

# ACADEMY FOR SCIENCE AND DESIGN

REVISED CHARTER APPLICATION APPROVED BY NH STATE BOARD OF EDUCATION APRIL 12, 2018

APPROVED BY ASD BOARD OF TRUSTEES NOVEMBER 8, 2017

ORIGINAL CHARTER APPLICATION APPROVED BY NH STATE BOE DECEMBER 2007

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## EXECUTIVE SUMMARY

Established as a STEM-focused public Charter school in 2007, the Academy for Science and Design (ASD) has endeavored to meet the challenge of economic and societal change following the decline of the state's textile industry and expansion of Boston's high-tech corridor into the southern New Hampshire region. The school is located on the outskirts of Nashua, New Hampshire's second largest and increasingly diverse city, reflecting an expanding immigrant population and its integration into the community. Though approximately half of ASD's current 525 students, grades 6-12, enroll from the Nashua area, the school enrolls students from thirty-three other towns, some rural, but most reflecting the broader region's economic interest in science/technology-based industry.

The Academy for Science and Design celebrated its tenth year of operation in 2017, having launched in response to the need for a pipeline of students sufficiently inspired and equipped to continue their learning in a STEM field and eventually to lead the development of STEM industry in New Hampshire. After rapid enrollment increases over its first six years, the school has now reached the milestone of maintaining its optimal "small school" size, giving students a personal sense of belonging while they explore the rich and varied world of ASD's learning opportunities. The school is now recognized nationwide for providing to all students an exceptional design of rigorous, engaging STEM coursework combined with a unique approach to personalized learning across the arts and sciences. ASD succeeds with students who are already high-achieving and strongly motivated, but in line with its open-door policy also encourages and engages students who are merely curious about STEM and need the kind of academic, personal, and social supports necessary to transform their interest and potential into outstanding achievement.

After the initial Charter Application was approved by the New Hampshire State Board of Education in 2007, the Academy for Science and Design has amended its Charter on three occasions. The first amendment approved in 2008 resulted in an increase to the size of the Board or Trustees, as well as other Board-related operational matters. The second amendment was made in 2010, adding Grade 6 to the existing 7-12 program. In 2015, the Academy for Science and Design was granted an amendment to the Charter raising the enrollment cap from 450 students to 525 students. During the school's second Charter Renewal process in the Fall of 2017, the school made significant revisions to its charter, demonstrating a response to the needs of its student population, as well as to the role the Academy for Science and Design has as a New Hampshire public charter school.

## EDUCATIONAL MISSION, VISION, & CORE VALUES

### VISION

*The Academy for Science and Design's STEM-focused program is advancing global citizenship by fostering curiosity, innovation, and leadership for all learners.*

In constructing the school's original charter, founders envisioned New Hampshire having a world-class high school for science truly based on competitive educational programs and cutting edge international applications in order to address the growing national concern for science and math education. Founders envisioned not only a school excellent for academics, but also for the well-being of students--a school not only beneficial for students who attend, but also for the State as a whole. Further, founders envisioned ASD to be a resource to other education providers, to broaden the scope of curriculum in STEM subjects, to strengthen connections to NH colleges, and to engage with local businesses. Finally, the vision of students graduating from the Academy for Science and Design held by the original founders in 2007 was one of capable and confident young adults with the curiosity, understanding, and ability to address the challenges of their lives, as well as those faced by others at the local, national, and global level.

Over the last decade, ASD's strategies for encouraging and challenging all students to fulfill their potential as lifelong learners, innovators, and leaders have evolved into a unique approach to personalized learning across the entire school experience, including opportunities for students' self-directed inquiries and project development outside the classroom in either direct or indirect relationship with teachers' pre-established coursework. These independent inquiries and projects often inform the ongoing refinements teachers make to their courses. ASD continues to have an emphasis on being a "world class" school that promotes a global understanding for all students, empowering them to make positive contributions to the larger world around them. To ensure that all students benefit academically, personally, and socially from this synergistic approach to learning as a community, ASD has developed a culture of encouragement for individual inquiry and risk-taking, supported school-wide by teachers, administrators, students, and the ASD Board of Trustees; as well by the school's large network of volunteers, parents, and industry partners.

### MISSION:

*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.*

Serving as both a public, open-enrollment middle school and a high school with a STEM-focus, the Academy for Science and Design is committed to engaging a diversity of student learners at both of these levels through an exemplary structure for broadening student access to STEM-focused learning opportunities. Accordingly, ASD's program design is the school's signature strategy for the academic success of the variety of students who enter the school - a strategy focused on providing early exposure to opportunities in STEM that younger students may be unaware of, and then encouraging and supporting those students as they pursue a highly personalized pathway to a specialized STEM field in high school.

