

New Hampshire State Board of Education
Department of Education
Hugh J. Gallen State Office Park
101 Pleasant Street
Concord NH 03301

January 11, 2017



REVISED AGENDA

- I. **CALL TO ORDER** - 9:00 A.M.
- II. **PLEDGE OF ALLEGIANCE**
- III. **PUBLIC COMMENT** (*LIMITED TO 5 MINUTES, BOARD WILL ASK CLARIFYING QUESTIONS ONLY, OTHERWISE NO FEEDBACK PROVIDED*)
- IV. **SPECIAL PRESENTATIONS**
 - A. 9:30 AM - Green/School Administrative Unit #55 – SB-FY-18-10-007
 - B. Southern New Hampshire University (SNHU), Program Approval Reports – *NICOLE HEIMARCK*
 1. School Superintendent
 2. Early Childhood Special Education
- V. **OPEN BOARD DISCUSSIONS**
- VI. **LEGISLATIVE ISSUES/RULES**
 - A. Initial Proposal – Special Education Aid (Ed 1128)
 - B. Initial Proposal – Highly Qualified Teacher and Core Academic Subjects (Ed 1102 and Ed 1113)
 - C. Conditional Approval – General Science (Ed 507.29 and Ed 612.23)
 - D. Adopt - Science Teacher 5-8 (Ed 507.28 and Ed 612.22)
 - E. Adopt - Earth & Space Science Teacher (Ed 507.30 and Ed 612.24)
 - F. Adopt - Life Science Teacher (Ed 507.31 and Ed 612.25)
 - G. Adopt - Chemistry Teacher (Ed 507.32 and Ed 612.26)
 - H. Adopt - Physics Teacher (Ed 507.33 and Ed 612.27)
 - I. Adopt - Physical Science Teacher (Ed 507.51 and Ed 612.34)

- J. **Adopt - General Science (Ed 507.29 and Ed 612.23)**
- K. **Re-Adopt with amendment - Social Studies Teacher (Ed 507.27, Ed 507.54, Ed 612.28 and 612.29)**
- VII. **REPORTS AND NEW DEPARTMENT BUSINESS**
 - A. **Academy for Science and Design Charter Renewal**
- VIII. **OLD BUSINESS**
- IX. **CONSENT AGENDA**
 - A. **Meeting Minutes of December 13, 2017**
- X. **TABLED ITEMS**
- XI. **NONPUBLIC SESSION**
- XII. **ADJOURNMENT – 2:00 P.M.**

If accommodations are needed for communication access such as interpreters, please call (603) 271-3144 at least 5 business days before the scheduled event. We request 5 business days' notice so that we may coordinate interpreters' schedules. Although we will attempt to accommodate any requests made, we cannot guarantee the presence of the service. Thank you for your cooperation.

STATE OF NEW HAMPSHIRE

Southern New Hampshire University

New Program Proposal Report School Superintendent

12/1/2017

This report details SNHU's new program proposal in conjunction with the NHSAA's Granite State Leadership Academy to develop and implement a school superintendent licensure program.

Southern New Hampshire University's (SNHU) New Program Approval Report

ED 614.05 School Superintendent

Name of Proposed New Program: School Superintendent

Program Number: ED 614.05

Reviewer: Ruthann Goguen, Superintendent of Schools Webster, MA

NHDOE Liaison: Nicole Heimarck, Bureau Administrator Educator Preparation

Summary of the Review (New Program Proposal):

During the summer of 2017 Southern New Hampshire University (SNHU) submitted a new program proposal to the Council for Teacher Education (CTE) which was reviewed at their September meeting. On November 6, 2017 a review team visited SNHU to conduct an on-site review of the proposed new program.

Because the proposed licensure program has a formal partnership with the state's superintendent's association (NHSAA), it was determined that an out-of-state reviewer was necessary to facilitate an objective evaluation of the program. A practicing superintendent from the state of Massachusetts was recruited to be the expert content reviewer of the program.

Prior to the on-site, both the reviewer and NHDOE liaison worked in partnership to examine the materials SNHU had submitted to demonstrate program alignment to the state standards. Through this electronic review, a few questions surfaced requiring a deeper study of program elements to ensure the proposed program met the state standards outlined in the ED 600 rules (Appendix A – Questions for Visit). These questions provided focus for the site visit and were delivered to the institution in advance of the visit, offering them the opportunity to prepare and compile additional evidence addressing the standards.

Participants in the site visit included: Paul Ezen, Chair of the Advanced Programs (SNHU), Cathy Stavenger, Associate Dean of the School of Education (SNHU), Mark Joyce, Former Executive Director (NHSAA), Jerry Frew, Consultant & former School Superintendent (NHSAA), Richard Ayers, Consultant & former School Superintendent (NHSAA), Ruthann Goguen, Program Reviewer, and Nicole Heimarck, State Liaison (NHDOE)

Item(s) of Note or Item(s) Requiring Further Action

Commendations:

- The proposal of a program model that is built upon a partnership with a state organization (NHSAA) is the first of its type in New Hampshire and offers future leaders great potential with deep access to practicing superintendents and opportunities for rich clinical experiences.

Suggestions (recommendations that may sit outside the governance of the ED 600's that would contribute to the overall quality and effectiveness of the proposed program):

Recommendations that require responsive action (recommendations for program improvement that may be addressed through an annual report or **progress report**):

- While the partnership is identified as a commendable and innovative design element for a Professional Educator Preparation Program (PEPP), SNHU along with NHSAA need to be attentive and deliberate in the development of a formal Memorandum of Understanding (MOU) or Letter of Agreement (LOA). Such a program requires mutual accountability in the delivery and demonstration of competency in candidate, program content and program requirements. A document, clearly detailing the responsibilities of each organization, is essential to a successful collaboration, to include the collection and analysis of data to monitor the clinical partnership and practice, the candidate assessment system and the program assessment system. A strong and formal agreement will ensure that the state's candidate assessment and program assessment standards are sufficiently met, supporting candidate and program progress in an ongoing and continuous manner.

Recommendation for Program Approval (recommendations to be addressed prior to the program receiving approval, such recommendations would require an on-site prior to approval):

- N/A

Progress Report to Address the Following Recommendation/s:

- N/A

Annual Report to Address the Following the Recommendation/s:

- SNHU's annual progress report to be submitted no later than September 30, 2018 each year shall report on the school superintendent program providing a detailed overview of the MOU/LOA, with specificity on how candidate assessment and program assessment will be monitored in a continuous and ongoing matter. An attachment of the formal agreement shall be submitted each year. The institution is required to report on this finding for the next two calendar years (2018, 2019).

I. Assessment of Program Components

A. Clinical Partnerships and Practice (ED 604) A Clinical practice model is designed and is in place for fostering early, often, and ongoing practice within this PEPP. This model has strong efficacy within other approved programs within this institution.

1. 4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.

- **The rating for the Clinical Practice Model is: 3 - Effective**
- **Evidence supporting this rating includes**

The rules for superintendent licensure require candidates to engage in fieldwork that covers the full range of responsibilities within the role of school superintendent. The clinical practice model detailed by this partnership program for superintendent licensure offers great promise as it presents a paradigm shift in how clinical experiences are designed for advanced licenses, and more specifically for senior leadership positions. The shift in design is in response to needs communicated from the field which have cast questions on the preparation of superintendent's for the reality of the role. By collaborating and by establishing a partnership with NHSAA, SNHU highlights the significance of numerous and diverse clinical experiences.

The vision of this model was to move away from the traditional approach of a single practicum at the end of a program as a capstone experience. Rather, the design is a 3-year focus on fieldwork - early, ongoing, often and embedded. Fieldwork is built into all three years of the program, concluding with a full year mentorship during the final year.

B. **Candidate Assessment System (ED 606)**

A systematic process is designed for collecting and assessing candidate outcomes within this PEPP. This model has strong efficacy within other approved programs within this institution.

1. 4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.

- **The rating for the Candidate Assessment System is: 3 - Effective**
- **Evidence supporting this rating includes:** 2016 institutional report and on-site review, 2017 on-site review of superintendent program, and proposed assessment outline.

SNHU has a well-established process for candidate assessment at the unit level. Last winter (December 2016), the institution demonstrated a model that consistently monitors

the progression and success of individual candidates. This established model will be implemented within the new superintendent licensure program.

SNHU organizes candidate preparedness into 3 sections, referred to as Gateways. At each of these progressive Gateways, candidates must meet multiple indicators: Gateway I Introductory Experiences & Courses; Gateway II Intermediate Experiences & Courses; Gateway III Culminating Experience (Culminating Clinical).

To ensure the success of the candidate assessment system within this program, SNHU will need to develop and include language within their formal MOU/LOA with the GSL Academy that clearly articulates the milestones for candidate success and movement within the program. Elements that require the deepest articulation within this agreement involve the assignment of responsibility across the two organizations supporting candidate development – SNHU and GSL. While SNHU is the accredited agency, GSL has mutual responsibility in supporting candidates and collecting evidence on their mastery of competency. A formal agreement shall specify who monitors, evaluates and collects data on the individual milestones for candidate development.

C. Program Assessment System (ED 606)

A systematic process is designed for collecting and assessing program trends and making modifications based upon evidence and best practice. This model has strong efficacy within other approved programs within this institution.

1. 4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.
 - **The rating for the Program Assessment System is:**
3 - Effective
 - **Evidence supporting this rating includes:** 2016 institutional report and on-site review, 2017 on-site review of superintendent program, and proposed assessment outline.

Throughout last winter's institutional review and this fall's program specific review, the SNHU School of Education demonstrated their commitment and willingness to fulfill their mission statement; *creating a better tomorrow by preparing students to be knowledgeable, reflective leaders, responsive to the needs of a diverse society*. The articulated Program Assessment System provides a strong initial start toward a program assessment system that is focused on continuous improvement. Last winter, the Program Assessment System appeared to be a recently developed and evolving system, which supports the School of Education in thinking holistically about curricula within and across PEPPs.

The Program Assessment System utilizes multiple measures and checkpoints to measure the effectiveness of the program. These measures are scaffolded across the Gateway

System (Gateway I, II and III), and include the review of School of Education processes and policies, faculty quality and alumni surveys:

- School of Education Policies & Processes:
 - Candidate Selectivity;
 - Analysis of Efficacy of Gateway System;
 - Review of Curriculum Committee Agendas;
 - Role of Program Coordinators/Oversight of Adjunct Faculty/Review of Percentage of Courses Taught by Adjunct Faculty.
- Faculty Quality
 - Course Evaluations of Undergraduate Program;
 - Review of Faculty Qualifications, Onboarding and Evaluations of Graduate Program;
 - Teacher Candidate Evaluation of University Supervisor.
- Alumni Survey.

Because this program is new, there is no data within the existing assessment system on superintendent licensure. Such a system will be implemented within this proposed program as candidates are admitted and tracked. The system shows promise and has been implemented for two years across other programs currently at the institution.

Similar to the state's finding on the Candidate Assessment System SNHU will need to develop and include language within their formal MOU/LOA with the GSL Academy that clearly articulates responsibility for program improvement and accountability.

D. Program/Certification Standards (ED 614.05, School Superintendent)

Program alignment to state certification standards is comprehensive and will prepare candidates for both content knowledge and discipline specific pedagogy within the discipline.

1. 4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.
- **The rating for Alignment to State Certification Standards is: 3, Effective**
 - **Evidence supporting this rating includes:** Institutional Matrix-aligning program standards with state professional standards, an on-Site visit, program inputs such as syllabi and the Granite State Leadership Academy program design elements.

The primary source of evidence for meeting the state's Superintendent licensure standards (ED 614.05) can be located in the Southern New Hampshire University's (SNHU) Matrix, which compares the New Hampshire Department of Education's (NHDOE) Professional Program Standards to the New Hampshire School Administrators Association's Granite State Leadership Academy Objectives/Competencies, delivered in partnership with the university. The site visit on November 6th, 2017, provided answers to questions regarding the fieldwork and the

curriculum content of the NHSAA professional workshop series. The SNHU and NHSAA teams provided ample details on how they would be collaborating to review each candidate's fieldwork associated with the SNHU course work and NHSAA professional workshops. The evidence on how the program meets both the NH DOE program standards for Superintendents (ED 614.05) and the new Professional Standards for Educational Leaders by the National Policy Board for Educational Administration (PSEL, 20015), can be located in the course descriptions of the Granite State Leadership's workshops (brochure) and Southern New Hampshire's courses (CAGS 656, 670, 675, Action Research 1 & 11). It is important to note that the state of NH has not adopted or integrated the "newer" national standards for district leaders into their state standards as recommended by the state's Professional Standards Board (PSB). This is a body of standards the NH's PSB needs to explore.

The SNHU and NHSAA Superintendent licensure program aims to incorporate the rigorous standards of the 2015 Professional Standard for Educational Leaders and of note "the 2015 standards have been recast with a stronger, clearer emphasis on students, and student learning, outlining foundational principles of leadership to help ensure that each child is well-educated and prepared for the 21st century (National Policy Board for Educational Administrators, 2015, p.2).

The Granite State Leadership Academy in Partnership with Southern New Hampshire University intends to cover the following eight leadership areas in depth: General Leadership, Curriculum and Instruction, Personnel Management, Finance, Student Services, Communication and Community Relations, Maintenance and Capital Improvement, and Preparation for first leadership position. Candidates in the program will be provided a unique form of mentoring because they will become active members of the NHSSA Regional Superintendents meetings. These meetings will serve as additional experiential learning opportunities for candidates by allowing them to see how superintendents in the field are serving their districts, meeting students' needs and balancing the many responsibilities associated with the role. Candidates will be expected to take back what they are learning into their current districts and write reflective papers. The reflective papers will be shared with the SNHU Director of Graduate Programs and documented as evidence towards meeting the standards. Likewise, the SNHU Action Research projects will be shared with the Granite State Leadership Coordinators to ensure every candidate's learning is closely monitored and supported.

In summary, this new innovative partnership provides a blended approach to learning for current educators seeking to engage in a superintendent licensure program in New Hampshire.

Appendix A
Questions for SNHU Site Visit
Superintendent Licensing Program
November 2017

1. **Selection and Recruitment Processes** - How does the process work for the selection, recruitment, and admission of candidates to this program?
 - a. What are the criteria for evaluating candidates?
 - b. What process and tools are utilized to make such decisions?
 - c. How many candidates have sought admission over the past two years? How many are admitted and continue with their enrollment?
 - d. What roles do GSL Academy and SNHU play in the recruitment, selection and retention of candidates?

2. **Field Work** – The rules for superintendent licensure require candidates to engage in fieldwork that covers the full range of responsibilities of the role. What are the fieldwork expectations for this program? How do both the GSL Academy and SNHU ensure the full range is covered and how is candidate competency determined?

3. **Curriculum and Content** - Many of the content competencies appear to be covered by NHSAA’s professional development series. How is the program certain that candidates have adequate experience and demonstrated success in these competencies truly mastering them at a beginning district leader level? Further, the PD series is designed for “acting,” district level administrators, is there a differentiation provided for those who are aspiring leaders (candidates in a program)? Lastly, the content of these offerings varies each year, how is a commitment to the standards ensured with mastery/competency by each candidate? Some examples include but are not limited to:
 - a. Where/How is Effective Capital Management and Care covered?
 - b. Where/ How is data analysis and data driven decision systems covered?
 - c. Where/How is compliance to federal and state regulations covered?
 - f. Where/How is strategic planning and creating and sustaining a vision and mission covered?

Overall, we are observing alignment to components of the content standards for school superintendent (Ed614.05) but have question if the full set of standards are addressed with candidate opportunity to demonstrate competency.

STATE OF NEW HAMPSHIRE

Southern New Hampshire University

New Program Proposal Report Early Childhood Special Education

12/15/2017

This report details SNHU's new program proposal to develop and implement an Early Childhood Special Education licensure program.

Southern New Hampshire University's (SNHU) New Program Approval Report

ED 612.071 Early Childhood Special Education

Name of Proposed New Program: Early Childhood Special Education (Undergraduate and Graduate Levels)

Program Number: ED 612.071

Reviewer: Kathy McKechnie, Pre-School Special Education Administrator, Timberlane Regional School District

NHDOE Liaison: Nicole Heimarck, Bureau Administrator Educator Preparation

Summary of the Review (New Program Proposal):

In December 2016 Southern New Hampshire University (SNHU) underwent and engaged in an institutional site visit for state program approval. This site visit examined programs offered at both the undergraduate and graduate levels. Among those programs reviewed were Early Childhood Education and Special Education. SNHU received the full seven year approval for these two programs with a few identified findings (Reference Appendix A).

In September 2017 SNHU pursued an expansion of the above programs to include Early Childhood Special Education. At the time the institution submitted a new program proposal to the Council for Teacher Education (CTE) which was reviewed at their September 2017 meeting. The CTE made the recommendation to have the new program proposal evaluated by an expert from the field to ensure alignment with the state standards for Early Childhood Special Education, Clinical Practice, and Assessment Systems.

In November a reviewer with expertise in Early Childhood Special Education was identified. That individual's review of the program began in November and concluded in December with support and technical assistance from the New Hampshire Department of Education. Both the reviewer and NHDOE liaison worked in partnership to examine the materials SNHU had submitted to demonstrate program alignment to the state standards. Through this electronic review, a limited number of questions surfaced about course content which resulted in a request to examine more detailed course descriptions and syllabi. The purpose of this request was to better understand the instructional content for the early childhood program which serves as the foundation for the special education program components. All requested materials were immediately provided by the institution and were comprehensive in nature.

Participants in this new program review included: Cathy Stavenger, Associate Dean of the School of Education (SNHU), Mary J. Ford, Faculty Member and Graduate Teacher Certification Administrator (SNHU), Kathy McKechnie, Pre-School Special Education

Administrator (Timberlane Regional School District), and Nicole Heimarck, State Liaison (NHDOE).

Item(s) of Note or Item(s) Requiring Further Action

Commendations:

- The planned clinical partnership and practice model is a strong component of the institution’s proposal, and underscores SNHU’s commitment to experiential and evidence-based learning opportunities for teacher candidates. This is evidenced in the following:
 - SNHU is in the process of formalizing partnerships in a Professional Development Schools Clinical Model (<https://napds.org/>);
 - The movement toward a yearlong student teaching experience;
 - The integration of courses in P-12 schools.

Suggestions (recommendations that may sit outside the governance of the ED 600’s that would contribute to the overall quality and effectiveness of the proposed program):

- N/A

Recommendations that require responsive action (recommendations for program improvement that may be addressed through an annual report or **progress report**):

- N/A

Recommendation for Program Approval (recommendations to be addressed prior to the program receiving approval, such recommendations would require an on-site prior to approval):

- N/A

Progress Report to Address the Following Recommendation/s:

- N/A

Annual Report to Address the Following the Recommendation/s:

- Because candidate performance levels were low in the area of reading instruction during the 2016 review of the Early Childhood Program, the NHDOE will continue to request an annual update on candidate performance in the area of reading instruction for both Early Childhood (existing program) and Early Childhood Special Education (new program). This update will be provided for a total of two years in the institution’s annual report to the NHDOE to be submitted in September 2018 and September 2019.
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I. Assessment of Program Components

A. Clinical Partnerships and Practice (ED 604) A Clinical practice model is designed and is in place for fostering early, often, and ongoing practice within this PEPP. This model has strong efficacy within other approved programs within this institution.

4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.

- **The rating for the Clinical Practice Model is: 3 - Effective**

- **Evidence supporting this rating includes:**

- 2016 Institutional Report,
- 2017 electronic review
- New Program Proposal, including course descriptions/syllabi
- Faculty interviews

- The planned clinical partnership and practice model for this program stands out as a high leverage component of the institution's proposal. In fact, last December, clinical practice was noted as an emerging strength of SNHU's early childhood teacher preparation program. The institution is in the process of formalizing these partnerships in a Professional Development Schools clinical model (<https://napds.org/>). The movement toward a yearlong student teaching experience and the integration of courses in P-12 schools underscores the commitment SNHU has to experiential and real learning opportunities for teacher candidates. By the fall of 2019 SNHU will require a 32-week capstone clinical for all Early Childhood Special Education candidates (year-long residency). Before candidates are placed in this year-long residency they are required to complete 300 hours of fieldwork, where they are actively involved in PreK classrooms. SNHU's proposal for clinical work in the Early Childhood Special Education exceeds the current standards for program approval. A rating of a "3-effective" is recommended, as this is a proposal for what will be in place, and has yet to be operationalized given that it is a new program for the institution.

B. Candidate Assessment System (ED 606)

A systematic process is designed for collecting and assessing candidate outcomes within this PEPP. This model has strong efficacy within other approved programs within this institution.

4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.

- **The rating for the Candidate Assessment System is:
3 - Effective**

- **Evidence supporting this rating includes:**

- 2016 Institutional Report

- 2017 electronic review
- Proposed assessment outline

SNHU has a well-established process for candidate assessment at the unit level. Last winter (December 2016), the institution demonstrated a model that consistently monitors the progression and success of individual candidates. This established model will be implemented within the new Early Childhood Special Education Program at the undergraduate and graduate levels.

SNHU organizes candidate preparedness into 3 levels, referred to as Gateways. At each of these progressive Gateways, candidates must meet multiple indicators: Gateway I Introductory Experiences & Courses; Gateway II Intermediate Experiences & Courses; Gateway III Culminating Experience (Culminating Clinical).

SNHU submitted a description for assessing candidate preparedness ensuring mastery of certification standards. The process submitted by the institution is consistent with other programs approved at the institution. Candidate preparedness for certification is assessed through an analysis of the following:

- Cumulative Grade Point Average
- Critical Task Mean Score
- Disposition Checklist
- Culminating Student Teaching Experience Monthly Progress Check
- NH TCAP by Criterion Mean for Early Childhood Special Education Teacher candidates
- PRAXIS Core and PRAXIS II

Each of these elements falls in one of the above referenced gateways. This model addresses the state's standards for candidate assessment systems.

C. Program Assessment System (ED 606)

A systematic process is designed for collecting and assessing program trends and making modifications based upon evidence and best practice. This model has strong efficacy within other approved programs within this institution.

4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.

- **The rating for the Program Assessment System is:**
3 - Effective
- **Evidence supporting this rating includes:**
 - 2016 Institutional Report
 - 2017 electronic review
 - Proposed assessment outline

Throughout last winter's institutional review and this fall's program specific review, the SNHU School of Education demonstrated their commitment and willingness to fulfill their mission statement; *creating a better tomorrow by preparing students to be knowledgeable, reflective leaders, responsive to the needs of a diverse society*. The articulated Program Assessment System provides a strong initial start toward a system that is focused on continuous improvement. Last winter, the Program Assessment System appeared to be a recently developed and an evolving system, which supports the School of Education in thinking holistically about curricula within and across PEPPs.

The Program Assessment System utilizes multiple measures and checkpoints to measure the effectiveness of the program. These measures are scaffolded across the Gateway System (Gateway I, II and III), and include the review of School of Education processes and policies, faculty quality and alumni surveys:

- School of Education Policies & Processes:
 - Candidate Selectivity;
 - Analysis of Efficacy of Gateway System;
 - Review of Curriculum Committee Agendas;
 - Role of Program Coordinators/Oversight of Adjunct Faculty/Review of Percentage of Courses Taught by Adjunct Faculty.
- Faculty Quality
 - Course Evaluations of Undergraduate Program;
 - Review of Faculty Qualifications, Onboarding and Evaluations of Graduate Program;
 - Teacher Candidate Evaluation of University Supervisor.
- Alumni Survey.

Because this program is new, there is no data within the existing assessment system on early childhood special education licensure. Such a system will be implemented within this proposed program as candidates are admitted and tracked. The system shows promise and has been implemented for two years across other programs.

During the 2016 review SNHU had tracked the performance of Early Childhood candidates on measures of content knowledge in the instruction of reading, a critically important area of content knowledge for early childhood educators. This data resulted in a finding attached to the early childhood program. Candidates were not demonstrating competence in evidence-based literacy instruction for PreK-3rd grade, as assessed by the Foundations of Reading exam, with 85% of the candidates not passing. However, 100% of the Early Childhood candidates passed the PRAXIS II in the Early Childhood Content Knowledge test. SNHU has addressed this finding in the new program proposal for early childhood special education and has made some program changes to early childhood, specifically the introduction of a new course in "content area reading." Because candidate performance levels were as low as they were, the NHDOE will continue to request an annual update on candidate performance in the area of reading instruction for

both Early Childhood (existing program) and Early Childhood Special Education (new program).

D. Program/Certification Standards (ED 612.071 Early Childhood Special Education) Program alignment to state certification standards is comprehensive and will prepare candidates for both content knowledge and discipline specific pedagogy within the discipline.

4-Highly Effective, **3-Effective**, 2-Needs Improvement, 1-Ineffective, NA-Not applicable. Appendix includes a detailed description of rating scale levels.

- **The *rating* for Alignment to State Certification Standards is:**
3 - Effective
- **Evidence supporting this rating includes:**
 - SNHU ED 612.071 Self-Assessment Worksheet- Undergraduate Program
 - SNHU ED 612.071 Self-Assessment Worksheet – Graduate Program
 - New Program Proposal Request, to include:
 - Rationale and statement of purpose
 - Formulated statement of knowledge, skills and dispositions
 - Description of undergraduate curriculum
 - Description of graduate curriculum
 - Responsiveness to P-3 data
 - Implementation of a data-driven decision-making system

The primary source of evidence for meeting the state’s Early Childhood Special Education licensure standards (ED 612.071) can be located in the Southern New Hampshire University’s (SNHU) self-assessment worksheet for new program proposals, which compares the New Hampshire Department of Education’s (NHDOE) Professional Program Standards to the university proposal (program outline, course components, and assessment of competencies). Additional evidence was provided by the institution upon request further detailing course expectations that merged both theory and practice.

SNHU’s Early Childhood Special Education Program proposal presents a program that is both rigorous and comprehensive. The assessment procedures and systems will provide the data and evidence necessary to inform the skill set of the candidate and foster continuous development of the candidate from classroom to the field. The program design and coursework will provide the candidate with the foundational knowledge and experience needed to develop the skills required for certification as an early childhood special education teacher. An overview of program alignment to each of the six standards for early childhood special education is detailed below.

612.071-Early Childhood Special Education Program Standards

(1) The standard is effectively met. Additional thoughts include understanding the role of families in their own child's development is critical. This should be an area of focus to ensure that candidates not only develop an understanding of the role of families but can also identify strategies for engaging families in their own child's learning.

(2) The standard is effectively met. Additional thoughts include the need to focus on recognizing and using the knowledge of exceptionality in lesson planning but also have the skills to consult to the classroom teacher in strategies that support the exceptional learner in the classroom.

