

JAN 28 2013

By: [Signature]

Green Ribbon

U.S. Department of Education Green Ribbon Schools 2013

For Public Schools only: [] Charter [] Title I [] Magnet [X] Choice

Name of Principal - Co-Principals Mr. Allan Miller and Ms. Pati Beaumont
(Specify: Ms., Miss, Mrs., Dr., Mr., etc.) (As it should appear in the official records)

Official School Name - Shelburne Community School
(As it should appear in the official records)

School
Mailing Address – 345 Harbor Road
Shelburne Vermont 05482
City State Zip

County - Chittenden_ State School Code Number PS 264

Telephone (802) 985-3331 Fax (802) 489-5630

Web site/URL www.scsvt.org E-mail – akmiller@cssu.org

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate.

[Signature] [Signature] Date 1/25/13
(Principal's Signature)

Name of Superintendent* Dr. Elaine Pinckney

District Name Shelburne School District / Chittenden South Supervisory Union Tel. 802-383-1234

I have reviewed the information in this application and certify that to the best of my knowledge all information is accurate. This is one of the highest performing green schools in my jurisdiction.

[Signature] Date 01.25.2013
(Superintendent's Signature)

*Private Schools: If the information requested is not applicable, write N/A in the space.

We converted your Survey Monkey application into a PDF document and have attached it for your reference. It will help both you and I complete Part 2.

The absolute latest date for the US ED submission is Feb. 15, but I would like to aim for getting it done no later than Thursday January 31st. Therefore, if you could please try to get your Parts 1 and 2 back to me by Monday January 28, it would be very much appreciated.

Thank you!

Cathy Hilgendorf

Vermont Agency of Education

(802) 828-5402

cathy.hilgendorf@state.vt.us

Allan Miller <akmiller@cssu.org>
To: "Hilgendorf, Cathy" <Cathy.Hilgendorf@state.vt.us>

Thu, Jan 24, 2013 at 9:16 PM

Cathy - here is the text I would propose on behalf of SCS to summarize our Green Ribbon School nomination.

On any given day at Shelburne Community School there are many opportunities to glimpse a Green Ribbon School in action. Even before you enter the building, or even our driveway it is evident in the miles of new sidewalks, bikelanes and cautionary signage that have been constructed from our partnership with Safe Routes to Schools and the Town Selectboard. You might sense it walking down the school sidewalk surrounded by teachers and families on Walking Wednesdays or as you notice the bike racks filled to capacity, many of the bikes with safety stickers earned during our bike safety classes taught in cooperation with Local Motion. We would hope you would admire our beautiful flower gardens that have earned National Wildlife Federation Schoolyard Habitat Certification, maintained by both students and parent volunteers and decorated with recycled art from some artist collaboration projects. Visit in the fall and our bountiful class gardens will be full of excited youngsters collecting herbs and vegetables bound

for our cafeteria or the local food bank. Compost created from our classroom and bathroom paper as well as our cafeteria waste has even provided much of the nutrients from which these plants have flourished.

Enter in the front door and hopefully you'll appreciate that breath of fresh air - a product of significant effort by our maintenance department and our Indoor Air Quality Committee in collaboration with the Vermont Department of Health. All carpeting in the school has been replaced within the past four years with low emitting carpet tiles made from recycled nylon, greatly reducing the level of mold and bacteria often found in normal school flooring. Shiny floors and clean surfaces are of course the norm, but this is accomplished without a single chemical agent that has not been certified as environmentally preferable. Perhaps more impressive but not quite so visible is that this forty two year old building, through community education, system upgrades, and careful monitoring, now utilizes 240,000 kWh less electricity annually than just five years ago - a 32% reduction! An audit by a consultant from the Vermont School Energy Management found that per square foot Shelburne Community School is one of the most energy efficient buildings in the entire state. The carbon footprint has also been significantly reduced by converting all heating from an old fuel oil boiler to a high efficiency natural gas boiler with an energy cost savings of over \$21,000 per year. We are currently exploring other options that can further improve our efficiency including replacement of all single pane windows, adding a radiant floor heating system, installing motion detector lighting controls, and a rooftop solar array. Our School Board and Community are truly supportive of these efforts and willing to make investments such as these even when the payoffs are primarily environmental.

