Committee Minutes

Date: **January 12, ~~1999~~ 2000**
Time: **9:00 a.m.**
Room: **105-A - State House**

The Senate Committee on **Education** held a hearing on the following:

SB 319 **relative to interstate school districts.**

Members of Committee present:

Senator McCarley
Senator Eaton
Senator D'Allesandro
Senator Disnard
Senator Gordon
Senator Johnson
Senator Squires

The Chair, **Senator Caroline McCarley,** opened the hearing by calling on the prime sponsor of the bill, Senator Gordon, as the first speaker.

Senator Edward M. Gordon, D. 2: I come before you today as the primary sponsor of **Senate Bill 319,** "relative to interstate school districts," and I will be very brief – as there are other people who have come to speak who are far more articulate and knowledgeable than I – regarding the subject matter.

It's a very simple bill. If you were to look at the language of the bill as it appears, it deletes a portion of a sentence and replaces it. You may recall that last year, I came before you – along with some of the same speakers that are here today – and we asked for some changes in **New Hampshire** legislation which would enable the creation of an interstate school district.

As you may recall, this is the first interstate school district – which is K through 12 – in the country. And, it is organized around communities which are located....Or, one community in **New Hampshire** – **Orford** – and, communities which are located in **Vermont** on the **Connecticut River Valley.**

We very specifically took items out of current law that would enable us to go forward with that district and implement it and the implementation has, in fact, begun.

Unfortunately, in making those changes in the law, we had a tendency to focus on specifically what was happening in **Orford** or at **Rivendell,** as opposed to perhaps making it more generic. This legislation is a result of that.

If you will look at the language.....What we're deleting is the language that allows New Hampshire people to attend a high school in another state provided that such high school is approved by the **State Board of Education**.

I'm replacing that language to say that **New Hampshire** people could attend schools that meet the standards established by one of the two states. Obviously, if you're going to have a school district K through 12 – which encompasses two states, you need to allow students at all grade levels to be able to attend schools in both states.

That corrects that little error and that's a very simple change we're asking for in this legislation.

Senator Caroline McCarley, D. 6: Thank you, Senator Gordon.

I'll call on Alan Avery?

Alan Avery, Representing Rivendell Academy: Since I was here last time, you got the initial presentation of what we were trying to accomplish with establishing a partnership with four towns – 3 in **Vermont** and 1 in **New Hampshire.**

During that process, one of the things that we wanted to do was use the best standards that were available in either state – for the benefit of the kids – as

it relates to academics in other areas. Unfortunately, when the language was drafted, it restricted – it really didn't allow those standards to be met by the schools in **New Hampshire**. When we realized that the bill was only related to schools outside of **New Hampshire**.....What this line does is correct that and allows the standards to relate to schools in **New Hampshire** – as well as outside the state.

The exciting things that are happening in **Rivendell**.....With me today, is Mark Roth – who is the design team leader for the **Rivendell** system. He used to be principal of **John Stark High School**, and **Rebecca Holcolm** – who is our curriculum coordinator who has brought with her, a copy of the program of studies that are in the draft phase. I thought that we could just share those with you today to show you what we've accomplished.

Since I was here last, we have passed a 14 million dollar bond and construction at 3 different sites will be starting in a couple of months. That bond issue passed with an astounding vote of 77% of the people in favor of it.

Things are progressing very well and as you struggle in **New Hampshire** with your funding as **Vermont** did with theirs, it's always exciting to see that some good things are happening in education as it relates to kids and that's what our process is all about.

So, we're really excited about what's happening. It's a "roller coaster" ride because there are some major changes happening in the way education is going to be presented. There are collective bargaining issues and a lot of different things. But, when you combine 4 separate districts into 1 major district, change does come hard for some people. But, it is going to happen and we're really excited about it.

So with that, I would like to turn it over to **Mark Roth** – who is our design team leader – who will give you just a brief overview of the inner workings and then **Rebecca** can pass out the program of studies and we'll only take a few minutes – depending on how much time you want to allow.

But, I thought you would like to see what we've accomplished since we were here last.

Mark Roth, Representing Rivendell: My overview is all over the place. I would like to be able to tell you that we're working with teachers right now developing negotiations and moving forward on that.

Rebecca will talk about the program of studies and the variety of different things that we're developing for students and for teachers and the training that we're going to be doing.

At the same time, we're working with kids and the students have chosen "blue and green and white" as the colors – the white mountains, the green mountains and the blue river that divides us. We've chosen the "raptors" as the name. So, if you come to a game, you'll see kids standing there going "raptors." Interestingly enough, on the palisades across the river from **Orford,** there are falcons that do soar. So, there are a lot of symbolic things as well that are happening that are very exciting.

At the same time that we want to provide education and quality education and great opportunities for kids, we also don't want to lose sight of the trust the communities have given us. We're very well aware – as Alan said, we've got a 14 million dollar bond. Over the next 10 years, the citizens will be giving us more than 60 million dollars to educate their children.

So, the documents that **Rebecca** will show you.....It will give you the foundation for our educational system in those areas where we're going to be growing and learning as educators.

Rebecca Holcolm, Rivendell: I have handed out 2 documents: One is the guiding principle ***(SEE ATTACHMENT A),*** and the other is the draft version of the program of studies ***(SEE ATTACHMENT B).***

As someone who has experience also in the elementary and middle school programs, I would like to start by saying that high school is the "crown jewel" to the system. There is an awful lot of work that has to take place before you get to a successful program of study.

One of the commitments that we made with our community when we began this process, was to really focus on literacy and problem solving and making sure our kids have a very strong foundation of skills so that we were able to put together a program at the high school level and that they would all be able to take advantage of that program.

So, prior to developing this program, we've also begun very intensive staff development in those areas.

When we began to do this process, we were very committed to making sure that the community was involved at all levels so that the documents that you see today are documents that have been reviewed and we've received feedback and modified them in response to feedback – from groups of students.

We've also mailed out abbreviated versions of all of these documents so that everybody in the town on the tax rolls has had a chance to review and respond to us.

We are building into a process, multiple opportunities for parents and community members to be involved in the program of the school – either as audience members or mentors for students when they are doing projects or also in terms of looking at the data on the student performance and sitting down and working with school staff to develop the program in response to the needs that we see in our program {sic}.

What's begun is a very healthy conversation. Not about what we are – because we know that there are problems, but we don't want to dwell on the problems that we currently have – except to look at what we might do better and what we've been able to do is talk openly about what the weaknesses are in our current program and how we need to modify the program that we're developing to make sure that we address those weaknesses {sic}.