(3) The standard is met. Additional thoughts include the need to support the students learning in their role as consultant to the regular education program and ability to provide strategies for supporting the learner in the regular education classroom in partnership with related service providers.

(4) EDU 440, 487, 490 - Effective in meeting the standard and supporting the candidate in developing the needed skills to manage classroom environments using positive and effective classroom management, consulting to staff, utilizing assessment data to inform instruction.

SPED 210 – Effective in addressing candidates understanding of inclusive setting and the need to utilize strategies that meet the needs of all learners for accessing education.

SPED 230 – Effective and valuable course to address this standard. Behavior challenges are extremely prevalent in early education at this time.

(5) Assessment – EDU 440, 487, 490, SPED 350 – Effective course of study meeting the standards for candidates.

Additional thoughts include candidates understanding alternative methods of assessing the exceptional learner when standardized measures are not an possible.

(6) EDU 440, 487, 490 – Effective - The courses described meet the standard for developing the candidates understanding of instructional planning and practices. Reflecting on ones' own instructional plan and practices is an element to be threaded throughout the courses to ensure candidates are skilled in understanding the elements of a strong instructional plan and are able to use student performance as a means for reflecting on their own instructional practices.

Appendix A
2016 Program Approval Reports
Early Childhood Education

Name of the Program: Early Childhood Education

1. **Program Number:** Ed 612.03

2. **Summary of Findings:**

The Early Childhood Education program is both a graduate and undergraduate with an option for certification. In the two years reviewed, 37 students were fully accepted and 28 were accepted with probationary status and a total of 20 students graduated. The curriculum is aligned to the state standards (Ed 610.02 and Ed 612.03) with a focus on learners 3-8 years old in preschool to 3rd grade settings. Students accrue over 300 hrs of field experience prior to student teaching. A focus on theory into practice and evidence of learning throughout the curriculum culminates in competency based assessment. Clinical Partnerships and Practice, and Quality Control systems of Program and Candidate Assessment were found to be effective. The program identified needs to improve the literacy skills of early childhood candidates.

3. **Commendations:**

Clinical Practice: Clinical practice is an emerging strength of SNHU early childhood teacher preparation. Required teaching methods courses are taught on-sight in clinical partnership P-12 schools. The movement toward a yearlong student teaching experience for the 2017 freshman class is further evidence of SNHU's commitment to strong clinical practice in teacher preparation.

Competency-based preparation: Two key aspects of the candidate assessment system stand out – the focus on evidence of learning through competency based assessment and the focus on teacher dispositions – aspects supported by the research literature but not commonly present in teacher preparation programs.

4. **Suggestions:**

SNHU was an early full adopter of the NH TCAP across teacher preparation programs. This tool was designed and calibrated for K-6. A statewide workgroup of early childhood faculty has developed and is piloting a version for early childhood teacher candidates. Consider adopting this early childhood version as it becomes available so the assessment tool is fully aligned with the area of certification.

5. **Recommendations that require responsive action.**

Faculty candidates are not demonstrating competence in evidence based literacy instruction for PreK-3rd grade. This is manifesting across multiple measures in the quality control system, where ultimately 85% are not passing the Foundations

of Reading test required for certification. SNHU needs to consider how this weakness will be addressed as part of program improvement.

6. Recommendation for Program Approval: Full Approval
7. Progress Report to Address the Following Recommendations: N/A
8. Annual Report to Address the Following the Recommendations:
Provide updates of progress in strengthening the competence of candidates in evidence based literacy instruction for PreK-3rd yearly in annual reports to NHDOE.

Early Childhood Education, Ed 612.03

ED 604- Clinical Partnerships & Practice System, as characterized by early, often, and ongoing clinical experiences integrating theory and practice and supported by effective highly effective clinical practitioners.

Clinical practice begins early, is progressive, and integrated across the ECE teacher candidate program of study. Prior to student teaching candidates log a minimum of 100 hr. of field experience that is connected to education and special education coursework. The Clinical Practice Model Assessment System is integrated across the 3 Gateways to include:

- Teacher Candidate Reflections and Faculty Approval of Field Experiences
- Monthly Progress Reports of Teacher Candidates During Student Teaching
- New Hampshire Teacher Candidate Assessment of Performance (NH TCAP)
- PRAXIS II Results
- Placement Evaluation completed by Teacher Candidate and University Supervisor
- Summary of Findings

Teaching methods courses are taught on-site through clinical partnership with P-12 schools. Each candidate has a culminating student teaching experience, which will move to a full year student teaching for the 2017 freshman class.

ED 606 - Candidate Assessment System detailed as a structure that admits students to a PEPP and supports them throughout enrollment through completion monitoring candidate growth and development and readiness for state certification.

A strength of the candidate assessment system is the use of multiple measures gathered throughout the course of a candidate's program of study. Articulated Gateways exist that students must pass to progress toward completion. Two years of evidence was presented and reviewed. Review of the assessment data is providing consistent findings across measures. Over

time with a larger data set and refinement of the process, this system will become stronger. Two key aspects of the candidate assessment system stand out – the focus on competency based assessment and the focus on teacher dispositions – aspects supported by the research literature but not commonly present in teacher preparation programs.

ED 606 – Program Assessment System as defined by, continuously and systematically gathering relevant, verifiable, representative, cumulative, and actionable data to monitor and improve the program of study, the facilitation of learning, the assessment of candidates and the overall performance of the program.

The Program Assessment System seems to be a recently developed and evolving system, which supports the School of Education in thinking on a holistic curricular level within and across PEPPs. Two years of data was presented and reviewed. Refinement and continued implementation of this program assessment system will result in meaningful data to inform continuous improvement.

A. Application of the Rating System listed below to the Specific Certification **Clinical Practice Model **3-Effective****

A highlight is that four required courses are taught on-site in P-4 schools where candidates learn theory, engage in practice with students and teachers, and reflect upon their experience. This type of clinical partnership supports strong integration of learning and gives teacher candidates familiarity with current practices and challenges in P-12 schools. In addition, SNHU is expanding the length of clinical experience for undergraduate teacher candidates to a yearlong student teaching experience beginning with the 2017 incoming freshman class. The change to a yearlong student teaching experience was informed by research from the field (focus groups with principals and superintendents). This plan toward expanded clinical practice is aligned with the research on teacher preparation and will significantly strengthen clinical practice.

B. Application of the Rating System listed below to the specific Certification **Candidate Outcomes **3-Effective****

Candidate outcomes are looked at consistently throughout the program, which include multiple qualitative and quantitative measures. The pass rates for the Praxis Core are consistently above state averages and the Early Childhood Praxis pass rate was 100% for the last year. The results for the Foundations of Literacy test however, indicate an 85% failure rate. Beyond this specific test there are other indicators which support a weakness in Literacy Science; the TCAP evidences weak literacy scores, as do the critical task scores in Literacy courses (EDU261, EDUC 363). It is strongly recommended that the program examine research based literacy instruction within the curriculum, consider the rigor of culminating clinical placements, along with the expertise of

cooperating teachers and university supervisors. Another piece of evidence is the high reliance on adjunct faculty to teach the program (43-59% overall with 75-80% at the graduate level). Collectively the faculty needs to consider how this weakness, which is manifesting through multiple indicators, will be addressed as part of program improvement.

**C. Application of the Rating system listed below to the Specific Certification Program
Assessment System 3-Effective**

Specific to Early Childhood Education, the institution noted a particular need for a closer look at supporting students through Gateway 3 as candidates are struggling with the Foundations of Reading test. This weakness also manifested through other indicators, such as noticeably lower instructor hours in core (online) reading courses (RDG 503, RDG 501) compared with other certification courses. The other area identified in the Alumni Survey to inform next steps for improvement, Communication with parents and colleagues to set challenging, data-driven learning goals for students is central to early childhood educators who are tasked with establishing reciprocal relationships with families. It would be interesting to look at the alumni survey responses by degree to determine if perceptions of preparation are noticeably different for Early Childhood Education compared with other education graduates.

Readopt with amendment Ed 1128, effective 3-24-17, (Doc #12141), to read as follows:

PART Ed 1128 SPECIAL EDUCATION [~~CATASTROPHIC~~] AID

Ed 1128.01 Definitions. The following definitions shall apply for the purposes of Ed 1128.

(a) “**Special education** [~~Catastrophic~~] aid” means financial assistance for special education costs distributed under RSA 186-C:18, III to a responsible school district.

(b) “Contributed funds” means funds contributed to defray the cost of a special education and by any party or agency other than the LEA.

(c) “Direct costs” means those costs which can be identified specifically with the provision of special education and related services, as included in a child’s IEP.

(d) “Emergency assistance” means funds appropriated for special education costs as provided in 186-C:18, III.

(e) “Indirect costs” means those costs which have been incurred for common or joint objectives and which cannot be identified with the provision of special education and related services as included in a particular child’s IEP.

(f) “Responsible school district” means a school district which is responsible for a child with a disability for whom the costs of special education exceed the formula established by RSA 186-C:18, III.

Source. (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

Ed 1128.02 Reimbursement. A responsible school district shall be reimbursed for **special education** [~~catastrophic~~] aid if the requirements of this section are met.

(a) The special education costs for which the district is seeking payment shall exceed the statutory threshold established by RSA 186-C:18, III.

(b) Each child with a disability for whom the responsible district is seeking **special education** [~~catastrophic~~] aid reimbursement shall be:

(1) Enrolled in an approved special education program that:

a. Provides FAPE; and

b. Meets the requirements established in:

1. Ed 1128.02;
2. Ed 1128.03;
3. Ed 1128.05; or
4. Ed 1117; or

(2) In a placement for which a hearing officer, pursuant to Ed 1123, orders the responsible school district to reimburse parents in accordance with 34 CFR 300.148.

(c) The responsible school district shall report evaluation, placement, and eligible cost data for a child with a disability for **special education** [~~catastrophic~~] aid in accordance with Ed 1128.07.

(d) The information entered into NHSEIS under Ed 1128.04 shall be verified on the Superintendent's Verification of *SPECIAL EDUCATION* [~~CAF~~] AID form signed and dated by an individual authorized to make application for *special education* [~~catastrophic~~] aid on behalf of the responsible school district. The verification form shall be submitted to the department no later than 4:30 p.m. on August 15 or, if August 15 falls on a weekend, no later than 4:30 p.m. on the next business day.

Source. (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

Ed 1128.03 Limitations on Reimbursement. A responsible school district shall:

(a) Be eligible for reimbursement only for those direct costs which are included in the IEP of a child with a disability, and which qualify as special education and related services; and

(b) Not be reimbursed for:

(1) Costs which exceed rates established by Ed 1129 for tuition, instruction, room and board, and related services; or

(2) Indirect costs.

Source. (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

Ed 1128.04 Application for *Special Education* [~~Catastrophic~~] Aid. To apply for the *special education* [~~catastrophic~~] aid, a responsible school district shall:

(a) Enter the following program information into the NHSEIS database system:

(1) Instructional costs;

(2) Room and board costs;

(3) Tuition costs;

(4) Costs for related services, for which the department has approved a rate under Ed 1129, including:

a. Counseling, both individual and group;

b. Occupational therapy, both individual and group;

c. Physical therapy, both individual and group; and

d. Speech pathology, both individual and group;

(5) Costs for related services for which the department had not approved a rate under Ed 1129, provided such services are included in the IEP of the child with a disability;

(6) Transportation costs;

(7) Exceptional costs, including diagnostic costs for services defined under Ed 1107; and

(8) Any contributed funds; and

(b) Send supporting documentation to the department for:

- (1) Transportation costs under (a)(6) above in excess of \$5,000;
- (2) Exceptional costs under (a)(7);
- (3) Instruction, room and board, and tuition costs from out-of-state facilities, if applicable;
- (4) Instructional costs from public programs; and
- (5) All related services when no rate is set.

[Source.](#) (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

Ed 1128.05 Calculation of Cost of Special Education. The cost of special education for a particular child with a disability shall equal the costs entered into NHSEIS under Ed 1128.04(a)(1) – (7), less contributed funds entered into NHSEIS under Ed 1128.04(a)(8).

[Source.](#) (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

Ed 1128.06 Emergency Assistance.

- (a) Emergency assistance shall be available pursuant to RSA 186-C 18, III.
- (b) When a responsible school district applies for emergency assistance, it shall:
 - (1) Enter information into NHSEIS as provided in Ed 1128.04(a); and
 - (2) Supply supporting documentation as provided in Ed 1128.04(b).
- (c) An application for emergency assistance for the school year in progress shall be submitted to the department by a responsible school district no later than 4:30 p.m. on the first Friday of May.
- (d) On applications for emergency assistance, a responsible school district shall document that:
 - (1) The district could not have anticipated the need of this child with a disability for a comprehensive special educational program;
 - (2) The district is experiencing a financial crisis and could not, through line item budget transfers or other financial management techniques, appropriate the funds necessary to provide this child with a disability with FAPE; and
 - (3) There are no other sources of financial support available to assist the district with the funding of this placement.
- (e) If a responsible school district receives emergency assistance funds for certain children with a disability, it shall not receive *special education* [~~catastrophic aid~~] for these same children.

[Source.](#) (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

Ed 1128.07 Proration. Pursuant to RSA 186-C:18,IX, when a child with a disability transfers from one responsible school district to another during the school year, the following shall apply to the proration of *special education* [~~catastrophic~~] aid and emergency assistance among responsible districts:

(a) Each district shall be reimbursed for only each school day on which the child was a resident of the district; and

(b) Each district shall file separate application forms.

Source. (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

Ed 1128.08 State Aid For In-District Programs.

(a) For the purposes of this section, “Supplemental costs” means the difference between the district’s average per pupil cost and the cost of education for the child with a disability.

(b) A liable school district shall be reimbursed for the development or maintenance of an in-district special education program, under this paragraph, if the following requirements are met:

(1) The costs for which the district is seeking reimbursement shall establish or support a school district-based program for a child with disabilities who was in an out-of-district placement in the previous school year as required in RSA 186-C:18, XI;

(2) The in-district program shall be approved pursuant to the provisions of Ed 1126.02;

(3) The child for whom the district is seeking reimbursement shall have been placed in the in-district program pursuant to the provisions of Ed 1111.02;

(4) The child for whom the district shall be seeking reimbursement is receiving a FAPE;

(5) The liable school district shall report eligible cost data for a child with a disability pursuant to Ed 1128.04, (a), (1) through (5) and in accordance with Ed 1128.07, if applicable;

(6) The information entered into NHSEIS under Ed 1128.04 shall be verified on a state aid verification form signed and dated by an individual authorized to make application for state aid on behalf of the liable school district;

(7) The verification form shall be submitted to the department no later than 4:30 p.m. on August 15 or, if August 15 falls on a weekend, no later than 4:30 p.m. on the next business day; and

(8) Payment to the school district, under this paragraph, shall be on or before January 1.

(c) Limitations on reimbursement shall be as follows:

(1) A liable school district shall be eligible for reimbursement under this paragraph only for children with disabilities whose placement has changed from an out-of-district placement to an in-district program developed or maintained by the responsible school district, and only for:

a. The direct costs that are included in the IEP in accordance with (b) (5) above; and

b. The direct costs that qualify as special education and related services, that allow the student with disabilities to be educated in the local school district program;

(2) A liable school district shall not be reimbursed for:

a. Costs which exceed rates established by Ed 1129 for tuition, instruction, and related services;

- b. Indirect costs; or
- c. Contributed funds;

(3) The reimbursement amount the school district shall receive shall be the greater of:

- a. The supplemental costs incurred by the school district to educate the child in the in-district program; or
- b. The amount the school district received for the child in the last year of the out-of-district program, prior to placing the student in the in-district program, under this paragraph; and

(4) The reimbursement under (c) (3) above shall be made for 3 years, as follows:

- a. Reimbursement under (c) (3) a. above the supplemental amount for all 3 years; or
- b. Reimbursement under (c) (3) b. above:
 - 1. In year one, 70 percent of the total amount in (c) (3) b. above;
 - 2. In year 2, 50 percent of the total amount in (c) (3) b. above; and,
 - 3. In year 3, 30 percent of the total amount in (c) (3) above.

(d) Funds distributed under RSA 186-C:18, XI shall be:

- (1) Made in accordance with the provisions of (b) above;
- (2) Prorated in accordance with RSA 186-C:18, III (a), if insufficient funds are appropriated; and
- (3) Used to assist school districts in meeting *special education* [~~catastrophic~~] aid costs in their special education programs to the extent that they are not used to fund the program set out in RSA 186-C:18, XI.

Source. #9694, eff 4-16-10; ss by #12141, eff 3-24-17

Readopt with amendment Ed 1102, effective 3-24-17, (Doc #12141), to read as follows:

PART Ed 1102 DEFINITIONS

Ed 1102.01 Definitions A-C.

~~{(y) “Core academic subjects” means “core academic subjects” as defined in 34 CFR 300.10.}~~

(y)[(z)] “Court” means a court of competent jurisdiction.

(z)[(aa)] “Curriculum” means all of the courses and other educational opportunities offered by the responsible local education agency.

(aa)[(ab)] “Curriculum for preschoolers” means all of the organized educational activities, experiences, or both that are offered within the early childhood program to address all aspects of development and to promote meaningful learning experiences regarding preschoolers, their families and their community.

Ed 1102.03 Definitions H-M.

(a) “Health care facility” means any hospital, nursing home, sheltered home or other facility licensed under RSA 151.

(b) “Health Evaluation” means an evaluation that provides the IEP team with information on the child’s physical condition and may include, but is not limited to:

- (1) A physical assessment, health screening, or both;
- (2) A review of a child’s medical history;
- (3) Classroom observations of the child with health related concerns; and
- (4) Identification of health barriers to learning, as determined by the IEP team.

~~(e) “Highly qualified teacher” means “highly qualified teacher” as defined in 34 CFR 300.18 and 34 CFR 300.156(e).~~

(c)[(d)] “Home education” means “home education” as defined in RSA 193-A:4, and includes the term homeschooling.

(d)[(e)] “Home for children” means:

- (1) Any orphanage, or institution for the care, treatment, or custody of children;
- (2) As defined by RSA 170-E: 25 any child care agency, child care institution, experiential wilderness facility, and independent living home; or
- (3) Any residential school approved under RSA 186-C:5.

(e)[(f)] “Home instruction” means a home-based LEA placement as detailed in Ed 1111.04 that provides home instruction for school-aged children.

(f)[(g)] “Independent educational evaluation” means “independent educational evaluation” as defined in 34 CFR 300.502(a)(3)(i).

(g)(h) “Individualized education program” (IEP) means “individualized education program” as defined in 34 CFR 300.22 and which meets the requirements in Ed 1109.

(h)(i) “Individualized education program team” (IEP team) means “individualized education program team” as defined in 34 CFR 300.23 and which meets the requirements in Ed 1103.01(b) and (c).

(i)(j) “Individualized family service plan” or (IFSP) means “individualized family service plan” as detailed in 34 CFR 300.323. The term includes individualized family support plans.

(j)(k) “Individuals with Disabilities Education Act (IDEA) and Individuals with Disabilities Education Improvement Act (IDEIA)” each mean the Individuals with Disabilities Education Act, 20 U.S.C. 1400, et seq., as amended by the Individuals with Disabilities Education Improvement Act of 2004, and as implemented by the U.S. Department of Education’s regulations, 34 CFR 300 et seq.

(k)(l) “Interim alternative educational setting” means the setting, as determined by the IEP team pursuant to 34 CFR 300.530(g) through 34 CFR 300.532, in which a child with a disability receives services when removed from placement for disciplinary reasons.

(l)(m) “Interpreter services” means interpreting services provided by an interpreter for the deaf and hard of hearing who is licensed in accordance with Int 300 and RSA 326-I:2,IV that are necessary for a parent, surrogate parent, guardian, or adult student to participate in the special education process.

(m)(n) “Interpreting services for a child with a disability” means “interpreting services for a child with a disability” as defined in 34 CFR 300.34(c)(4) and 300.322(e).

(n)(o) “Local education agency” (LEA) means “local education agency” as defined in 34 CFR 300.28.

(o)(p) “Local school board” means the elected governing body of the LEA which is responsible for providing elementary and secondary education to all children who reside in the district.

(p)(q) “Local school district” means the political subdivisions of the state as defined in RSA 194:1, RSA 195:1, and RSA 195-A:1,I.

(q)(r) “Local school board officials” means the administrators of the local school district.

(r)(s) “Manifestation determination” means the process by which the IEP team determines whether the behavior that violated a student code of conduct is a manifestation of a student’s disability pursuant to 34 CFR 300.530(e).

(s)(t) “Mediation” means an alternative dispute resolution process in which an impartial mediator assists the parties in resolving issues in dispute pursuant to RSA 186-C:24.

(t)(u) “Migratory child with disabilities” means a “migratory child” as defined in 20 U.S.C. 6399(2) who has been identified as a child with a disability.

(u)(v) “Modification” means any change in instruction or evaluation determined necessary by the IEP team that impacts the rigor, validity or both, of the subject matter being taught or assessed.

Readopt with amendment Ed 1113, effective 3-24-17, (Doc #12141), to read as follows:

Ed 1113.12 Personnel Standards.

~~[(a) Personnel providing services to children with disabilities in public elementary and secondary schools shall be highly qualified special education teachers as required under 34 CFR 300.18 and 34 CFR 300.156, except as provided in Ed 1113.12 (b) and (c) for paraprofessional personnel.]~~

(a)[(b)] Paraprofessional personnel providing services to children with disabilities shall:

- (1) Work under the supervision of a certified special education teacher;
- (2) Be supervised and observed by a certified special education teacher under whom they work as often as deemed necessary by the LEA, but no less than once each week;
- (3) Implement a plan designed by the certified educator;
- (4) Monitor the behavior of children with whom they are working; and
- (5) Assist in the provision of special education and related services.

(b)[(e)] Paraprofessional personnel providing services to children with disabilities shall not:

- (1) Design programs;
- (2) Evaluate the effectiveness of programs;
- (3) Assume responsibilities of a teacher or a substitute teacher; or
- (4) Instruct a child with a disability.

Source. (see Revision Note at chapter heading for Ed 1100) #9197, eff 6-28-08; ss by #12141, eff 3-24-17

**OFFICE OF LEGISLATIVE SERVICES**

STATE HOUSE
107 NORTH MAIN STREET, ROOM 109
CONCORD, NEW HAMPSHIRE 03301-4951

December 21, 2017

Board of Education
101 Pleasant Street
Concord, NH 03301

Re: Conditional Approval of Final Proposal 2017-109

Dear Board Members:

At its meeting on December 21, 2017, the Joint Legislative Committee on Administrative Rules (Committee) voted, pursuant to RSA 541-A:13, V(a), to conditionally approve Final Proposal 2017-109 of the Board of Education (Board) containing Ed 507.29 on the general requirements for certification for a science teacher and Ed 612.23 on the educator preparation program general requirements for science teachers. The Committee's approval was conditioned on amending Final Proposal 2017-109 as specified in the Board's conditional approval request, dated December 19, 2017. A copy of the conditional approval request, as annotated by Committee staff, is enclosed for your information.

Pursuant to RSA 541-A:13, V(a), you are required to submit a written explanation detailing how the rules have been amended in accordance with the conditional approval within 7 days of the date of the next regularly scheduled meeting of the Board, which is January 11, 2018. In this instance, the 7th day following the next regularly scheduled meeting of the Board falls on January 18, 2018. The explanation shall include a letter and a text of the entire final proposed rule, annotated to show the amendments.

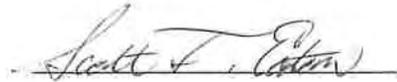
The explanation shall be reviewed by the Office of Legislative Services to determine whether the rules have been amended in accordance with the conditional approval and RSA 541-A:13, V(a). If it is determined that the rules have not been amended in accordance with the conditional approval and RSA 541-A:13, V(a), the conditional approval will be deemed a Committee vote to make a preliminary objection as of the date of the conditional approval, and you must respond to the preliminary objection as specified in RSA 541-A:13, V(a).

Please be advised that you may not adopt the rules until the Office of Legislative Services sends written confirmation that your amendments are in accordance with the conditional approval and RSA 541-A:13, V(a).

Board of Education
December 21, 2017
Page 2

If you have any questions concerning the provisions in RSA 541-A relative to conditional approvals, objections, responses, or adoptions, please call Scott Eaton at 271-3680.

Very truly yours,

A handwritten signature in cursive script, reading "Scott F. Eaton", written over a horizontal line.

Scott F. Eaton
Administrative Rules Director

Enc.

cc: Amanda Phelps, Program Assistant, Department of Education



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12/20

3-a

Frank Edelblut
Commissioner

Christine M. Brennan
Deputy Commissioner

STATE OF NEW HAMPSHIRE
DEPARTMENT OF EDUCATION
101 Pleasant Street
Concord, N.H. 03301
TEL. (603) 271-3495
FAX (603) 271-1953

CONSENT

RDPTS. (p. 3 & 4 and
Impap. by Ref. Statements)

DEC 19 2017

**CONDITIONAL APPROVAL
REQUEST**

SP 2017-109

December 19, 2017

State of New Hampshire
Joint Legislative Committee on Administrative Rules
25 Capitol St.
State House Annex Room 219
Concord, NH 03301

Dear Committee:

Please accept this conditional approval request for 2017-¹⁰⁹~~112~~, Final Proposal Ed 507.²⁹~~32~~ and Ed 612.³~~28~~
relative to Science Teacher; General Requirements.

Thank you,

Amanda Phelps
Program Assistant II

Readopt with amendment Ed 507.29, effective 10-16-09 (Doc. #9566), as amended effective 01-17-14 (Doc #10506), to read as follows:

Ed 507.29 Science Teacher; General Requirements.

(a) To be certified as science teacher, the candidate shall have:

- (1) At least a bachelor's degree; and
- (2) Qualify for certification under one of the alternatives in Ed 505.01 – Ed 505.05.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies, and knowledge of candidates for certification as science teachers by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) In addition to meeting the requirements for certification under Ed 507.28 for science teacher for grades 5-8, Ed 507.30 for earth and space science teacher, Ed 507.31 for life sciences teacher, Ed 507.32 for chemistry teacher, Ed 507.33 for physics teacher, or Ed 507.51 for physical science teacher for grades 7-12, a science teacher shall have the qualifications listed in (d) and (e) below.