ASD's middle school program provides younger students the chance to explore, where by design all students are exposed to aerospace, physics, environmental science, engineering, computer science, biology, and chemistry. Students completing ASD's middle school program enter high school either as students continuing into ASD's more specialized STEM curriculum or as students moving into district or private institutions with both a keen awareness of these fields, and knowledge about their potential interests and abilities to continue to study such fields. These exploratory courses, often taught by industry professionals, combined with their engagement in ASD's many planned and incidental learning experiences described earlier in this application, have a profound and lasting impact on students, including those who may have been only curious about STEM upon enrolling in ASD.

Students who choose to continue into ASD's high school program, or students who enter the high school program from other institutions, are empowered to declare an area of specialization within STEM, allowing them to explore more deeply into a field of their own choice. This deeper understanding culminates in a capstone senior project, in tandem with an internship experience, giving students an authentic opportunity to demonstrate their ability and interest to continue their studies beyond the walls of ASD. A remarkable sense of ownership over their high school education is reflected in ASD graduates' continued support of the mission of the school as alumnae, often inspired to return to share their experiences with students still progressing through the program.

*To support the aforementioned mission and vision statements, the Academy for Science and Design subscribes to the following core beliefs:*

- *Curiosity is a catalyst for learning*
- *Students deserve to be challenged*
- *We are all global citizens*
- *Teachers are also learners*
- *Industry partners are essential*

The core beliefs of the Academy for Science and Design (ASD) reflect the school's dedication to inspiring, engaging, and challenging our students to become the next generation of problem-solvers, students with not only highly developed academic abilities, but also with a keen global awareness and commitment to improving the lives of others. This latter objective, addressed through an approach that engages students in designing solutions to real-world problems, drives student learning across the ASD curriculum.

## GOVERNANCE AND ORGANIZATIONAL STRUCTURE, METHODS BY WHICH TRUSTEES AND THEIR TERMS ARE DETERMINED

### BOARD OF TRUSTEES

The Academy for Science and Design (ASD), a 501c (3) organization, is governed by a Board of Trustees (the Board), that has general supervisory control and authority over operations of the school, in accordance with RSA 194-B:5. ASD's Board has been in operation for 11 years as of the date of this Charter update; as such, numerous Board Policies and supporting processes have been set in place to define and guide the structure of Board Governance and ASD operation.

### MEMBERSHIP:

Trustee membership is balanced by Board approved policy (BBB) and process, with members comprised of both "ASD Parents" and "External or non-parents", to the degree possible, to represent a diverse set of individuals committed to ASD's educational mission, strategy and sustainability. Whether an external or parent member, a focus is placed on:

- STEM -- both national and international -- business, science, engineering and educational communities (Universities/educational community)
- Operations -- finance, business, personnel, project/program management, legal and educational
- Outreach -- financial stakeholders and partnerships, grants, revenue to ASD outside State aid, local/national community and legislative ties

The Board sets forth the number of trustees, their terms, recruitment and vetting process, through established Board approved policies and a documented process. In addition to its voting members, the Board may establish non-voting *ex officio* members and/or advisors, which at present include ASD's Director, and representatives from both the faculty and student body (both of the later appointed annually).

### OFFICERS

Officer roles, as well as details for election/replacement are described in established Board approved policies.

Board Officers include: Chair, Vice-Chair, Secretary, Treasurer and Clerk. Officers are elected by a majority vote of those present at the annual organizational meeting and serve until the next annual meeting. Should a replacement officer be needed, a majority vote will ensue and the replacement will serve until the next annual meeting.

Officer roles, and details for election/replacement are described in established Board approved policies.

## **GOVERNANCE**

The Board has authority to set policy and make decisions that serve the mission, strategy and sustainability of ASD, and has oversight and authority to render final decisions on matters (at a minimum) pertaining to:

- Appointment of Board Committees and Advisory Members
- Setting policy
- Hiring and dismissal of personnel
- ASD Director -- Annual review / future goal setting / contract as needed
- Approval and oversight of annual budget and fund-raising programs
- Delineation of educational priorities
- Growth and strategic plan
- Professional salary and compensation program
- Reviewing/approving significant or multi-year contracts, e.g., for facilities and benefit programs
- Appeals, if not resolved first by Administration
- Any other matters that are not administrative in nature and/or *that* are prescribed in statute or rule

The Board may delegate responsibility to Administration to manage certain items on behalf of the Board, by motion with vote.

## **COMMITTEES**

The Board maintains subcommittees and advisory committees as it deems necessary to pursue specific topics. Committees meet and complete work outside of monthly Board meetings, reporting to the Board and bringing forth items for approval. On occasion, the Board may specifically vote to delegate a subcommittee to act on behalf of the Board.