I think that it has been very gratifying to be able to have that kind of open exchange with community members and with parents without accusations about "so and so" not doing their job and what we could do better. It has been a very valuable process.

What we're trying to do in addition is also to build greater purpose into the learning for students. There's extensive research that says that if students can understand the connection between what they're learning and how it's relevant to their future career choices or in the case of math, for example. If you can see as it applies to something – whether it is the construction of a bridge or a real process, that not only do students find it easier to learn, but they also retain it {sic}.

So, that should be reflected in the program studies.

We also have tried to focus our resources around the critical areas that our community identified in a series of forums and public conversations and make sure that we targeted those and for other areas with real needs – such as the vocational program – to really work on taking better advantage of some of the vocational resources that are around us, for example – to make sure that students have access to those to make better use of **Dartmouth College** – which does allow students the opportunities to enroll in their inner programs there {sic}

Also, to change the mindset of our school and make a commitment to the success of all students, by really focusing on literacy and (inaudible) at the elementary level and then providing continued support in those areas in the high school. We don't want students who graduate from our program unable to read. That's currently happening at **Orford High School**. We want to make sure that every child really is leaving school with the basic skills that they need to be successful – whether they choose to go to college or they choose to enter a vocation. We would like them to be qualified to take advantage of that.

We realize that part of that is also putting together a better advisory or support system for students so that students are receiving better mentorship and better support as they make academic choices in the program.

If you look at the program of study, this reflects.....At this point, we're moving towards closure. We still have to go through several more public forums.....But, this does reflect a statement about what our community believes is really important in the academic program.

We've structured the school so that it retains sort of the quality of a small school that our communities have really valued. One of the things that people at **Orford High School** didn't want to give up is that sense of a small community school. By dividing our new school into a lower house – which is the 9th and 10th, and an upper house – which is the 11th and 12th grade unit that has a lot more choice in independent learning supported by staff, of course.

We've been able to structure it so that we retain that field at **Rivendell Academy**, but in such a way that we can still offer students greater opportunities and greater exposure.

I think other key aspects or characteristics of this program that are really different and, I think, really exciting, is that we're requiring students to have a certificate of initial mastery, that we expect them to reach it or apply for it at the end of their sophomore year and we are really expecting students to meet bench marks that we're setting for student performance.

We have some criteria and assessments that we will be using internally to assess whether students can perform at district standards and obviously, state standards, in the court areas. And, students who do not meet those, will be expected to continue working to demonstrate proficiency in those areas throughout their junior and senior years. And, that will be a graduation requirement. Again, that is something that has to be phased in.

The other piece that we're very excited about....We're asking students in their junior and senior years to really take more responsibility for designing a program that meets their own individual needs and choices and to compile and present what they have accomplished in their learning through a senior portfolio, but also a senior project – which is an extensive community based project in which they take a topic or a question of particular interest or a vocational search and really explore it in depth and then come back and work with a mentor and present their learning {sic}.

Again, how do we sort of get out of this wasteland that high schools can sometimes become in the junior and senior year where there is no direction? How do we really challenge students to take responsibilities for their own learning? And, to really challenge themselves intellectually? Also, the senior project will certainly add that sense of purpose and relevance to their program.

Thank you.

Senator George F. Disnard, D. 8: I was intrigued on **page 3** – *"ecology and social responsibility."* My question – just for my own interest...How many credits must a student receive in ecology and social responsibility to receive the equivalent of a diploma?

Rebecca Holcolm: I'm looking for the page.....I believe it's **page 8**. At this point, it's in several places and I can't answer your question directly, but we are requiring 1 credit in environmental study straight out. We are also requiring students take a credit in a service learning type of capacity.

But, in addition to that – if you look at, for example, the match choices are the.....if you look at the electives in the upper house on **page 11**, there's an environmental mathematics course which.....It's sort of a college algebra course, but it's looking at math through the biological and physical world. So, there's a lot of effort to make sure that in the academic disciplines that the case studies are really coming out of things like environmental science and environmental studies – which are very, very important.

Senator George F. Disnard, D. 8: Thank you for helping me.

Senator Caroline McCarley, D. 6: What exactly did you all mail to the entire voting population?

Rebecca Holcolm: We've been mailing out newsletters at intervals and what we started to mail out more recently.....It's sort of an abbreviated version of this document ***(attachment B)*** – without all the text, so that prior to coming to public forum, people have some exposure to what the ideas are and are able to formulate questions.

Senator Lou D'Allesandro, D. 20: The children in the existing program. They just work out their program? Obviously, they're not going to be able to take advantage of this. How does that work?

Rebecca Holcolm: We've put together a transition plan.....We've already sat down with the transcripts of all the students who are currently enrolled and we figured out exactly what they need to graduate. What we've worked out as a transition plan.....It's really a 5 year plan that phases students in. Anyone who is entering the high school next year should be able to meet these criteria. For students who are part way through.....Since we're actually raising graduation requirements, they are phased in so that no student should have any difficulty meeting that.

Senator Lou D'Allesandro, D. 20: They'll graduate under the current requirements?

Rebecca Holcolm: Right. The students who will be seniors next year will.

Senator Lou D'Allesandro, D. 20: But, the others will phase into your new system?

Rebecca Holcolm: Right.

Senator Lou D'Allesandro, D. 20: You've had to develop all of these courses and course descriptions yourself. What went into the development of these? I mean, we've created a new program at Franklin Pierce. Actually, we have a "LEAP" program, so we might sue you.

Rebecca Holcolm: I would be glad to take that up with you. I've been dying to change that name. I lost!

Senator Lou D'Allesandro, D. 20: What went into the development of these courses?

Rebecca Holcolm: Several things. The development really began last year and what we did, we mapped out in the core areas, what we wanted the students to know and be able to do at each level. So, prior to this, we had some binders that had pretty extensive documentation --specifically, the content knowledge in the skills that we want the students to have.

From that, we had a lot of discussions with teachers and small groups of parents. So, there were negotiations to make sure that we covered what needed to be covered.

Then we sat down with teachers and said, "Okay. These are really the standards for this level. These are the ones that you have to work with. Let's sit down together and develop some courses." So, the course ideas came out of conversations with staff who are currently on board.

Then, we've also shared them with students. We've asked students and surveyed them about what some of their interests are.

I don't know if that answered your question.

Senator Lou D'Allesandro, D. 20: The instrument for evaluation. Are you going to develop that internally?

Rebecca Holcolm: We have several instruments. We're doing it with a combination of internal and external assessments. We're using some pretty well established.....Actually, we have folders for tracking literacy and numeracy in K-10, at this point, that use a combination of tasks for developmental reading assessment in the early grades. You're probably familiar with these from your own work.