(d) In the area of instructional performance, the candidate shall demonstrate:

- (1) Proficiency in the use of scientific methods as demonstrated by the ability to:
 - a. Integrate the science practices throughout lessons by:
 1. Asking questions for science and defining problems for engineering;
 2. Developing and using models;
 3. Planning and carrying out investigations;
 4. Analyzing and interpreting data;
 5. Using mathematics and computational thinking;
 6. Constructing explanations for science and designing solutions for engineering;
 7. Engaging in argument from evidence; and
 8. Obtaining, evaluating, and communicating information;
 - b. Design and teach grade level appropriate laboratory activities incorporating scientific processes, promoting scientific habits of mind, and meeting needs of diverse learners;
 - c. Use scientific drawings, diagrams, data tables, models, and graphing essential to science investigations and expression of ideas;

d. Design learning activities fostering questioning, open-ended investigations, the development of cooperative group skills, and promoting practice in decision making and problem solving;

e. Use methods of teaching reading, writing, communication, and study skills essential to the effective mastery of grade level science content;

f. Design activities and investigations integrating appropriate quantitative literacy skills and concepts; and

h. Organize, present, and evaluate science ideas in a manner emphasizing conceptual understanding of phenomena and optimizing learning experiences for students of all ability levels and learning styles; and

(2) Scientific content knowledge that enables the integration of the common themes exhibited in all of the sciences into teaching and course design including:

a. Systems and system models;

b. Energy and matter;

c. Cause and effect;

d. Scale, proportion, and quantity;

e. Patterns of change, including constancy or stability;

f. Structure and function;

g. Stability, change, and evolution; and

h. Nature of science and inquiry;

(3) The ability to make connections that:

a. Establish relationships among all sciences and reflect the role of science systems in science literacy;

b. Relate the sciences to technological issues that influence society and the ethical and moral consequences of decisions related to those issues; and

c. Integrate knowledge from the history and philosophy of science into science instruction;

(4) Knowledge of field and laboratory safety and emergency procedures, including legal and ethical responsibilities of science teachers for:

a. The welfare of their students and care for living organisms as appropriate to the area of study *using the National Science Teachers Association's Responsible Use of Live*

Animals and Dissection in the Science Classroom available as specified in Appendix II; and

b. The proper maintenance, storage and disposal of laboratory materials or chemicals using the Globally Harmonized System for Hazard Communication of 2007 available as specified in Appendix II;

(65) Knowledge and skills to integrate technological tools for learning, analysis and reporting, including, but not limited to:

- a. Skills to plan, design, deliver, and incorporate active learning and collaboration;
- b. Collect and analyze data using information technology; and
- c. Communicate information effectively;

(76) Knowledge and skills of computing and computational thinking as it relates to science, including, but not limited to:

- a. Visualizations of scientific concepts; and
- b. Modeling and simulating engineering design to communicate science understanding; and

(87) Ability to practice good digital citizenship and model safe, ethical, and legal practice with digital tools and resources.

(e) The candidate shall demonstrate knowledge of the organizations, agencies, and journals that contribute to the professional growth of the science teacher.

Readopt with amendment Ed 612.23, effective 10-16-09 (Doc # 9566), to read as follows:

Ed 612.23 Science Program: General Requirements.

(a) In addition to meeting the program requirements under Ed 612.22 for science for grades 5-8, Ed 612.24 for earth and space science for grades 7-12, Ed 612.25 for life sciences for grades 7-12, Ed 612.26 for chemistry for grades 7-12, Ed 612.27 for physics for grades 7-12, or Ed 612.34 for physical science grades 7-12, a program for science general requirements shall provide the candidate with the skills, competencies, and knowledge through a combination of academic and supervised practical experiences as outlined in Ed 507.29(d-e).

Appendix I

| RULE | STATUTE |
|-------------|--------------------------------------|
| Ed 507.29 | RSA 186:8, III- IV, RSA 186:11, X(a) |
| Ed 612.23 | RSA 186:8, IV; RSA 186:11, X(c) |

Appendix II

| Rule | Title | Obtain At |
|----------------------|--|---|
| Ed 507.29(e)(4)a. | National Science Teacher's Association Position Statement on the Responsible Use of Live Animals and Dissection in the Science Classroom, March 2008 | http://www.nsta.org/about/positions/animals.aspx |
| Ed 507.29(e)(4)b | The Globally Harmonized System for Hazard Communication of 2007 | http://www.unece.org/trans/danger/publi/ghs/ghs_rev02/02files_e.html |

Edit. The rule numbers should be "Ed 507.29(d)(4)a. and Ed 507.29(d)(4)b. Also, "Teacher's" should be "Teachers" and "Association" be "Association's" to match the rule. NOTE: The Incorporation by Reference Statements have the same editorial errors in citing the rules and the Association.

INCORPORATION BY REFERENCE STATEMENT

**PLEASE LIST THE FOLLOWING:

1. Name of Agency. **State Board of Education**

2. Person who has reviewed the material to be incorporated into the agency's rules:

Name: **Amanda Phelps** Title: **Program Assistant II**
Address: **Department of Education** Phone #: **(603) 271-2408**
101 Pleasant Street
Concord, NH 03301

3. Specific rule number where the material is incorporated: **Ed 507.29(c)(4)a.**

**PLEASE ATTACH THE FOLLOWING, numbered to correspond to the number on this sheet (a separate sheet is not required for every item):

4. The complete title of the material which is to be incorporated including the date on which the material became effective (or a document identification number) or, if the material is undated Internet content, the date the material was accessed and printed, and the title of the entity that created or promulgated the material.

5. How the agency modified the text of the material incorporated, clearly identifying where amendments have been made to the text.

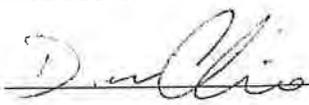
6. How the material incorporated can be obtained by the public (include cost and the address of the unrelated third party which published the material, and the Internet source URL if it appears in the rule, for example if the material is Internet content only available online).

7. Why the agency did not choose to reproduce the incorporated material in full in its rules. The discussion shall include more than the obvious reason that it is less expensive to incorporate by reference.

**PLEASE SIGN THE FOLLOWING:

I, the adopting authority,* certify that the text of the material which the agency is incorporating by reference in these rules has been reviewed by this agency. To the best of my knowledge and belief, this agency has complied with the requirements of RSA 541-A:12, IV and Section 3.12 of Chapter 4 of the Drafting and Procedure Manual for Administrative Rules. I further certify that the agency has the capability and the intent to enforce the material incorporated into the rules, as identified above.

Date: December 14, 2017

Signature: 

Name: Drew Cline

Title: Chair, State Board of Education

*("Adopting authority" is the official empowered by statute to adopt the rule, or a member of the group of individuals empowered by statute to adopt the rule.)

4. National Science Teacher's Association Position Statement on the Responsible Use of Live Animals and Dissection in the Science Classroom, March 2008

5. The text of this material has not been modified.

6. The material can be obtained by the public free of charge:

| Rule | Title | Obtain At |
|--|--|---|
| Ed 507.29(e)(4)a. <i>(d)</i> <u><i>Edif.</i></u> | National Science Teacher's Association's Position Statement on the Responsible Use of Live Animals and Dissection in the Science Classroom, March 2008 <i>Edif.</i> | http://www.nsta.org/about/positions/animals.aspx |

7. The department chose not to reproduce the document in full in its rules as the document is lengthy and is available at the above website at no cost.

INCORPORATION BY REFERENCE STATEMENT

****PLEASE LIST THE FOLLOWING:**

1. Name of Agency. **State Board of Education**
2. Person who has reviewed the material to be incorporated into the agency's rules:

| | | | |
|----------|--|----------|-----------------------------|
| Name: | Amanda Phelps | Title: | Program Assistant II |
| Address: | Department of Education 101 Pleasant Street Concord, NH 03301 | Phone #: | (603) 271-2408 |
3. Specific rule number where the material is incorporated: **Ed 507.29^(d)(e)(4)b.** Ed.

****PLEASE ATTACH THE FOLLOWING**, numbered to correspond to the number on this sheet (a separate sheet is not required for every item):

4. The complete title of the material which is to be incorporated including the date on which the material became effective (or a document identification number) or, if the material is undated Internet content, the date the material was accessed and printed, and the title of the entity that created or promulgated the material.
5. How the agency modified the text of the material incorporated, clearly identifying where amendments have been made to the text.
6. How the material incorporated can be obtained by the public (include cost and the address of the unrelated third party which published the material, and the Internet source URL if it appears in the rule, for example if the material is Internet content only available online).
7. Why the agency did not choose to reproduce the incorporated material in full in its rules. The discussion shall include more than the obvious reason that it is less expensive to incorporate by reference.

****PLEASE SIGN THE FOLLOWING:**

I, the adopting authority,* certify that the text of the material which the agency is incorporating by reference in these rules has been reviewed by this agency. To the best of my knowledge and belief, this agency has complied with the requirements of RSA 541-A:12, IV and Section 3.12 of Chapter 4 of the Drafting and Procedure Manual for Administrative Rules. I further certify that the agency has the capability and the intent to enforce the material incorporated into the rules, as identified above.

Date: December 14, 2017

Signature: 

Name: Drew Cline

Title: Chair, State Board of Education

*("Adopting authority" is the official empowered by statute to adopt the rule, or a member of the group of individuals empowered by statute to adopt the rule.)

4. The Globally Harmonized System for Hazard Communication of 2007
5. The text of this material has not been modified.
6. The material can be obtained by the public free of charge:

| Rule | Title | Obtain At |
|--|---|---|
| Ed 507.29(e)(4)b <i>(b)</i> <i>Edict.</i> <u> </u> | The Globally Harmonized System for Hazard Communication of 2007 | http://www.unece.org/trans/danger/publi/ghs/ghs_rev02/02files_e.htm <u>1</u> |

7. The department chose not to reproduce the 562 page document in full in its rules as the document is very lengthy and is available as a PDF download at no cost.

STATE OF NEW HAMPSHIRE



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December 21, 2017

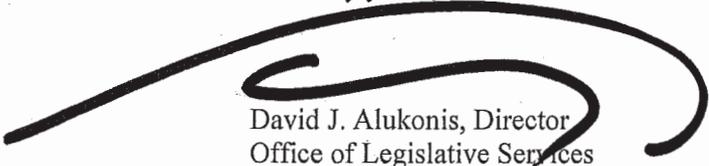
NOTICE NO. 2017-108RULE # Ed 507.28 & 612.22RELATIVE TO: Science Teacher for Grades 5-8

The Joint Legislative Committee on Administrative Rules has reviewed the Final Proposal on the above cited rule at its meeting on DECEMBER 21, 2017.

The Committee voted to approve the proposal. You may proceed to adopt the rules in the proposal and file them with the Office of Legislative Services, Administrative Rules. If the effective life of any existing, regular rules in your proposal was extended during the rulemaking proceeding pursuant to RSA 541-A:14-a, then all the rules in the proposal must be adopted within **30 days** of Committee approval. The rules also must be filed with an effective date not more than **60 days** from the date of filing. See Section 1.11 of Chapter 3 in the N.H. Drafting and Procedure Manual for Administrative Rules (Manual).

When filing the final rules, you are also required to file a cover letter indicating the date of final adoption and certifying the final rules are a true copy. See Section 2.21 of Chapter 3 in the Manual. The rules will become effective either at (1) 12:01 a.m. on the day after the filing, (2) 12:01 a.m. on the date specified in the cover letter to me when the rule is filed, or (3) such other date and time as specified in the cover letter, provided that the filing occurs before such effective date and time. Please send two (2) copies of the adopted rules.

Sincerely yours,



David J. Alukonis, Director
Office of Legislative Services

Readopt with amendment Ed 507.28, effective 10-16-09 (Doc #9566), as amended effective 1-17-14 (Doc #10506), to read as follows:

Ed 507.28 Science Teacher For Grades 5-8.

(a) To be certified as a science teacher for grades 5-8, the candidate shall:

- (1) Meet the qualifications for certification as a science teacher as provided in Ed 507.29; and
- (2) Meet the requirements of (c) below.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies, and knowledge of candidates for certification as science teachers for grades 5-8 by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) A candidate for certification as a science teacher for grades 5-8 shall have skills, competencies, and knowledge the following areas:

(1) The candidate shall have the ability to comprehend, apply, evaluate, analyze, and synthesize, and communicate knowledge in earth and space science, life science, and physical science as follows:

a. In the area of earth and space science, earth's place in the universe, including, but not limited to:

1. Earth-sun-moon relationships, including origins, structure, and resultant effects on earth;
2. Origin, components, characteristics, and motions of the solar system;
3. Relationships among the solar system, milky way galaxy, and the universe;
4. Instruments to observe space and the information gained to determine scale properties; and
5. History of the earth, including, but not limited to, age as determined by rock strata, and the geological time scale;

b. In the area of earth and space science, earth's systems, including, but not limited to:

1. Materials cycles through the earth driven by a flow of energy;
2. Geoscience processes that reshape the earth's surface;
3. Weather and climate, including, but not limited to:
 - (i) Role of the water cycle and how it's driven by energy from the sun and gravity;

(ii) Role of air masses in changing weather conditions; and

(iii) Role of uneven heating causes circulating patterns in the oceans and atmosphere that determine regional climates;

c. In the area of earth science, earth and human activity, including, but not limited to:

1. The uneven distribution of Earth's natural resources resulting from geoscience processes;
2. Natural events showing patterns and providing data for prediction and mitigation;
3. The role of human impact on the environment, methods for monitoring, and minimizing the resulting effects;
4. Evidence of increased human population and its relationship to consumption of natural resources and impact on the earth's systems; and
5. Evidence and factors that have caused global temperature changes over time;

d. In the area of life science, the structure and processes from molecules to organisms, including, but not limited to:

1. Structure and function of unicellular organisms, multicellular organisms, and interactions of subsystems within an organism;
2. Growth and reproduction including genetic, behavioral, and environmental conditions and how they influence reproduction of plants and animals;
3. Cycling of matter and flow of energy including chemical processes of photosynthesis, and respiration; and
4. Information processing: how organisms respond to stimuli in the environments;

e. In the area of life science, ecosystems, their interactions, energy and dynamics, including, but not limited to:

1. Independent relationships in ecosystems including biotic and abiotic influences, competition, or symbiosis among organisms based on limited resources, and cycling of matter and flow of energy to determine changes in population; and
2. Human impact and influences on the ecosystem;

f. In the area of life science, heredity, and the inheritance and variation of traits, growth and development of organisms including asexual and sexual reproduction, inheritance, and variation of genetic traits in resulting offspring and alterations to genes;

g. In the area of life science, biological evolution regarding unity and diversity, including, but not limited to:

1. Evidence of common ancestry diversity including fossil record, comparing anatomical characteristics of past to present organisms, and embryological development of different species;
 2. Natural and artificial selection including the role of each on traits and changes in population over time; and
 3. Adaptation and the impact on the distribution of traits in a population over time;
- h. In the area of physical science, matter and its interactions, including but not limited to:
1. Structure and properties of matter, including, but not limited to:
 - (i) Atomic structure of molecules;
 - (ii) Physical and chemical properties and changes;
 - (iii) Characteristics and properties of solids, liquids, and gases; and
 - (iv) Relationship among states of matter, molecular motion, and temperature; and
 2. Chemical reactions including the process of chemical reactions, law of conservation of mass and law of conservation of energy;
- i. In the area of physical science, motion and stability regarding forces and interactions, including, but not limited to:
1. Forces and motion, including Newton's laws of motion; and
 2. Interactions including characteristics, behavior, and influencing factors of electromagnetic and gravitational forces and fields;
- j. In the area of physical science, energy, including, but not limited to:
1. The relationships of potential and kinetic energy;
 2. Energy transfer; and
 3. Relationship between energy and forces; and
- k. In the area of physical science, waves and their applications in technologies for information transfer, including, but not limited to:
1. Properties and behaviors of different types of waves; and
 2. Role of digital signals in communication; and

1. Understand and be able to apply mathematical concepts and techniques including, but not limited to variable analysis as related to physical science at least through the level of college statistics.

Readopt with amendment Ed 612.22, effective 10-16-09 (Doc #9566), to read as follows:

Ed 612.22 Science For Grades 5-8. In addition to meeting the program requirements under Ed 612.23 the science program for grades 5-8 shall provide the teaching candidate with the skills, competencies, and knowledge gained through a combination of academic and supervised practical experience as outlined in Ed 507.28 (c).

Appendix I

| RULE | STATUTE |
|-------------|-------------------------------------|
| Ed 507.28 | RSA 186:8, III- IV, RSA 186:11,X(a) |
| Ed 612.22 | RSA 186:8, IV; RSA 186:11, X(c) |

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December 21, 2017

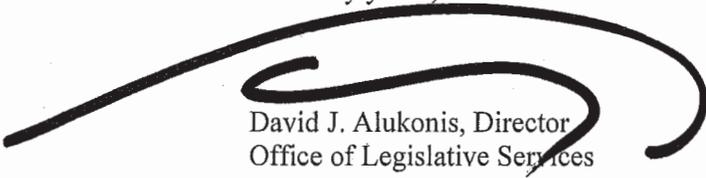
NOTICE NO. 2017-110RULE # Ed 507.30 & 612.24RELATIVE TO: Earth and Space Science Teacher for Grades 7-12

The Joint Legislative Committee on Administrative Rules has reviewed the Final Proposal on the above cited rule at its meeting on DECEMBER 21, 2017.

The Committee voted to approve the proposal. You may proceed to adopt the rules in the proposal and file them with the Office of Legislative Services, Administrative Rules. If the effective life of any existing, regular rules in your proposal was extended during the rulemaking proceeding pursuant to RSA 541-A:14-a, then all the rules in the proposal must be adopted within **30 days** of Committee approval. The rules also must be filed with an effective date not more than **60 days** from the date of filing. See Section 1.11 of Chapter 3 in the N.H. Drafting and Procedure Manual for Administrative Rules (Manual).

When filing the final rules, you are also required to file a cover letter indicating the date of final adoption and certifying the final rules are a true copy. See Section 2.21 of Chapter 3 in the Manual. The rules will become effective either at (1) 12:01 a.m. on the day after the filing, (2) 12:01 a.m. on the date specified in the cover letter to me when the rule is filed, or (3) such other date and time as specified in the cover letter, provided that the filing occurs before such effective date and time. Please send two (2) copies of the adopted rules.

Sincerely yours,



David J. Alukonis, Director
Office of Legislative Services

Readopt with amendment Ed 507.30, effective 10/16/09 (Doc #9566), to read as follows:

Ed 507.30 Earth and Space Science Teacher For Grades 7-12.

(a) To be certified as an earth and space science teacher for grades 7-12, the candidate shall:

- (1) Meet the qualifications for certification as a science teacher as provided in Ed 507.29; and
- (2) Meet the requirements of (c) below.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies, and knowledge of candidates for certification as earth and space science teachers by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) A candidate for certification as an earth and space science teacher for grades 7-12 shall have skills, competencies, and knowledge in the following areas:

(1) In the area of fundamental content knowledge, the candidate shall have the ability to:

a. Comprehend, apply, evaluate, analyze, and synthesize knowledge of:

1. Structure of earth systems, such as the geosphere, atmosphere, hydrosphere, and biosphere, including the properties, measurements, and classification of their constituent materials and structures;
2. Changes in earth systems to include the geosphere, atmosphere, hydrosphere, and biosphere, including the gradual and catastrophic changes that occur in those systems at different spatial and temporal ranges, such as tectonic activity, weather and climate, population dynamics, and the evolution of life;
3. Relationships between earth systems to include the geosphere, atmosphere, hydrosphere, and biosphere, including, but not limited to the flow of energy and matter between and among those systems;
4. The origin, evolution, properties, and behavior of planetary and geologic structures, including the use of relative and absolute dating techniques to derive systems of chronological dating such as the geologic time scale;
5. The origin, evolution, properties and behavior of the universe, including energy, matter, and astronomical objects;
6. Fundamentals of investigating and interrelating the fields of study within earth space sciences, including geology, oceanography, meteorology, and astronomy;
7. The impact of human activity on earth systems, including the geosphere, atmosphere, hydrosphere, and biosphere;
8. The application of earth space sciences relating to societal issues such as environmental quality, personal and community health and welfare, and business and industry; and

- 9. The application of earth space sciences relating to the sources, limits, and management of renewable and nonrenewable natural resources;
- b. Apply knowledge of Earth space sciences through inquiry, field experiences, laboratory investigations, and the use of scientific models and scientific research; and
- c. Understand and be able to apply mathematical concepts and techniques, including, but not limited to data analysis and modeling as they relate to earth and space systems, at least through the level of college statistics.

Readopt with amendment Ed 612.24, effective 10/16/09 (Doc #9566), to read as follows:

Ed 612.24 Earth and Space Science For Grades 7-12. In addition to meeting the program requirements under Ed 612.23, the earth and space science program for grades 7-12 shall provide the teaching candidate with the skills, competencies, and knowledge gained through a combination of academic and supervised practical experience as outlined in Ed 507.30(c).

Appendix I

| RULE | STATUTE |
|-------------|-------------------------------------|
| Ed 507.30 | RSA 186:8, III- IV, RSA 186:11,X(a) |
| Ed 612.24 | RSA 186:8, IV; RSA 186:11, X(c) |

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December 21, 2017

NOTICE NO. 2017-111

RULE # Ed 507.31 & 612.25

RELATIVE TO: Life Science Teacher for Grades 7-12

The Joint Legislative Committee on Administrative Rules has reviewed the Final Proposal on the above cited rule at its meeting on DECEMBER 21, 2017.

The Committee voted to approve the proposal. You may proceed to adopt the rules in the proposal and file them with the Office of Legislative Services, Administrative Rules. If the effective life of any existing, regular rules in your proposal was extended during the rulemaking proceeding pursuant to RSA 541-A:14-a, then all the rules in the proposal must be adopted within **30 days** of Committee approval. The rules also must be filed with an effective date not more than **60 days** from the date of filing. See Section 1.11 of Chapter 3 in the N.H. Drafting and Procedure Manual for Administrative Rules (Manual).

When filing the final rules, you are also required to file a cover letter indicating the date of final adoption and certifying the final rules are a true copy. See Section 2.21 of Chapter 3 in the Manual. The rules will become effective either at (1) 12:01 a.m. on the day after the filing, (2) 12:01 a.m. on the date specified in the cover letter to me when the rule is filed, or (3) such other date and time as specified in the cover letter, provided that the filing occurs before such effective date and time. Please send two (2) copies of the adopted rules.

Sincerely yours,

David J. Alukonis, Director
Office of Legislative Services

Readopt with amendment Ed 507.31, effective 10/16/09 (Doc #9566), to read as follows:

Ed 507.31 Life Sciences Teacher For Grades 7-12.

(a) To be certified as a life sciences teacher for grades 7-12, the candidate shall:

- (1) Meet the qualifications for certification as a science teacher as provided in Ed 507.29; and
- (2) Meet the requirements of (c) below.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies, and knowledge of candidates for certification as life science teachers by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) A candidate for certification as a life sciences educator for grades 7-12 shall have skills, competencies, and knowledge in the following areas:

(1) In the area of fundamental content knowledge, the candidate shall have the ability to:

a. Explain concepts, solve problems, use models, and perform both field and laboratory experiences in the following fundamental areas of life science:

1. Structure and functions, from molecules to organisms, as follows:

- (i) Evidence for structure of DNA determining structure of proteins;
- (ii) Hierarchical organization of interacting systems; and
- (iii) Feedback mechanisms that ensure homeostasis, including, but not limited to human systems;

2. Inheritance and variation of traits as follows:

- (i) Role of mitosis to maintain complex organisms;
- (ii) Role of DNA and chromosomes in coding instructions that are passed through generations;
- (iii) New genetic combinations are a result of meiosis and mutations; and
- (iv) Statistics and probability to explain the variation and distribution of expressed traits;

3. Matter and energy in organisms and ecosystems as follows:

- (i) Role of photosynthesis, respiration, and fermentation in the needs of organisms as well as in the cycling of carbon in the biosphere, atmosphere, hydrosphere and geosphere;

- (ii) Carbon based molecules form the basis for life;
- (iii) Explain the cycling of matter and flow of energy in aerobic and anaerobic conditions; and
- (iv) Cycling of matter and flow of energy among organisms and ecosystems;
- 4. Interdependent relationships in ecosystems; and
- 5. Natural selection and evolution;
- b. Apply mathematical modeling, statistical concepts, and manipulation of variables as they apply to life science; and
- c. Explain and solve problems in life science, incorporating the fundamental concepts of chemistry, physics, and earth space science, including basic concepts and laboratory techniques.

Readopt with amendment Ed 612.25, effective 10/16/09 (Doc #9566), to read as follows:

Ed 612.25 Life Sciences For Grades 7-12. In addition to meeting the program requirements under Ed 612.23, the life science program for grades 7-12 shall provide the teaching candidate with the skills, competencies, and knowledge gained through a combination of academic and supervised practical experience as outlined in Ed 507.31(c).

Appendix I

| RULE | STATUTE |
|-------------|-------------------------------------|
| Ed 507.31 | RSA 186:8, III- IV, RSA 186:11,X(a) |
| Ed 612.25 | RSA 186:8, IV; RSA 186:11, X(c) |

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December 21, 2017

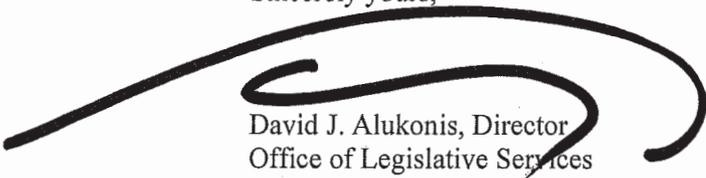
NOTICE NO. 2017-112RULE # Ed 507.32 & 612.26RELATIVE TO: Chemistry Teacher for Grades 7-12

The Joint Legislative Committee on Administrative Rules has reviewed the Final Proposal on the above cited rule at its meeting on DECEMBER 21, 2017.

The Committee voted to approve the proposal. You may proceed to adopt the rules in the proposal and file them with the Office of Legislative Services, Administrative Rules. If the effective life of any existing, regular rules in your proposal was extended during the rulemaking proceeding pursuant to RSA 541-A:14-a, then all the rules in the proposal must be adopted within **30 days** of Committee approval. The rules also must be filed with an effective date not more than **60 days** from the date of filing. See Section 1.11 of Chapter 3 in the N.H. Drafting and Procedure Manual for Administrative Rules (Manual).

When filing the final rules, you are also required to file a cover letter indicating the date of final adoption and certifying the final rules are a true copy. See Section 2.21 of Chapter 3 in the Manual. The rules will become effective either at (1) 12:01 a.m. on the day after the filing, (2) 12:01 a.m. on the date specified in the cover letter to me when the rule is filed, or (3) such other date and time as specified in the cover letter, provided that the filing occurs before such effective date and time. Please send two (2) copies of the adopted rules.