But where we really touch the future is with our children inside this healthy environment, where our school mission of developing citizens who "learn actively and collaboratively, think creatively and critically, live responsibly and respectfully, contribute positively to their community, and pursue excellence in their individual endeavors" comes to life. A committee of eighteen volunteer staff members coordinates a schoolwide health and wellness program for students, staff and parents that incorporates both in and out of classroom activities and education. Our FEED (Food Education Every Day) Committee of parents and teachers oversees the gardens and our cafeteria "Table to Farm" composting program that donates over 90 pounds of pure food waste weekly to a local farm. Two teams of middle school students are responsible for a schoolwide recycling program that has reduced our landfill contribution by over forty percent in the past four years. Our school also has very active partnerships with many local groups including: Shelburne Farms providing both teacher professional development as well as regular field trips always centered around the topics of sustainability and ecology, Four Winds which in cooperation with our Parent Teacher Organization provides hands-on environmental science

lessons in grades K-4, and New Village Farm providing hands-on opportunities for our eighth graders to be involved in a working farm. Daily our students have opportunities to internalize our mission. We're excited about all that we have accomplished and appreciate the opportunity to share it with the nation through the Green Ribbon Schools program.

I will also be collecting a signature from Elaine Pinckney, our SU superintendent and getting that first page hard copy off in the mail on Friday. If I understood correctly that should complete everything you need for our nomination right now - but please don't hesitate to call (recommend my cell at 802-324-9374) if I missed anything. Thanks again for the opportunity for some recognition of all the hard work by so many parents, students and teachers - there is lots of excitement around this recognition! Allan

"It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so." Mark Twain

Allan Miller - CoPrincipal
Shelburne Community School
345 Harbor Road
Shelburne, VT 05482-7687
(802) 985-3331 ext 106 - work

[Quoted text hidden]

2012-2013 Nominee Presentation Form

PART I - ELIGIBILITY CERTIFICATION

School and District's Certifications

The signatures of the school principal and district superintendent (or equivalents) on the next page certify that each of the statements below concerning the school's eligibility and compliance with the following requirements is true and correct. *In no case is a private school required to make any certification with regard to the public school district in which it is located.*

1. The school has some configuration that includes one or more of grades K-12. (Schools on the same campus with one principal, even a K-12 school, must apply as an entire school.)
2. The school has been evaluated and selected from among schools within the Nominating Authority's jurisdiction, based on high achievement in the three ED-GRS Pillars: 1) reduced environmental impact and costs; 2) improved health and wellness; and 3) effective environmental and sustainability education.
3. Neither the nominated public school nor its public school district is refusing the U.S. Department of Education Office of Civil Rights (OCR) access to information necessary to investigate a civil rights complaint or to conduct a district wide compliance review.
4. OCR has not issued a violation letter of findings to the public school district concluding that the nominated public school or the public school district as a whole has violated one or more of the civil rights statutes. A violation letter of findings will not be considered outstanding if OCR has accepted a corrective action plan to remedy the violation.
5. The U.S. Department of Justice does not have a pending suit alleging that the public school or the public school district as a whole has violated one or more of the civil rights statutes or the Constitution's equal protection clause.
6. There are no findings of violations of the Individuals with Disabilities Education Act in a U.S. Department of Education monitoring report that apply to the public school or public school district in question; or if there are such findings, the state or public school district has corrected, or agreed to correct, the findings.
7. The school meets all applicable federal, state, local and tribal health, environmental and safety requirements in law, regulations and policy and is willing to undergo EPA on-site verification.



DEPARTMENT OF EDUCATION

120 State Street, Montpelier VT 05620-2501

(p) 802-828-3135 | (f) 802-828-3140

February 9, 2013

State Evaluation of Nominee VT 2 Shelburne Community School

Summary: A 32% annual reduction in electricity use is the result of both building system upgrades and occupant behavior changes at the Shelburne Community School. An active indoor air quality committee has worked with the VT Dept. of Health to reduce mold, bacteria, and toxins from cleaning products and floor coverings. Other notable school accomplishments include composting and recycling almost half of waste generated in the school and growing food for both the school cafeteria and a local food bank. Shelburne Community School's science and sustainability education programs are embedded throughout the educational system, propelling their VT-GRS application to a strong showing.