We've also developed internal assessment tools – particularly math. We've found that there really weren't tools that track the kind of record that we wanted to track. We're keeping samples of student work in those portfolios and using internally developed assessment tools to assess them.

Senator Carl R. Johnson, D. 3: This is a draft?

Rebecca Holcolm: Yes.

Senator Carl R. Johnson, D. 3: What would the time frame be for the final document?

Rebecca Holcolm: We certainly hope to have it published in February because we would like students to be able to start choosing their courses.

Senator Carl R. Johnson, D. 3: You say that this has been mailed out to the people involved?

Rebecca Holcolm: An abbreviated version. A short version, yes.

Senator Carl R. Johnson, D. 3: Have you had feedback on that?

Rebecca Holcolm: Yes, we did. We've also had a series of conversations already with a small school team that has parents and community members from all over the towns and they have been working on this, too.

I think that the concerns that we received was that they really wanted to make sure that the transcripts that came out of this program would be easily

recognizable by colleges. We've done some revisions, but not all of them are fully reflected here yet.

Senator Caroline McCarley, D. 6: Thank you.

Ms. Busselle?

Pat Busselle, Representing the Department of Education: There's nothing more I can add other than our support for their efforts and to also ask you to support this change that will allow them to continue their work so that the commissioners in the **Vermont Department of Education** and the **New Hampshire Department of Education** can sign off on some agreements.

Thank you very much.

Senator Caroline McCarley, D. 6: Thank you.

That is all the speakers, so we will close the hearing on **Senate Bill 319.**

Hearing adjourned at 9:25 a.m.

Respectfully submitted,
Rosalie Brooks Patch, secretary

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(A)

Guiding Principles Evident in the Program of Studies:

Greater involvement of public in supporting and maintaining standards and providing accountability in learning process.

Examples:

- Certificate of Initial Mastery/Presentation before a roundtable
- Involvement of community members in independent studies and externships
- Senior project in and for community
- Senior graduation portfolio and roundtable

Greater purpose and relevance to learning.

Examples:

- Provision of real/public audiences for student work
- Rooting of curriculum in community concerns, using community problems as starting point for units in school (e.g. study of lake water quality, zoning issues, conservation and land management issues)
- More opportunities for student directed inquiry, with support of teacher
- Core group (advisory) that helps students develop learning goals with reference to their long term goals
- Individualization of program and application of learning in final two years

Do less, but do what we do better and in greater depth.

Examples:

- focus on academic core
- greater emphasis on literacy and numeracy
- no duplication of Riverbend—instead, make better use of Riverbend
- emphasis on the areas outlined in the Rivendell context statement: civic engagement, the natural environment and our evolving place in it, and the arts.

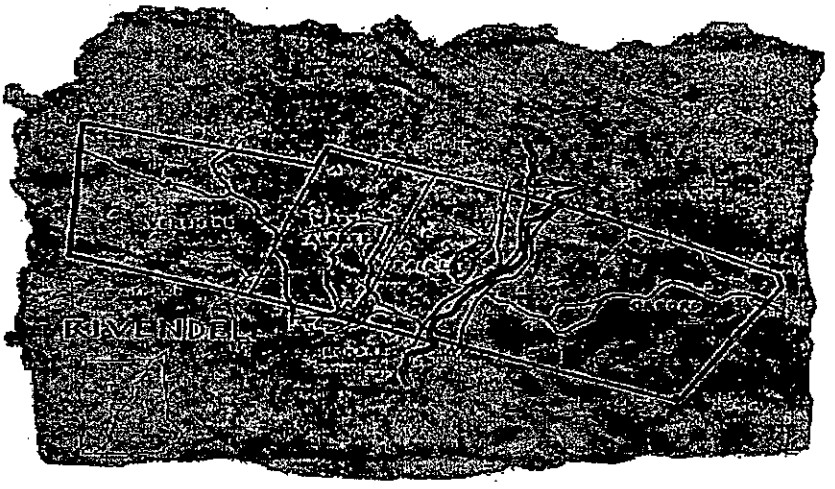
Culture of commitment to success of all students.

Examples:

- Common curriculum through grade ten
- LEAP program (advisory) which provides and advocate and support for each child
- Reading teacher at all levels to work with classroom teachers to better support students who need continued instruction in reading strategies
- Better use of assessment data to plan interventions and instruction
- Organization into teams that work with smaller numbers of students, so that teachers know their students well, feel ownership for their success and are able to respond effectively to their needs

(B)

Rivendell Academy
Program of Studies
(Draft of template -- 1/04/00)



Mission Statement

The mission of the Rivendell School District is to foster the intellectual, social, and personal development of its students. Our goal is that they will become life-long learners, positive contributors to their communities, and productive, healthy adults.

The Design Principles of the Rivendell program are:

- *To design an engaging team taught curriculum that results in well educated students who are able to meet high academic standards, problem solve across disciplines and contexts, and take leadership in their communities;*
- *To establish significant and ongoing connections between school and community;*
- *To create structures and practices that support teaching and learning;*
- *To set new standards of accountability and excellence for our schools, our staff and our students.*

Educational Focus

Our educational program will focus on developing the essential skills of literacy, numeracy, problem solving and the responsible and ethical use of science and technology. We seek to equip students with the understandings they need to create and sustain healthy, habitable environments and communities. We will cultivate students' inclination to question, to think critically, and to wonder at the world about them.

Course work will prepare students to identify, analyze and solve the kinds of complex problems they will encounter in their communities and the adult world. These learning opportunities will challenge students to consider what counts—to reflect not just on what they know, but on whether or not it is important and why.

We are committed to providing students with a strong sense of connection to our local community through an appreciation and understanding of its local resources and needs. By challenging student to develop their skills and knowledge in the context of local concerns and issues, we will also help them appreciate the relevance of what they are learning in school. Extensive research on learning has demonstrated that when students can identify the relevance of what is to be learned, their learning and motivation are significantly increased.



Our school will regularly assess student progress and use the results to find ways to support and encourage further student growth. We will also ask student to self reflect on and assess their own development.

Our 9-12 program will continue to provide ample opportunity for ***Civic Engagement*** and exploration into issues of the ***Environment and Ecology***. We will also offer a rich program in ***Performing, Fine and Graphic Arts*** as a vehicle for student self-expression.