Sincerely yours,



David J. Alukonis, Director
Office of Legislative Services

Readopt with amendment Ed 507.32, effective 10-16-09 (Doc #9566), to read as follows:

Ed 507.32 Chemistry Teacher For Grades 7-12.

(a) To be certified as a chemistry teacher for grades 7-12, the candidate shall:

- (1) Meet the qualifications for certification as a science teacher as provided in Ed 507.29;
- (2) Meet the qualifications for certification as a physical science teacher as provided in Ed 507.51; and
- (3) Meet the requirements of (c) below.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies and knowledge of these candidates for certification as chemistry teachers by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEUs, and artifacts of professional practice.

(c) A candidate for certification as a chemistry teacher for grades 7-12 shall have skills, competencies, and knowledge in the following areas:

(1) In the area of fundamental content knowledge, the candidate shall have the ability to:

a. Explain concepts, solve problems, and perform laboratory techniques that explore and develop an understanding and application of the following fundamental areas of chemistry:

1. Structure and properties of matter, including, but not limited to:

- (i) Bonding and intermolecular forces;
- (ii) Relationship between molecular structure and the function of designed materials;
- (iii) Chemical engineering;
- (iv) Coordination complexes;
- (v) Molecular orbital theory;
- (vi) Organic chemistry and functional groups in biochemistry, biological compounds and natural products; and
- (vii) Gas laws;

2. Chemical reactions and energy, including, but not limited to:

- (i) Reaction thermodynamics including exothermic and endothermic reactions, entropy, and Gibbs free energy;

- (ii) Product prediction in chemical reactions, based on patterns of chemical properties;
 - (iii) Complex reaction dynamics, including kinetics and equilibrium;
 - (iv) Mathematics of reactions, including mole concept, stoichiometry, and laws of composition and conservation, and aqueous equilibria from acid/base systems to solubility;
 - (v) Application of electrochemistry and oxidation/reduction (REDOX) reactions;
 - (vi) Energy in chemical processes;
 - (vii) Wave-particle duality of nature, including the relationship between frequency, wavelength, and speed; and
 - (viii) Changes in matter due to the absorption of electromagnetic radiation;
3. Nuclear and environmental processes, including, but not limited to:
- (i) Environmental and atmospheric chemistry, including ground water pollution, plastics, and disposal of fuels; and
 - (ii) Applications of chemistry in community health and environmental quality; and
4. Engineering design processes, including, but not limited to:
- (i) Analyze a major global challenge to specify qualitative and quantitative criteria and constraints to solutions;
 - (ii) Design a solution to a complex real-world problem accounting for constraints, cost, safety, reliability, and social, cultural, and environmental impacts; and
 - (iii) Use a computer simulation to model the impact of proposed solutions to a complex real-world problem;
- b. Apply knowledge of chemistry and physical science concepts through full and partial inquiries, laboratory investigations, and the use of scientific models; and
- c. Understand and be able to apply mathematical concepts and techniques including, but not limited to, modeling and variable analysis at least through the level of college calculus and statistics.

Readopt with amendment Ed 612.26, effective 10-16-09 (Doc #9566), to read as follows:

Ed 612.26 Chemistry For Grades 7-12. In addition to meeting the program requirements under Ed 612.23, the chemistry program for grades 7-12 shall provide the teaching candidate

with the skills, competencies and knowledge gained through a combination of academic and supervised practical experience as outlined in Ed 507.32(c).

Appendix I

| RULE | STATUTE |
|-------------|-------------------------------------|
| Ed 507.32 | RSA 186:8, III- IV, RSA 186:11,X(a) |
| Ed 612.26 | RSA 186:8, IV; RSA 186:11, X(c) |

STATE OF NEW HAMPSHIRE



OFFICE OF LEGISLATIVE SERVICES

STATE HOUSE
107 NORTH MAIN STREET, ROOM 109
CONCORD, NEW HAMPSHIRE 03301-4951

December 21, 2017

NOTICE NO. 2017-113

RULE # Ed 507.33 & 612.27

RELATIVE TO: Physics Teacher for Grades 7-12

The Joint Legislative Committee on Administrative Rules has reviewed the Final Proposal on the above cited rule at its meeting on DECEMBER 21, 2017.

The Committee voted to approve the proposal. You may proceed to adopt the rules in the proposal and file them with the Office of Legislative Services, Administrative Rules. If the effective life of any existing, regular rules in your proposal was extended during the rulemaking proceeding pursuant to RSA 541-A:14-a, then all the rules in the proposal must be adopted within **30 days** of Committee approval. The rules also must be filed with an effective date not more than **60 days** from the date of filing. See Section 1.11 of Chapter 3 in the N.H. Drafting and Procedure Manual for Administrative Rules (Manual).

When filing the final rules, you are also required to file a cover letter indicating the date of final adoption and certifying the final rules are a true copy. See Section 2.21 of Chapter 3 in the Manual. The rules will become effective either at (1) 12:01 a.m. on the day after the filing, (2) 12:01 a.m. on the date specified in the cover letter to me when the rule is filed, or (3) such other date and time as specified in the cover letter, provided that the filing occurs before such effective date and time. Please send two (2) copies of the adopted rules.

Sincerely yours,

David J. Alukonis, Director
Office of Legislative Services

Readopt with amendment Ed 507.33, effective 10/16/09 (Doc #9566), to read as follows:

Ed 507.33 Physics Teacher For Grades 7-12.

(a) To be certified as a physics teacher for grades 7-12, the candidate shall:

- (1) Meet the qualifications for certification as a science teacher as provided in Ed 507.29;
- (2) Meet the qualifications for certification as a physical science teacher as provided in Ed 507.51; and
- (3) Meet the requirements of (c) below.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies, and knowledge of candidates for certification as physics teachers by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) A candidate for certification as a physics teacher for grades 7-12 shall have skills, competencies, and knowledge in the following areas:

(1) In the area of fundamental content knowledge, the candidate shall have the ability to:

a. Comprehend, apply, quantify, evaluate, analyze, and synthesize specific physics knowledge of:

1. Energy, including kinetic, potential, heat, and rest;
2. Newtonian principles and laws as they apply to statics and dynamics, including, but not limited to, friction, inclines, circular motion, the rotation of rigid bodies, and fluid mechanics and knowledge of how these principles are used in engineering applications;
3. Thermodynamics, including the ideal gas law, entropy, heat engines, and thermodynamic cycles, kinetic, and ensemble theory;
4. Conservation laws and the relationships between conserved quantities, including the conservation of energy, mass, linear and angular momentum, and charge;
5. Classical wave theory-of sound and electromagnetism, including the electromagnetic spectrum, optics, and light behavior;
6. Electricity, electrostatics, electrodynamics, and magnetism, including, but not limited to, circuit theory and the propagation and generation of electric and magnetic fields;
7. Fundamental forces of gravity, electromagnetism, weak nuclear force, and strong nuclear force including, but not limited to, the spectrum of known fundamental particles, the standard model, and its known shortcomings;

- 8. Nuclear physics, including, but not limited to reactivity, radioactivity, nuclear reactors, fission, and fusion;
 - 9. Quantum mechanics, including wave-particle duality and special relativity, Lorentz transformations, time dilations, length contraction, and conversion of rest mass into energy;
 - 10. Applications of physics in environmental quality and to personal and community health;
- b. Applications of physics for design, engineering, and technology in society, business, industry, and health fields;
 - c. Apply knowledge of physics and physical science concepts through full and partial inquiries, laboratory investigations, and the use of scientific models; and
 - d. Understand and be able to apply mathematical concepts and techniques, including, but not limited to modeling and vector and variable analysis at least through the level of college calculus and statistics.

Readopt with amendment Ed 612.27, effective 10/16/09 (Doc #9566), to read as follows:

Ed 612.27 Physics For Grades 7-12. In addition to meeting the program requirements under Ed 612.23, the physics program for grades 7-12 shall provide the teaching candidate with the skills, competencies, and knowledge gained through a combination of academic and supervised practical experience as outlined in Ed 507.33(c).

Appendix I

| RULE | STATUTE |
|-------------|-------------------------------------|
| Ed 507.33 | RSA 186:8, III- IV, RSA 186:11,X(a) |
| Ed 612.27 | RSA 186:8, IV; RSA 186:11, X(c) |

STATE OF NEW HAMPSHIRE



OFFICE OF LEGISLATIVE SERVICES

STATE HOUSE
 107 NORTH MAIN STREET, ROOM 109
 CONCORD, NEW HAMPSHIRE 03301-4951

December 21, 2017

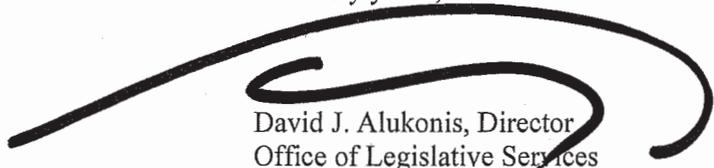
NOTICE NO. 2017-114RULE # Ed 507.51 & 612.34RELATIVE TO: Physical Science Teacher for Grades 7-12

The Joint Legislative Committee on Administrative Rules has reviewed the Final Proposal on the above cited rule at its meeting on DECEMBER 21, 2017.

The Committee voted to approve the proposal. You may proceed to adopt the rules in the proposal and file them with the Office of Legislative Services, Administrative Rules. If the effective life of any existing, regular rules in your proposal was extended during the rulemaking proceeding pursuant to RSA 541-A:14-a, then all the rules in the proposal must be adopted within **30 days** of Committee approval. The rules also must be filed with an effective date not more than **60 days** from the date of filing. See Section 1.11 of Chapter 3 in the N.H. Drafting and Procedure Manual for Administrative Rules (Manual).

When filing the final rules, you are also required to file a cover letter indicating the date of final adoption and certifying the final rules are a true copy. See Section 2.21 of Chapter 3 in the Manual. The rules will become effective either at (1) 12:01 a.m. on the day after the filing, (2) 12:01 a.m. on the date specified in the cover letter to me when the rule is filed, or (3) such other date and time as specified in the cover letter, provided that the filing occurs before such effective date and time. Please send two (2) copies of the adopted rules.

Sincerely yours,


 A large, stylized black ink signature of David J. Alukonis.

David J. Alukonis, Director
 Office of Legislative Services

Readopt with amendment Ed 507.51, effective 1-17-14 (Doc #10506), to read as follows:

Ed 507.51 Physical Science Teacher For Grades 7-12.

(a) To be certified as a physical science teacher for grades 7-12, the candidate shall:

- (1) Meet the qualifications for certification as a science teacher as provided in Ed 507.29;
- (2) Meet the requirements of (c) below.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies and knowledge of candidates for certification as physical science teachers by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) A candidate for certification as a physical science teacher for grades 7-12 shall have skills, competencies, and knowledge in the following areas:

(1) In the area of fundamental knowledge, the candidate shall have the ability to:

a. Represent visually and verbally how the world works at the atomic, micro, and macro levels;

b. Demonstrate content knowledge in the following fundamental areas of chemistry:

1. Structure and properties of matter, including, but not limited to:

- (i) Atomic structure and substructure;
- (ii) Periodic table and organization;
- (iii) Electrical forces between atoms; and
- (iv) Types of bonds and behavior of substances, such as solubility, conductivity, and malleability;

2. Chemical reactions, including, but not limited to:

- (i) Exothermic and endothermic reactions;
- (ii) Chemical reactions, products, and conservation laws;
- (iii) Kinetic, thermal, and bond energy; and
- (iv) Transformation of processes;

3. Nuclear processes, including, but not limited to:

- (i) Fusion, fission, and radioactive decays; and
 - (ii) Applications of nuclear energy;
- c. Demonstrate content knowledge in the following fundamental areas of physics:
1. Relationship between energy, forces and matter, including, but not limited to:
 - (i) Newton’s laws of motion;
 - (ii) Conservation of momentum;
 - (iii) Universal law of gravitation;
 - (iv) Coulomb’s law;
 - (v) Electrical and magnetic forces; and
 - (vi) Electromagnetic spectrum;
 2. Waves, including, but not limited to, properties of waves, interactions with matter and other waves, and electromagnetic radiation as follows:
 - (i) Magnetic and electrical forces and the electromagnetic spectrum;
 - (ii) Particle and wave models of electromagnetic radiation;
 - (iii) Electromagnetic interaction with matter; and
 - (iv) Information technologies and instrumentation that transmit data through electromagnetic waves; and
- d. Understand and be able to apply mathematical concepts and techniques including, but not limited to variable analysis as related to physical science at least through the level of college statistics.

Adopt Ed 612.34 to read as follows:

Ed 612.34 Physical Science for Grades 7-12. In addition to meeting the program requirements under Ed 612.23, the physical science program for grades 7-12 shall provide the teaching candidate with the skills, competencies and knowledge gained through a combination of academic and supervised practical experience as outlined in Ed 507.51(c).

Appendix I

| RULE | STATUTE |
|-------------|-------------------------------------|
| Ed 507.51 | RSA 186:8, III- IV, RSA 186:11,X(a) |
| Ed 612.34 | RSA 186:8, IV; RSA 186:11, X(c) |

Readopt with amendment Ed 507.29, effective 10-16-09 (Doc. #9566), as amended effective 01-17-14 (Doc #10506), to read as follows:

Ed 507.29 Science Teacher; General Requirements.

(a) To be certified as science teacher, the candidate shall have:

- (1) At least a bachelor's degree; and
- (2) Qualify for certification under one of the alternatives in Ed 505.01 – Ed 505.05.

(b) For candidates seeking certification under an alternative 3, 4, or 5 pathway, the department of education shall assess the skills, competencies, and knowledge of candidates for certification as science teachers by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) In addition to meeting the requirements for certification under Ed 507.28 for science teacher for grades 5-8, Ed 507.30 for earth and space science teacher, Ed 507.31 for life sciences teacher, Ed 507.32 for chemistry teacher, Ed 507.33 for physics teacher, or Ed 507.51 for physical science teacher for grades 7-12, a science teacher shall have the qualifications listed in (d) and (e) below.

(d) In the area of instructional performance, the candidate shall demonstrate:

- (1) Proficiency in the use of scientific methods as demonstrated by the ability to:
 - a. Integrate the science practices throughout lessons by:
 1. Asking questions for science and defining problems for engineering;
 2. Developing and using models;
 3. Planning and carrying out investigations;
 4. Analyzing and interpreting data;
 5. Using mathematics and computational thinking;
 6. Constructing explanations for science and designing solutions for engineering;
 7. Engaging in argument from evidence; and
 8. Obtaining, evaluating, and communicating information;
 - b. Design and teach grade level appropriate laboratory activities incorporating scientific processes, promoting scientific habits of mind, and meeting needs of diverse learners;
 - c. Use scientific drawings, diagrams, data tables, models, and graphing essential to science investigations and expression of ideas;

- d. Design learning activities fostering questioning, open-ended investigations, the development of cooperative group skills, and promoting practice in decision making and problem solving;
- e. Use methods of teaching reading, writing, communication, and study skills essential to the effective mastery of grade level science content;
- f. Design activities and investigations integrating appropriate quantitative literacy skills and concepts; and
- h. Organize, present, and evaluate science ideas in a manner emphasizing conceptual understanding of phenomena and optimizing learning experiences for students of all ability levels and learning styles; and

(2) Scientific content knowledge that enables the integration of the common themes exhibited in all of the sciences into teaching and course design including:

- a. Systems and system models;
- b. Energy and matter;
- c. Cause and effect;
- d. Scale, proportion, and quantity;
- e. Patterns of change, including constancy or stability;
- f. Structure and function;
- g. Stability, change, and evolution; and
- h. Nature of science and inquiry;

(3) The ability to make connections that:

- a. Establish relationships among all sciences and reflect the role of science systems in science literacy;
- b. Relate the sciences to technological issues that influence society and the ethical and moral consequences of decisions related to those issues; and
- c. Integrate knowledge from the history and philosophy of science into science instruction;

(4) Knowledge of field and laboratory safety and emergency procedures, including responsibilities of science teachers for:

- a. The welfare of their students and care for organisms as appropriate to the area of study using the “Position Statement on the Responsible Use of Live Animals and

Dissection in the Science Classroom”, March 2008, available as specified in Appendix II; and

b. The proper maintenance, storage and disposal of laboratory materials or chemicals using the Globally Harmonized System for Hazard Communication of 2007 available as specified in Appendix II;

(5) Knowledge and skills to integrate technological tools for learning, analysis and reporting, including, but not limited to:

- a. Skills to plan, design, deliver, and incorporate active learning and collaboration;
- b. Collect and analyze data using information technology; and
- c. Communicate information effectively;

(6) Knowledge and skills of computing and computational thinking as it relates to science, including, but not limited to:

- a. Visualizations of scientific concepts; and
- b. Modeling and simulating engineering design to communicate science understanding; and

(7) Ability to practice good digital citizenship and model safe, ethical, and legal practice with digital tools and resources.

(e) The candidate shall demonstrate knowledge of the organizations, agencies, and journals that contribute to the professional growth of the science teacher.

Readopt with amendment Ed 612.23, effective 10-16-09 (Doc # 9566), to read as follows:

Ed 612.23 Science Program; General Requirements.

(a) In addition to meeting the program requirements under Ed 612.22 for science for grades 5-8, Ed 612.24 for earth and space science for grades 7-12, Ed 612.25 for life sciences for grades 7-12, Ed 612.26 for chemistry for grades 7-12, Ed 612.27 for physics for grades 7-12, or Ed 612.34 for physical science grades 7-12, a program for science general requirements shall provide the candidate with the skills, competencies, and knowledge through a combination of academic and supervised practical experiences as outlined in Ed 507.29(d-e).

Appendix I

| RULE | STATUTE |
|-------------|-------------------------------------|
| Ed 507.29 | RSA 186:8, III- IV, RSA 186:11,X(a) |
| Ed 612.23 | RSA 186:8, IV; RSA 186:11, X(c) |

Appendix II

| Rule | Title | Obtain At |
|---------------------|---|---|
| Ed 507.29(d)(4)a | National Science Teachers Association's Position Statement on the Responsible Use of Live Animals and Dissection in the Science Classroom, March 2008 | http://www.nsta.org/about/positions/animals.aspx |
| Ed 507.29(d)(4)b | The Globally Harmonized System for Hazard Communication of 2007 | http://www.unece.org/trans/danger/publi/ghs/ghs_rev02/02files_e.html |

Phelps, Amanda

From: Eaton, Scott <Scott.Eaton@leg.state.nh.us>
Sent: Wednesday, December 20, 2017 11:59 AM
To: Phelps, Amanda
Cc: Morrell, Michael; Walsh, Cheryl; Houde, Patty
Subject: RE: 2017-52

Amanda:

Based on the discussion yesterday with Senator Reagan as JLCAR Chair and the OLS Director, the adopted rule for FP 2017-52 in Ed 507.27(c)(2) intro. should be the one approved by the Board as the Final Proposal (as indicated in the Final Proposal—Annotated Text). The (c)(2) intro. ends with "...including an in-depth understanding of history and one of the following subject areas:", with "at least 2" struck, and no change in the word "history". The changes requested would be substantive changes from the Final Proposal approved by JLCAR, that is, they would change the meaning, and the Director is prepared to refuse the adopted rule of December 14 for filing.

The JLCAR Chair Sen. Reagan and the Director did not disagree with the Chair's reason why the rule should read differently. But that if the Board wants such changes, it will have to go through rulemaking to do so.

Please let me know if you have any questions.

Scott

Scott F. Eaton

*Administrative Rules Director
 N. H. Office of Legislative Services
 Administrative Rules
 25 Capitol Street, Room 219
 Concord, NH 03301
 Tel. (603) 271-3680
 Fax (603) 271-7871
scott.eaton@leg.state.nh.us*

From: Phelps, Amanda [mailto:Amanda.Phelps@doe.nh.gov]
Sent: Tuesday, December 19, 2017 12:15 PM
To: Eaton, Scott
Subject: RE: 2017-52

Hi Scott,

I had a chance to speak with the Chair of the Board, Drew Cline. After researching the minutes and reflecting on the intent of that part of the rule, he believes it should actually say "one" not "2". In the original rule the requirement was that an educator needed to have an in-depth understanding of "at least 2" of the subject areas, one of which had to be d. or e. which were "United states and New Hampshire history" and "world history and contemporary issues". The Board will vote again in January so I will not be submitting the rule for adoption at this time, but they still would like to add "United States and New Hampshire" before history. It was struck from the list below in the original rule with the intent of having that one be a requirement for all, but for some reason the Professional Standards Board thought "history" would cover it. The Board fears that "history" is too

broad and that the potential exists that someone could have in-depth knowledge of any type of history to qualify.

~Amanda

From: Eaton, Scott [<mailto:Scott.Eaton@leg.state.nh.us>]
Sent: Tuesday, December 19, 2017 9:23 AM
To: Phelps, Amanda
Subject: RE: 2017-52

Amanda:

The OLS Director Dave Alukonis wants to bring this to the attention of Sen. Reagan as JLCAR Chair before replying about whether he would refuse the adopted rule for filing. We are meeting with the Senator at 3:30 today. I will get back to you after that.

Scott

Scott F. Eaton
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scott.eaton@leg.state.nh.us

From: Phelps, Amanda [<mailto:Amanda.Phelps@doe.nh.gov>]
Sent: Monday, December 18, 2017 9:07 AM
To: Eaton, Scott
Subject: 2017-52

Hi Scott,

As we discussed on Friday I am following-up with an email regarding changes the Board voted to make to the above rule right before adoption.

On October 12, 2017, the State Board voted on the language in a final proposal for Ed 507.27 (c)(2) as follows:

(2) In the area of content, the ability to exhibit knowledge of the basic concepts, generalizations, and issues of the subject areas, including an in-depth understanding of *history and at least 2 one* of the following subject areas, ~~one of which shall be d. or e.:~~

- a. *New Hampshire and United States* Civics and government;
- b. Economics;
- c. Geography;
- d. ~~United States and New Hampshire history; and~~

~~ed. World history and contemporary issues;~~

There was a lot of discussion about this section of the rule, but as I recall and as I researched in the minutes for that meeting, there are no formal requests for amendments to this rule. The above language is how the rule read at the JLCAR hearing on November 16, 2017.

At the December 14, 2017 State Board Meeting, before adopting the fixed text of the rule above, one board member noticed in 507.27(c)(2) that the number "2" and "one" both remained. If they asked me to strike the "2" it would be editorial, but the Board asked and voted to strike the "one" and also add "New Hampshire and United States" before the word "history". The Board voted to adopt the following:

(2) In the area of content, the ability to exhibit knowledge of the basic concepts, generalizations, and issues of the subject areas, including an in-depth understanding of *New Hampshire and United States* history and 2 ~~one~~ of the following subject areas:

- a. New Hampshire and United States civics and government;
- b. Economics;
- c. Geography; and
- d. World history;

I have emailed the Board Chair, Drew Cline, to ask how he would like to proceed, but I am looking for guidance. If the Board decides to submit the edited version, will it be rejected by the Director?

Thank you,

~Amanda

Amanda Phelps

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101 Pleasant St.
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Readopt with amendment Ed 507.27, effective 8-14-09 (Doc #9525), to read as follows:

Ed 507.27 Social Studies Teacher For Grades 5-12. The following requirements shall apply to the certification of a social studies teacher for grades 5-12:

(a) To be certified as a social studies teacher for grades 5-12, the candidate shall:

- (1) Have at least a bachelor's degree; and
- (2) Qualify for certification under one of the alternatives in Ed 505.01 – Ed 505.05.

(b) For candidates seeking certification under an alternative 3, 4 or 5 pathway, the department of education shall assess the skills, competencies and knowledge of candidates for certification as educators in social studies by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.

(c) A candidate for certification as a social studies teacher for grades 5-12 shall have skills, competencies and knowledge in the following areas:

(1) In the area of content, the ability to explain the importance of knowledge in each of the following areas, including ways in which each subject area provides insight into contemporary society:

- a. New Hampshire and United States civics and government;
- b. Economics;
- c. Geography;
- d. United States and New Hampshire history; and
- e. World history;

(2) In the area of content, the ability to exhibit knowledge of the basic concepts, generalizations, and issues of the subject areas, including an in-depth understanding of history and one of the following subject areas:

- a. New Hampshire and United States civics and government;
- b. Economics;
- c. Geography; and
- d. World history;

(3) In the area of related subject content, the ability to explain the importance of at least one of the following behavioral sciences including ways in which it provides insight into contemporary society:

- a. Anthropology;
- b. Psychology; or
- c. Sociology;

(4) In the area of content, the ability to demonstrate the research methodology of professionals in at least one of the 5 subject areas referred to in (c)(1) above, or a related social studies subject area;

(5) In the area of pedagogy, the ability to:

a. Develop comprehensive unit plans which integrate materials and concepts from 2 or more social science disciplines listed in (1) that envelop essential questions, central themes, issues or problems and that coherently link to daily lessons;

b. Design learning activities that employ research methods unique to the social sciences including activities in which students design inquiries based on compelling essential questions;

c. Demonstrate the capacity to use a variety of social studies learning activities and techniques in order to:

1. Foster in students a commitment to and an ability to engage in democratic processes and decision-making;
2. Provide exposure to and opportunities to express multiple interpretations of issues;
3. Encourage in students a capacity for deliberation and thoughtful exchange of competing viewpoints between citizens within and outside the classroom;
4. Develop students' critical thinking, using a variety of instructional methods including how to assess the quality of information and ethical, legal or policy analyses;
5. Gather and evaluate primary and secondary sources from civics, economics, geography and history with the purpose of using evidence to support claims;
6. Assess how factual information, opinion, entertainment, and advertising are presented differently in various media;
7. Apply a range of deliberative and democratic strategies and procedures to carry out analyses, make decisions and communicate ideas via oral and written expression;
8. Create structured and varied opportunities for students to participate in informed ways via community resources and projects; and

- d. Promote adolescent literacy and incorporate relevant literacy standards by using literacy strategies in order to foster comprehension and develop social studies skills.

Readopt with amendment and renumber Ed 507.271, effective 8-14-09 (Doc #9525) as Ed 507.54, to read as follows:

Ed 507. 54 Social Studies Teacher For Grades 5-8.

- (a) To be certified as a social studies teacher for grades 5-8, the candidate shall meet the requirements of Ed 507.27.

Readopt with amendment Ed 612.28, effective 8-14-09 (Doc #9525), to read as follows:

Ed 612.28 Social Studies For Grades 5-12.

- (a) The social studies program for grades 5-12 shall provide the teaching candidate with the skills, competencies and knowledge gained through a combination of academic and supervised practical experience as outlined in 507.27(c).