For purposes of this program, Shelburne Community School is not defined as disadvantaged. Its population of poor children or children eligible for FRPL is below 40%.

Scoring and Highlights:

The complete state application from this nominee is attached in a separate pdf form, directly from our SurveyMonkey on-line application tool. We scored each Pillar individually on a scale of 100, then weighted Pillar 3 slightly heavier (37.5% versus 31.25% for Pillar One and 31.25% Pillar Two) for a composite score. Vermont's scoring panel, consisting of three state officials each with expertise in one of the three Pillars, found Shelburne Community School to be making substantial progress in all areas, and to be Vermont's outstanding applicant in Pillar III.

Pillar One: Score 67.00%

Highlights: Although Shelburne Community School has not yet joined the many schools in Vermont using renewable energy on-site, significant savings in fossil fuel and electrical use have resulted from upgrades to building system controls, a comprehensive lighting retrofit, and student awareness of "every little bit helps" energy-saving behaviors. Using 2006 electrical usage as a baseline, the school has saved an average of 240,000 kWh per year (a 32% reduction).

Pillar Two: Score 77.50%

Highlights: In 2011/2011 Shelburne Community School was named a VT Fit and Healthy Kids Gold Award winner. By participating in both a Farm to School program for fresh local food *and* a Table to Farm composting program with neighboring Shelburne Farm, students observe a true recycling experience. The community has grown accustomed to a heavy pedestrian presence on Walking Wednesdays, when parking lots are vacant and bicycle racks are full. The school health management team reports occupant satisfaction resulting from multi-level attention to indoor air quality, including frequent air duct cleaning, mold testing and flooring replacement, and the switch to 100% environmentally-preferable cleaning products. All students participate in physical education class twice weekly.

Pillar Three: Score 93.00%

Highlights: Sustainability and STEM curriculum at Shelburne Community School takes full advantage of their location along Lake Champlain and just a mile from the LaPlatt River Nature Reserve. Regular field study work and meaningful outdoor learning experiences take place weekly at every grade level. Rather than repeat it here, I respectfully refer the reader to the Pillar Three section of the Shelburne Community School state application (pages 7 – 9) for a thorough and verified description of why this school is Vermont’s leader in sustainability and environmental education.



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Displaying 18 of 23 respondents

Response Type:
Normal Response**Custom Value:**
*empty***Response Started:**
Friday, November 30, 2012 7:08:59 AM**Collector:**
Web Link
(Web Link)**IP Address:**
64.25.209.77**Response Modified:**
Saturday, December 1, 2012 11:14:38 AM**1. School Name and Address**

School Name: - Shelburne Community School

Address: - 345 Harbor Road

City/Town: - Shelburne

State: - VT

ZIP: - 05482

Email Address: - akmiller@cssu.org

Phone Number: - 802-985-3331

2. School Principal :

Name: - Allan Miller

Phone: - 383-1106

Email Address: - akmiller@cssu.org

3. Primary Contact Name (if different):**No Response****4. Primary Contact Phone:****No Response****5. Primary Contact Email:****No Response****6. School Type**

Public

7. School Level:

Other (please specify) - pre-K through 8

8. Enrollment Information:

Total School Enrollment: - 778

School District Name: - Chittenden South Supervisory Union

School District Total Enrollment: - 4081

9. Total District Enrollment:

4081

10. Does your school serve 4 or more students from disadvantaged households (4 Free or Reduced price Lunch (FRPL) eligibility)

No

11. What is the % of students receiving FRPL

14

12. Please provide a 500 word maximum narrative describing your school's efforts to reduce environmental impact and costs, improve student and staff health, and provide effective environmental and sustainability education. Focus on unique and innovative practices and partnerships. This is your chance to put your best foot forward and highlight your most stand out green accomplishments.