## **BOARD OF ADVISORS**

The Board may be augmented by a Board of Advisors, non-voting, who represent science industries, academia, research, international relations, adjunct and faculty, legislators, and topics of interest to the board.

## **OPERATIONS**

The Board has regularly scheduled monthly meetings and follows New Hampshire Right to Know Law, RSA 91-A in the keeping of its minutes.

## **GENERAL DESCRIPTION OF PROPOSED OR POTENTIAL LOCATION OF FACILITIES**

The current location for Academy for Science and Design (Nashua, New Hampshire) exists within the area intended by the original founders of the school, which is along the Concord to Nashua corridor. Should the school need to relocate, efforts will be made to remain along the aforementioned corridor. Locating the school along this corridor supports the needs of students commuting from other towns, as well as supports the school's mission by providing reasonable access to surrounding industries and higher educational institutions.

## **MAXIMUM NUMBER, GRADE OR AGE LEVELS, AND OTHER INFORMATION ABOUT PUPILS SERVED**

### **ENROLLMENT**

After rapid expansion in the first five years of operation, an amendment to the Charter in 2010 to create a sixth grade, and a Charter amendment in 2015 to raise the enrollment cap from 450 students to 525 students, the Academy for Science and Design currently serves 525 students in grades 6-12.

The long-term student enrollment target is expected to be approximately 525 students. The school has an enrollment cap of 600 students to accommodate expected fluctuations in grade level populations, to be specified by Board policy.

### **INFORMATION ABOUT PUPILS SERVED**



The Academy for Science and Design is designed for students from all academic and economic backgrounds who seek a public school with challenging academic study in all areas, but uniquely specialized in science, mathematics, technology, and engineering.

Students who are apt to choose the Academy for Science and Design, will:

- Seek the challenge of a school based on high standards and expectations,
- Have an interest in Science, Technology, Engineering, and/or Mathematics
- Welcome off-campus opportunities for learning, e.g. research and apprenticeships
- in different learning environments,
- Desire a program where students assist in their own program design and educational goal-setting,
- Welcome a personalized school environment designed to cultivate student interests and talents,
- Choose a school community based on respect, citizenship, and personal responsibility

## CURRICULUM THAT MEETS OR EXCEEDS STATE STANDARDS IN THE SUBJECT AREAS OFFERED

The curriculum at the Academy for Science & Design provides students with a well-rounded and rigorous foundation in math and science, while meeting the state requirements for graduation in all areas of study. Students of all grade levels and learning styles are challenged to think critically and logically, apply information, find and analyze evidence, work individually and in groups, share information electronically, and communicate clearly in both written and oral forms. The ultimate goal is to prepare students for a continuously evolving academic and technological world.

The number of credits required for graduation from ASD meets or exceeds state requirements in each curricular area.

## CURRICULUM FEATURES

### **EXPLORATORY STEM COURSES AND IN-DEPTH, SPECIALIZED COURSES**

The breadth of required courses provides for a stimulating introduction to many STEM fields, affording students the opportunity to explore unfamiliar content or fields they may not delve into on their own. Elective courses in all areas provide students with the opportunity to pursue more in-depth study of fields of their choice. Several of these advanced level courses provide students with the opportunity to earn college credit while still in high school. Faculty are encouraged to develop new electives inspired by their interests and those of the students.

Although not required, students are encouraged to focus their advanced electives in one of the Areas of Specialization offered by the school. These areas currently are:

- **Computer Science**
- **Engineering**
- **Applied Laboratory Science**
- **Environmental Science**
- **Aeronautics and Astronautics**
- **Mathematics**

### **INTEGRATED COURSES**

The integrated design of certain courses offered at ASD is consistent with the school's learning standard for synthesizing knowledge from multiple subject areas to address essential questions. The school continues to develop curriculum for these courses.

### **INSTRUCTION**

Instructional methods employed at the Academy for Science and Design are multidimensional. They include explicit teaching of foundational knowledge by teachers inside the classroom as well as self-directed student learning of basic content outside the classroom via technology resources, with the latter providing classroom time for interaction, practice, individual interventions, and problem/project-based activities. These methods vary depending on subject matter and the pedagogical strengths of individual teachers, with the constant being the individual student and his or her academic, personal, and social growth.

### **SPARK CONFERENCES**

SPARK Conferences (**S**ymposium **P**romoting **A**dvancement of **R**eal-World **K**nowledge) expose students to various STEM careers, relevant topics, and issues in the realm of science and technology, as well as to cultivate their unique interests and talents. Several times throughout the year, students have the opportunity to sign up for and experience a program of seminars and short immersion courses. Presenters at SPARK include members of the ASD school community such as faculty, high school students, and parents. In addition, SPARK presenters come from local community organizations, higher education, and the corporate sphere. These presenters believe it is critical to enlighten and inspire our young leaders of tomorrow through exposure to experiences, ideas, and challenges that will help them to become creative and energetic leaders.