LEAP

A student's "home base" in the high school will be his or her LEAP (Learner's Educational Assistance Program) group. Each LEAP group is made up of 8-10 students and an advisor who stays with the student for two years (grades 9-10, and then 11-12). The advisor will support and coach the student as he or she sets goals and chooses courses that satisfy graduation requirements while addressing individual needs and passions. The advisor and LEAP group will also support students and provide feedback as they prepare to exhibit their work for, as examples, the Certificate of Initial Mastery and the Graduation Roundtable.

To maintain close collaboration with parents and to better support the students, advisors will serve as the first point of contact with parents. They will also meet in three - way conferences with parents and students, at least two times a year, to discuss how things are going and to plan changes in the program if appropriate. With the parents, the advisor will help the student establish learning and post graduate goals, and plan a course of studies that moves the student towards those goals.

The activities of LEAP will challenge students to reflect on the purpose of education and their goals for the future. Students will think about what they are learning and make connections between school learning and how it applies or extends to real world and community concerns and issues. LEAP will also support the creating of a positive school culture by providing each student with an advocate in school. It will offer all students a safe place to reflect on, talk about and plan how to address concerns, problems and events that happen in school. For their participation, students will also receive a half-credit per year towards graduation.

Over his or her four years in the LEAP program, each student will experience activities that:

- help students begin to think systemically, and will reinforce the importance of asking not just "what" and "how" about the subjects they study, but "why?" and "to what effect?"
- to reflect on and consider the purpose and nature of the curriculum. For example, students might consider: how does language limit and liberate people? What can be learned about a culture by studying its language/ Are social sciences really "science"? What is the significance of studying the history of ecology (or science, math, etc...)?
- to provide students with support and peer feedback as they draft proposals, practice presentations and compile evidence of attainment of district goals for the Certificate of Initial Mastery, senior project, post graduate plan, senior exhibition and graduation portfolio.
- investigate the Rivendell goals of civic responsibility, and explore how student's individual actions in their school and communities relate to that goal.
- build a common, positive school culture

Structure of the School

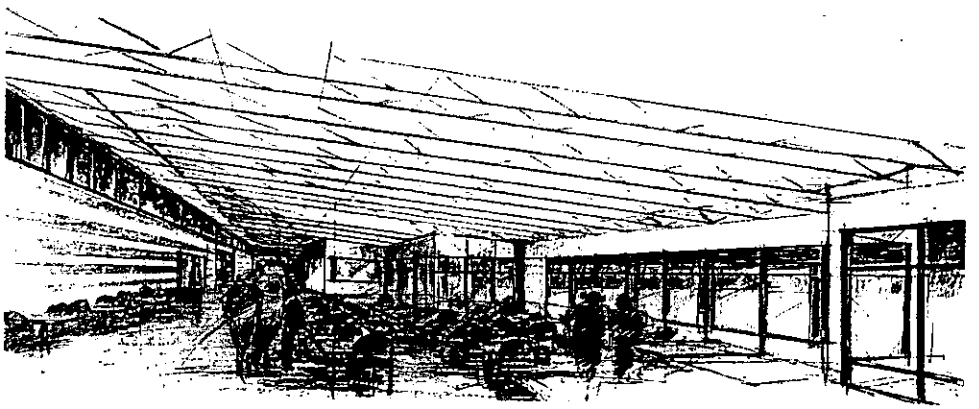
The Rivendell Academy will be divided between the Lower and Upper House as outlined below.

Lower House

The Lower House of the Academy will provide an integrated humanities program that will focus on American History, literature, drama, and fine arts. The program will emphasize applied mathematics and laboratory work, both inside and outside the classroom in the teaching of chemistry, life, physical, earth and space sciences. The expectation is the students will be proficient in their use of advanced algebra and geometry and be able to apply their skills in their work in other disciplines. At the end of a student's experience in the Lower House, the expectation is the student will achieve a Certificate of Initial Mastery (CIM) after they have mastered standards as outlined below. There will be additional support provided for students who have not met the district's CIM standards.

Upper House

After achieving the CIM, students, in the Upper House, will have the opportunity to choose from a wide variety of electives, some of which will fulfill graduation distribution requirements. The students will have the opportunity to concentrate in a specific area of interest. This may include any combination of coursework, independent study, an externship and/or participation in the River Bend Program. In student's last year at Rivendell Academy, they will complete a Senior Project that will involve a combination of action research and fieldwork.



Proposed Rivendell Cafe

Graduation Requirements

A student will be eligible for graduation from the Rivendell School if they have earned the Certificate of Initial Mastery (CIM), completed a Senior Project including the corresponding fieldwork, and presented and received approval for a Senior Portfolio. Students must also meet the course requirements outlined in the section on course requirements, or apply to have independent learning opportunities substituted for those requirements.

I. Certificate of Initial Mastery

The Certificate of Initial Mastery (CIM) is awarded to students who have mastered nationally recognized benchmarks of standards, in a given set of curriculum areas, as demonstrated through a portfolio and exhibition. Students will also be expected to meet standards for Language Arts and Mathematics on the New Standards Reference Exam or a similar, external assessment.

In addition to demonstrating mastery, the CIM portfolio and exhibition provides an opportunity for students to reflect upon their own growth during their Lower House experience, to make connections between the various disciplines, and to define areas of personal strengths and interests as they transition to the Upper House. The Lower House Portfolio and Exhibition will require that students meet benchmarks of standards in:

Language Arts
Mathematics
Social Studies
Ecology and Social Responsibility
Science Inquiry
The Arts
Foreign Language

Students who do not meet the standards for Language Arts and Mathematics, as assessed on the exams, will take courses that target their areas of specific need, as measured by the assessment, in their junior and senior years.

II. The Senior Portfolio

The portfolio, developed on an ongoing basis and finalized in the second semester of the senior year, is intended to be "a reflection and analysis of the graduating senior's own life and times." Its requirements are:

1. APPLICATION OF SYSTEMS THINKING TO CURRENT PROBLEMS. Drawing on their subject area experiences for problems that may or may not cross-disciplinary lines (an environmental problem, say, or an artistic creation), students use diverse material and resources (including technology) to analyze the problem, its context, and aspects of its interdependence from many perspectives. They must project possible outcomes for the problem based on their research, and then justify their choice of the optimum response. Their final presentation must also incorporate reflection on the process of working through the problem. *Example:* A careful analysis of the current situation in Serbia; or, a careful analysis of recent environmental legislation and the impact on local and regional development patterns.

2. PERSONAL CHALLENGE. Students will demonstrate a sustained, intensive effort to achieve a personally established and significant goal (academic, personal, or physical). They present a log of their efforts and assess their own challenges, efforts, and outcomes. *Example*: A student of German extraction learns the language (not taught at the school) and investigates her family history.

