceptual understanding and application skills across the curriculum Class attendance records and student work samples to show participation and performance in electives such as advanced electronics, aeronautics, anatomy, anthropology, archaeology, aviation, biochemistry, botany, computational sciences, computer programming, design technology, environmental science, ethics in science, forensic science, forestry, history of science, marine biology, natural history, numerical modeling, oceanography, physiology, population biology, renewable energy, space science, sustainable agricultural science, and transportation sciences. Composite school record and individual student portfolios to indicate percentage of students completing the objectives of extended learning opportunities each year >100% of senior projects assessed at the exemplary or proficient level on a locally designed rubric, including a measure for each student's public presentation 	
<p>Other ASD Learning Goals</p>	<ol style="list-style-type: none"> All students will make an active, stewardship contribution to improving the physical environment or cultural climate of the school each year. Students will be prepared to enter college with the motivation and academic background for pursuing any career field of the students' interest, and especially for choosing further studies toward a STEM-related career at a rate that exceeds state norms. 	<ul style="list-style-type: none"> Composite school record to indicate the percentage of students completing school stewardship project each year School guidance records to indicate the post-graduation plans of all students, with at least 90% students planning to attend higher education School guidance records for students accepted to college to indicate plans to study a STEM career field at a rate that exceeds state norms 	

4. The school is sustainable

Criteria	Objectives	Measures	
<p>Responsible & Effective Governance</p>	<ol style="list-style-type: none"> The Board will govern in accordance with public meeting laws and regulations. The Board will operate in ways appropriate to its community leadership role in setting school policy and providing effective oversight of the school's program and operations. 	<ul style="list-style-type: none"> Documentation of meetings as recorded in Board minutes. Satisfaction of parents and school staff with the conduct of the Board in managing its governance responsibilities properly and effectively 	
<p>Efficient Management Systems</p>	<ol style="list-style-type: none"> The school will implement clear and well-understood systems for decision-making and communication. The school will delineate and support clear roles and responsibilities among and between administrative personnel and teaching staff. The school community will conduct interim and long-range planning processes to review progress, make mid-course corrections, and establish priorities for ongoing growth and development. 	<ul style="list-style-type: none"> Flow charts and position descriptions established to clarify communications and professional role delineation Percentage of school staff who are satisfied with the clarity and day-to-day interactions of administration and staff to manage the school operations effectively Annual reports and other documentation of progress reviews and subsequent action. 	

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Instructional Quality Assurance	<ol style="list-style-type: none"> The school will communicate and reinforce clear standards and expectations for instruction based on current research findings and the corresponding vision of the school that emphasizes personalized, active learning aimed at in-depth understanding of essential ideas and real-world skills, especially as related to STEM The school will implement a high quality system of teacher evaluation that includes measures for best-practice instruction, the quality of student work produced, and related professional growth plans focused on improving student learning. The school director will function as an instructional leader capable of modeling and coaching high quality teaching in the classroom. 	<ul style="list-style-type: none"> Reports on progress of the school's evaluation design to effect teachers' growth in ability to improve student learning Percentage of teachers satisfied that their evaluation process and related professional growth activities are implemented effectively and beneficially. Percentage of teachers satisfied that the instructional leadership role of the school director is helping to assure the quality of teaching and learning throughout the school 	
Quality Special Needs Services	The school will partner with the local LEA to facilitate high quality services to students with special education needs.	<ul style="list-style-type: none"> Documentation of the initial referral phase in cooperation with the local LEAs as well as subsequent contacts with sending school districts for special education services. Documentation provided by the school's special education coordinator to ensure that all 504 plans and IEPs are followed 	
Safe, Clean Facilities	The school will meet all criteria for safety, fire, and health codes in its locale (Merrimack School District)	<ul style="list-style-type: none"> Documentation of fire drills and other required safety procedures. Percentage of parents who affirm the safety and cleanliness of the school's physical condition. 	
Caring, Respectful Environment for Students and Adults	<ol style="list-style-type: none"> The school will promote a safe and caring school philosophy and expect courteous and respectful attitudes and behavior from all members of the school community. The school will develop and implement all required policies and procedures for ensuring the safety of students from threat of bullying in any form, as well as any other potential danger to students' and adults' physical or emotional well-being at school. 	<ul style="list-style-type: none"> Discipline incidents reports to indicate numbers and types of disciplinary offenses Percentage of teachers, parents, and students who agree that students are safe at school, are learning the importance of caring and respect for others, and are treated fairly in school. Percentage of school staff who agree that the school succeeds in fostering a climate of professional and personal courtesy and respect across the school community. 	
Viable Financial Plan	<ol style="list-style-type: none"> The Board and school leadership will implement effective systems to enable responsible fiscal oversight of the school. The school will develop an annual budget that can be sustained by its enrollment and is in support of student achievement. The Board will demonstrate long-term fiscal oversight through appropriate planning processes. 	<ul style="list-style-type: none"> Documentation of finance, funding, and strategic planning committee meetings focused on fiscal planning and monitoring Financial reports to show that the annual budget is sustained by the school's enrollment Financial reports to indicate a history of positive net assets and adequate cash flow to sustain operations and support the academic program 	
Sustaining Enrollment Pattern	The school will implement the student recruitment and enrollment process as described in its charter and as defined by statute and regulations to ensure its enrollment will be sufficient to sustain its program and meet its plans for growth and stability.	<ul style="list-style-type: none"> Student enrollment records to report continuing enrollment in accord with the school's plans for growth and stability 	
Experienced, Certified Teachers	<ol style="list-style-type: none"> The school will employ experienced, certified teachers at a rate that meets or exceeds state percentage requirements for charter schools. The school will employ individuals with unique work experience related to STEM subject matter who also possess a strong talent for engaging students in learning. 	<ul style="list-style-type: none"> Personnel reports to indicate compliance with state requirements for charter schools Personnel records to detail the specific experience and qualifications of teachers with STEM-related work experience 	
Retention of Quality Staff	<ol style="list-style-type: none"> The school will establish an educational climate resulting in a purposeful, professionally gratifying learning environment and reasonable rates of retention for administrators, teachers, and staff. The Board will consider providing additional enhancements in areas of competitive employee benefits and bonuses as additional incentives for improving the retention of quality teaching staff, contingent upon available resources. 	<ul style="list-style-type: none"> Staffing reports to track staff retention rates Exit interviews to determine reasons for resignation that could be addressed by potential new policies and practices in the future 	
Parent Satisfaction	<ol style="list-style-type: none"> The school will provide timely and readily accessible information to parents on the academic performance of their children, including online access to school events, classroom activities, assignments, and grades. Teachers and administrators will respond professionally and empathetically with parents concerned about the academic, personal, and social growth of their children. Parents will be invited to support the vision and sustainability of the school in numerous ways, including volunteer services and financial gifts. 	<ul style="list-style-type: none"> Percentage of parents satisfied with the academic programming of the school. Percentage of parents satisfied with the school-family interactions of the school. Percentage of parents satisfied with the quality of school communications. 	