## **SENIOR RESEARCH PROJECT AND LEARNING STUDIOS**

The Senior Research Project provides an opportunity for students to show local, national, and/or global understandings of the technical and social issues inherent in the application of science and engineering. Students are expected to be self-directed during the project, using skills such as initiative, logical and analytical thinking, reasoned and ethical judgment, well-integrated knowledge, and leadership.

While enrolled in Learning Studios, students design and implement an authentic project to address a problem requiring collaboration across subjects. The project requires extensive research, analysis, and collaboration with faculty and classmates, and since topics are dependent on student interest and their chosen area of specialization, students of greater and lesser ability support one another around their mutual interest in solving the problem at hand, making use of each student's individual contributions as well as knowledge acquired from their regular courses.

## **TECHNOLOGY**

The Academy for Science and Design believes that it is vital that students explore, utilize, and understand the role of technology in education and in society. Teachers, in all curricular areas, integrate technology use into their instruction and assessment.

## **COLLEGE AND CAREER READINESS**

The ASD curriculum supports college and career readiness in a variety of ways. Required courses are geared to college and university recommendations for preparation, and ASD offers a number of college-level courses to give many students a head start in college preparedness. Another important support is ASD's emphasis on developing in students a strong knowledge base upon which they can base thoughtful and original arguments or hypotheses. Perhaps most important to college/career preparedness, however, is the experience ASD students acquire in self-direction: developing original and worthwhile ideas, establishing priorities and organizing one's time, identifying key resources, working well with others on a team, and persevering in completing a project.

## **VARIED ASSESSMENTS**

Consistent with the multidimensional nature of teaching and learning at ASD, assessments for measuring and informing progress are varied as well. They include formative tests designed by teachers to assess understanding of ideas and information, and they include common summative assessments prepared by teachers of the same subject. During periods of explicit instruction, teachers are also adept in the use of monitoring strategies to ascertain group and individual progress. During the relatively greater amount of class time spent with hands-on, interactive

learning, teachers' noted observations and conferences with individual students are also used to analyze and improve student performance.

In view of ASD's emphasis on project/problem-based and self-directed learning, performance assessment plays a significant role in measuring individual progress of students, given its ability to assess a much greater range of cognitive and non-cognitive abilities than traditional testing alone. Rubrics are used to measure the quality of student projects and performances, capturing not only the quality of the process and final product, but also self-direction skills such as initiative, organization, resourcefulness, ethical judgment, persistence, and leadership. Assessments by teachers and self-assessments by students are used in combination, reflecting ASD's synergistic view of teaching and learning itself.

### **ADVISORY PROGRAM**

The Advisory Program at the Academy for Science and Design supports students' social, academic, and emotional growth. Student advisory groups are comprised of approximately fifteen to twenty students who meet daily with a faculty advisor who moves along with the students as they progress through the academic program. In addition to engaging in team-building, learning organizational skills, and planning for college and career, students build lasting relationships with their faculty advisor as well as with their peers.

### **INTERNSHIP**

The internship requirement at ASD provides invaluable work experience, outside the school setting, prior to graduation. The process of applying for and securing an internship helps students develop an understanding of the steps involved to successfully gain employment; the transition from the classroom to the workplace develops an appreciation for the application of knowledge to real world problems and solutions.

## **ACADEMIC AND OTHER LEARNING GOALS AND OBJECTIVES**

- 100% of the academic courses have succinctly stated learning goals and objectives,
- More than 80% of students are proficient or advanced in reading, science, and mathematics on state assessments
- 100% of graduating students earn 5 credits in mathematics

- 100% of middle school students enroll in Algebra 1
- 100% of graduates complete internship experiences in science-related field, with specialists, industry leaders or entrepreneurs
- 100% of graduates have a post-graduation plan,
- 90% of graduates plan to attend a college,
- 100% of students participate in volunteer activities both on campus and off campus,
- All students contribute to a respectful community environment.

## ACHIEVEMENT TESTS TO BE USED TO MEASURE PUPIL ACADEMIC AND OTHER GOAL ACHIEVEMENT

The School measures student achievement using a wide array of methods. Teachers use both formative assessments to inform their instruction and approach in the classroom. Summative results from standardized testing, are also analyzed during yearly planning for making curriculum adjustments and focusing professional development. Data for improving school performance overall is generated through continuous interaction among the school director, school staff, parents, and community partners, as well as through surveys for indicating areas of concern.

## GRADUATION REQUIREMENTS

The Academy for Science and Design maintains the graduation requirements listed below. The school defines “credit” as the completion of a year-long program with demonstrated content mastery. Partial credits are awarded for semester long classes or in situations where a sequence of classes is required to complete study of the material. The Program of Studies includes all required courses of study and is updated annually and approved by the Board of Trustees.