On any given day at Shelburne Community School there are many opportunities to glimpse a Green Ribbon School in action. Even before you enter the building, or even our driveway it is evident in the miles of new sidewalks, bikeways and cautionary signage that have been constructed from our partnership with Safe Routes to Schools and the Town Selectboard. You might sense it walking down the school sidewalk surrounded by teachers and families on Walking Wednesdays or as you notice the bike racks filled to capacity, many of the bikes with safety stickers earned during our bike safety classes taught in cooperation with Local Motion. We would hope you would admire our beautiful flower gardens that have earned National Wildlife Federation Schoolyard Habitat Certification, maintained by both students and parent volunteers and decorated with recycled art from some artist collaboration projects. Visit in the fall and our bountiful class gardens will be full of excited youngsters collecting herbs and vegetables bound for our cafeteria or the local food bank. Enter in the front door and hopefully you'll appreciate that breath of fresh air - a product of significant effort by our maintenance department and our Indoor Air Quality Committee in collaboration with the Vermont Department of Health. All carpeting in the school has been replaced within the past four years with low emitting carpet tiles made from recycled nylon, greatly reducing the level of mold and bacteria often found in normal school flooring. Shiny floors and clean surfaces are of course the norm, but this is accomplished without a single chemical agent that has not been certified as environmentally preferable. It should also be appreciated that the building, through community education, system upgrades, and careful monitoring, now utilizes 240,000 kWh less electricity annually than just five years ago - a 32% reduction. The carbon footprint has also been significantly reduced by converting all heating from an old fuel oil boiler to a high efficiency natural gas boiler with an energy cost savings of over 21,000 per year. At where we really touch the future is with our children inside this healthy environment, where our school mission of developing citizens who learn actively and collaboratively, think creatively and critically, live responsibly and respectfully, contribute positively to their community, and pursue excellence in their individual endeavors comes to life. Be it our schoolwide health and wellness program for students, staff and parents, our cafeteria Table to Farm composting program that donates over 90 pounds of pure food waste weekly to a local farm, the middle school student run recycling program that has reduced our landfill contribution by over forty percent in the past four years, or our active partnerships with Shelburne Farms, Four Winds, New Village Farm - daily our students have opportunities to internalize our mission. We're excited about all that we have accomplished and appreciate the opportunity to share it with the Green Ribbon Schools program.

13. Has your school staff or student body received any awards for facilities, health or environment

Yes, please list award(s) and year(s) achieved: - 2011 Fit and Healthy Kids--old

14. Can your school demonstrate a reduction in energy use

Yes, please list over what time period - significantly monitored since 2006

15. What was the before and after use for electricity during the time period identified in question 15

Before kWh/year - 760,480

After kWh/year - 520,320

16. What type of fuel is used for the majority of transportation

Fuel Type - diesel

Previous Usage - 7,800

Current Usage - 6,000

17. What type of fuel is used for water heating (if not included with space heating fuel)

Fuel Type - same hot water heater throughout this period, runs on natural gas

18. Has your school received an Energy Star rating using Portfolio Manager

No

19. Has your school pursued, received or been denied Energy Star Certification

Pursued

20. Has your school participated in energy efficiency programs through **Efficiency Vermont**?
Examples: RELIGHT design program, Whole School Energy Challenge, lighting retrofit rebates

Yes, please list program(s) date(s) and results of each - -re-ballasting light fixtures throughout the building (300+)- - installing VFDs on our largest air handlers (3)--- -installed new boilers--2011- Gym lights replaced and ceiling fans installed-All exterior lights replaced with LED fixtures

21. Has your school had an Energy Assessment from the Vermont Superintendents Association's **School Energy Management Program (SEMP)** within the last three years?

Yes

22. Has the school implemented any of the following measures as recommended by SEMP?

	Yes	No
Lighting retrofit	X	
Building envelope improvements		X
Upgrades to building system controls	X	
Heating plant improvements	X	
Created a written Facilities Operating Plan		X
Other : Added watt misers on two vending machines		

23. What other energy efficiency programs or benchmarks has your school participated in?
 Please list: Name of Program, Year(s), and score(s) or award received.

No Response

24. Does your school use any on-site renewable energy? (ex: solar, geo-thermal, wind)

No

25. What percentage of your school's energy is obtained from this on-site renewable energy generation?

No Response

26. Does your school use purchased renewable energy? (ex: wood chips, wood pellets)

No

27. What percentage of your school's energy is obtained from the purchased renewable energy source(s)

No Response

28. Has your school district constructed or renovated building(s) in the past ten years?

No

29. If Yes, Has your school been built or renovated in accordance with **LEED** standards or **NE-CHPS** certification protocol?