3. MAKING CONNECTIONS. Working in teams, students select concepts that interest them from different areas of study, analyze them, and search for logical connections between them. Their presentation should persuade an audience of the value of the connections, and also analyze the interdependence of the team effort. *Example*: Take the musical problems in a jazz composition and relate them to the historical development of the jazz form.

SUBJECT COMPONENTS



SCIENCE

- Controlled experiment
- Field Work
- Design Technology
- Science, technology, and society
- Secondary Research

PHYSICAL EDUCATION AND HEALTH

- Critical health issues
- Personalized fitness plan
- Outdoor Educational Experience

MATHEMATICS

- Mathematical procedures
- Conceptual understanding of math content
- Use of mathematics to synthesize and communicate information
- Recognition or creation of multiple representations of mathematical ideas
- Problem-solving
- Value and awareness of how mathematics brings order to our world



THE ARTS

- Artistic analysis, *or*
- Performance and reflective evaluation, *or*
- Original work



HISTORY AND SOCIAL STUDIES

- Historical investigation
- Analysis of current issues
- Translating understanding into service or action
- Cultural analysis
- Synthesis of self
- Functional citizenship literacy

ENGLISH

- Use of oral language in group tasks
- Personal response to literature
- Analysis of literature
- Reading enrichment
- Narrative and expository writing
- Academic writing
- Workplace writing
- Oral presentation

FOREIGN LANGUAGE

- Intermediate-level reading, writing, speaking, and listening in commonly taught languages, *or*
- Novice-level skills in less commonly taught languages

COMPUTER LITERACY AND INFORMATION LITERACY

- Technological literacy
- Information literacy

Source: Catalina Foothills High School

III. Senior Project

Semester I: Action Research
Semester II: Field Work & Graduation Portfolio

Semester I: Action Research

The purpose of the Senior Project is to give our students an opportunity to demonstrate the essential skills learned during their K-12 education. The Senior Project Seminar will meet every morning during the first semester. The Project will be:

- problem-based,
- interdisciplinary,
- a personalized learning experience, and
- reflective of the educational goals outlined in the *Student Profile**

Semester II: Field Experience

Through work experience, students have an opportunity to see firsthand how what they learn in school is used in the work world. It provides them the opportunity to develop their skills in communication and problem solving and puts them in contact with adults who may act as mentors and positive role models. It gives students a taste of what various careers entail on a day-to-day basis, which alone may be an invaluable career exploration activity. Collaboration between employers and school staff should be maintained on a systematic basis. Personnel from the workplace make a critical contribution. They need to be well informed about the program and what it is striving to accomplish. Further, they should play an active role in shaping the learning experiences.

Source: Source: *Planning and Implementing Youth Apprenticeship and Work-Based Learning*, by Kathleen A. Paris and Sarah A. Mason, 1995, Madison, WI: Center on Education and Work, University of Wisconsin.

IV. Course Requirements

In addition to graduation requirements outlined above, the following credits or credit equivalents are needed:

A total of 24 credits in the following areas:

Core Areas (15)
Four credits of English Language Arts
Three credits of Science
Three credits of Math
Three credits of Social Studies
Two credits of Foreign Language

Arts (1.0)
One-half credit in Performance areas (Theatre, Music, Dance or Public Speaking)
One-half credit in Fine Arts

Technology (.5)
One-half credit in Design or Information Technology

Physical Education(1.5)
One-half credit in Fitness*
One-half credit in Outdoor Education
One-half credit in Sports/Rec Activities*
*(Participation in JV or Varsity sports can be substituted for up to 1 credit of PE. All students are required to take outdoor education.)

Environmental Studies/Community Based Learning Experiences(1.0))
One credit in Environmental Studies

Integrated Elective Courses (1.0)
One credit in integrated courses

Service Learning (1.0)
One credit in Service Learning

*Credits are based on 120 contact hours.

Rivendell Course Offerings:

Language Arts

Lower House

Humanities I

The Language Arts component of the two-year integrated Humanities program focuses on further developing basic skills of effective reading, writing, and speaking. Selections from American Literature will be chosen to reflect the historical time period under study. Students will continue to develop critical reading skills as they engage in discussions and writings during their exploration of the various American ideas and value. Integrated Humanities I is designed to focus on the settlement of the United States, the development of our nation's government, and the rise of sectionalism. Students will read pieces by major American writers from Bradford and Smith to Twain and Crane.

Humanities II:

Students will continue to develop skills in effective reading, writing and speaking. In Humanities II, the historical focus will be on domestic and international issues of the 20th Century including reform movements, the Great Depression, world conflicts, communism and civil rights. Students will explore literary works by Cather, Hemmingway, Fitzgerald, Miller and others classic 20th Century writers.

Upper House Electives:

Shakespeare Seminar

This course will be an examination of some of the principal plays, including the comedies: *A Midsummer Night's Dream, Twelfth Night, Much Ado About Nothing, The Merchant of Venice, The Taming of the Shrew*; tragedies: *Hamlet, Othello, King Lea;*: and the history of plays: *Richard II, Henry IV, Henry V, Richard II;* romances: *The Tempest.* The class will study the plays with the support of tapes and films. Students also will attend professional performances when it is possible. Students will work on presenting scenes from selected plays for performance. They will be responsible for adaptations, staging, and developing persuasive and entertaining presentations.

Short Story:

This course is a survey of the important short story writers such as Poe, O'Henry, Twain, and Hemingway with a special emphasis on French writers including Maupassant. Additionally, students will be given opportunities to craft their own short stories while focusing on the major elements of the short story such as characterization, setting, exposition, conflict, and effective dialogue.

Writers' Café

This course is designed for students interested in the opportunity to explore and experiment with different forms of writing, including fiction, poetry, and personal essays. The course will be designed as a writer's workshop with regular chances for the student to share, publish and present written works.

Russian Studies(Integrated)

Historically, students will explore the transition that have taken place in Russia from the Czarist agricultural society, through the revolution and Communism, to modern day Russia. Various novels, short stories and essays from writers such as Gogol, Dostoyevsky, Tolstoy, Lermontov, Turgenev, Chekov, Pushkin, and Solzenitzyn will be analyzed in light of the time period under study.

English Literature

Students will survey English literature from *Beowulf* to Thomas Hardy. The class concentrates on a historical survey of English literature, beginning with an introduction to the development of the English language and the Anglo-Saxon classic Beowulf, proceeding to Chaucer's Canterbury Tales, Shakespeare's plays and sonnets, poetry from the sixteenth through the twentieth century, and the English novel of the nineteenth century.