Readopt with amendment Ed 612.29, effective 8-14-09 (Doc #9525), to read as follows:

Ed 612.29 Social Studies For Grades 5-8.

- (a) The teacher preparation program for social studies in grades 5-8 shall provide the teaching candidate with the skills, competencies and knowledge gained through a combination of academic and supervised practical experience as outlined in 507.27(c).

Appendix I

| Rule | Statute |
|-------------|------------------|
| Ed 507.27 | RSA 186:11, X(a) |
| Ed 507.54 | RSA 186:11, X(a) |
| Ed 612.28 | RSA 186:11, X(c) |
| Ed 612.29 | RSA 186:11, X(c) |

Readopt with amendment Ed 507.27, effective 8-14-09 (Doc #9525), to read as follows:

Ed 507.27 Social Studies Teacher For Grades 5-12. The following requirements shall apply to the certification of a social studies teacher for grades 5-12:

(a) To be certified as a social studies teacher for grades 5-12, the candidate shall:

(1) Have at least a bachelor's degree;

(2) Qualify for certification under one of the alternatives in Ed 505.01 – Ed 505.05, ~~including completion of at least 10 courses or the equivalent in social studies at an institution approved by the New Hampshire postsecondary education commission or equivalent regional accrediting agency such as but not limited to the Northeast Regional Association of Schools and Colleges; and~~

~~(3) Meet the requirements of (b) and (c) below.~~

~~(b) In compliance with RSA 193-C:3, IV(f) and consistent with RSA 193-C:3, III, a candidate for certification as a social studies teacher for grades 5-12 shall demonstrate competency in the teaching of social studies, including techniques for enhancing student learning in this area and the use of assessment results to improve instruction. (b) *For candidates seeking certification under an alternative 3, 4 or 5 pathway, the department of education shall assess the skills, competencies and knowledge of candidates for certification as educators in social studies by reviewing evidence, such as, but not limited to, college course work, documented professional experience, letters of recommendation, professional development hours or CEU's, and artifacts of professional practice.*~~

~~(c) A candidate for certification as a social studies teacher for grades 5-12 shall have the following skills, competencies and knowledge, gained through a combination of academic and supervised practical experience, in the following areas:~~

(1) In the area of content, the ability to explain the importance of knowledge in each of the following areas, including ways in which each subject area provides insight into contemporary society:

a. *New Hampshire and United States* Civics and government;

b. Economics;

c. Geography;

d. United States and New Hampshire history; and

e. World history ~~and contemporary issues;~~

(2) In the area of content, the ability to exhibit knowledge of the basic concepts, generalizations, and issues of the subject areas, including an in-depth understanding of **history and** ~~at least 2 one~~ of the following subject areas, ~~one of which shall be d. or e.:~~

a. *New Hampshire and United States* Civics and government;

- b. Economics;
- c. Geography;
- ~~d. United States and New Hampshire history; and~~
- ed.** World history ~~and contemporary issues;~~

(3) In the area of related subject content, the ability to explain the importance of at least one of the following behavioral sciences including ways in which it provides insight into contemporary society:

- a. Anthropology;
- b. Psychology; or
- c. Sociology;

(4) In the area of content, the ability to demonstrate the research methodology of professionals in at least one of the 5 subject areas referred to in (c)(1) above, or a related social studies subject area;

(5) In the area of pedagogy, the ability to:

~~a. Design social studies unit plans which contain a central theme, issue, or question that coherently links to daily lessons;~~

ba. ~~Develop social studies lessons~~ *comprehensive unit plans* which integrate materials and concepts from 2 or more social studies strands *science disciplines* listed in (1) *that envelop essential questions, central themes, issues or problems and that coherently link to daily lessons;*

~~e. Develop social studies lessons integrating materials and concepts from outside the social studies;~~

db. ~~Design learning activities which~~ *that* employ research methods unique to the social sciences *including activities in which students design inquiries based on compelling essential questions;*

ec. Demonstrate the capacity to use a variety of social studies learning activities and techniques in order to:

1. Foster *in students a commitment to and an ability to engage in* ~~the practice of~~ democratic processes and decision-making;
2. Provide exposure to *and opportunities to express* multiple interpretations of *issues;*

~~3. Explore social issues~~ ***Encourage in students a capacity for deliberation and thoughtful exchange of competing viewpoints between citizens within and outside the classroom;***

~~4. Develop and utilize community resources and community projects;~~

54. Develop students' critical thinking, using a variety of instructional methods including how to assess the quality of information and ethical, legal or policy analyses;

5. Gather and evaluate primary and secondary sources from civics, economics, geography and history with the purpose of using evidence to support claims;

6. Assess how factual information, opinion, entertainment, and advertising are presented differently in various media; ~~and~~

~~7. Promote~~ ***Apply a range of deliberative and democratic strategies and procedures to carry out analyses, make decisions and communicate ideas via oral and written expression through various forms of analysis; and***

8. Create structured and varied opportunities for students to participate in informed ways via community resources and projects; and

f. Promote adolescent literacy ***and incorporate relevant literacy standards*** by using literacy strategies in order to foster comprehension and develop social studies skills; and

~~(6) In the area of professionalism, the ability to:~~

~~a. Develop an understanding of the organizations, agencies, and resources which contribute to the professional growth of the social studies teacher, including how to access the current and best practices in the social studies field;~~

~~b. Understand the differences between middle school, junior high school, and high school philosophies and practices; and~~

~~e. Understand the purpose of an integrated and articulated K-12 social studies curriculum.~~

Readopt with amendment and renumber Ed 507.271, effective 8-14-09 (Doc #9525) as Ed 507.54, to read as follows:

~~Ed 507.271~~***54 Social Studies Teacher For Grades 5-8. The following requirements shall apply to the certification of a social studies teacher for grades 5-8:***

(a) To be certified as a social studies teacher for grades 5-8, the candidate shall: ***meet the requirements of Ed 507.27.***

~~(1) Have at least a bachelor's degree;~~

~~(2) Qualify for certification under one of the alternatives in Ed 505.01–Ed 505.05, including completion of at least 10 courses or the equivalent in social studies at an institution approved by the New Hampshire postsecondary education commission or equivalent regional accrediting agency such as but not limited to the Northeast Regional Association of Schools and Colleges; and~~

~~(3) Meet the requirements of (b) and (c) below.~~

~~——(b) In compliance with RSA 193-C:3, IV(f) and consistent with RSA 193-C:3, III, a candidate for certification as a social studies teacher grades 5–8 shall demonstrate competency in the teaching of social studies, including techniques for enhancing student learning in this area and the use of assessment results to improve instruction.~~

~~——(c) A candidate for certification as a social studies teacher for grades 5–8 shall have the following skills, competencies and knowledge, gained through a combination of academic and supervised practical experience, in the following areas:~~

~~(1) In the area of content, the ability to explain the importance of knowledge in each of the following areas, including ways in which each subject area provides insight into contemporary society:~~

~~a. Civics;~~

~~b. Economics;~~

~~e. Geography;~~

~~d. United States and New Hampshire history; and~~

~~e. World history and contemporary issues;~~

~~(2) In the area of content, the ability to exhibit knowledge of the basic concepts, generalizations, and issues of the subject areas, including an in-depth understanding of at least 2 of the following subject areas, one of which shall be d or e.~~

~~a. Civics;~~

~~b. Economics;~~

~~e. Geography;~~

~~d. United States and New Hampshire history; and~~

~~e. World history and contemporary issues;~~

~~(3) In the area of related subject content, the ability to explain the importance of at least one of the following behavioral sciences including ways in which it provides insight into contemporary society:~~

~~a. Anthropology;~~

~~b. Psychology; or~~

~~c. Sociology;~~

~~(4) In the area of content, the ability to demonstrate the research methodology of professionals in at least one of the 5 subject areas referred to in (c)(1) above, or a related social studies subject area;~~

~~(5) In the area of pedagogy, the ability to:~~

~~a. Design social studies unit plans which contain a central theme, issue, or question that coherently links to daily lessons;~~

~~b. Develop social studies lessons which integrate materials and concepts from 2 or more social studies strands listed in (1);~~

~~c. Develop social studies lessons integrating materials and concepts from outside the social studies;~~

~~d. Design learning activities which employ research methods unique to the social sciences;~~

~~e. Demonstrate the capacity to use a variety of social studies learning activities and techniques in order to:~~

~~1. Foster the practice of democratic processes and decision making;~~

~~2. Provide exposure to multiple interpretations and thoughtful exchange of competing viewpoints;~~

~~3. Explore social issues;~~

~~4. Develop and utilize community resources and community projects;~~

~~5. Develop critical thinking, using a variety of instructional methods;~~

~~6. Assess how factual information, opinion, entertainment, and advertising are presented differently in various media; and~~

~~7. Promote oral and written expression through various forms of analysis; and~~

~~f. Promote adolescent literacy by using literacy strategies in order to foster comprehension and develop social studies skills; and~~

~~(6) In the area of professionalism, the ability to:~~

- ~~a. Develop an understanding of the organizations, agencies, and resources which contribute to the professional growth of the social studies teacher, including how to access the current and best practices in the social studies field;~~
- ~~b. Understand the differences between middle school, junior high school, and high school philosophies and practices; and~~
- ~~e. Understand the purpose of an integrated and articulated K-12 social studies curriculum.~~

Readopt with amendment Ed 612.28, effective 8-14-09 (Doc #9525), to read as follows:

Ed 612.28 Social Studies For Grades 5-12.

~~(a) In compliance with RSA 193-C:3, IV(f) and consistent with RSA 193-C:3, III, the teacher preparation program in social studies for grades 5-12 shall require candidate competency in the teaching of social studies, including techniques for enhancing student learning in these areas and the use of assessment results to improve instruction.~~

~~—(b) The social studies program for grades 5-12 shall provide the teaching candidate with the skills, competencies and knowledge gained through a combination of academic and supervised practical experience in the following areas *as outlined in 507.27(c)*:~~

~~(1) In the area of content, the ability to explain the importance of knowledge in each of the following areas, including ways in which each subject area provides insight into contemporary society:~~

- ~~a. Civics;~~
- ~~b. Economics;~~
- ~~c. Geography;~~
- ~~d. United States and New Hampshire history; and~~
- ~~e. World history and contemporary issues;~~

~~(2) In the area of content, the ability to exhibit knowledge of the basic concepts, generalizations, and issues of the subject areas, including an in depth understanding of at least 2 of the following subject areas one of which shall be d. or e.~~

- ~~a. Civics;~~
- ~~b. Economics;~~
- ~~c. Geography;~~
- ~~d. United States and New Hampshire history; and~~

~~e. World history and contemporary issues;~~

~~(3) In the area of related subject content, the ability to explain the importance of at least one of the following behavioral sciences including ways in which it provides insight into contemporary society:~~

~~a. Anthropology;~~

~~b. Psychology; or~~

~~c. Sociology;~~

~~(4) In the area of content, the ability to demonstrate the research methodology of professionals in at least one of the 5 subject areas referred to in (c)(1) above, or a related social studies subject area;~~

~~(5) In the area of pedagogy, the ability to:~~

~~a. Design social studies unit plans which contain a central theme, issue, or question that coherently links to daily lessons;~~

~~b. Develop lessons which integrate materials and concepts from 2 or more social studies strands in (1);~~

~~c. Develop social studies lessons integrating materials and concepts from outside the social studies;~~

~~d. Design learning activities which employ research methods unique to the social sciences;~~

~~e. Demonstrate the capacity to use a variety of social studies learning activities and techniques in order to:~~

~~1. Foster the practice of democratic processes and decision making;~~

~~2. Provide exposure to multiple interpretations and thoughtful exchange of competing viewpoints;~~

~~3. Explore social issues;~~

~~4. Develop and utilize community resources and community projects;~~

~~5. Develop critical thinking, using a variety of instructional methods;~~

~~6. Assess how factual information, opinion, entertainment, and advertising are presented differently in various media; and~~

~~7. Promote oral and written expression through various forms of analysis; and~~

~~f. Promote adolescent literacy by using literacy strategies in order to foster comprehension and develop social studies skills; and~~

~~(6) In the area of professionalism, the ability to:~~

~~a. Develop an understanding of the organizations, agencies, and resources which contribute to the professional growth of the social studies teacher, including how to access the current and best practices in the social studies field;~~

~~b. Understand the differences between middle school, junior high school, and high school philosophies and practices; and~~

~~c. Understand the purpose of an integrated and articulated K-12 social studies curriculum.~~

Readopt with amendment Ed 612.29, effective 8-14-09 (Doc #9525), to read as follows:

Ed 612.29 Social Studies For Grades 5-8.

~~(a) In compliance with RSA 193 C:3, IV(f) and consistent with RSA 193 C:3, III, a teacher preparation program in social studies for grades 5-8 shall require candidate competency in the teaching of social studies, including techniques for enhancing student learning in the this area and the use of assessment results to improve instruction.~~

~~—(b) The teacher preparation program for social studies in grades 5-8 shall provide the teaching candidate with the skills, competencies and knowledge gained through a combination of academic and supervised practical experience in the following areas as outlined in 507.27(c):~~

~~(1) In the area of content, the ability to explain the importance of knowledge in each of the following areas, including ways in which each subject area provides insight into contemporary society:~~

~~a. Civics;~~

~~b. Economics;~~

~~c. Geography;~~

~~d. United States and New Hampshire history; and~~

~~e. World history and contemporary issues;~~

~~(2) In the area of content, the ability to exhibit knowledge of the basic concepts, generalizations, and issues of the subject areas, including an in depth understanding of at least 2 of the following subject area, one of which shall be d. or e.:~~

~~a. Civics;~~

~~b. Economics;~~

~~e. Geography;~~

~~d. United States and New Hampshire history; and~~

~~e. World history and contemporary issues;~~

~~(3) In the area of related subject content, the ability to explain the importance of at least one of the following behavioral sciences including ways in which it provides insight into contemporary society:~~

~~a. Anthropology;~~

~~b. Psychology; or~~

~~c. Sociology;~~

~~(4) In the area of content, the ability to demonstrate the research methodology of professionals in at least one of the 5 subject areas referred to in (c)(1) above, or a related social studies subject area;~~

~~(5) In the area of pedagogy, the ability to:~~

~~a. Design social studies unit plans which contain a central theme, issue, or question that coherently links to daily lessons;~~

~~b. Develop social studies lessons which integrate materials and concepts from 2 or more social studies strands in (1);~~

~~c. Develop social studies lessons integrating materials and concepts from outside the social studies;~~

~~d. Design learning activities which employ research methods unique to the social sciences;~~

~~e. Demonstrate the capacity to use a variety of social studies learning activities and techniques in order to:~~

~~1. Foster the practice of democratic processes and decision making;~~

~~2. Provide exposure to multiple interpretations and thoughtful exchange of competing viewpoints;~~

~~3. Explore social issues;~~

~~4. Develop and utilize community resources and community projects;~~

~~5. Develop critical thinking, using a variety of instructional methods;~~

~~6. Assess how factual information, opinion, entertainment, and advertising are presented differently in various media; and~~

~~7. Promote oral and written expression through various forms of analysis; and~~

~~f. Promote adolescent literacy by using literacy strategies in order to foster comprehension and develop social studies skills; and~~

~~(6) In the area of professionalism, the ability to:~~

~~a. Develop an understanding of the organizations, agencies, and resources which contribute to the professional growth of the social studies teacher, including how to access the current and best practices in the social studies field;~~

~~b. Understand the differences between middle school, junior high school, and high school philosophies and practices; and~~

~~c. Understand the purpose of an integrated and articulated K-12 social studies curriculum.~~

Appendix I

| Rule | Statute |
|-------------|------------------|
| Ed 507.27 | RSA 186:11, X(a) |
| Ed 507.54 | RSA 186:11, X(a) |
| Ed 612.28 | RSA 186:11, X(c) |
| Ed 612.29 | RSA 186:11, X(c) |

From: Jennifer Cava [<mailto:jennifer.cava@asdnh.org>]
Sent: Wednesday, December 13, 2017 10:10 AM
To: Davis, Caitlin
Cc: ASD Board of Trustees
Subject: Academy for Science and Design Charter Renewal

Hi Caitlin,

At your request, I have put together a letter and supplemental materials to forward along to the NH BOE. Please let me know if you need anything else from the school in connection to this process.

Dear Members of the NH Board of Education,

The Academy for Science and Design completed all requirements for the Charter Renewal process in the Fall of 2017, including the Renewal Application, Site Visit, all required supplemental materials. Additionally, the school has made proposed revisions to our original charter, and the ASD Board of Trustees approved a fully Revised Charter in November 2017 to put forward to the NH State Board of Education with hope that it will be approved at the same time as ASD's Charter is renewed.

As there has been a bit of a transition with the Charter Office at the Department of Ed over the course of the Fall, there has not been an individual in place at the NHDoe to compose the post-site visit report and provide that report to ASD, and subsequently to the Commissioner and State Board of Ed. David Quigley, who was leading the Charter Office at the time of our site visit, received ASD's renewal application as well as all supplemental materials ahead of the site visit as is outlined in the process. ASD is comfortable with waiting until the Department is able to determine the individual who will be leading the Charter Office to have that report completed or any other actions taken by the Department; however, I want to ensure that this delay does not jeopardize the school's charter, as our deadline for renewal by the State Board is January 2018.

I spoke with Caitlin Davis at the NH DOE and she asked me to send along this letter to the State Board and to officially request an extension of ASD's Charter until the Department of Education is able to complete its portion of the process for our renewal. She also asked me to pass along the revised charter that ASD is seeking approval for from the State Board, for your review.

To summarize, I am reaching out to the State Board at the Department's request to ask for an extension of ASD's Charter until the Department is able to take the next action in the process. I am also attaching ASD's proposed Charter Revision, which the ASD Board of Trustees approved for me to put forward to your Board for approval. Many members of the school community have been involved in the revision of our original charter, and I am proud to share it with the State Board.

Attachments:

1. Proposed Revision of the ASD Charter (2017)
2. Appendix A (Five Year Budget Projection FY 2018)

3. Appendix B (ASD Accountability Plan)
4. Appendix C (ASD Original Charter 2007)

Have a wonderful holiday season. I look forward to seeing you in the coming months.

Best,

Jenn Cava
Director
Academy for Science and Design

ACADEMY FOR SCIENCE AND DESIGN

REVISED CHARTER APPLICATION 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.

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](#)

ASD Budget FY 2018 Five Year Projection

Assumptions:

- * Budget assumes a 2.5% increase in outside services and contracts.
- * Where possible, costs will decrease in subsequent years if funding does not increase, to keep the budget in the black.
- * Rent increase is as contracted, 25 cents per s/f per year.
- * FICA is 8%.
- * (520- 525) is the student headcount

| | Annual Budget 2018 (520) | Annual Budget 2019 (525) | Annual Budget 2020 (525) | Annual Budget 2021 (525) | Annual Budget 2022 (525) |
|---|-------------------------------------|---|---|---|---|
| Income | | | | | |
| Trust Agency 2016 2017 | 10,000.00 | 10,250.00 | 10,506.25 | 10,768.91 | 11,038.13 |
| 1300 · Tuition | | | | | |
| 1314 · Summer School | 25,000.00 | 25,625.00 | 26,265.63 | 26,922.27 | 27,595.32 |
| 1325 · Special Ed Case Mgmt Services | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 |
| Total 1300 · Tuition | 35,000.00 | 35,625.00 | 36,265.63 | 36,922.27 | 37,595.32 |
| 1500 · Earnings on Investments | | | | | |
| 1501 · Interest Income | 660.00 | 660.00 | 660.00 | 660.00 | 660.00 |
| Total 1500 · Earnings on Investments | 660.00 | 660.00 | 660.00 | 660.00 | 660.00 |
| 1700 · Revenues - Student Activities | | | | | |
| 1711 · Yearbook Revenues | 5,000.00 | 5,125.00 | 5,253.13 | 5,384.45 | 5,519.06 |
| 1715 · FLL Revenues | 2,800.00 | 2,870.00 | 2,941.75 | 3,015.29 | 3,090.68 |
| 1720 · Student council income | 100.00 | 102.50 | 105.06 | 107.69 | 110.38 |
| 1740 · PSAT Fees collected | 1,300.00 | 1,332.50 | 1,365.81 | 1,399.96 | 1,434.96 |
| 1741 · Field trip income | 24,000.00 | 24,600.00 | 25,215.00 | 25,845.38 | 26,491.51 |
| 1742 · Technology Students Association | 12,000.00 | 12,300.00 | 12,607.50 | 12,922.69 | 13,245.75 |
| 1746 · Chorus | 50.00 | 51.25 | 52.53 | 53.84 | 55.19 |
| 1755 · DI Income | 250.00 | 256.25 | 262.66 | 269.22 | 275.95 |
| 1760 · Theatre Group Revenue | 2,500.00 | 2,562.50 | 2,626.56 | 2,692.23 | 2,759.53 |
| 1765 · Graduation | 2,300.00 | 2,357.50 | 2,416.44 | 2,476.85 | 2,538.77 |
| 1770 · Cross Country | 2,000.00 | 2,050.00 | 2,101.25 | 2,153.78 | 2,207.63 |
| 1775 · Science Bowl Revenue | 1,000.00 | 1,025.00 | 1,050.63 | 1,076.89 | 1,103.81 |
| 1785 · AP exam | 4,000.00 | 4,100.00 | 4,202.50 | 4,307.56 | 4,415.25 |
| 1700 · Revenues - Student Activities - Other | 10,100.00 | 10,352.50 | 10,611.31 | 10,876.60 | 11,148.51 |
| Total 1700 · Revenues - Student Activities | 67,400.00 | 69,085.00 | 70,812.13 | 72,582.43 | 74,396.99 |

ASD Budget FY 2018 Five Year Projection

| | | | | | |
|---|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1900 · Other Revenue-Local sources | | | | | |
| 1910 · Rental income/fees | 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 |
| 1920 · Parent & family contributions | 150,000.00 | 150,000.00 | 150,000.00 | 150,000.00 | 170,000.00 |
| 1921 · Fundraising Income | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 |
| 1925 · Corporate contrib & matching | 30,000.00 | 30,000.00 | 30,000.00 | 30,000.00 | 30,000.00 |
| 1927 · Staff Contributions | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 |
| 1929 · Board Contributions | 500.00 | 500.00 | 500.00 | 500.00 | 500.00 |
| 1940 · Lost/Damaged Book Payments | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| Total 1900 · Other Revenue-Local sources | <u>191,775.00</u> | <u>191,775.00</u> | <u>191,775.00</u> | <u>191,775.00</u> | <u>211,775.00</u> |
| 3100 · - State Grants in Aid | | | | | |
| 3112 · Per Pupil Aid | 3,430,580.00 | 3,463,566.75 | 3,463,566.75 | 3,463,566.75 | 3,463,566.75 |
| 3100 · - State Grants in Aid - Other | 12,000.00 | 12,000.00 | 12,000.00 | 12,000.00 | 12,000.00 |
| Total 3100 · - State Grants in Aid | <u>3,442,580.00</u> | <u>3,475,566.75</u> | <u>3,475,566.75</u> | <u>3,475,566.75</u> | <u>3,475,566.75</u> |
| 4200 · Unrest Grant Fed thru State | | | | | |
| 4202 · - Title IIA | 5,600.00 | 5,600.00 | 5,600.00 | 5,600.00 | 5,600.00 |
| Total 4200 · Unrest Grant Fed thru State | <u>5,600.00</u> | <u>5,600.00</u> | <u>5,600.00</u> | <u>5,600.00</u> | <u>5,600.00</u> |
| Total Income | <u>3,753,015.00</u> | <u>3,788,561.75</u> | <u>3,791,185.75</u> | <u>3,793,875.35</u> | <u>3,816,632.19</u> |
| Gross Profit | 3,753,015.00 | 3,788,561.75 | 3,791,185.75 | 3,793,875.35 | 3,816,632.19 |
| Expense | | | | | |
| Trust Agency | 10,000.00 | 10,250.00 | 10,506.25 | 10,768.91 | 11,038.13 |
| 1100000 · INSTRUCTIONAL SERVICES | | | | | |
| 1100110 · Salaries, Teachers | 1,299,630.00 | 1,332,120.75 | 1,365,423.77 | 1,399,559.36 | 1,434,548.35 |
| 1100122 · Substitutes | 11,000.00 | 11,000.00 | 11,000.00 | 11,000.00 | 11,000.00 |
| 1100151 · Add'l Compensation to Teachers | 60,000.00 | 60,000.00 | 60,000.00 | 50,000.00 | 50,000.00 |
| 1100211 · Group Health Insurance | 92,000.00 | 94,300.00 | 96,657.50 | 99,073.94 | 101,550.79 |
| 1100220 · FICA/Medicare | 103,970.00 | 106,569.66 | 109,233.90 | 111,964.75 | 114,763.87 |
| 1100250 · Unemployment | 20,000.00 | 20,500.00 | 21,012.50 | 21,537.81 | 22,076.26 |
| 1100260 · Workers Compensation | 10,000.00 | 10,250.00 | 10,506.25 | 10,768.91 | 11,038.13 |
| 1100290 · Employee Benefits - other | 10,000.00 | 10,000.00 | 10,002.00 | 10,004.00 | 10,006.00 |
| 1100320 · Contracted Services | 18,491.00 | 18,953.28 | 19,427.11 | 19,912.78 | 20,410.60 |
| 1100581 · shipping/freight | 500.00 | 500.00 | 500.00 | 500.00 | 500.00 |