No Response

30. Does your school building include the following "green" features/components?

	No	Yes
Operable room occupancy sensors		X
Vend-misers installed on vending machines		X
High performance T8 lamps and electronic ballasts		X

HVAC ductwork is externally insulated and is cleaned following extensive renovations	X
Stoves/ovens, coffeemakers, refrigerators, and portable electric heaters are prohibited from classrooms	X
Fossil fuel powered mobile machinery is not used inside the building	X
Daylight-maximizing features such as light shelves, clerestory windows, skylights,	X
Walk-off mats, grates, and grills at all active entrances, including playground-to-classroom entrances	X
At least 90% of building is not air-conditioned	X
Variable frequency drives	X
Heat/energy recovery ventilation	X
Other (please specify): LED exterior lighting	

31. How often are HVAC filters replaced?

Semi-annually

**32. Are alternate water sources used for irrigation?
Please choose all that apply**

No irrigation on site
Rainwater harvesting

33. Is the drinking water source protected from potential contaminants, including lead?

No

34. Chromate copper arsenate is most often found in pressure-treated wood. Has your school identified any wood playground, bleachers, or other structures that contain chromate copper arsenate and has taken steps to eliminate exposure?

Yes

35. Does your school operate a composting program for food and landscaping waste?

Yes

36. Does your school operate a recycling program for:

	No	Yes
Classroom and office paper		X
Plastics		X
Other		
Comments:		

37. Has your school implemented any of the following transportation elements?

	No	Yes
Designated carpool parking stalls and secure bicycle storage.		X
Carpools or vanpools for sporting events		X
A well-publicized no idling policy that applies to all vehicles (including school buses).		X
Enforcement of the VT State Board of Education Rule 6000 prohibiting bus idling on school grounds		X
Vehicle loading/unloading areas are at least 25 feet from building air intakes, doors, and windows.		X
An efficient transportation plan designed to reduce its environmental impact.		X
Comments (please limit to 80 words):		

38. Is the school building regularly tested for radon gas?

Yes

39. Is the school building regularly tested for mold?

Yes

40. Is the school building equipped with carbon monoxide (CO) monitors/alarms?

Yes

41. Does the school nurse encourage parents to use the [Vermont Asthma Action Plan](#)?

Yes

42. Has your school enrolled in [Vermont Dept. of Health's Envision Program](#)?

Yes

43. Vermont green cleaning legislation took effect 7/1/12. Has your school informed staff of the requirement to use "environmentally preferable cleaning products" as described in [Vermont Dept. of Health's Envision Program](#)?

Yes

44. What percentage of all cleaning products ON HAND as of 7/1/12 were certified as environmentally-preferable?

95%+-

45. What is your school's procurement method for cleaning products?

FMDA buyers group

46. Describe any unique or innovative policies, practices, and/or partnerships that protect and/or promote improved environmental health for students and/or staff. (100 words max)

Just started to use a machine to make ozone water for our auto scrubber and for cleaning the kitchen and cafeteria. Replacing our old rug with a new flooring tile that combines VCT with straight nylon fibers. This product does not hold dirt or water like a traditional rug so it's less likely to grow molds and is easier to clean. We also have our duct work cleaned on a five year rotation (1 part cleaned every year). Added water cooler with filters in the nurses office and teachers lounge.

47. Does your school have an active School Health Team or [Coordinated School Health Team](#)?

Yes (go to question #49)

48. If you answered Yes to Question #48, has your School Health Team or [Coordinated School Health Team](#) used the [School Health Index](#) to conduct self-assessment and planning?

Yes

49. Does your school have an active [School Wellness Policy](#) that is implemented, monitored, and evaluated on a regular basis?

Yes - Please email the policy to lindsay.simpson@state.vt.us or list web link in the box below - <http://www.cssu.org/Page/2290>

50. Has your school applied for the [USDA's Healthier US School Challenge](#)?

No

51. Does your school participate in a Farm to School program to use local, fresh food?

Yes

52. Does your school have an on-site food garden?

Yes

53. Are K-8 students required to take physical education class?

Yes, please describe the schedule: - all grades, 2 classes per week (approx 45min long)

54. Are high school students required to take physical education to graduate?

No Response

55. What proportion of physical education (K-12) takes place outside?

50-74%

56. Are K-8 students required to take health education (separately from P.E.)?

Yes, please describe the required schedule: - Health GEs are integrated throughout the curriculum by classroom teachers, guidance, school nurse and PE teachers. 6-8th graders take "Skills 4 Life" which is a class that meets once a week to cover topics related to health education.