Public Speaking

Students will work on those skills that are essential to effective oral presentations, awareness of audience, voice projection, clarity and variety of sound and phrasing. They will present a series of speeches on personal and researched topics. Students will be expected to work on coherent presentations that show control, clarity of organization, attention to transitions, and interesting introductions and conclusions. They will also prepare formal presentations of readings of prose and poetry. They will be responsible for memorizing short selections of poetry and prose for presentation.

Science Fiction

Students will study the works of Wells, Clarke, Bradford, and others. The exploration of Science Fiction literature will be tied in to technological advances in civilization throughout human kind's history. Additionally, students will be expected to write their own Science Fiction short stories.

Math

Lower House:

Integrated Math I and Problem Solving I (Freshman)

The course establishes the long-term goal that students be able to use linear regression using graphing calculator technology. They reach this goal by mastering the algebra of first-degree equations and the coordinate geometry of straight lines. Functional relationships in everyday life are identified, generalized, brought into mathematical forms, and linked with the algebra and coordinate geometry already developed, then linked to fundamental counting principles of discrete mathematics and the basic ideas of probability. Algebraic ideas are elaborated by using geometric interpretations. The groundwork for right angle trigonometry is established. A problem solving mathematics lab component will accompany this course.

Integrated Math II and Problem Solving II: (Sophomores)

Mathematical models of real world situations are examined through algebraic, periodic, exponential and logarithmic functions. The role of circles are explored in the world of spatial relationships. Coordinate geometry connects this spatial world of three-dimensions to three variable equations. Matrices are introduced as a tool for solving systems of linear equations. Linear programming, optimization, and topics from graph theory are examined in depth. The role of axioms and axiomatic systems, logic and mathematical proof are modeled in real world situations. The concept of integration and infinity is guided by the use of logic. A brief historical explanation of Euclidean and non-Euclidean geometry are explained as alternative models for the spatial structure of our universe. A problem solving mathematics lab component will accompany this course..

Upper House Electives:

Math in the Humanities

"A mathematician, like a painter or a poet, is a maker of patterns." G.H. Hardy. This course will look at society and social issues through a mathematical lens. Students will use mathematics to explore the arts, architecture, psychology and history, with an emphasis on number systems, geometry, topology, probability and statistics.

Analytic Geometry

What does the slope of a curve have to do with physics and engineering? How can algebraic ideas be explained geometrically? Cartesian and polar coordinates are explored through functions and relations (including parametric equations). The vector operations of addition and scalar multiplication are connected to velocity and force of moving objects. Through different coordinate systems (in two and three dimensions), real-world connections will be made using calculator and computer technology.

Environmental Mathematics:

How does Mathematics relate to the biological and physical worlds? How can you interpret and analyze our environment from a mathematical view? College Algebra presented through vitally important issues of the environment. Models use algebraic equations (linear, quadratic, exponential, and logarithmic functions) to predict relevant events. Reasonable societal restrictions are imposed for improvement of future environmental conditions. The equations are used to make decisions about real-world situations. Math labs will be used to explore the situations in more depth.

Calculus through Physics

How can calculus be used to analyze the basic principles of the physical sciences? How are the concepts of position, velocity and acceleration related? The fundamental ideas (functions and limits) and basic operations of calculus are stressed. Geometric meaning and physical applications of calculus are used to develop conceptual understanding and working knowledge. The use of graphing calculators aid in providing a solid foundation. Labs involving technology allow for collection, viewing and analyzing of motion data. Scientific relationships between distance, velocity, acceleration and time will be explored with the lab data.

Analysis of Change Using Technology :

College Calculus I presented in an open-ended, flexible, creative setting (not a rigid system). The focus is on analyzing the structure of problems by using graphing calculators, computers and conceptual models for planning solution strategies. Important theorems and proofs are presented through open-ended questions. Hands-on activities will provide clarification of concepts and make them concrete.

Advanced Problem Solving:

This course will further develop students' problem solving strategies. It will integrate Algebra II concepts, geometry, trigonometry, probability, and data analysis. Methods will involve cooperative learning, oral and written communication, and extensive use of graphing calculators and selected computer software.

Math Fellows/Activity Center Practicum:

Three days per week, students in this course will tutor Upper and/or Lower level house students or elementary students using manipulatives and technology. Performance of duties will be based on previous material covered in the student's coursework. Journals will be kept describing topics discussed and methods used. One day per week, students will work with the teacher to develop their understanding of concepts and to prepare strategies for teaching these strategies. One day each week, tutors will meet to review, assess and reflect on their own learning and work as tutors.

Science

Lower House

Foundations in Science I (Freshman)

Foundations in Science II (Sophomores)

The Foundations in Science program will be a two-year sequence that explores founding principles in chemistry, biology and physics through inquiry units. Principles in Chemistry will include atomic structure, periodicity, bonding and reactions of chemical substances. In Biology students will explore cell biology, organisms, human health, and ecosystems Finally basic topics in Physics will include classical mechanics (motion, energy and momentum), electricity, magnetism and waves.

Upper House Electives:

Biological Concepts:

What is life? How is life interrelated? This course is designed as a general background for students in life science. Basic biological principles and their relationship to the physical and chemical sciences are stressed. Concepts will draw from micro, macro and human biology.

Olympic Newtonian Mechanics:

What causes forces? Why does classical physics describe our world? The summer and winter Olympics will be used as a context to examine and explore classical mechanics. Energy, forces and motion will be the focus, but students will briefly examine sports medicine in its modern context in the games. Although containing a strong laboratory element these studies will utilize algebra as the principal tool to understand various sporting phenomenon.

Agricultural Ecology:

Where does our food come from? Why is life interrelated? This course explores in the field (hopefully local farms) and in the laboratory the systems that comprise the complex interactions in a working farm. Through investigation students will learn how living organisms are part of a complex, interdependent ecosystem. Principal experiences will examine the functioning of the farms ecosystem. As they study the wider impacts of farming, students will consider the social and environmental aspects of relevant issues.

Environmental Studies:

How is nature sustained? How do small changes affect large systems? Can the Earth sustain human life indefinitely? Decisions regarding our environment today will have consequences for our children, and our children's children. Students will examine the changes in our environment locally, regionally and globally. This course will draw upon all the natural and social sciences to examine the consequences of decisions in the past, present and future. As students inquire into these choices they will engage in research in the laboratory, field and the Internet.

