

Clockwise from above: Bancroft Campus Center houses the library, art room, music room, and the gymnasium/performing arts center. A scene from last year's middle school musical, The Little Mermaid. First-grade student reading. Kindergarten students having fun on the cargo net during recess.

By Meredith Angwin
Photos courtesy of Crossroads Academy

Crossroads Academy in Lyme Strong minds, kind hearts

Crossroads Academy in Lyme is a private school that emphasizes the Core Knowledge and Core Virtues program. The school website describes its philosophy in detail, but the students themselves summarize the goals of their education in a single phrase—"strong minds, kind hearts."

The Crossroads approach to education was inspired by E.D. Hirsch Jr., an educational reformer whose work stresses the role of background knowledge in reading comprehension. Knowing how to decode a sentence is useful, but it isn't enough if the student has no understanding of the subject matter. Hirsch established an independent foundation that developed a "Core Knowledge Sequence" for learning science, history, geography, and literature in the lower grades. »







Clockwise from above: Third-grade students show off their balloon globes. Faculty celebrate their 100 percent giving for the Annual Fund. First-grade classmates. Second-grade parent, teacher, and assistant celebrate the end of the ancient India unit. First-grade students enjoy the Family Square Dance. Eighth-grade student sets the height for the new greenhouse. First-grade habitat project.

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—Dr. Bruce Freeberg, Fifth-grade teacher

Longtime Upper Valley resident Mary Beth Klee recognized this educational reform movement as a recipe for success in teaching. Klee founded Crossroads Academy in 1991 to put these ideas into practice. A former history professor, she had been dismayed by her students' lack of background knowledge, even when they were in college. Crossroads became the third Core Knowledge school in the nation. Since that time, Crossroads has been joined by more than 2,000 Core Knowledge schools including public, charter, and independent schools in urban, suburban, and rural settings.

Building Knowledge and Skills

Fifth-grade teacher Dr. Bruce Freeberg explains that at Cross-roads, the tasks of building knowledge and building skills are well integrated. "The more students know, the more resources they have to think with, the more interested they become in learning still more, and the more articulate and insightful they become as speakers and writers," he says. In teaching history, for example, Crossroads uses a variety of techniques to bring the subject alive. Students read original literature, perform

plays, and even sing songs. The history curriculum includes songbooks from the Revolutionary War, the Civil War, and other periods. Freeberg, the 2011 New Hampshire history teacher of the year, uses his guitar to help teach the songs, and students become engaged with the emotions and spirit of the times. The history curriculum covers American, world, and European history.

Knowledge-based language arts include reading important works in English and studying foreign languages. Students read works such as *Don Quixote* and *Great Expectations* and read, write, and memorize poetry. Steve Glazer, an accomplished poet and the founder of Valley Quest, is the upperschool English teacher. Glazer devotes four classes a week to literature and two classes to composition (yes, that is six classes). Some literature classes are studying William Butler Yeats; students memorized a Yeats poem of their choice. When Glazer invited his students to share poems with me, one 13-year-old boy recited "An Irish Airman Foresees His Death" perfectly, demonstrating sensitivity to the language and meaning of the poem. At Crossroads, memorizing poetry is just one







Top row: Recess break for two second graders and a third grader. Eighth-grade students work on the greenhouse for the lady's slipper restoration project. Above: Science students prepare lady's slippers for vernalization. A third-grade student models her original hat in the style of Jan Vermeer. Klee Building houses K-5 students and a state-of-the-art science lab.

aspect of understanding poetic and classical rhetoric.

Science is taught in a hands-on, realistic way. The third-grade science curriculum includes a study of optics and the eye. Local physicians come in to help the students dissect a cow's eye at the end of the unit. Squeamishness is quickly replaced by fascination, as an entire unit has led up to the moment when each pair of students gets a cow's eye to examine.