Of the 28.5 credits required to graduate, 26.5 are accrued through academic courses, as detailed in the following table. The other 2 credits are distributed between Stewardship (0.5), Internship (0.5), and the Senior Project (1).

|  |             |
|--|-------------|
| Mathematics                                | 5 credits   |
| Applied Laboratory Science                 | 3 credits   |
| Engineering                                | 1 credit    |
| Computer Science                           | 1 credit    |
| World Language and Cultural Studies        | 3 credits   |
| English Language and Literature            | 4 credits   |
| Social Science and History                 | 3 credits   |
| Visual and Performing Arts                 | 1 credit    |
| Health and Fitness                         | 1.5 credits |
| Learning Studios                           | 1 credit    |
| Advanced Electives, Area of Specialization | 3 credits   |

**STAFFING OVERVIEW**

The Academy for Science and Design is committed to recruiting and retaining highly qualified faculty and staff members. In addition to meeting all state requirements for public Charter schools in relationship to required certifications and criminal background checks, as well as all state and federal employment laws, ASD seeks to employ a diverse group of individuals who:

- Possess strong backgrounds/certifications from educational programs and experiences
- Have unique industry experience in STEM-related fields
- Are committed to the mission/vision of the school

**SCHOOL LEADERSHIP**

The Director is responsible for the daily operational management of the school, but additionally sits as a non-voting member on the Board of Trustees and all Board Committees, providing insight and direction at the school-level and the Board level. The Director also bears additional responsibilities such as direct interaction with members of the New Hampshire Department of Education, members of the State Board of Education, corporate partners, and state legislators.

The Director, in collaboration with the ASD Board of Trustees, develops an organizational structure with clear job responsibilities for all other administrators. This structure is reviewed and adjusted annually to meet the needs of the school.

The Director, in collaboration with the ASD Board of Trustees, will maintain a faculty and staff that promotes a high-quality academic program as well as provides needed support for guidance/student services.

## PERSONNEL COMPENSATION PLAN

### COMPENSATION

The philosophy of staffing and compensation is to recruit and retain highly motivated and talented personnel, committed to the excellence described in this charter and the philosophy of instruction and support. The school requires faculty who embrace teamwork within and across traditional subject disciplines.

The philosophy of compensation is based on whole school accomplishments, value, fairness, and freedoms afforded charter schools from traditional track and step compensation models. Additional compensation may be incurred by assuming extra responsibility in needed areas and through board-approved bonuses.

### BENEFITS

The Board will continue to explore benefit program options that support employee retention.

The school honors state and federal guidelines that may apply to employees such as official holidays, family leave, disability, and civic duty.

## PUPIL TRANSPORTATION PLAN

Charter school students will have access to transportation to the class program only if they reside in the district where the charter school is located. The charter school will comply with charter law provisions that govern student transportation under Section 194-B:2, which currently states:

*RSA 194-B:2, Attendance at a chartered public school for the purposes of transportation shall*

*not constitute assignment under the provisions of RSA 189:6 and RSA 189:8. Pupils who reside in the school district in which the chartered public school is located shall be provided transportation to that school by the district on the same terms and conditions as provided for non-chartered public schools in the district and utilizing the same regular bus schedules and routes that are provided to pupils attending non-chartered public schools within that district.*

The Academy for Science and Design makes an effort to assist parents and students without access to bus transportation who wish to coordinate shared transportation.

#### STATEMENT OF ASSURANCES RELATED TO NON-DISCRIMINATION

Academy for Science and Design Chartered Public School does not discriminate on the basis of race, color, national origin, sex, age, or disability in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of their operations. The lack of English language skills shall not be a barrier to admission or participation in the district's activities and programs. Academy for Science and Design Chartered Public School also does not discriminate in its hiring or employment practices.

The Board of Trustees has developed and adopted a policy and has administrative procedures to address complaints or concerns.

#### METHOD OF COORDINATING WITH A PUPIL'S LOCAL EDUCATION AGENCY (LEA) FOR MATTERS PERTAINING TO ANY SPECIAL EDUCATION PROGRAMS

The Academy for Science and Design follows all rules outlined in New Hampshire Rules for the Education of Children with Disabilities in accordance with all RSAs as well as Special Education technical advisories and communication from the New Hampshire Department of Education.

Under New Hampshire's charter school statute, RSA 194-B: 11, III, the local school district continues to be responsible for special education funding. The Academy for Science and Design will respect the LEA's responsibility under statute for handling special education decision-making, and provides a liaison as a member of the IEP team

The Academy for Science and Design-initiates and participates in the Special Education process for students who are not identified and continues participation through the Special Education Process Sequence outlined in Ed. 1104.01 Sequence of Special Education Process.