ASD Budget FY 2018 Five Year Projection

| | | | | | |
|--|---------------------|---------------------|---------------------|---------------------|---------------------|
| 1100585 · Professional Development | 15,600.00 | 15,600.00 | 15,600.00 | 15,600.00 | 15,600.00 |
| 1100610 · Supplies | 6,000.00 | 6,000.00 | 6,000.00 | 6,000.00 | 6,000.00 |
| 1100640 · Textbooks & Workbooks | 40,000.00 | 40,000.00 | 40,000.00 | 40,000.00 | 10,000.00 |
| 1100650 · Computer Software | 6,000.00 | 6,000.00 | 6,000.00 | 6,000.00 | 2,000.00 |
| 1100733 · Furniture and Equipment | 5,000.00 | 5,000.00 | 5,000.00 | 3,000.00 | 2,000.00 |
| 1100738 · Computer & Network Equip | 36,300.00 | 37,207.50 | 38,137.69 | 39,091.13 | 40,068.41 |
| Total 1100000 · INSTRUCTIONAL SERVICES | 1,734,491.00 | 1,774,001.19 | 1,814,500.71 | 1,844,012.68 | 1,851,562.40 |
| 1400000 · OTHER INSTRUCTIONAL PROGRAM | | | | | |
| 1430110 · Summer School Regular Salaries | 15,000.00 | 15,375.00 | 15,759.38 | 16,153.36 | 16,557.19 |
| 1430310 · Summer School Admin Svcs | 5,000.00 | 5,125.00 | 5,253.13 | 5,384.45 | 5,519.06 |
| 1400000 · OTHER INSTRUCTIONAL PROGRAM - Other | 250.00 | 250.00 | 250.00 | 250.00 | 250.00 |
| Total 1400000 · OTHER INSTRUCTIONAL PROGRAM | 20,250.00 | 20,750.00 | 21,262.50 | 21,787.81 | 22,326.26 |
| 1700000 · Expenses Student Activities | | | | | |
| 1700106 · Science Olympiad expenses | 250.00 | 256.25 | 262.66 | 269.22 | 275.95 |
| 1700111 · Yearbook | 5,000.00 | 5,125.00 | 5,253.13 | 5,384.45 | 5,519.06 |
| 1700113 · 6th grade planners | 500.00 | 512.50 | 525.31 | 538.45 | 551.91 |
| 1700115 · FLL Expenses | 2,800.00 | 2,870.00 | 2,941.75 | 3,015.29 | 3,090.68 |
| 1700140 · PSAT expenses | 1,300.00 | 1,332.50 | 1,365.81 | 1,399.96 | 1,434.96 |
| 1700141 · Field Trip Expenditures | | 0.00 | 0.00 | 0.00 | 0.00 |
| Spark Activities | 1,000.00 | 1,025.00 | 1,050.63 | 1,076.89 | 1,103.81 |
| 1700141 · Field Trip Expenditures - Other | 23,000.00 | 23,575.00 | 24,164.38 | 24,768.48 | 25,387.70 |
| Total 1700141 · Field Trip Expenditures | 24,000.00 | 24,600.00 | 25,215.00 | 25,845.38 | 26,491.51 |
| 1700142 · Technology Student Association | 12,000.00 | 12,300.00 | 12,607.50 | 12,922.69 | 13,245.75 |
| 1700155 · DI expenditures | 250.00 | 256.25 | 262.66 | 269.22 | 275.95 |
| 1700160 · Theatre Group Expenditures | 2,500.00 | 2,562.50 | 2,626.56 | 2,692.23 | 2,759.53 |
| 1700165 · Graduation | 2,300.00 | 2,357.50 | 2,416.44 | 2,476.85 | 2,538.77 |
| 1700170 · Cross Country | 2,000.00 | 2,050.00 | 2,101.25 | 2,153.78 | 2,207.63 |
| 1700175 · Science Bowl Exp | 1,000.00 | 1,025.00 | 1,050.63 | 1,076.89 | 1,103.81 |
| 1700185 · AP Exam | 4,000.00 | 4,100.00 | 4,202.50 | 4,307.56 | 4,415.25 |
| 1700196 · band c/o ASDEF | 1,000.00 | 1,025.00 | 1,050.63 | 1,076.89 | 1,103.81 |
| 1700198 · math counts | 1,000.00 | 1,025.00 | 1,050.63 | 1,076.89 | 1,103.81 |
| 1700199 · Track and Field | 1,000.00 | 1,025.00 | 1,050.63 | 1,076.89 | 1,103.81 |

ASD Budget FY 2018 Five Year Projection

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|--|------------------|------------------|------------------|------------------|------------------|
| 1700000 · Expenses Student Activities - Other | <u>6,500.00</u> | <u>6,662.50</u> | <u>6,829.06</u> | <u>6,999.79</u> | <u>7,174.78</u> |
| Total 1700000 · Expenses Student Activities | 67,400.00 | 69,085.00 | 70,812.13 | 72,582.43 | 74,396.99 |
| 2100000 · STUDENT SUPPORT SERVICES | | | | | |
| 2100110 · Guidance, Mentorship Development | 144,000.00 | 147,600.00 | 151,290.00 | 155,072.25 | 158,949.06 |
| 2100211 · Group Health Insurance | 1,000.00 | 11,808.00 | 12,103.20 | 12,405.78 | 12,715.92 |
| 2100220 · FICA/Medicare | 11,760.00 | 11,760.00 | 11,760.00 | 11,760.00 | 11,760.00 |
| 2100610 · Supplies | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| 2110890 · Attend/Social Work Misc | 500.00 | 500.00 | 500.00 | 500.00 | 500.00 |
| 2123370 · Testing Services | <u>3,500.00</u> | <u>3,500.00</u> | <u>3,500.00</u> | <u>3,500.00</u> | <u>3,500.00</u> |
| Total 2100000 · STUDENT SUPPORT SERVICES | 160,785.00 | 175,193.00 | 179,178.20 | 183,263.03 | 187,449.98 |
| 2130000 · HEALTH SERVICES | | | | | |
| 2130320 · Nurse Services, Contracted | <u>33,000.00</u> | <u>33,825.00</u> | <u>34,670.63</u> | <u>35,537.39</u> | <u>36,425.83</u> |
| Total 2130000 · HEALTH SERVICES | 33,000.00 | 33,825.00 | 34,670.63 | 35,537.39 | 36,425.83 |
| 2300000 · ADMINISTRATION SUPPORT SERVICES | | | | | |
| 2300110 · Salaries, Director | 85,000.00 | 87,125.00 | 89,303.13 | 91,535.70 | 93,824.10 |
| 2300115 · Salaries, Support Staff | 259,044.00 | 265,520.10 | 272,158.10 | 278,962.06 | 285,936.11 |
| 2300211 · Group Health Insurance | 75,000.00 | 76,875.00 | 78,796.88 | 80,766.80 | 82,785.97 |
| 2300220 · FICA/Medicare | 29,000.00 | 28,211.61 | 28,916.90 | 29,639.82 | 30,380.82 |
| 2300290 · Employee Benefits-Other | 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 |
| 2300534 · Postage | 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 |
| 2300540 · Marketing/Advertising | 6,000.00 | 6,000.00 | 6,000.00 | 6,000.00 | 2,000.00 |
| 2300545 · Fundraising Costs | 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 |
| 2300550 · Printing | 24,000.00 | 24,600.00 | 25,215.00 | 25,845.38 | 26,491.51 |
| 2300580 · Travel | 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 1,000.00 |
| 2300585 · Professional Development | 5,000.00 | 5,000.00 | 5,000.00 | 5,000.00 | 2,500.00 |
| 2300603 · Food | 1,900.00 | 1,900.00 | 1,900.00 | 1,900.00 | 1,000.00 |
| 2300610 · Supplies | 4,000.00 | 4,000.00 | 4,000.00 | 4,000.00 | 2,000.00 |
| 2300810 · Dues & Fees, Memberships | 8,000.00 | 8,000.00 | 8,000.00 | 8,000.00 | 5,000.00 |
| 2317320 · Audit Fees | 23,000.00 | 23,575.00 | 24,164.38 | 24,768.48 | 25,387.70 |
| 2317391 · Payroll Fees | 5,000.00 | 5,125.00 | 5,253.13 | 5,384.45 | 5,519.06 |
| 2318320 · Legal Services | <u>5,000.00</u> | <u>5,000.00</u> | <u>5,002.00</u> | <u>5,004.00</u> | <u>5,006.00</u> |

ASD Budget FY 2018 Five Year Projection

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|--|------------|--------------|--------------|--------------|--------------|
| Total 2300000 · ADMINISTRATION SUPPORT SERVICES | 535,344.00 | 546,331.71 | 559,109.50 | 572,206.69 | 573,031.26 |
| 2310890 · School Board Miscellaneous | | | | | |
| 2310891 · Board Appreciation | 500.00 | 500.00 | 500.00 | 500.00 | 500.00 |
| Total 2310890 · School Board Miscellaneous | 500.00 | 500.00 | 500.00 | 500.00 | 500.00 |
| 2400000 · - Support Services - School Adm | | | | | |
| 2409603 · Graduation - Food | 500.00 | 500.00 | 500.00 | 500.00 | 500.00 |
| 2490600 · - Graduation supplies | 50.00 | 50.00 | 50.00 | 50.00 | 50.00 |
| Total 2400000 · - Support Services - School Adm | 550.00 | 550.00 | 550.00 | 550.00 | 550.00 |
| 2510000 · Fiscal Services | | | | | |
| 2510830 · Interest Expense | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| Total 2510000 · Fiscal Services | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| 2600000 · FACILITIES OP & MAINTENANCE | | | | | |
| 2600200 · Benefits, Required | 15,000.00 | 15,000.00 | 15,000.00 | 15,000.00 | 15,000.00 |
| 2600330 · Custodian, Contracted | 50,000.00 | 51,250.00 | 52,531.25 | 53,844.53 | 55,190.64 |
| 2600410 · Cable/Internet | 4,585.00 | 4,585.00 | 4,587.00 | 4,589.00 | 2,000.00 |
| 2600420 · Trash, Plowing & Grounds | 10,000.00 | 10,250.00 | 10,506.25 | 10,768.91 | 11,038.13 |
| 2600430 · Building Repairs services | 42,000.00 | 42,000.00 | 42,000.00 | 22,000.00 | 10,000.00 |
| 2600431 · Building Renovations | 29,000.00 | 29,000.00 | 29,000.00 | 29,000.00 | 10,000.00 |
| 2600441 · Lease/Rent | | | | | |
| 2600443 · Property Tax | 80,000.00 | 82,000.00 | 84,050.00 | 86,151.25 | 88,305.03 |
| 2600445 · CAM | 110,000.00 | 112,750.00 | 115,568.75 | 118,457.97 | 121,419.42 |
| 2600441 · Lease/Rent - Other | 467,810.00 | 484,517.50 | 501,225.00 | 517,932.50 | 554,689.00 |
| Total 2600441 · Lease/Rent | 657,810.00 | 679,267.50 | 700,843.75 | 722,541.72 | 764,413.45 |
| 2600520 · Insurance | 18,000.00 | 18,450.00 | 18,911.25 | 19,384.03 | 19,868.63 |
| 2600531 · Phone/Internet | 22,000.00 | 22,550.00 | 23,113.75 | 23,691.59 | 24,283.88 |
| 2600610 · Supplies, Building & Grounds | 500.00 | 512.50 | 502.00 | 504.00 | 506.00 |
| 2600621 · Gas/Heat | 25,000.00 | 25,625.00 | 26,265.63 | 26,922.27 | 27,595.32 |
| 2600622 · Electricity | 90,000.00 | 92,250.00 | 94,556.25 | 96,920.16 | 99,343.16 |
| 2600730 · Building Plumbing | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 | 10,000.00 |
| 2620430 · Building maintenance services | 25,000.00 | 25,000.00 | 25,000.00 | 10,000.00 | 10,000.00 |
| Total 2600000 · Facilities & Maintenance | 998,895.00 | 1,025,740.00 | 1,052,817.13 | 1,045,166.20 | 1,059,239.22 |

ASD Budget FY 2018 Five Year Projection

| | | | | | |
|----------------------------|--------------------------|--------------------------|-------------------------|------------------------|---------------------|
| Total Expense | <u>3,561,240.00</u> | <u>3,656,250.89</u> | <u>3,743,932.04</u> | <u>3,786,400.14</u> | <u>3,816,545.06</u> |
| Net Ordinary Income | <u>191,775.00</u> | <u>132,310.86</u> | <u>47,253.71</u> | <u>7,475.21</u> | <u>87.13</u> |
| Net Income | <u>191,775.00</u> | <u>132,310.86</u> | <u>47,253.71</u> | <u>7,475.21</u> | <u>87.13</u> |

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. | |

APPENDIX B: ASD ACCOUNTABILITY PLAN

| | | | |
|--|---|--|--|
| 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 | <p>The school will partner with the local LEA to facilitate high quality services to students with special education needs.</p> | <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 | <p>The school will meet all criteria for safety, fire, and health codes in its locale (Merrimack School District)</p> | <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 | <p>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.</p> | <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. | |

Partial page cover letter, written and signed by Robert E. Myers, Ph.D., President and Michael Fishbein, Ph.D., Provost and Vice President, Daniel Webster College

[First paragraph missing.]

[XM] that the competition arising from such powers as India and China... (XM) news reports suggest. And yet, these nations and those around (XM) the prosperity of their own peoples are working hard to develop their (XM) and to claim a stake in fields we have previously conceived as a private (XM). The Academy will be part of the counterweight necessary to the (XM) scientific and technical leadership. New Hampshire can and should (XM)

The College supports both the value and the structure of public (XM) that the planned diversity represented by the existence (XM) Academy is not inimical. We believe the Academy will (XM) our State. It will allow local high schools to reconsider (XM) prepares a small portion of the school-going population.

For all of these reasons, we expect to lend our support (XM) time and circumstances allow, to participate in the (XM) and to propagate the lessons learned.

We look forward to your endorsement of this proposal.

Cordially,

Robert E. Myers, Ph.D.
President
Michael Fishbein, Ph.D.

Michael Fishbein, Ph.D.
Provost and Vice President

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Introduction

Science high schools and science education are a national priority. We are a culture continually shocked by national and international reports of American students' lack of international competitiveness in science and mathematics. Regardless of our personal interests-health, national, security, sustainability, industry, quality of human living-we can only imagine new generations of decision-makers with increasingly less background making increasingly sophisticated public policy decisions.

Reports say, students attending above-average schools in the U.S. demonstrate less preparedness and advancement in international competitions than their international peers. A recent news report suggested that "when students from forty countries are tested, the Americans place twenty-fifth. "In math and science, our nation's 4th graders are among the top students in the world. By 8th grade, our nation's students have dropped to middle of the industrialized nations. By 12th grade, US students score near the bottom of all industrialized nations. And while a corresponding body of literature assures us these reports are inaccurate, science schools are considered imperative to assure every student so motivated can access a science-specialized learning environment with like-minded peers. If any one school type is guaranteed corporate and college support, it is a statewide school for science.

"U.S. science and mathematics education is lagging, and American students aren't being readied for "the gathering storm" of foreign competition". (Committee on Prospering in the Global Economy of the 21st Century, created by the National Academy of Sciences and the National Academy of Engineering. Washington Post, October 13, 2005)

"As the world becomes increasingly technologically driven, students need to be more deeply grounded in underlying science, mathematics, and engineering disciplines." (Thomas Magnanti, Dean of the School of Engineering, MIT. Before the Committee on Education and the Workforce Subcommittee on 21st Century Competitiveness. May 19, 2005)

"On September 16, 2005, IBM announced that it will help address the critical shortage of math and science teachers by leveraging the brains and backgrounds of some of its most experienced employees enabling them to become fully accredited teachers in their local communities upon electing to leave the company." (www.ibm.com)

Decades of study of American labor trends, college preparedness, economics, and K-12 student achievement supports national initiatives in math/science education. All over America states have schools for science, mathematics, engineering, and technology. Specialized science high schools are so important that schools are initiated by acts of the legislature (Maine), governors and mayors (Colorado, Virginia, South Carolina), colleges Idaho, Massachusetts), and public school systems themselves (e.g. New York, Virginia). Dozens of outstanding science and mathematics schools have opened under the nation's public chartered school program. There are good reasons for New Hampshire to forge ahead now.

The Academy for Science and Design will be a school of choice for all middle/high school students in New Hampshire. Most students will likely attend from within an hour of the Concord to Nashua corridor. This area has in excess of 30,000 students in grades 7-12. With a maximum enrollment of 450 students, the charter school would draw less than 1.5% of the students in and around the corridor.

The Academy for Science and Design will address several need areas for New Hampshire:

1. Provide a world class, well-rounded education with a heavy emphasis on science, engineering, mathematics, and design,
2. Connect students to businesses before entering college,
3. Connect students to colleges in New Hampshire so in-state institutions become a natural path for graduates' continuing education,
4. Provide a sophisticated placement site for teacher training in critical shortage subjects of science and mathematics, growing the pool of highly trained teachers in math and science.

To understand the specific relevance of a science high school for New Hampshire, one must first look to our labor demographics. New Hampshire has the second highest percentage of high tech workers per capita in the United States. Core industries in New Hampshire include electronics, engineering, health services and management services. "One of the projected fastest growing sectors [in the New Hampshire economy] is professional, scientific, and technical services at a rate of 5.7%. All industry groups within this sector are growing in employment, led by management, scientific, and technical consulting services at 13.5 percent. This industry group is a prime employer of highly-skilled and highly-paid occupations. Other industry groups found in this sector include computer systems design; related, scientific research and development services; and accounting services. All of these industry groups are projected to grow faster than average" (Source: *Economic Conditions in New Hampshire*, January 2006).

Approximately 16 percent of all workers in the state are engaged in manufacturing. New Hampshire ranks 8 for in-migration of workers. Employers unable to find skilled workers in New Hampshire must seek personnel from other regions and countries. A New Hampshire school for science will increase interest and preparation for technologically sophisticated careers currently outsourced due to the lack of qualified New Hampshire applicants. Strong economic indicators support a world class science academy for New Hampshire students seeking more comprehensive and advanced science and engineering programs.

"Manufacturing in New Hampshire is becoming more technologically sophisticated".

"There is a concern about an erosion of skills and that the available manufacturing jobs (many in engineering) and available workers are just not good matches. Among others, areas for improvement are computer training, teaming, problem analysis and technical proficiency." (NH Manufacturing Roundtable, September 2004).

"A priority has to be high technology workforce development. The State and its educational institution—from kindergarten through graduate education—need to focus more on engaging and educating New Hampshire students in key areas related to a high technology economy. These include science, engineering, mathematics, computer

science and business fields. Also, the general educational attainment level has to be improved to ensure a strong high technology future, as there is a strong and clear link between high technology employment concentration and the percent of adults with a four-year college degree." (High Technology in New Hampshire: The Future is Now, April 2005, Network NH).

In addition, New Hampshire's colleges are expanding into increasingly sophisticated science fields, all connected to local and global markets. Within our few colleges we find degree programs in traditional areas of biology, chemistry, physics and math but also in biotechnology, meteorology (Plymouth State); aviation, aeronautical and mechanical engineering, computer science (Daniel Webster College); chemical, civil, electrical, computer, environmental, and mechanical engineering; mathematics, statistics, and computer science (University of New Hampshire); electrical and mechanical engineering technology (UNH-Manchester); and dozens of other specialty science-related degree programs. Virtually all of these programs are connected to American and international science, technology, and engineering industries that advise on state-of-the-art developments. A school highly integrated with these college programs will increase interest in New Hampshire's post graduate offerings.

The Academy for Science and Design, first and foremost, will offer a full range of academic courses according to a solid philosophy of quality as defined by The National Research Council in its 1996 report: *Analysis to Action*. The Council provided these characteristics of good courses:

- Are problem-driven
- Emphasize critical thinking
- Provide hands-on experience
- Are relevant to topics students find in life
- Offer both the process and concepts of a discipline
- Show links between related disciplines
- Place subject in a broader personal, historical, cultural, social, and political context
- Provide intellectual tools needed to explore new ideas

For all the compelling issues and needs cited, this proposal is being advanced. If approved, the Academy for Science and Design will become a premier science high school in our region and greatly increase opportunities for our youth.

CHARTER APPLICATION

January 20, 2006

[Scanned in version. Edited by K. Glossop. Only changes are to fix typos.]

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Academy for Science and Design

(a) Educational mission.

The mission of the charter school founders is to create a world class, standard setting middle/high school that specializes in science, mathematics, engineering, and design.

The school will graduate students with in-depth subject mastery; real world laboratory experiences; and local, national, and global understanding and applications. The school will be recognized for its outstanding academic program and for well-rounded students with the capacity for high achievement and leadership in college, career, and society.

VISION

In constructing this proposal, founders envision New Hampshire having a world class high school for science that is truly based on competitive educational programs and cutting edge international applications. The school would address the growing national concern for science and math education.

Founders envision 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. A resource to other public education providers, the Academy for Science and Design will broaden the scope of curriculum in chemistry, physics, engineering, computer science, environmental science, mathematics, and global sustainability.

Founders envision the school evolving as a center for teacher training, producing an ample supply of highly qualified teachers in science and mathematics with breadth of understanding, especially in engineering and global sustainability.

Founders envision a school so significantly connected to New Hampshire colleges that in-state institutions become a natural path for graduates' continuing education -- a phenomenon with many potential benefits to colleges.

Founders envision a school highly supported by businesses providing case study, hands on, research-based, real world opportunities and from this, students will intrinsically grasp the role of science and mathematics in all aspects of modern life.

Finally, the vision of students graduating from Academy for Science and Design is one of capable and confident young adults with the curiosity, understanding, and ability to address the challenges of their lives.

(b) Governance and organizational structure and plan.

BOARD OF TRUSTEES

In accordance with RSA 194-B: §5, the Academy for Science and Design will be governed by an eleven-member Board of Trustees that has general supervisory control and authority over operations of the charter school. The Board has a statutory responsibility for reporting progress and achievement of the school's stated goals.

Trustee selection will be based on personal and professional background and a commitment to the school's mission, support, and sustainability. Trustees will represent the diversity of stakeholders and contributors:

- Two (2) representing the business and engineering community,
- Two (2) representing the college and school industry,
- Two (2) with expertise in international perspectives and/or design applications,
- Two (2) founders or major contributors to the school,
- Two (2) parents,
- One (1) head of school.

The Board of Trustees can establish *ex officio* board members and/or advisors who will be non-voting.

OFFICERS

Initial officers shall include: chair, vice chair, secretary, and treasurer. Officers of the board shall be elected by majority vote of those present at the annual organizational meeting to be held in January of each year and shall serve until the next annual organizational meeting. If a replacement officer is needed, the term of office 1 complete the unexpired term of the absent officer.

GOVERNANCE

The Board of Trustees will exercise its authority to set policy and make decisions that serve the mission and vision of the school and will have oversight and authority to render final decisions on matters pertaining to:

- Approval and oversight of annual budget and fund-raising programs,
- Hiring of professional personnel,
- Setting policy,
- Appointment of board advisory members or committees,
- Delineation of educational priorities,
- Oversight for the school's growth plan,
- Establishing professional salary and compensation program,
- Reviewing and approving significant contracts, e.g., for facilities and benefit programs,
- Appeals,
- Any other matters that are not administrative in nature and/or *that* are prescribed in statute or rule.

COMMITTEES

The Board of Trustees will have subcommittees and advisory committees as it deems necessary to pursue specific topics and report back to the board for action. On occasion, the Board may specifically vote to delegate a subcommittee to act. Initial subcommittees will be for board recruitment and finance (for focus on financial sustainability).

STEERING COMMITTEE, First-year:

During the school's first year of planning, a design and development team shall work on all facets of start-up and readiness:

Steering Committee Initiatives:

- Develop and secure connections to colleges,
- Develop and secure connections to businesses,
- Develop and secure connections to donors,
- Develop and secure connections to government,
- Pursue a teacher certification contract,
- Develop and secure connections to public schools,
- Develop and employ a strategic marketing campaign,
- Assist with facility and program decisions.

BOARD OF ADVISORS

The governing Board of Trustees may be augmented by a Board of Advisors, non-voting, who represent science industries, academia, research, international relations, dent and faculty, legislators, and topics of interest to the board. This board will attempt to include industries and individuals collaborating with the school to advise on program quality, current research and developments, and business strategy.

(c) Methods by which trustees and their terms are determined.

The initial trustees will be drawn from founders, project supporters, and design team members who have already participated in the development or review of this charter. The President and Provost of Daniel Webster College will assure the first meeting is called and a Board chairperson is elected.

Terms of trustees will be staggered, five-year terms. Approximately one half of the initial trustees will be appointed for two-, three-, or four-year terms to establish initial staggered terms and governance stability~ The board may appoint a Trustee to fill a vacancy to complete a term according to established term timelines. Board members may serve consecutive terms if so voted by a board majority.

The Board of Trustees, once operating, will select and appoint future trustees, define future board terms, and vote policies for board governance and filling vacancies. For purposes of conducting business, the Board will follow New Hampshire Right to Know Law, RSA 91-A. For purposes of lawful meetings, a quorum is defined as a majority of trustees physically present or participating through video or voice communication systems. Records and minutes of meetings will be kept in accordance with statutory guidelines.

The Board of Trustees will begin governance within two months of charter award and before the school begins to operate. Prospective board members will participate in training in general governance and financial management.

(d) General description and proposed or potential location of facilities to be used, if such information is available.

Founders are working with specialists in real estate and in public and private industries to locate available properties large enough to house the school program for 40-120 during the first 2 years and for 200-450 students by the 4th or 5th year. Once the charter is approved, the initial trustees will pursue, negotiate, and arrange facility options. The location sought is along the Concord to Nashua corridor, where driving from any locations is possible by major roadways and there a number of industries and colleges.

The school makes no commitment at this time to boarding facilities for studies; however, it is anticipated that students from distances too far for daily travel may seek attendance and assistance locating overnight housing. During the first 5 years of the school's first charter, the Board will at least study overnight options, e.g. an a-state exchange program or dorm facility.

(e) Maximum number, grade or age levels, and, as applicable, other information about pupils served.

ENROLLMENT

During its opening year, the charter school will accept up to 100 students, anticipated in grades 8-10, as the board decides. The exact capacity for enrollment in the 1st year is highly dependent on the space chosen and the ability to make needed renovations, if applicable. New, incoming classes will be added each year thereafter until the school is fully enrolled. The school will serve a maximum of 450 students in grades 7-12.

This state-sponsored charter school will be an open enrollment school of choice. For state-sponsored student placements, the school will comply with statutory provisions that govern acceptances. As of December 2005, a provision of RSA 194-B restricts one district's enrollments to not more than 10% of the resident pupils in any grade in one school year without local school board approval.

On a space-available basis, the Board of Trustees will accept students funded in alternative ways for available slots, including tuition students from out of state, as is the custom of other public high schools.

INFORMATION ABOUT PUPILS SERVED

The mission of this charter school is clearly tied to world class standards and teaching for mastery in areas of science and mathematics. This is an academic middle/high school with uncompromising standards of achievement. The school 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, 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 expectation of academic achievement,
- Have interests in mathematics, science and/or engineering and the many careers that relate to these fields,
- 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.

(f) Curriculum that meets or exceeds state standards in the subject areas offered.

The curriculum will support the school's mission:

- to create a world class, standards-setting middle/high school that specializes in science, mathematics, engineering, and design.
- to graduate students with in-depth subject mastery; real world laboratory experiences; and local, national, and global understanding and applications.
- to have a school recognized for an outstanding academic program and for well-rounded students with the capacity for high achievement and leadership in college, career, and society.

Students will have stimulating and interesting courses with standards and competencies that meet or exceed New Hampshire standards. The solid foundation will be augmented and enhanced by routine seminar and immersion experiences created and pursued by the interests and talents of students, faculty, and others.