Modern Science:

What is the nature of science? What is theory, what is fact? Where do we come from? The twentieth century has seen many advances in science and technology that have fundamentally changed what we know and believe. This course will examine a cross section of these advances and how they have impacted our world. Discoveries in astronomy and physics, human behavior, technology and the origins of Earth and life will be studied. Note that the nature of this course implies limited laboratory work.

History and Philosophy of Science (Integrated):

What is truth? What is science? How do we know what we know? Who am I? This course will examine the development of science from the classical to the modern age. Students will explore the nature of science and truth and question how do you know what you know. A particular focus will be various discoveries that have questioned the status quo and how these ideas developed and impacted society. Modern psychology, relativity and quantum mechanics will be amongst some concepts studied.

Problem Solving in Science and Technology:

Student teams will examine problems facing their school and community and use the application of science and technology to solve them. The course will involve high levels of cross curricular skills based on the VT Vital Results, problem-solving, teamwork, communication, research and information technology. The aim of this course is to create an experience for a student that closely resembles what students would encounter in the "real world". Success in the course will depend highly on a student's ability to be self-accountable.

Investigative Science Research:

Students will engage in individual research projects from each field of physics, chemistry and biology. One of these projects will be presented and published as a thesis (dissertation of original research). Students will be expected to display high levels of self-direction and independence.

Lab Technician:

The student will assist the science staff in presenting the 9th and 10th grade science course and also assist occasional classes in the elementary and middle schools. In addition the student will pursue a long-term research project in a scientific topic of their choice. During the preparation of labs and tutoring students the technician will develop their understanding of science and the way it is taught.

Social Science

Lower House:

Humanities I

Humanities I is an integrated course that is designed to focus on the settlement of the United States and the rise of sectionalism. Students will read pieces by American writers such as Bradford, Bradstreet, Byrd, Thoreau, Twain and others. In addition to early American writers, students will explore the influences of Plato, Cicero, Montesquieu, Rousseau and Locke on the development of the American system of government.

Humanities II –

In Humanities II, the historical focus will be on domestic and international issues of the 20th Century including reform movements, the Great Depression, world conflicts, communism and civil rights. In Language Arts, students will explore these historical themes and events through the literary works of Cather, Hemmingway, Fitzgerald, Miller and others classic 20th Century writers.

Upper House Electives:

American Economic System:

This course will explore the institutions and principles underlying the American economic system. Free enterprise, supply and demand, circular flow, government involvement, Federal Reserve, economic development, and international trade.

Modern European History:

Students will explore major themes in the development of modern Europe. Topics will include the Renaissance, the nation state, monarchies, the French Revolution, industrialization, the Russian Revolution; imperialism and nationalism.

History Through Hollywood:

This course will analyze historically based films for historical accuracy and investigate why filmmakers often times chose to distort history. Student will view a selection of films, conduct research and analysis, write reviews, and present their conclusions through a variety of projects.

Contemporary Issues:

What are the current issues in our society and how do they affect our everyday lives? Students will work on developing an understanding of how such issues influence or are influenced by elections, Supreme Court decisions, legislation, and other major events.

Civic Preparation:

Only 25% of the 18-24 age group actually participate in any type of voting situation. This course will prepare students to participate civically at the local, state, and federal levels. The main topic of study will center the rights and responsibilities of voters at the local, state, and federal levels.

Holocaust and Human Behavior:

This course will focus on the examination of events that led to the Holocaust and the development of the understanding that few events in history are inevitable. The course also connects the past to the moral questions that students must confront in their own lives—particularly those related to identity, power, and conformity.

Psychology:

This course will explore the scope and methods of psychology. Special focus will be on psychological growth from childhood to adulthood, learning theories and the mind and perception.

Technology and Societal Change: (Integrated)

What influence has technological innovations had on historical and societal change? Students will investigate the impact of such inventions as the printing press, television, car, computer, flight, etc. and how these inventions have changed our world.

Latin American Studies: (Integrated)

This course will explore the major social, economic and political issues in the Latin American Region through primary documents, film, art, and literature. A special emphasis will be placed on current environmental issues troubling the region. (Alternate Years)

African Studies: (Integrated)

This course will explore the major social, economic and political issues in the African Region through primary documents, film, art, and literature. A special emphasis will be placed on areas where political and ethnic unrest has led to conflict. (Alternate Years)

Foreign Language

Lower House:

Spanish I or French I

Students are introduced to the characteristics of Spanish pronunciation. Students acquire a simple vocabulary based on everyday experiences. The first part of the year deals with salutations, numbers, the weather, the alphabet, telling time, the seasons, days of the week, and months of the year. The class proceeds with the formation of articles, adjectives, present tense verbs, irregular verbs and idiomatic expressions. Emphasis is placed on both speaking and writing skills. Examinations involve both oral and written skills.

Spanish II or French II

Students continue to deal with increasingly complex grammatical structures and to expand their vocabulary. Through dialogues and oral exercises, they develop their listening and speaking skills. Students also examine aspects of Hispanic culture.

Upper House Electives

Spanish III or French III

Students work on dialogues concerned with everyday situations. They continue to expand their knowledge of the structure of the language and increase their vocabulary. They are responsible for translating selections and writing short compositions.

Latin I

This course begins the basics of Latin grammar. Students begin to build skills in verb forms and vocabulary. Students will also explore how Latin has contributed to English and other Romance languages. The course will be enriched with a look at classic Roman culture. (Additional upper level Latin courses will be added as needed)

Arts

Lower House:

Art Skills

This course is specifically for 9th and 10th graders. Art skills is an introduction to a variety of means of visual expression, materials and techniques for making use of them. Skills would include: life drawing, color theory and mixing, painting, basic ceramic techniques (including wheel throwing and hand building), subtractive sculpture, and design in both two and three dimensional mixed media formats. Critiquing skills and knowledge of art historical trends would also be included in this general course.

Upper House:

Imaging

The scope of this course will include black and white photography, digital imaging and manipulation, and videography. The course may also be directly linked to the production of the middle/high school yearbook, depending on how that area will be structured. Students will begin the course with the history of the earliest photographic images and end with production of modern, digital images and video productions. Through the composition of photographic images, students will learn the elements and principles of design, properties of light, chemical and digital processes and techniques for creative and persuasive expression.

Origins of Western Art

This is meant to be an elective course in Art History, structured sequentially from Paleolithic cave drawings through to Modern and Contemporary American Art. Hands-on projects and museum field trips will be at the core of this survey of art history. As a culminating project, students will create and present a well researched cultural and art historical "time capsule" and be able to relate the significant effects of that period in history on art of the 20th Century.