The sequence of the special education process shall be: (a) referral; (b) Evaluation; (c) Determination of eligibility; (d) Development and approval of the IEP; (e) Placement; (f) Ongoing monitoring of the IEP; and (g) Annual review of the IEP

The Academy for Science and Design encourages all interested students to apply and discusses the program with families including supports and resources provided by the charter school in collaboration with the LEA.

## ADMISSION PROCEDURES

### **ELIGIBILITY**

The Academy for Science and Design is an open enrollment, public school. New Hampshire students who meet the school's admission criteria may apply. The school may accept out-of-state students at a fee to be set annually, on a space available basis.

There are two criteria for admission eligibility:

- 1) The applicant student will have successfully completed the school year preceding admission with credits or creditable work in all core subjects. ASD will verify records by requesting copies directly from the sending districts.
- 2) The applicant and his/her parent/guardian acknowledges full understanding of and willingness to participate in the Mission of the school, its policies, program, and expectations.

Students seeking enrollment must complete ASD's application process. When there are more applicants that have completed the application requirements than available spaces in any grade or program, a lottery will be conducted. Only New Hampshire residents are eligible for the Lottery. Out of state applicants may be admitted at the current out-of-state tuition in the event that there are insufficient New Hampshire applicants to fill the available openings.

Applicants who are not admitted from the lottery will be placed on a wait-list in the order their names are drawn, according to grade or program. Should an opening occur, placement will be offered based on waiting list order. Once the school year has begun, applicants requesting to transfer to ASD will be invited to complete an application package and once successfully completed, will be placed at the bottom of the wait list according to grade or program. Complete applications

received after lottery application deadline will be time-stamped and added to the Wait-List in the order received.

All non-New Hampshire resident applicants on the waiting list will be moved in numerical order to waiting list positions following all New Hampshire applicants, regardless of the order New Hampshire resident applications are received.

### **APPLICATION RELATED DATES AND PUBLIC NOTIFICATION**

While applications are accepted throughout the year, an application deadline to be eligible for the admissions lottery will be set and publicly posted by the start of each academic year for admission to ASD in the following academic year.

This information will be made public in the following venues:

- ASD website
- A New Hampshire state-wide newspaper
- Posted in the ASD lobby
- Notification sent by email to all current ASD families, faculty, board members and founders

### **APPLICATION PACKAGE**

All required forms in the application package will be available at ASD as well as online and must include all information required to meet this ASD Charter and NH State requirements (RSA 194-B).

## **PHILOSOPHY OF STUDENT GOVERNANCE AND DISCIPLINE**

The Academy for Science and Design is committed to promoting a respectful and safe environment for all members of the school community. The school's student governance philosophy involves high expectations for respectful and responsible behavior and logical consequences for behavior that does not meet expectations. The school has clear expectations for student behavior as outlined in the Parent & Student Handbook. Students are encouraged to access school counselors and advisors to assist with problem solving and conflict resolution through mediation.

The Academy for Science and Design Board of Trustees develops policies that conform to and support state law in all required areas including the areas of bullying, harassment, violence, drugs and alcohol, weapons, and other dangerous behavior. A student may be suspended or expelled in accordance with statute and policy. The school will provide fair and age appropriate due process in administering student discipline and will comply with current suspension and expulsion provisions in RSA 193:13 (Suspension and Expulsion of Pupils) and RSA 194-B, 9,III, a pupil may withdraw from a charter school based on criteria determined by the Board of Trustees consistent with the advice of the Director and staff in conformance with RSA 193:13. No public school shall be obligated to enroll an expelled pupil.

The Academy for Science and Design is committed to providing students opportunities for leadership and citizenship. The Student Council is elected annually, serves as the voice of the student body, and is integral to the school's culture.

## METHOD OF ADMINISTERING FISCAL ACCOUNTS AND REPORTING

The Academy for Science and Design follows public school accounting guidelines and utilizes internal accounting controls necessary to safeguard its assets. The Academy for Science and Design maintains accurate financial records in accordance with Generally Accepted Accounting Principles (GAAP) for non-profit corporations. An annual financial audit is prepared by an independent, certified public accountant.

The Academy for Science and Design Board of Trustees will appoint a Treasurer who will provide the oversight necessary to monitor the school's financial status. The Board of Trustees also adopts policies for the financial management of the school.

Any funds transferred from the school district will be to the general fund only. The Board of Trustees will establish a maximum cap for discretionary expenditures.

The Academy for Science and Design shall comply with all requirements specified in the law pertaining to reporting requirements (RSA 194-B: 101-V).