57. Are high school students required to take health education to graduate?

No Response

58. Is health education taught by a VT licensed health educator?

No

59. Describe any unique or innovative policies, practices, and/or partnerships to improve nutrition and fitness for students and/or staff. (100 word max)

-FEED program with connections to every classroom-18 on-site gardens managed by FEED with food grown served in cafeteria and classrooms -relationship with New Village Farm which includes field trips throughout the year, 8th grade community service project at the farm doing educational outreach, and composting-"Table to Farm" composting in the cafeteria where food scraps from cafeteria lunches is returned to New Village Farm and used for chicken feed-Faculty Meetings dedicated to large group wellness/fitness activities each trimester-"Fitness February" organized by Wellness Action Committee and provides a menu of activities for students throughout the school to experience different types physical activity (Circus Yoga, Zumba, "Boot Camp")-"jog-a-thon" fundraiser in May promotes physical activity while raising money for the PTO

60. Please identify a contact person who could provide additional information about your school's environmental and sustainability curriculum?

Name/Title: - Allen Miller, Principal and member of CSSU Science Curriculum Committee

Telephone: - 802-383-1106

Email Address: - akmiller@cssu.org

61. To what extent does your curriculum address the following VT Dept. of Education Standards across all content areas in your school's curriculum?

Note: The referenced Standards are part of Vermont's Framework of Standards and Learning Opportunities and Science Grade Expectations

	Never (not addressed)	Seldom (only a few classes/courses)	Sometimes (generally addressed in most courses)	Often (addressed in all classrooms)
Vital Results Standard--Sustainability(3.9)			X	
Vital Results Standard-- Sense of Place within the Environment (4.6)				X
Grade Expectations--Ecosystem Dynamics (GEs 30 -37)			X	
Grade Expectations--Natural Resources and Agriculture (GE 50)			X	
Comments:				