Art with a Message

This course will further develop art skills and techniques in a variety of two and three dimensional media, while exploring the broad and engaging question, "What is art?" Students will discover humankind's varying motivations for making art from the ancient to the modern, while creating their own expressions on a variety of themes. Emphasis will be placed on clarity of expression before an audience of viewers, and mastery of a determined number of art media.

Performing Arts

Introduction to Drama

This course will explore the many aspects of theater and acting. Through exercises, improvisations, skits, observation, and hands on experience students will gain insight into the theater world. Students will explore acting, vocal work, set design, lighting, props, publicity and assist with the High School production. We will be observing and critiquing other productions when available in the area as well as well as performing our own scenes, skits or short plays.

World Music

This course will look at the many different varieties of music in our world today and explore their unique qualities. We will listen to many types of music and explore current World music. Topics will cover music from Africa, Latin America, Mexico, China, Japan, Tibet, England, Australia and other cultures. The focus is upon the use and value of music in people's lives. The intent is to make certain that students emerge with an understanding of the essential role of music in human life. The aim is to teach students respect for differences of all kinds.

History of Rock n' Roll

This course will take an in depth look at Rock music and its many faces. We will examine the influence of Rhythm & Blues & Country in the development of Rock. Starting with the 1950's, we will analyze each decade's unique impact on music and popular culture. Travel through time with Chuck Berry, Buddy Holly, Elvis Presley, The Beatles, Janis Joplin, Jimi Hendricks, Santana, Eric Clapton through the 70's, 80's and 90's up to today. Visit the sights and sounds of Woodstock, Rock Opera, Disco, Rap and explore the future sounds of techno pop and alternative music. Social, political, and cultural influences will be studied for each decade with the emphasis on music.

History of Western Music

This course is for anyone who is interested in learning how to listen to music with greater perception and understanding. Students will gain knowledge of the many different musical styles and forms with representative examples of each period discussed and major composers presented. Social, political, and cultural influences for each historical period will be studied with the focus on the music. Periods will include Baroque music and travel through the Classical, Romantic, Impressionistic and Contemporary period.

Chorus

Chorus provides a wonderful opportunity to perform as a group. Emphasis is placed on team work where each individual is important. Students will explore the many aspects of singing and performance. The chorus performs approximately ten performances each year as well as participating in festivals at nearby colleges.

Physical Education

Physical Fitness:

This course is designed to help students establish and appreciate the importance of daily physical exercise in their lives. Students will develop knowledge and skill in a total fitness program; while working to improve their own strength, agility, flexibility, and endurance.

Outdoor Education I : (Fall and Spring Trimester)

This course provides outdoor experiences in hiking, canoeing, environmental awareness, map reading and compass use, back country skills and equipment, and orienteering. The culminating performance will be a weekend overnight that will give students an opportunity to demonstrate the skills they have acquired.

Outdoor Education II: (Winter Trimester)

This course provides outdoor experience in cross-country skiing, snow shoeing, map reading and compass use, and familiarization with winter clothing, equipment and camping. . The culminating performance will be a weekend overnight that will give students an opportunity to demonstrate the skills they have acquired.

Lifetime Activities:

Lifetime activities is a course designed to allow students to develop their own personal plan of healthy recreation. Students will have an opportunity to explore a variety of activities including those in the Martial Arts, Yoga, Dance, Biking and Walking.

*Credit for participation in co-curricular sports and other recreational activities involving physical fitness may be acquired by following the independent studies procedure.

Design and Information Technology

The Information Age

This course examines the uses and implications of recent developments in information technology, particularly the rapid growth of the Internet. Students will examine the changes that have been made to the way we live our lives through the advent of faster computers and faster information transfer. Students will conclude the course with an in depth research project on an aspect of the Internet and how it has (or has not) changed our society.

Computer Design

Students will be supported in setting up a computer repair/service help desk in the district. As the course develops students will take greater responsibilities and greater accountability for the services provided. As part of the course students will pursue individualized training in various areas of computer service. Currently a mechanism to enable industrial certification as part of the course is being examined. In addition students will participate in a computer refurbishment/donation program in the community.

(Design Technology courses are to be developed)

Process for Developing Independent/Directed Studies

Students may take advantage of two kinds of independent studies: group and individual. The process for both is the same. Students must draft a course proposal that identifies:

- Essential question(s) for the study course
- Learning goals
- Activities or field experiences
- Resources (material and human)
- Advisor (on staff)
- Community mentor
- Method for evaluation
- Performance standards
- Timeline

Proposals must be submitted to the faculty committee on Independent studies one month prior to the beginning of the trimester in which the independent study is to take place. Students will be asked to present their proposal to the committee. If the proposal is not approved initially, the student will have the opportunity to revise and resubmit his or her proposal. Written feedback from the committee will support the student in the revision process.

Speakers

SENATE EDUCATION COMMITTEE

Date 1/12/00 Time 9:00 Public Hearing on SB 319

Appearing in FAVOR: (Please print) **Please check box at left to speak.**

Speaking?	Name	Address	Representing
☑	Senator Ned Gordon	Dist. 2	
☑	Allen Avery		Riverdell
☑	Rebecca Hyltoler		Rivendell
☑	Mark Roth		Rivendell
☑	Pat Russell		N.H. Dept of Ed.
☐			
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Appearing in OPPOSITION: (Please Print) **Please check box at left to speak.**

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Committee Report

Date: January 12, 2000 Time: 9:30 a.m.

The Senate Committee on Education held its hearing in Room 105-A - SH, Concord, New Hampshire.

BILL NO.: SB 319 TITLE: relative to interstate school districts.

Members of the Committee present:

Senator McCarley
Senator Eaton
Senator D'Allesandro
Senator Disnard
Senator Gordon
Senator Johnson
Senator Squires

Those appearing in favor:

Name and Address	Representing
See Attached.	

Those appearing in opposition:

Name and Address	Representing
See Attached.	

REPORT OF THE COMMITTEE:

- ☒ Ought to Pass
- ☐ Ought to Pass w/ Amendment
- ☐ Inexpedient to Legislate
- ☐ Rereferred
- ☐ Interim Study
- ☐ Continued Hearing
- ☐ Postponed Hearing

STATE OF NEW HAMPSHIRE

SENATE

REPORT OF THE COMMITTEE

Date:

THE COMMITTEE ON **Education**

to which was referred **Senate Bill 319**

AN ACT **relative to interstate school districts.**

VOTE: **6-0**

Having considered the same, report the same without amendment and recommend that the bill: **OUGHT TO PASS.**

Senator Edward M. Gordon
For the Committee