## ANNUAL BUDGET, INCLUDING ALL SOURCES OF FUNDING

The Academy for Science and Design will use the State's average high school tuition cost as guideline for shaping its own budget, attempting to comply with the 80% of average per pupil funding guideline of 194-B:11 (2014)

In partnership with the Finance Committee, the Director and Business Manager develop an annual budget. This budget is approved by the ASD Board of Trustees prior to each fiscal year, and reported to all entities required by law. The Academy for Science and Design recognizes that the long-term sustainability of a charter school requires a long-term fiscal plan.

**See Appendix A for the 5 Year Projected Expenditure and Revenue Budget**

### ADDITIONAL SOURCES OF REVENUE

To obtain incremental funding and support for activities essential to high-quality STEM education and to pedagogical innovation, core elements of the Academy's mission, a number of focused efforts are being or will be undertaken:

1. An Annual Campaign and associated events, such as an Annual Gala, to encourage financial support from students' parents, Board members, and members of the surrounding community.
1. Substantial expansion of the Academy's outreach and engagement program to cultivate valuable supporting relationships with STEM-focused companies, particularly in New Hampshire and the Northeast, with the goal of obtaining financial support as well as in-kind contributions such as field trips, student internships, SPARK program presenters, Senior project panelists and corporate sponsorships and partnerships.
2. Initiation of an outreach program to identify entrepreneurs and high-net-worth prospective philanthropists who have STEM-related successes and a desire to promote STEM education.
3. Continual exploration of potential STEM-related grants and resources through local, regional and national programs.
4. Expansion of additional teaching opportunities such as fee-based summer school programs.
5. Ventures primarily operated by student organizations that will produce some amount of revenue while providing entrepreneurial experiences for those students.

The Academy has set a five-year goal to achieve \$500,000 annually from some combination of the above revenue-focused initiatives. There is an initial dependency on some level of volunteer support for some of these programs but it is anticipated that the Academy's administration will increasingly assume responsibility as revenues from these efforts increase.

## **SCHOOL CALENDAR ARRANGEMENT, NUMBER AND DURATION OF DAYS PUPILS ARE TO BE SERVED**

The Academy for Science and Design School Calendar is developed by the Director and approved by the Board of Trustees. The Director ensures the school calendar maintains compliance with all requirements as set forth by Ed 306.18 and Ed 306.19.

A chartered public school shall provide instruction for at least the number of days required by state law. A chartered public school shall comply with compulsory attendance laws as provided in RSA 189:1, 189:1-a, and 193:1. Innovative scheduling resulting in at least that number of attendance hours required under RSA 186-C:15, 189:1, 189:1-a, and 193:1 and current state board attendance rules shall be encouraged.

## **PROVISION FOR PROVIDING CONTINUING EVIDENCE OF ADEQUATE INSURANCE COVERAGE**

The Academy for Science and Design, pursuant to all related laws and regulations at the local, state, and national level, maintains a comprehensive insurance program that provides protections needed for a public charter school, including worker compensation, liability insurance, and facility coverage.

## **IDENTITY OF CONSULTANTS TO BE USED FOR VARIOUS SERVICES**

During the period of planning and development, the Academy for Science and Design required numerous tasks addressed by specialists in fields of charter schools, assessment, school administration, insurance, finance, public relations, curriculum and instruction, foreign language, business and technology, science and engineering, marketing, and strategic planning.

Specialists involved in the first year of planning and development at the Academy for Science and Design included:

- Matora Fiorey, Ph.D., specialist in chemistry; founder,
- David Guo, Ph.D., specialist in aeronautical engineering and Chinese education,
- Susan Hollins, Ph.D., specialist in charter schools and school administration; founder,
- Barbara Hopkins, specialist in math/science grant programs and school business partnerships,
- Annette Kurman, specialist in public relations, currently at Daniel Webster College,
- Marc Lessard, Ph.D., specialist in space science, physics, and engineering; currently faculty at University of New Hampshire,
- Alexander Slocum, Ph.D., specialist in engineering, design, and invention; currently faculty at Massachusetts Institute of Technology,
- Fred Wetzel, Ph.D., specialist in independent teacher preparation programs and advanced placement programs.

All of the above-named specialists have intimate knowledge and commitment to New Hampshire's students, schools, and economy.

The Academy for Science and Design remains open to future involvement from these specialists, as well as others whose unique talents and expertise could inform best practices at the school.

## PHILOSOPHY OF PARENT INVOLVEMENT, RELATED PLANS AND PROCEDURES

The high level of family engagement at the Academy for Science and Design is directly related to the school's highly effective school-to-home communication and its continued efforts to reach out to families for feedback about the program. Families receive regular communications from the school through various methods, including social media channels.

Families engage with the program in the following ways including, but not limited to: financial contributions, volunteering, resource sharing, advocacy, providing feedback to school personnel, and networking with potential community partners.