62. To what extent are the following topics/practices integrated into your school's curriculum?

	Daily	Weekly	Monthly	Quarterly	Once or Twice/Year
A. Meaningful outdoor learning opportunities at every grade level to teach an array of subjects. In the comments box below, please list the name of an educator we can contact.		X			
B. Sustainability and environmental experiences as a context for learning science, technology, engineering and mathematics (STEM) thinking skills and content knowledge. Reference a specific example in the comments box below.			X		
C. Sustainability and environmental learning as a context for addressing green technologies and career pathways. List an example related to career exploration in the comment box below.				X	
D. Civic/community engagement projects integrating environment and sustainability topics. Cite example in comment box below.			X		
<p>Please list a the name of an educator and specific examples of the above, referencing A,B,C,and D above.: Vital Results Standard--Sustainability(3.9 Sometimes (generally addressed in most courses) The strongest examples of sustainability being embedded in our curriculum is found in classroom projects related to composting and recycling, the water cycle and energy, topics that spiral through the science curriculum at every grade level. At our youngest grades this focuses on identifying the relationships between living and nonliving factors in the environment. Children at this level are taught to differentiate between elements of "garbage," identifying those that can be reused and asked to question where things go when they are thrown away. At the intermediate grades the focus is heavy on air and water, looking at how these fit into the life cycles of every living organism and coming to understand the complex interactions between the water cycle, the atmosphere, and weather patterns. We are in the midst of developing age appropriate units on climate change into this curriculum as well. At the middle school level, where the units of study are broken into earth, life and physical science, these themes continue with special focus on the theme of energy. Composting is examined through the lens of life cycles and human anatomy. Physical science units focus on the role of energy in our modern world, looking specifically at the complex processes of energy production in both renewable and non-renewable systems. Vital Results Standard-- Sense of Place within the Environment (4.6) Often - address in all classrooms This is a consistent theme that exists throughout our K-5 Social Studies and Science Curriculum. Beginning with our primary grades, the theme "our place at home" focuses on the broad essential question of "where is my school?" in the context of understanding the ecosystem that surrounds our school. We have the good fortune of being located just a mile from the Lake Champlain shoreline and the LaPlatt River Nature Reserve so regular field study work occurs exploring the relationship of our school to these areas. Each class also completes a unit of study in cooperation with Shelburne Farms, taking advantage of their agriculture and forestry program to gain an initial understanding of the woodland forest ecosystem. Our intermediate classes expand the theme to explore the "Shelburne Story" - the broader context of the Lake Champlain valley as well as the Green and Adirondack mountains. The primary essential question is "what role has man played in shaping this area as we see it today?" Grade Expectations--Ecosystem Dynamics (GEs 30-37) Sometimes (generally addressed in most courses) This topic is also a core concept embedded into the "where is my school" and "Shelburne Story" units described above. Understanding the biotic and abiotic factors of local ecosystems, as well as the food chains and webs that exist within them are core understandings especially at the intermediate level. Units at the middle school level expand to look at the complexity of these interactions, specifically looking at the impact changes of any factor can have on the stability of the ecosystem and the overall health of the organisms within it. The eighteen class gardens also serve as a practical test bed for these studies as students monitor the health of their plantings and seek to determine how best to maximize the production. Grade Expectations--Natural Resources and Agriculture (GE 50) Often (addressed in all courses) The eighteen gardens located on our school grounds, as well as the National Wildlife Federation certified Schoolyard Habitat flower gardens provide the perfect laboratory for the regular study of agriculture at all grade levels. We also partner with Shelburne Farms so that every class participates in one or two day long field trips as a part of a science or social studies unit. Whether it is the study of dairy farming and cheese-making, forestry, maple syrup production, vegetable farming, or animal husbandry, we are incredibly fortunate to be able to have access to the resources and educators of Shelburne Farms to support these studies. We also have a partnership with New Village Farm, located just 1/2 mile from our campus. Eighth graders have the opportunity to choose a trimester community service internship with the farm, where they serve as educational assistants for field trips with elementary classes and support the work of this operating farm. Every grade level also receives lessons from our FEED volunteers sharing the purpose and objectives of our cafeteria composting and recycling program which includes a visit from the staff of New Village Farm sharing the use of the 90+ pounds of food waste collected each week as chicken feed. a - A. Meaningful outdoor learning opportunities at every grade level to teach an array of subjects. Kindergarten teacher Joplin James has been a schoolwide leader in environmental education at our school for nearly two decades. Although his Treehouse Team has an actual treehouse that doubles as a reading cubby, it is often empty as his classes can be found tending their class garden, monitoring seasonal change, or leading our schoolwide Arbor Day treeplanting celebration. b - Sustainability and environmental experiences as a context for learning science, technology, engineering and mathematics (STEM) thinking skills and content knowledge Middle School science teacher Lisa Phelps has collaborated with educators from Shelburne Farms to create a yearlong interdisciplinary study focused on the role of agriculture in the economy of Champlain Valley communities. The unit included the evolution of agriculture through the development of mechanization - highlighted by being able to compare / contrast modern agriculture and farming techniques with those of the 1800's when the Webb family originally developed their model farm. c - Sustainability and environmental learning as a context for addressing green technologies and career pathways. Middle School science and math teacher Devon Morrill teaches an eighth grade science unit on renewable energy that explores the opportunities for local employment in the wind and solar energy fields. Over the past three years she has also taught an afterschool enrichment class specifically on solar power, which lead to our school board considering the development of a solar farm on school property. This project has been tabled for a year, and will be reopened this spring as part of a roof replacement project looking at a rooftop installation. d - Civic / community engagement projects involving environment and sustainability topics. Our third grade teacher, Megan Maynard, has just completed a unit of study looking at the impact of plastic water bottles on the environment. This interdisciplinary unit culminated in the installation of a water bottle filling station and the removal of plastic water bottles from our cafeteria lunch selections.</p>					

63. What evidence can you provide of students' successful learning of environmental and sustainability concepts in your school?