By mid-10th grade, students will be challenged to select an area of specialization for their senior thesis. The program of electives and independent study will essentially provide 11th and 12th grade students to have major and minor areas of specialization. The school, through its alliances with business and colleges, will also have areas of specialization anticipated to be: aeronautics and aviation; chemistry and bio-medicine; mathematics and physics; space, astronomy, and astronautics; environment and sustainability; architecture and engineering (mechanical, civil, electrical); and computer science, system design, and simulation.

Founders envision an emphasis on design, application, and implication as well cross-pollination among all areas of study.

The list below represents anticipated special features of the curriculum followed by goals, assessments, and course requirements for graduation.

SPECIAL CURRICULUM FEATURES

Curriculum:

The school will offer a high-standards college-preparatory program specializing in mathematics, applied lab sciences, and design. The course of study will include English/literature, social sciences/history, world language, reading/writing, health and personal fitness, and arts. The school will have generalized emphasis on applications, design, sustainability, relevance, and research/presentation.

Instruction:

Instructional philosophy will guide teaching style and school culture. The school's instructional methods will allow teachers creativity but also stress collaboration among and between faculty. Project-based learning, case studies, real-world applications, hands-on projects, and self-selected apprenticeships and research projects will emphasize and develop student interest and talent. The Academy of Science and Design instructional methods will be based on effective schools research—understanding how young people learn best—and the achievement results.

Students will have a role in planning their educational program. Teachers will both present information and facilitate student pursuit of independent learning.

Immersion/Seminars:

A regular program of seminars and short immersion courses will expose students to career and subject specialties, enhancing student appreciation of the breadth of opportunities and challenges that are available to them.

Project Orientation:

Individual projects and special assignments will be a style of instruction, cap and encouraging student pursuit of their own interests. Course study and assignments will largely be project-based, using real-world contexts.

Technology:

The Academy for Science and Design will offer specific elective classes in computer science and graphic design as well as integrating state-of-the-art information and communication technology. The school will strive to provide students access to current technology.

Arts:

Course and seminar offerings will expand student appreciation of culture, design, and artistic expression. Art will connect to classroom learning through exhibits, performances, concerts, and residencies taking place in local museums, colleges, galleries, theatres an the school.

Active Engagement:

Students will be actively engaged in learning and have experiences that require different kinds of

thinking. Their assignments will include written analysis of their own and others' work, reflective journals, quantitative and qualitative studies, products, and oral presentations.

Sharing Community:

Students will be expected to participate in public exhibitions, performances, competitions, and demonstrations, as individuals or in collaboration with others. The art of public speaking and presentation will be included in the school's curriculum.

A Culture of Mutual Support:

Students will learn to notice and recognize their own accomplishments and the accomplishments of others. As students progress through their high school studies, web based portfolios will be developed that include special research, projects, and internships. Manners, appreciation of diversity and good citizenship will not allow for harassment, hazing, or compromising anyone's opportunity or welfare.

Focus on Student Health, Nutrition, and Well-Being:

Concern for student health, nutrition, and well-being will assure that meals, snacks, breaks, exercise, and seminars will guide program decisions in these areas. Exercise will be incorporated into each day.

Genuine Achievement is Valued:

Students will accomplish their coursework and earn grade or program advancement based on clear expectations. Students will know how grades or advancement decisions are determined and that their own accomplishments reflect meeting a consistent standard.

Challenging Material & Provision for Acceleration

Teachers will be expected to recognize each student's understanding of topic courses at hand. The school will support preliminary and ongoing assessment of student knowledge and skill. The school supports acceleration or accommodation, as might be needed to assure students are challenged. Students who complete courses prior to their classmates will have opportunities to pursue other courses and subjects.

Course Accomplishment:

Student learning will be measured by the mastery of standards, not seat time. This shift requires teachers to know the standards for their courses, plan instructional time around goals and objectives, and track academic progress for each student.

Diverse Learning Spaces:

Students will take courses at the Academy for Science and Design campus well as in diverse learning environments, e.g., local courthouses, businesses, research institutes, and college campuses. "School" and "schooling" will not be based on place.

Mentoring:

Each student will have a mentor for school and personal planning activities. Time and staffing resources will be allocated as needed.

Senior Advisory:

College-preparatory portfolios will include demonstrations of competencies, resume, and portfolio demonstrating the scope and variety of accomplishments. The portfolio itself is electronic, allowing students to change and adjust the information as needed to reflect changes in their own learning and experience.

Entrepreneurial Ventures:

Entrepreneurial ideas will be fostered by the Academy for Science and Design and operated largely by students.

Courses:

All course offerings will meet or exceed requirements for a New Hampshire high school diploma.

(g) Academic and other learning goals and objectives.

- All academic courses will have succinctly stated learning goals and objectives,
- Measures of progress will demonstrate >75% of students proficient or advanced in science and mathematics from year to year,
- Standardized assessments will demonstrate that >75% students are proficient or advanced in reading,
- >90% of students will demonstrate mastery of the content of Algebra I and II,
- 100% of students will have immersion experience opportunities in science, with specialists, industry leaders and entrepreneurs,
- 100% of Students will maintain digital portfolios,
- 100% of students graduating will have a post-graduation plan,
- 90% of students will plan to attend a college,
- Females and unrepresented minorities of both genders will pursue post graduate programs that make use of their accomplishments in science and mathematics in numbers that exceed state norms,
- 100% of our students' parents or guardians will make a commitment to be involved with our school,
- 100% students will have given public presentations,
- All students will have contributed to a respectful community environment.

(h) Achievement tests to be used to measure pupil academic and other goal achievement including, but not limited to , objective and age-appropriate measures of literacy and numeracy skills, including spelling, reading, expository writing, history, geography, science, and mathematics.

Student achievement will be assessed by a variety of strategies including course material examinations, individualized skill reviews in literacy areas, portfolios of student projects, state testing and national standardized tests.

| | |
|------------|---|
| State Test | As required for grades 7 - 12 |
| PSAT | Grade 10 |
| SAT-1 | Grade 11 (and/or ACT) |
| SAT-2 | Required (1) in Science; required (1) in elective area. |
| NWEA | Basic assessment tool to measure and monitor literacy in areas of reading, writing, and basic arithmetic. |

(i) Graduation requirements.

The Academy for Science and Design will have minimum graduation requirements, listed below. The school will consider unique circumstances where students are seeking early college admission.

The school's definition of "credit" shall be completion of a year-long program with demonstrated content mastery. The school will accommodate students whose grasp of content requires more or less than one year.

Graduation requirements were researched to satisfy requirements for acceptance to notable colleges and universities.

- Applied Mathematics through Calculus (4 credits),
- Applied Laboratory Science & Engineering (5 credits; 4 required plus 1 credit elective):
- Biological Science (1 credit),
- Chemistry (1 credit),
- Physics (1 credit),
- Engineering (1 credit),
- Potential elective advanced science courses (0.5 credit): 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 transportation sciences
- Computer Science (0.5 credit),
- World Language and Cultural Studies (3 credits),
- English/Literature (4 credits),
- Social Science/History (2 credits); law, world and US history, business/marketing, political science, geography,
- Visual and Performing Arts (1 credit); dance, drama/theater, music or visual art
- Health and Fitness Personal Program (2 credits),
- Electives (2 credits),
- Stewardship Project (0.5 credits),
- Junior Apprenticeship/Mentorship project (0.5 credits),
- Senior Research Project (0.5 credit).

(j) Staffing overview.

PERIOD OF PLANNING AND ORGANIZATIONAL DEVELOPMENT

The time period from authorization until 4-6 months before the school opens to students is considered the Period of Planning and Organizational Development. Planners have considered this period consuming approximately one year, based on an assumption of authorization by March 2006.

During this time of planning and organizational development, project staff will include start-up coordinators, as-needed consulting specialists, personnel from other organizations, and volunteers. Tasks related to school development include overall planning and coordination; materials development & marketing; curriculum development and course design; board initiation and governance training; administration systems setup; strategic planning; financial operations; revenue initiatives; facility initiatives; dissemination of information to schools, parents, and colleges; outreach to selected corporations; research and visitation.

Given the school's size and scope and the importance of the school's connectedness to colleges, businesses, and corporations, the basic planning period staffing will include 1.4 FTE administrative/coordination personnel, 0.5 administrative assistance, .25 IT personnel, 0.25 financial officer, and contracted specialists, as needed, in various capacities.

PERIOD OF SCHOOL READINESS TO OPEN

The time period 4-6 months prior to school opening is considered the Readiness to Open period when key school staff will be recruited and brought on board. By this time a clearer sense of school staffing will have been decided, particularly in areas of school governance. Size of school will determine numbers of personnel required. In general, classes with labs will strive for a staff: student average ratio of 1:10-15 and typical non-lab classes will strive for a staff: student average ratio of 1:16-1:22. These ratio computations address core subjects and do not include fitness, arts, language, guidance, internship coordination, specialists, etc. The school will plan for teaching assistants.

PERIOD OF FIRST YEAR OPERATIONS

In staffing the Academy for Science and Design, the Board of Trustees will comply with RSA 194-B: 14, Section IV, requiring the teaching staff of a charter school to consist of a minimum of fifty percent of teachers with New Hampshire certification or having at least three years of teaching experience.

The following table provides an example of staffing based on 60 students in the first year and growth at the rate of 60 students each year thereafter. The charter requests up to 450 students. The growth plan will be determined by the Board based on facility selection and capacity, student applications, and program quality and stability.

The Academy for Science and Design will seek personnel whose backgrounds have at least two competencies so that they might cover more than one subject. Additionally, the curriculum planning intends to integrate and cross-pollinate course content.

Estimates provided in the following table are based on full-time equivalent (FTE).

| | 2006-07 Year 1 Planning | 2007-08 Year 2 | 2008-09 Year 3 |
|---|-------------------------------|-------------------|-------------------|
| Assumptions: | | | |
| Student Population | 0 | 60 | 120 |
| Teaching Functions | 1.5 | 5.0 | 9.0 |
| Teaching Assistant Functions | 0.5 | 2.5 | 4.0 |
| Health, Nutrition, & Fitness functions | 0.4 | 0.8 | 1.0 |
| Literacy Support and Special Programs Functions | 0.4 | 1.0 | 1.0 |
| Research and development Functions | 0.2 | 0.2 | 0.2 |
| Head of School Functions | 0.5 | 1.0 | 1.0 |
| Administrative Assistant Functions | 0.5 | 0.6 | 1.0 |
| Student Governance and Mentorship Functions | 0.0 | 0.4 | 1.0 |
| Special Education Liaison Functions | 0.2 | 0.3 | 0.4 |
| Grant-writer/fundraiser Functions | 0.5 | 0.5 | 0.5 |
| Superintendent Office Functions | 1.9 | 1.9 | 0.8 |
| Total Full Time Equivalents | 6.6 | 14.2 | 19.9 |

SELECTED POSITION DESCRIPTIONS

HEAD OF SCHOOL

This individual will lead the standards-setting educational program according to the vision of its creators. In this role, the head of school will:

- Mentor faculty and students to maximize achievements consistent with the Academy for Science and Design's vision and philosophy,
- Assure the school is administered according to board policy, its budget, and requirements that apply,
- Establish a school culture built on respect, responsibility, support, and common goals of excellence,
- Develop public outreach and relationships with partners, parents, and sending districts,
- Assist faculty with all aspects of school, as needed,
- Assure coordination of personnel functions and recommend or engage contracted and salaried personnel within guidelines proposed by the board of trustees,
- Assume overall responsibility for supervision of staff and students,
- Provide liaison to the State Board of Education, safeguarding and advocating for the freedoms from bureaucracy intended by state and federal law,
- Develop and oversee schedules created in collaboration with faculty,
- Assure the individual and collective assessment programs are meaningful and provide accountability for progress and achievements,
- Initiate and sustain ongoing, inclusive dialogue for ever-improving the school culture and

- parent relationships, according to the school's belief in standards, openness, and support,
- Promote safety and good health practices by adherence to public codes/regulations and the Academy for Science and Design standards,
 - Assure the board or its designee is apprised of issues of importance,
 - Fulfill other responsibilities as required by the board.

STUDENT GOVERNANCE, MENTORSHIP, AND GUIDANCE SUPERVISOR

The person or persons assigned this responsibility will collaborate with others to assist all students in their academic, personal and social development. Related tasks include:

- Facilitate both faculty and students in their quest for excellence,
- Research and bring to faculty models of student governance, mentorship and guidance,
- Work to assure the systems, policies, and programs of student governance, mentorship, and guidance are meaningful, progressive, and successful,
- Assist students in selecting coursework and activities within the Academy for Science and Design and the larger community that leads to realization of their personal education plans,
- Establish a confidential system of student records,
- Maintain files of school and community resources and agencies as may be needed for a broad range of educational, psychological, personal or health related needs of individual students or families,
- Teach as necessary.

(k) Personnel compensation plan, including provisions for leaves and other benefits, if any.

COMPENSATION

The philosophy of staffing and compensation is to recruit highly motivated and talented personnel, committed to the excellence described in the 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. When the school opens, the anticipated initial compensation range for teachers is \$25,000 to \$50,000/year, depending on financial resources of the school. Additional compensation may be incurred by assuming extra responsibility in needed areas and through board-approved bonuses.

BENEFITS

The Board will determine benefit program options and leave philosophy and policy during the period of planning and development. With reasonable funding, the goal would be to offer options that include health, disability, and retirement.

The school's program of leave will honor state and federal guidelines that may apply such as official holidays, family leave, disability, and civic duty.

(1) Pupil transportation plan, including reasonable provision from the charter schools' own resources for transportation of pupils residing outside the district in which the charter school is physically located.

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 states:

Attendance at a charter 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 open enrollment or charter school is located shall be provided transportation to that school by the district on the same terms and conditions as provided for in RSA 189:6 and RSA 189:8 as that transportation is provided to pupils attending other public schools within that district. However, any added costs for such transportation services shall be borne by the charter school.

For the purposes of open enrollment, neither the sending nor the receiving school district shall be obligated to provide transportation services for pupils attending an open enrollment school outside the pupil's resident district. No transportation will be provided by a sending school district or receiving charter school for students whose residence is other than where the school program is located.

We foresee students applying from many different school districts; this is the pattern with science academies in other small city areas. One goal of charter school personnel will be to assist parents and students who wish to coordinate personal transportation. For students in secondary district special education programs, the charter school will assist with transportation arrangements, e.g., identifying shared routes.

(m) Statement of assurances related to non-discrimination according to relevant state and federal laws.

The Academy for Science and Design shall not discriminate on the basis of race, color, religion, national or ethnic origin, age, sex, sexual orientation, disability or marital status in the selection of students or staff or in the administration of its educational programs or in any other way as is prohibited by law.

The Board of Trustees shall develop and adopt a policy and will have administrative procedures to address complaints or concerns.

(n) Method of coordinating with a pupil's local education agency (LEA) for matters pertaining to any special education programs

or services including method of compliance with all federal and state laws pertaining to educationally disabled pupils.

The charter school will discuss the school with any parent and will accept applications for review from any parent or student. Under New Hampshire's charter school statute, RSA 194-B: 11, III, the local school district continues to be responsible for special education funding and decision-making for any child whose parents seek the child's attendance at a charter school. Placement at the school will require an LEA endorsement, from the IEP team or Superintendent of Schools.

RSA 194-B:1 1, §111, states that all options available to the parent and the local education agency are retained. Regarding special education, options now available to parents and the local district include: 1) the district concurring on the parent's or student's desire for choice and attendance at this school, and assuring whatever services the student needs continue to be received, 2) the parent accepting or rejecting the district-proposed education plan in full or in part, 3) the district concurring with the choice placement as a general placement and providing the special services needed after hours, 4) an education plan of short duration or one that allows for a trial period in the charter school to assess suitability for a student and the services needed, if any, in the charter school environment, 5) the parent refusing special services and matriculating the student without services, should the charter school find this acceptable in a particular instance, and 6) should the placement be disputed, either the parent or the school district initiating the resolution of disagreements through provisions of the Department of Education.

COORDINATING WITH A PUPIL'S SCHOOL DISTRICT

The Academy for Science and Design will respect the LEA's responsibility under statute for handling special education decision-making, and have a charter school liaison that collaborates with the local education agency on individual student matters.

CURRENT SCHOOL DISTRICT SPECIAL EDUCATION RESPONSIBILITY

In 1994, Section Ed 1102.11 defined "educational decision making process" in RSA 186-C:14 11(b), as the "identification, evaluation, and placement, as well as the hearing, mediation, and appeal procedures." Under ED 1106.01 in the 200 rules revised, the special education process is defined as: 1) referral, 2) evaluation, 3) determine eligibility, 4) development of an IEP (individualized education plan), and 5) placement.

CHARTER SCHOOL RESPONSIBILITY AND METHOD OF COORINATING

The school will assure that a person is designated to be the liaison for special education and, if needed, will employ or contract with an appropriate specialist to oversee proper handling of special education matters. The school responsibilities are:

1. To assure that districts are alerted about requests for admission.
2. To provide information about the school to the sending district, and when possible, attend meetings for the purpose of district review of choice requests.
3. To obtain copies of parent rights provided to parents by districts and to assist parents who want choice to understand their own district's procedures.

4. To obtain copies of any IEP that is in place, and assure that each teacher and service provider listed as having responsibility for implementing the IEP has a complete copy of this document and explanation as to what is required of the charter school.
5. To keep name, address, phone, and email for the person(s) in each district who are responsible for special education vis-à-vis students attending the charter school, and make contact, when needed.
6. To alert the sending district of pre-referral issues that rise to a level of concern or needing district attention.
7. To meet with special education administrators or their designees to understand how districts would like certain procedures to take place, e.g. should the charter school schedule and call a required meeting or should the LEA.
8. To notify the LEA if the IEP written in one setting does not seem pertinent for the student's needs within the charter school and to ask for a review of the IEP when a portion of the IEP seems inadequate, unneeded, inappropriate, or too long in duration.
9. To assist the local education agency in development of the IEP and procedures designed to ensure that individualized education programs are monitored in a regular and systematic manner.
10. To work with the district and articulate services or accommodations the students need, from the charter school's perspective, and to continue the dialogue about concerns until they are reviewed.

(o) Admission Procedures.

ELIGIBILITY

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

There are four 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 (verification of last grade completed by sending school district or department of education).
- 2) The applicant student demonstrates interest in sciences and academic study.
- 3) The applicant student and his/her parent will agree to the mission of the school, its policies, program, and expectations.
- 4) The Admissions Committee agrees that the applicant is likely to benefit from this specific charter school program.

If more students apply and are eligible than the number of spaces available in any grade or program, the board will conduct a lottery according to an established lottery policy. Eligible students who are not chosen in the lottery will be listed on a wait list in the order their names are drawn, according to grade or program. Should a selected student not attend or an opening otherwise occur, placement will be offered based on waiting list order. If a student offered admission from the waitlist declines admission, the board will continue to contact students/parents in the order listed.

APPLICATION PROCEDURES

The school will provide its program information, application procedures, and application forms to New Hampshire public school personnel. The Academy for Science and Design will have a web site with complete application procedures and forms available online.

The application process allows the school to understand student needs and abilities to ensure experience at the Academy for Science and Design is positive, if the student is enrolled. The Academy for Science and Design offers a unique opportunity for students to become deeply involved in their own education. There is an expectation for students to make a commitment to excellence and strive to be genuinely involved with opportunities the school provides. Student involvement begins at the time of application.

1. The student will submit a completed school application package that will include a personal statement of interest in the school and student questionnaire. A Portfolio is optional for students applying to grades 7 and 8 but required for students applying for grades 9-12. Portfolio contents allow students to offer materials that enhance the Admissions Committees understanding of the student. Examples of portfolio material may include artistic work, creative writing, science or math projects, and audio or video tapes. Letters of Recommendation are optional and may be submitted if the student believes another individual can contribute valuable information to the application.
2. The student's parent or legal guardian will provide additional application components: a completed educational history, transcripts from previous schools attended, and releases of information needed for obtaining health, academic, and special records from prior school years.
3. Once the application is complete, the applying student and parent or guardian will be invited for a visit to the charter school. During the school's first year, the facility may not be ready at time of interview.
4. The student and parent meet with the Admissions Committee or designated staff and review the program and share expectations and interests.
5. The student and parent will review the responsibilities, rules, and commitments needed to attend and sign a statement of acceptance of the policies and programs of the school. This confirms the student's intent to be an applicant for the school.
6. If a student is enrolled in a school district special education program, the respective special education department will be notified of the student's request for admission, but such students are continued in the lottery pool.
7. The school will have one or more admission decision deadlines. Dates and guidelines for admissions decision-making and lottery will be available to applicants.

8. Once accepted, the student will have an orientation and may need to provide or be available so the school can obtain additional information, e.g., skill screenings to determine levels of literacy (reading, writing, and math) and subject understanding.
9. New students must successfully complete the orientation that typically precedes school starting.

For special education admissions, the process differs in that the student's sending school's Evaluation and Placement Team is responsible for the placement decision, the IEP, official meetings, and assuring that a representative the charter school and parents are part of official meetings.

(p) Philosophy of student governance and discipline, an age-appropriate due process procedures to be used for disciplinary matters including suspension and expulsion.

The Academy for Science and Design is committed to providing students opportunities for leadership and citizenship. A program of student government will serve as the voice of the student body and this shall be integral to the school's culture. The purpose of student governance will include working for the welfare of the school and students.

The school is committed to a respectful and safe environment for all. Accordingly, student governance philosophy involves high expectations for respectful and responsible behavior on and off campus and logical consequences when this is not the case. The school will have clear expectations for responsible academic and interpersonal student behavior and an honor system. The school will not allow hazing, harassment, safe behavior, disrespect, or unlawful behavior.

In addition to clear and fair guidelines for unacceptable and dangerous behavior, the school will strive to equally provide opportunities for positive recognition and reward. The school recognizes that education includes evolving maturity and will provide programs, such as mediation, to teach skills. Situations requiring intervention not available at the school will be discussed and handled with parents.

The Board of Trustees will adopt policies that conform to and support state law in areas of harassment, fighting, drugs, alcohol, smoking, weapons, and other dangerous behavior. A student may be suspended or expelled in accordance with statute and policy

With a goal of helping students develop maturity and responsibility, 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). A pupil may withdraw from a charter school based on criteria determined by the Board of Trustees consistent with the advice of the principal and teachers in conformance with RSA 193:13. No public school shall be obligated to enroll an expelled pupil).

COMMITMENT TO MEDIATION AND DISPUTE RESOLUTION

Every student and staff member will be trained in mediation techniques, which will be the intervention of choice for resolving interpersonal conflicts within the school community.

(q) Method of administering fiscal accounts and reporting, including a provision requiring fiscal audits and report to be performed by an independent certified public accountant.

The Academy for Science and Design will follow public school accounting guidelines and will put in place internal accounting controls necessary to safeguard its assets. The Academy for Science and Design will maintain accurate financial records in accordance with Generally Accepted Accounting Principles (GAAP) for non-profit corporations. An annual financial report will be provided with audit 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 shall also adopt policies for the financial management of the school, including policies on Conflict of Interest for board members and faculty.

A general account will be set up for the administration of funds, and the Treasurer will be the only person with check-writing authority. In addition, a discretionary account will be set up, and the School Administrator as well as the Treasurer will have check-writing authority for this account. 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.

Except for emergency purchases cleared with the school's administrator, all expenditures and contracts will be handled through an encumbrance system of purchase orders for clear tracking of expenditures and status of account balances.

Each individual with check writing authority will be covered by a fidelity bond in accordance with guidelines of New Hampshire Department of Revenue Administration. Accounting activities will consist primarily of the bi-weekly payroll paid to school personnel and the maintenance of an accounts payable system to track amounts due vendors of the school.

The school district will make timely transfers of any funds due the Academy for Science and Design at least in accordance with timelines proscribed by the legislature and/or Department of Education.

The Academy for Science and Design shall comply with all requirements specified in the law pertaining to reporting requirements (RSA 194-B: 101-V). This list includes annual report, annual financial audit and report, program audit, and participation during the annual school budget process.

Pursuant to Ed 318.07, the Academy for Science and Design will produce an annual report which will include, at a minimum, the following elements:

- A general progress report to establish the initial school program process that will require considerable flexibility and energy,
- An assessment and report of how the Charter School is meeting its educational and financial goals, as identified in its mission statement,
- Changes, if any, in the organizational structure and make-up of the Board of Trustees,
- Assessment and report of business, parent, and volunteer involvement in the Academy,
- Description of community services available at the site,
- A report of enrollment statistics including but not limited to, attendance, per-class enrollment, graduation rates and any occurrences of withdrawal,
- Commentary about successes in program, collaboration, or goal achievement,
- School calendar,
- Transportation services,
- Financial statement and balance sheet identifying Charter School's asset, liabilities and fund balances or equities,
- Projections of income and expenses for the upcoming school year.

(r) Annual budget, including all sources of funding.

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

The following budgeted amounts are provided as estimates and include revenue and expenditure components. The school vision is raising \$500,000-\$ 1,000,000 before the school opens and an endowment in the vicinity of \$10,000,000. A multiyear commitment has been received to privately fund the marketing and development campaign to meet endowment goals and locate facility. This effort will begin in March.

See Appendix A for Projected Expenditure and Revenue Budget

ENTREPRENEURIAL SOURCES OF REVENUE

In addition to sources of revenue guaranteed, the Academy for Science and Design has planned revenue streams from other sources based on a comprehensive marketing and development program.

1. The school will have a marketing and development program, with a goal of raising \$500,000 to \$1,000,000 in its first year and \$10,000,000 by year 3. Funding for this program will be supported, in part, by philanthropy.
2. Fee-based, science immersion programs and other outreach are anticipated, such as tutoring or online courses.
3. Computer technology initiatives, e.g. services or businesses.
4. Fundraising events, such as science & technology-oriented benefit dinners.

5. Entrepreneurial ventures will be fostered by the Academy for Science and Design and operated largely by students, e.g. café, eco-tourism, “green” store, and other ideas will be pursued.

(s) School calendar arrangement and the number and duration of days pupils are to be served pursuant to RSA 194-B. , II.

Annually, the Board of Trustees will approve a school calendar that conforms to laws and rules of the state as to number and duration of days required by law, including any existing provisions for exception that may be pursued. Major holidays will follow the school calendar of the district in which the school is based.

The Academy for Science and Design has several signature features that have bearing on how school days are used, e.g. opportunity for college courses which may be on a different calendar schedule and mastery learning, which allows students to finish courses when content is mastered instead of when a number of seated hours are completed.