## PLAN TO DEVELOP AND DISSEMINATE INFORMATION TO ASSIST PARENTS AND PUPILS WITH DECISION-MAKING ABOUT THEIR CHOICE OF SCHOOL

To assure that all New Hampshire residents have equal opportunity to apply to the Academy for Science and Design, a public relations effort will be initiated each year with application details and deadlines. Admissions information will be placed in a statewide newspaper advertisement each year, posted in the admissions portion of the school website and hung in the school lobby.

**GLOBAL HOLD HARMLESS CLAUSE**

The Academy for Science and Design agrees to indemnify and hold harmless any sending district which sends students to the charter school, and their officers, directors, board members, agents, and employees (the “indemnified parties”) from any and all claims, demands, actions or causes of action at law or in equity, and all damages, costs, losses, and expenses resulting from any act of omission by the charter school, its agents, employees or staff, relating to the operation of the charter school. The charter school shall have no obligation to hold harmless the Indemnified Parties for any claims, damages, losses, or expenses resulting from the Indemnified Parties’ own acts and omissions.

The Academy for Science and Design, its successors and assigns, covenants and agrees at all times to indemnify and hold harmless the school district, any other school district which sends its students to the charter school, and their school boards, office directors, agents, employees, all funding districts and sources, and their successor and signs, (the “indemnified parties”) from any and all claims, demands, actions and causes action, whether in law or in equity, and all damages, costs, losses, and expenses, including, but not limited to, reasonable attorney’s fees and legal costs, for any action or inaction of the charter school, its board, officers, employees, agents, representatives, contractors, guests and invitees, or pupils.

**SEVERABILITY PROVISIONS AND STATEMENT OF ASSURANCE**

If the provision of the Contract is determined to be unenforceable or invalid for any reason, the remainder of the Contract shall remain in effect unless otherwise terminated by one or both of the parties in accordance with the terms contained herein.

**PROVISION FOR DISSOLUTION OF THE CHARTER SCHOOL**

The Board of Trustees, in the event of dissolution, would develop a prompt but strategic plan that addressed debt obligation, contracts, and assets.

All property which the Academy for Science and Design has leased, borrowed or contracted for use shall be returned or handled according to contractual prearrangement.

Disposal of other property, furniture, supplies, equipment, vehicles, and the like will be handled as follows:

1. The board will first consider any debt obligation and will research the disposal of property, etc., that best enables the Trustees to meet its debts.
2. Once debt obligations are met, any remaining property and assets of the school will be distributed depending on how it was obtained. Items obtained through federal or state charter school funding will be offered to other charter schools. Assets provided with funds from local school districts will be offered to public schools in a manner deemed fair and appropriate, e.g., either returned to the district that provided the asset or valued or liquidated and distributed on a participation basis. Items that schools do not want will be consigned in the most beneficial manner with the proceeds reverting to the New Hampshire's charter school support fund.
3. All property personally or individually owned by the employees of the charter school shall be exempt from distribution of property as prescribed herein and shall remain the property of the individual teachers and staff. Such property includes, but is not limited to, albums, curricular manuals, personal mementos and other material or apparatus that have been personally financed or acquired or personally developed by teachers and staff.

All outstanding debts/encumbrances for which the charter school is legally liable will be properly settled with the creditor of record. Under no circumstances shall a sending school district be liable for any obligations of the dissolved charter school. The Academy for Science and Design shall coordinate any planned or voluntary bankruptcy filing with the area school boards to facilitate reintegration of its students. A minimum notice of 120 days for voluntary dissolution of the charter school will be given to school districts with students at the Academy for Science and Design

#### PLAN FOR EDUCATION OF PUPILS SHOULD THE CHARTER SCHOOL CEASE OPERATION

A plan for each student's continued education, should the school cease to exist, will be determined individually with each student and his/her parent or /legal guardian. Likely options would be 1) re-



integration into the student's local public school, 2) application to a high school, including a different chartered public school, if available, 3) depending on age, early admission into a post graduate program, or 4) other available options based on parent and student priorities.

Official records of all the students would be transferred in a timely manner to the receiving school. Staff and trustees would work with the receiving school, parents, and students to assure smooth and timely transitions.

## ACCOUNTABILITY PLAN

The Academy for Science and Design provides all required annual reports of progress regarding governance, financial operations, student enrollment, progress toward meeting goals, parent involvement, and outreach. In addition to all accountability reporting required by state agencies, the Academy for Science and Design maintains and updates an Accountability Plan that is used to measure progress.

[APPENDIX A 5-YEAR PROJECTED EXPENDITURE AND REVENUE BUDGET](#)

[APPENDIX B SCHOOL ACCOUNTABILITY PLAN](#)

[APPENDIX C ORIGINAL CHARTER APPLICATION JANUARY 2006](#)