

# ACADEMY FOR SCIENCE AND DESIGN CHARTER SCHOOL

## Executive Summary

March 9, 2006

The Academy for Science and Design charter school will give New Hampshire its first, specialized public high school for science that is open to students statewide. The charter school model has been used in many states to create new schools for science, math, and engineering. If a charter is approved, detailed planning will continue.

Mission	The mission of The Academy for Science and Design is to create a world class, standards-setting, middle/high school specializing in science, mathematics, engineering, and design																
Grade Level and Capacity	The Academy for Science and Design will begin its inaugural year with 60-75 students in grades 8, 9, and, perhaps, 10. The school will grow gradually to include up to 450 students in grades 7 through 12 within 5 years.																
Location	The Academy for Science and Design seeks a location along the Concord to Nashua corridor. The ideal facility will be located on a college campus or in a high tech industrial park or business campus																
Rigorous Academics	The school's program is based on mastery learning, particularly in mathematics, and curriculum that is competitive with top schools in the nation and world. Physics and algebra will be begin in grade 7																
Graduation Requirements	25 credit requirement, including 4 credits in science, 4 credits in mathematics, 1 credit in engineering, and a senior research project.																
Curriculum Specialization	During the 11 <sup>th</sup> and 12 <sup>th</sup> grades, and perhaps earlier, students will be able to specialize in 1 of 7 areas (involves elective courses and research): aeronautics and aviation; chemistry and bio-medicine; mathematics and physics; space, astronomy, and astronautics; environment and global sustainability; architecture and engineering (mechanical, civil, electrical); and computer science, system design, and simulation.																
College Connections	Relationships with New Hampshire colleges in areas of specialization, above, will create early college opportunities for students and also a natural path for graduates' continuing education. Immersion days and weekly seminars will have college personnel involved as well as student research mentoring. We anticipate joint school-college grant projects.																
Business Connections	Relationships with NH and world industries in areas of specialization will create opportunities for businesses and students to connect, also related to immersion days, weekly seminars, and student research mentoring. Most science schools have businesses involved in governance, curriculum, funding, and student projects.																
Family Involvement	Parents can expect clear standards, high expectations, and a commitment to their student's success. The school will expect parents to commit to the school's program and assure attendance and home support for student studies.																
Board of Trustees Composition	Trustees will represent the diversity of stakeholders and contributors, as follows: business and engineering community, college and school industry, expertise in international perspectives and/or design applications, founders or major contributors to the school, parents, and school. Trustees basically function like a public school board.																
Funding	As public schools, charter schools are free to students attending; there is no tuition. State funding is limited and a significant development program will be launched for the school's labs, facility, and programs. Other science schools have been successful in meeting their development campaigns to establish schools for science, mathematics, and engineering.																
Target Dates, if charter is granted in March	<table> <tr> <td>Charter Approval:</td> <td>March</td> </tr> <tr> <td>Start-up Grant:</td> <td>May</td> </tr> <tr> <td>Design team:</td> <td>April '06 - April '07</td> </tr> <tr> <td>Marketing/Development:</td> <td>March '06 – '07:</td> </tr> <tr> <td>Identify Facility:</td> <td>Summer '06</td> </tr> <tr> <td>Recruitment:</td> <td>February '07</td> </tr> <tr> <td>Fundraising:</td> <td>2006 - 2008</td> </tr> <tr> <td>Open:</td> <td>September 2007</td> </tr> </table>	Charter Approval:	March	Start-up Grant:	May	Design team:	April '06 - April '07	Marketing/Development:	March '06 – '07:	Identify Facility:	Summer '06	Recruitment:	February '07	Fundraising:	2006 - 2008	Open:	September 2007
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