NECAP Science Results

Other (please specify) - Data from recycling and composting projects

64. Please describe assessment results related to question #63.

The highest correlation evidence is from examples of student projects such as their studies on recycling, composting, and conservation which have been displayed at numerous parent nights and events over the past five years. Seeing the reports, posters and presentations by students clearly has been demonstration of the learning they have done. This also links directly to the behavioral evidence we see schoolwide such as the 40% reduction in total monthly garbage output due to our student lead recycling program. Similarly our students' willingness to personally sort their lunch waste in order to separate out 90 pounds of compostable food waste each week is evidence that they have taken these conservation lessons to heart. We can also point out a steady rise in our students scored on NECAP exams in the past five years, including an increase from 28% to 56% proficient in 8th grade science since 2009 and an increase 56% to 70 percent proficient in science at 4th grade, both of which are significantly above the statewide averages and which we attribute to the hard work of our students and teachers that has already been described in this application.

65. Please detail the ongoing professional development training and support around environmental and sustainability learning for teachers in your school? Please list specific PD events, description and frequency.

Ongoing - we have two designated Science Master Teachers, 8th grade teacher Robin Halnon and 5th grade teacher Pam Cyr, who provide ongoing support and guidance to all elementary and science teachers in our building. They provide consulting support for the development of KUDs and lesson plans, have teamed with SU colleagues to develop inquiry performance tasks that are used for consistent formative assessment at each grade level, and they have lead four faculty meetings through the year that are dedicated to improving science instruction. Curriculum Work - we contract with Colchester Science Teacher and VHEC Consultant Heather Barron to work with our grade level science teams to further develop our curriculum alignment with the VT GE's as well as the Next Generation Science Standards that are being developed. This summer seven grade level teams dedicated two days each to this work to assure that our instruction incorporated not only the important concepts of environmental awareness and sustainability, but all GE's. Shelburne Farms Collaboration - we are incredibly fortunate to have a longstanding relationship with the education department at Shelburne Farms which allows all of our teachers access to two full day field trips and pre / post consultation for curriculum integration and development. Their staff is able to provide us with ongoing support especially in these areas which are particular focus areas for their programs. Summer Workshops - we have had seven teachers participate in the weeklong Shelburne Farms Summer Institute for Education on Sustainability. It was from this work that several of our grade level units such as Shelburne Story and the middle school History of Agriculture were developed. Vermont Science Institute - our two science leaders have participated in several ongoing trainings with the Vermont Science Institute, honing their skills specifically in the areas of assessment and inquiry in order to provide professional development for our own faculty during inservices and faculty meetings.

66. What evidence can you provide that the district-wide sustainability curriculum is resulting in changes in how students treat and respect the environment? Please describe.

As covered in the assessment question previously, the highest correlation evidence is from examples of student projects such as their studies on recycling, composting, and conservation which have been displayed at numerous parent nights and events over the past five years. Seeing the reports, posters and presentations by students clearly has been demonstration of the learning they have done. This also links directly to the behavioral evidence we see schoolwide such as the 40% reduction in total monthly garbage output due to our student lead recycling program. Similarly our students' willingness to personally sort their lunch waste in order to separate out 90 pounds of compostable food waste each week is evidence that they have taken these conservation lessons to heart. Such behavioral change is our ultimate goal and we are very pleased at how quickly it appears to be taking hold as students develop habits of practicing environmental stewardship.

67. Please provide a website or other location where your school's curriculum is available.

Here is the website address that contains all curriculum frameworks for the Chittenden South Supervisory Union. <http://www.cssu.org/page/142> Individual teacher pages also include information about their particular units of instruction such as this blog from Pam Cyr <http://pamcyr.blogspot.com/> or this page from middle school science teacher Lisa Phelps <http://www.scsvt.org/Page/2364>

68. In the space provided please share any additional information that exemplifies the strength and breadth of the environmental and sustainability educational program in your school.

The only other piece to highlight is our longstanding partnership with the Four Winds Institute, which provides Hands-on Nature units of instruction to all K-5 classes once per week in addition to the core instruction provided by the teachers. Funded in collaboration with our Parent / Teacher Organization, these classes are collaboratively taught by parent volunteers who have received training from Four Winds as well as the regular classroom teacher. These lessons almost always contain a high quality connection to basic environmental principals as well as incredibly engaging and hands-on science lessons.

한국어

日本語

中文 繁體