All school policy on time use and calendar will be in conformance with laws that apply.

(t) Provision for providing continuing evidence of adequate insurance coverage.

The Academy for Science and Design, pursuant to RSA 194-B:!, III, will be a public school subject to the same protections as any public school under RSA 50 (b) which provides for Limited General Liability for the charter school and its agents.

The Academy for Science and Design will pursue a comprehensive insurance program that provides protections needed for a public charter school, including worker compensation, board errors and omissions, and facility coverage. The insurance program will be in place as the first Board of Trustees begins its duties.

(u) Identity of consultants to be used for various services, if known.

During the period of planning and development, the Academy for Science and Design project will require 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.

At this time the specialists who have agreed to participate in first year of planning and development, include:

- 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.

(v) Philosophy of parent involvement and related plans and procedures.

Parent involvement is a core philosophical commitment of this school. Moreover, the broadest and most inclusive definition of 'parent' will assure a student support system embraced by faculty, members of the student body, and non-family mentors.

The school will have a well-defined parent involvement initiative. Regular parent/student/school communications can be expected. Parents can expect clear standards, high expectations, and a commitment to their student's success. The school will have expectation for parents that include committing to the school's program and assuring home support for student studies.

Not all students have parents to share in their achievement interests. The school will identify business and community members who are available as mentors, providing guidance specific to student interests and future aspirations.

(w) A plan to develop and disseminate information to assist parents and pupils with decision-making about their choice of school.

To assure all residents have equal opportunity to apply to the charter school, an extensive public relations effort will be initiated. During the initial months of planning, information will be disseminated through bulletins, advisories, and postings on informational websites. Materials for a major informational outreach program will be disseminated to public school administrators, school personnel, parents, businesses and foundations.

(x) A 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.

(y) 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.

(z) Provision for dissolution of the charter school including disposition of its assets.

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 legal 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 board 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.

(aa) In the case of the conversion of a public school to a charter conversion school, provision for alternative arrangements for pupils who choose not to attend and teachers who choose not to teach at the charter school.

Not applicable.

(bb) A plan for the education of the school's pupils after the charter school may 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 high school, 2) application to a public high school, including a different chartered public high 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.

(cc) In addition to an application, each charter school applicant, in consultation with the local school board, shall prepare a proposed contract.

Not applicable.

(dd) An outline of the proposed accountability plan which clarifies expectations for evaluating the school's program and which contains an acknowledgement that a full accountability plan

shall be developed and ready to implement prior t the date of opening.

The Academy for Science and Design will provide annual reports of progress that covers governance, financial operations, student enrollment, progress toward meeting goals, parent involvement, and outreach.

| Planning | | | 1st Year Start | 2nd Year Start |
|---------------------------------|--|-------------------|-----------------|-----------------|
| FY06-07 | FY07-08 | FY08-09 | | |
| Notes | | | | |
| INSTRUCTIONAL SERVICES | | | | |
| | 110 Salaries, Teachers | 1 \$60,000 | \$200,000 | \$360,000 |
| | 115 Salaries, Support Staff: teacher asst. | 2 \$10,000 | \$50,000 | \$80,000 |
| | 122 Substitutes | 3 \$0 | \$6,000 | \$8,000 |
| | 200 Benefit Contributions, Required | \$5,600 | \$20,000 | \$35,200 |
| | 290 Benefit Programs, optional | \$7,000 | \$25,000 | \$44,000 |
| | 320 Consultants & Contracted Support | 4 \$24,000 | \$14,000 | \$16,000 |
| | 580 Instructional Travel | \$2,400 | \$4,000 | \$6,000 |
| | 591 Contracted Arts Programs | \$3,600 | \$5,000 | \$7,000 |
| | 610 Supplies | \$32,000 | \$12,000 | \$14,000 |
| | 640 Textbooks and Core Instruction Program | \$36,000 | \$36,000 | \$36,000 |
| | 650 Computer Software, Licenses,Connectivity | \$36,000 | \$36,000 | \$36,000 |
| | 733 Fumiture&Equipment | \$27,800 | \$14,600 | \$15,000 |
| | 738 Computers & Communications Equipment | \$28,000 | | |
| | SUBTOTAL | \$272,400 | \$450,600 | \$685,200 |
| SPECIAL EDUCATION | | | | |
| | 110 Teacher/Liaison, Special Education | \$5,000 | \$8,000 | \$20,000 |
| | 320 Contracted Special Services (Other) | \$2,000 | \$6,000 | \$10,000 |
| | SUBTOTAL | \$7,000 | \$14,000 | \$30,000 |
| STUDENT SUPPORT SERVICES | | | | |
| | 110 Guidance, Mentorship Development, etc | | | |
| | 200 Benefit Contributions Required | \$0 | | |
| | 290 Benefit Programs, Optional | \$0 | | |
| | 370 Testing/Appraisal Services | \$11,000 | | |
| | 320 Contract Services | \$10,000 | | |
| | 610 Supplies/Support Services | \$1,200 | | |

| | | | | |
|--------------------------------|-----|----------|----------|----------|
| 738 Computers & Communications | | | | \$0 |
| Equipment | \$0 | \$1,400 | | |
| SUBTOTAL | | \$23,600 | \$36,100 | \$48,200 |

Appendix A

EXPENDITURE BUDGET

ANTICIPATED ANTICIPATE:
 EXPENSES EXPENSES
ANTICIPATED
 EXPENSES

| | | | | | |
|------|-----|---------------------------------------|-----------------|-----------------|-----------------|
| 2130 | | HEALTH SERVICES | | | |
| 2130 | 320 | Nurse Services, Contract | \$2,500 | \$2,600 | |
| 2130 | 610 | Supplies & Equipment | \$500 | \$500 | |
| 2130 | 650 | Computer Software & Fees, Health | \$500 | \$300 | \$300 |
| 2222 | | SUBTOTAL | \$5,600 | \$10,800 | |
| | | LIBRARY/RESEARCH PROGRAM | \$5,800 | | |
| 2222 | 320 | Library / Media Personnel | \$0 | \$10,000 | \$10,000 |
| 2222 | 320 | Contracted Services, IT | \$12,500 | \$25,000 | \$40,000 |
| 2222 | 641 | Books/Media & Equipment, Library | \$14,000 | \$10,000 | \$10,000 |
| 2222 | 650 | Computer Software & Fees, Library | \$10,000 | \$14,000 | \$18,000 |
| | | SUBTOTAL | \$36,500 | \$59,000 | \$78,000 |
| 2300 | | ADMINISTRATION SUPPORT SERVICES | | | |
| 2300 | 110 | School Coordinator/Director, Salary | 7 \$72,000 | \$55,000 | \$55,000 |
| 2300 | 110 | Support Staff | 8 \$15,000 | \$22,000 | \$30,000 |
| 2300 | 200 | Benefit Contributions, Required | \$6,960 | \$6,160 | \$6,800 |
| 2300 | 290 | Benefit Programs, Optional | \$4,350 | \$7,700 | \$8,500 |
| 2300 | 320 | Contracted Services, Board/Management | 9 \$12,000 | \$12,000 | \$12,000 |
| 2300 | 520 | Board/School Liability Insurance | \$6,000 | \$7,500 | \$8,000 |
| 2300 | 534 | Postage | \$3,000 | \$4,600 | \$5,000 |
| 2300 | 540 | Marketing/Advertising | \$10,000 | \$10,000 | \$10,000 |
| 2300 | 550 | Printing | \$4,000 | \$4,000 | \$4,000 |
| 2300 | 580 | Travel | \$4,000 | \$4,000 | \$4,000 |
| 2300 | 610 | Supplies/Equipment & Furniture | \$2,200 | \$1,400 | \$1,400 |
| 2300 | 641 | Reference Books | 10 \$800 | \$800 | \$800 |
| 2300 | 738 | Computers & Communications | \$4,400 | \$1,800 | \$1,800 |

| | | | | | | |
|---------------------------------------|------------|--|-----------|------------------|------------------|--------------------|
| | | Equipment | | | | |
| 2300 | 650 | Computer Software, Services & Fees, | | \$3,400 | \$3,400 | \$3,400 |
| 2300 | 810 | Dues & Fees | | \$2,000 | \$2,000 | \$2,000 |
| 2300 | 320 | Audit | | \$6,000 | \$6,200 | \$6,400 |
| 2300 | 320 | Legal Services | | \$6,000 | \$4,000 | \$4,000 |
| | | SUBTOTAL | | \$162,110 | \$152,560 | \$163,100 |
| 2600 | | OPERATION AND MAINTENANCE OF FACILITIES | | | | |
| 2600 | 320 | Custodian, Contracted | | | | |
| 2600 | 420 | Trash, Plowing, Grounds, Cleaning Etc. | | | | |
| 2600 | 622 | Electricity | | | | |
| 2600 | 624 | Oil | | | | |
| | | SUBTOTAL | | \$60,000 | \$50,000 | \$50,000 |
| | | | | | | 0 |
| 2700 | | STUDENT TRANSPORTATION | | | | |
| 2700 | 510 | Student Transportation Services | 12 | \$20,000 | \$6,000 | \$8,000 |
| 3000 | | SUBTOTAL | | \$20,000 | \$6,000 | \$8,000 |
| | | OPERATION OF FOOD SERVICES | | | | |
| 3000 | 570 | Food Services | 13 | \$0 | \$6,000 | \$8,000 |
| | | SUBTOTAL | | \$0 | \$6,000 | \$8,000 |
| TOTAL ANTICIPATED EXPENDITURES | | | 14 | \$587,210 | \$780,060 | \$1,081,300 |

1. Teacher positions estimated at \$40,000 average, based on statewide statistic estimates the range of salaries as \$25,000 to \$50,000. Statewide data indicate FY2005, the av. salary of 15,298 teachers was \$43,941.
2. Teacher assistant estimates based on \$20,000 for 1 FTE
3. The Board of Trustees will set substitute rates and leave allowances.
4. This anticipates significant curriculum module development, estimated at \$1 module.
5. Computer purchases reflect classroom setup needs.
6. Special education liaison duties are outlined in the charter, e.g. setting up relationships with LEAs
7. Due to the size and scope of this initiative, 1.4 FTE is needed for the planning and development year. Services will be akin to central office services and will in people.
8. Anticipates 0.5 FTE Admin Assist during planning and 1.0 FTE office staff school has 100 students
9. Anticipates the Board needing specific consultation services each year, e.g. training, research reports, specialist for projects or concerns
10. Board members will all have reference materials regarding state laws, Robe charter documents.
11. Anticipates a facility that needs some finding for renovation and code compliance finds in this category will be requested unless needed. Future years anticipate mortgage or rent expense.

12. Anticipates purchase of one school van or bus.
13. Anticipates a healthy nutrition program for students with budget requirement.
14. Balance will be moved forward in accordance with proper accounting procedures.

| FISCAL YEAR | | Planning 2006-07 | 1st Year Start 2007-08 | 2n Year d Start -09 20 08 rear get |
|---|----------|---------------------|------------------------------|---|
| | | 1st year budget | 2nd year budget | bu |
| ESTIMATED STUDENT ENROLLMENT | | 0 | 60 | 1 0 |
| Revenue Sources | Note | | | |
| Local Revenue | | | | |
| State Revenue (per pupil allocation) | 1 | \$0 | \$210,000 | \$420,000 |
| State & Federal Grants | 2 | \$287,000 | \$150,000 | \$150,000 |
| Other Grants | | \$100,000 | \$100,000 | \$100,000 |
| Foundation Awards | | \$50,000 | \$100,000 | \$100,000 |
| Parent/School Revenue | | \$20,000 | \$40,000 | \$60,000 |
| Gifts & Philanthropic Contributions | | \$500,000 | \$800,000 | \$2,0 |
| Other Revenue | 3 | \$5,000 | \$16,000 | \$20,000 |
| Total Estimated Revenue | 4 | \$962,000 | \$1,416,000 | \$2,803,000 |

FOOTNOTES:

- 1 Solely based on statute, January 2006. During the planning year there will be no students.
- 2 \$287,000 represents one half of the planning year needs. The \$60,000 included for facility is an estimate and will not be requested until need is confirmed.
- 3 Would include event and food receipts.
- 4 Revenue balances will be transferred to trust or savings accounts according to appropriate procedures.

New Hampshire
State Board of Education
Minutes of the December 14, 2017 Meeting

AGENDA ITEM I. CALL TO ORDER

The regular meeting of the State Board of Education was convened at 9:44 a.m. at the State Department of Education, 101 Pleasant Street, Concord, New Hampshire. Drew Cline presided as Chairman.

Members present: Kate Cassady, Cindy Chagnon, Drew Cline, Chairman, Bill Duncan, Gary Groleau, Helen G. Honorow, and Anne Lane. Frank Edelblut, Commissioner of Education and Christine Brennan, Deputy Commissioner of Education were also present.

AGENDA ITEM II. PLEDGE OF ALLEGIANCE

Gary Groleau led the Pledge of Allegiance.

AGENDA ITEM III. PUBLIC COMMENT

The following individuals provided comments to the Board:

- Barrett M. Christina - New Hampshire School Boards Association, is not able to attend the Public Hearing and provided written and spoken testimony of the Association's support of Ed 320.
- Dan Moulis - Superintendent of Schools, Barrington, NH, provided spoken and written testimony regarding Ed 320 and reminded the Board that proper checks and balances have always been in place and any amendments would remove the ability for local school boards or districts to review parental requests.
- Chris Andriski - Assistant Superintendent, Newmarket, NH, spoke in support of keeping amendments as proposed for Ed 320.
- Donna Green - Citizen, RE: Town of Randolph Withdrawal, provided copies and read into the record a letter from Dennis Tupeck in support of the withdrawal process allowing Randolph the opportunity to vote and decide its own future.

AGENDA ITEM IV. SPECIAL PRESENTATIONS

A. 9:30 a.m. Student/Londonderry School Board – SB-FY-17-11-001 – 232-47 – Bruce Marshall, attorney for the Fletcher family, introduced himself and indicated his preference that the school district present first.

Gordon Graham, attorney for the school district, explained to the Board that this matter has been ongoing for approximately three years with no

resolution. The school district is asking the Board to support the Hearing Officer's decision that the school bus stop is safe. An extensive discussion was held regarding the location of the bus stop, the roundabout that was modified to be a 4-way stop, the videos of the stop showing the lack of traffic control by the bus and the stop signs. The school district has since moved the bus stop but the appeals process is still in place for the original bus stop. The policies and regulations regarding school bus stops were reviewed with the Board. Mr. Peter Curro, CFO for the school district, was sworn in and responded to questions from the Board. He reviewed some of the options offered to the Fletchers as solutions with no agreement reached. Discussion continued regarding the facts presented about cars not stopping at the stop signs raising additional questions about safety.

Attorney Marshall expressed his frustration with the version presented by the school district. He went on to review information from the Federal Highway Administration regarding rotary or circular roadways. He further explained this is a situation where a bus stop was in the middle of rotary and there are numerous areas in the records where facts vary. When this matter started it was discovered that the district had no written policy regarding bus stops and one had to be created. Chairman Cline asked again why this has taken three years. It was explained that it came down to diametrically opposed views of the facts. The Fletchers are asking the Board to overturn the Hearing Officer's decision because it contradicts the amount of evidence collected and presented.

After further discussion Chairman Cline clarified this hearing deals with the bus stop as it existed prior to where it exists now. He also expressed his concern that traffic is still not controlled by the stop signs or the bus stop signs. Ms. Chagnon expressed her concern that they are adopting a recommendation on something that doesn't exist anymore.

MOTION: Cindy Chagnon made the following motion, seconded by Bill Duncan, that the State Board of Education accepts the Hearing Officer's report and adopts the Hearing Officer's recommendation that the bus stop is safe.

VOTE: The motion was approved by the Board with Ann Lane opposing and the Chairman abstaining.

B. Social Studies Advisory Panel Update – Elizabeth Dubrulle, Director of Education & Public Programs, New Hampshire Historical Society – Chairman Cline explained that this item was placed on the agenda prematurely. It will be added to the agenda when more information is available.

C. The Windham Academy, Windham, NH – James Fricchione, Founder & Foundation for Student Achievement Board Member – Mr. Fricchione presented amendments and changes to the Board for its approval.

Chairman Cline inquired as to plans to deal with students who struggle to reach the goals and objectives. It was explained that having enough staff to provide personalized learning would identify students who are in need of additional, separate, or targeted instruction to reach the standards.

Ms. Honorow stated it was difficult for her to understand the differences between this school and other schools and didn't see anything different besides the mention of technology. Mr. Fricchione explained that he met with Mr. Ray McNulty who is the Dean of the Education Department from Southern New Hampshire University, about a partnering program with interplay between teaching staff and graduate students that incorporates newer high-tech facilities. He explained it will be a good partnership from a technical standpoint. There is not a large technology budget but in partnerships with the community sponsors, donations, and by reaching out to other companies and businesses, it is anticipated that any budget gap can be met. The estimates for fundraising were based on examples from other schools.

Ms. Honorow was concerned by the provision on Page 28 regarding right to reserve enrollment and did not think this sort of preference is anticipated or encouraged when setting up a charter school. Chairman Cline added his concerns with use of the word "reserved" as opposed to "preference" with regard to the inclusion of a large pool of reserved spots.

Chairman Cline and Ms. Chagnon expressed their appreciation at the hard work and improvement in the application and the applicant's efforts to address the Board's previous concerns and questions.

MOTION: Cindy Chagnon made the following motion, seconded by Gary Groleau, that the State Board of approve the application for Windham Academy Public Charter School.

VOTE: The motion was approved by a 4-2 vote of the Board with Helen Honorow and Bill Duncan opposed and with the Chairman abstaining.

AGENDA ITEM V. OPEN BOARD DISCUSSION

A. Advisory Panel Recommendations for Social Studies - Julie McNish, 4th Grade Teacher, New Boston Elementary School – Chairman Cline noted that Ms. McNish came highly recommended and is enthusiastic about joining the advisory panel. A motion is needed to vote her onto the panel.

MOTION: Gary Groleau made the following motion, seconded by Ann Lane, that the State Board of Education add Julie McNish to the Advisory Panel for Social Studies.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

Chairman Cline noted that an item from the panel committee meeting was to add more experts on curriculum development to the panel. That will be brought to the Board at a later date.

Commissioner Edelblut explained at Mr. Duncan's request, that two other charter school applications have been received and one included Capital City Charter School that Ms. Alicea is currently working on to present to the Board and the second is currently out for external legal review. There is approximately \$670,000 of funding for the applications currently under review. In terms of hiring, the Department continues to look for an individual to oversee the charter school program. There was initial concern that the job description did not enumerate the statute in terms of responsibilities and it was explained that it would not be a problem to add statutory requirement language to the job description. This position supports public charter school and if this involves providing information to legislators, that would be part of job but it would not include lobbying activities.

Ms. Chagnon asked if the Board would consider adjusting the meeting schedule from May until September to allow her to be able to attend the Board

meetings as she has other commitments during that period of time. Ms. Adams will gather date information and disperse this information to the Board.

Chairman Cline announced that Ms. Erin McIntyre has been confirmed as part-time judge in circuit court and will be leaving the Department.

Mr. Groleau announced that he has tendered his resignation to the Board and this is his last meeting. He stated it has been an honor to serve on the Board for the last five years.

AGENDA ITEM VI. LEGISLATIVE ISSUES/RULES

A. 1:00 to 1:30 PM PUBLIC HEARING – Manifest Educational Hardship (Ed 320)

The Public Hearing was opened at 1:08 PM.

Chairman Cline notified the speakers they will have five minutes to speak. The following people spoke regarding the proposal:

- Michelle Levell, School Choice for NH, provided written documentation of an example of a family who was denied an inter-district placement and had to seek an educational option outside the district. She wanted

to bring to the attention of the Board that sometimes families have no choice but to seek alternatives outside of the school system.

- Bonnie Dunham of Merrimack, NH, expressed her support of the rules but had questions about the wording contained in Ed 320.01(b) requiring a parent to demonstrate a potential benefit of a change. She suggested the possibility of adding language that provided examples of how parents may meet this requirement. Ms. Dunham will provide the Board with copies of her prepared notes as she did not have them with her.
- Jane Bergeron, New Hampshire Association of Special Education Administrators, expressed her support of the return of the original language of the proposal and believes language as written is true to the intent and spirit for which it was brought forward.
- Mark Vallone, retired school principal, expressed his support of the use of public institutions as the option for these situations.
- Megan Amundson, parent, spoke against the proposal and explained events and issues she has faced since the Board's denial of her request for a change in school assignment. Solutions that were offered in previous hearings were either withdrawn or nonexistent. She will provide the Board and Commissioner Edelblut with copies of correspondence.

The Public Hearing closed at 1:30 PM.

B. 1:30 to 2:00 PM – PUBLIC HEARING - Ed 507.27, Ed 507.271, Ed 612.28 and Ed 612.29 Social Studies Teacher

The Public Hearing was opened at 1:30 PM.

Steve Foster, CTE Director, Berlin Public Schools, thanked the Board and Department for the Robotics Fund. Since the announcement there has been an overabundance of interest and there are more interested students than program capacity. This robotics grant gives students a chance to compete on a statewide level, get more involved with robotics, and creates pathways for student education further on down the road. He noted to the Board that \$660 of a stipend was returned to the State and is confused about why the instructor was not allowed to keep the entire amount.

Chairman Cline thanked him for bringing this to the Board's attention and stated they will check this to make sure educators receive their-full stipend.

Mr. Foster also noted that he met with the New Hampshire Economic Development group and they are going to work with them to get large corporations, the community, parents, and the state involved in relationships to benefit and expand the program.

The Public Hearing was closed at 2:00 PM.

C. Initial Proposal – Specialist in Assessment of Intellectual Functioning (SAIF) (Ed 507.19 and Ed 614.08) – The rule was adopted in January of 2017 but when implementing the rule it was noted that there was language disqualifying to candidates. The adjustments resulted in the proposal having to be reprocessed through the system.

MOTION: Cindy Chagnon made the following motion, seconded by Ann Lane, that the State Board of Education approve the Initial Proposal for Ed 507.19 and Ed 614.08 Specialist in Assessment of Intellectual Functioning (SAIF) and hold a public hearing for these rules on February 8, 2018.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

D. Adopt – Social Studies Teacher (Ed 507.27, Ed 507.54, Ed 612.28 and Ed 612.29) – This is before the Board for approval as a final proposal and was accepted by the Joint Legislative Committee on Administrative Rules (JLCAR).

Chairman Cline requested clarification of this proposal by adding the words "New Hampshire" and "U.S." before the word history.

MOTION: Cindy Chagnon made the following motion, seconded by Ann Lane, that the State Board of Education adopt Ed 507.27, Ed 507.54, Ed 612.28, and Ed 612.29 Social Studies Teacher, as edited.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

Ms. Diana Fenton notified the Board that final approval for the science rules is with the Office of Legislative Services (OLS) for comment. It was explained that there were 7 science proposals and 6 were put on the OLS consent agenda; however, the general science requirements proposal had substantive changes and will need to be a Conditional Approval request which adds time to the process. These will be brought before the Board in January.

AGENDA ITEM VII. REPORT AND NEW DEPARTMENT BUSINESS

A. School Restraint and Seclusion Report for School Year 2016-2017 per RSA 126-U – Ms. Chignon explained to the Board that she contacted a school in her district to gather more information about this report. This document is required by state statute and reports incidents when restraining types of contact

are made with a child to prevent injury to themselves or others. Mr. Richard Farrell, NHDOE investigator, was available to explain the report and noted that it is a requirement of all public schools but currently there is no mechanism that allows for the collection of data from nonpublic schools. As the rule is fairly new and nonpublic schools do not always fall within the same rules and regulations, more effort is being put into outreach to the schools not reporting.

B. Gorham Randolph Shelburne (GRS) Cooperative School District Report of Withdrawal of the Town of Randolph – There was no discussion or questions.

MOTION: Cindy Chagnon made the following motion, seconded by Helen Honorow, that the State Board of Education accepts the Gorham Randolph Shelburne (GRS) Cooperative School District Report of Withdrawal of the Town of Randolph.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

AGENDA ITEM VIII. OLD BUSINESS

There was no old business.

AGENDA ITEM IX. CONSENT AGENDA

A. Meeting Minutes of November 9, 2017

On Page 5 the date December 12, 2017, should be corrected to 2016. On Page 14 the word *mechanics* should be changed to *mathematics*.

Ms. Honorow requested that the minutes be corrected to include the requests from the State Board that any application the Board receives include the application with a legal review and response, in consecutive order that includes dates, authors, and anything else needed by the Board in advance to inform and assist in their decision. Ms. Adams will add the information to the minutes of November 9, 2017.

Chairman Cline thinks there may be confusion regarding Capital City's charter school application and that Ms. Alicea may have misunderstood the Board's recommendation that the size of the school board needs to be expanded and that should also be reflected in the minutes.

MOTION: Cindy Chagnon made the following motion, seconded by Kate Cassady, that the State Board of Education approve the Meeting Minutes of November 9, 2017 as amended.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

AGENDA ITEM X. TABLED ITEMS

- A. Cornish and Claremont School Districts Tuition Agreement**
- B. Cornish and Windsor School Districts Tuition Agreement**
- C. Cornish and Hartford School Districts Tuition Agreement**

MOTION: Helen Honorow made the following motion, seconded by Gary Groleau, that the State Board of Education move Items A, B, and C from the table.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

Commissioner Edelblut explained that the changes consisted mainly of semantics in terms of getting the language up to date.

MOTION: Cindy Chagnon made the following motion, seconded by Kate Cassady, that the State Board of Education accept the tuition agreements between Cornish and Claremont School Districts in New Hampshire, Cornish and Windsor School Districts in Vermont, Cornish and Hartford School Districts in Vermont.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

AGENDA ITEM XI. NONPUBLIC SESSION

MOTION: Cindy Chagnon made the following motion, seconded by Helen Honorow, that the State Board of Education move into a nonpublic session.

VOTE: The motion was approved by roll call vote by board members Ann Lane, Gary Groleau, Kate Cassady, Cindy Chagnon, Drew Cline, Bill Duncan, and Helen Honorow.

MOTION: Helen Honorow made the following motion, seconded by Bill Duncan that the State Board of Education return to public session.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

MOTION: Cindy Chagnon made the following motion, seconded by Bill Duncan, that the State Board of Education seal the minutes of the nonpublic session.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

AGENDA ITEM XII. ADJOURNMENT

The meeting was adjourned at 2:00 p.m.

MOTION: Helen Honorow made the motion, seconded by Cindy Chagnon to adjourn the meeting.

VOTE: The motion was approved by unanimous vote of the Board with the Chairman abstaining.

Secretary