Real-World Experience

Upper-grade students participate in scientific investigations that are more typical of college-level work. Showy and yellow lady's slippers are stunning orchids that are endangered species in Vermont and New Hampshire. At Crossroads, students propagate these plants in sterile tissue culture. They have propagated over 7,000 plants, and

last year they presented their research at a major scientific meeting in Boston. The school works closely with conservation organizations including the New Hampshire Orchid Society. Many of the students spend over two years, both during and after school, doing research for this project. The students have published their work in the annual symposium of the American Association for the Advancement of Science (AAAS), the publishers of the highly respected iournal Science. Crossroads science teacher Dr. Peter Faletra has been named a fellow of the AAAS in recognition of his remarkable work with students to reintroduce endangered plants to their native environments.

In the Crossroads physical science lab, students also get practical experience with scientific techniques, and they use an impressive array of scientific instruments. For example, students diluted a



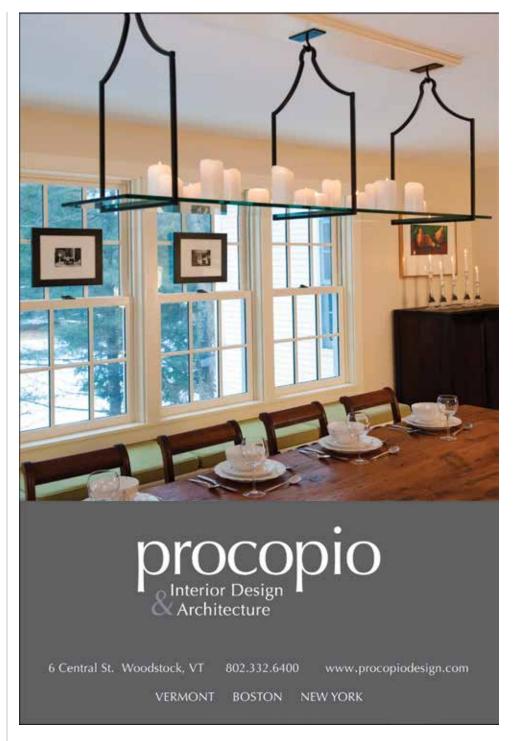


dye solution and used a spectrophotometer to generate a standard curve of concentrations on a logarithmic scale. Later, the students would receive an unknown solution and analyze its concentration using their standard curve. Dr. Faletra says this is the basic principle for many blood chemistry measurements. This work combines some advanced math with chemistry and physics in one experiment.

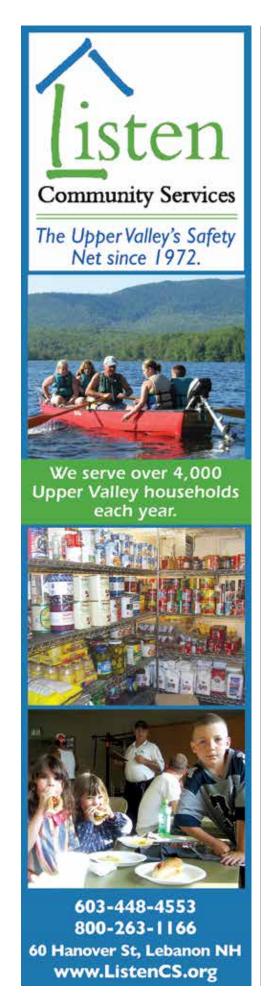
Encouraging Core Virtues

Crossroads founder Mary Beth Klee understood the power of the Core Knowledge approach to early education, but at the same time she believed that knowledge and skills in themselves are not enough. To guide young people to an honorable and successful life, you need to encourage Core Virtues as well.

Klee saw a need to complement the Core Knowledge approach with a character education program that would help to cultivate key virtues such as respect, responsibility, diligence, courage, and hope. Piloted at Crossroads Academy, this Core Virtues









Top row: The sixth graders study ancient Greece and then participate in a Greek Olympics in physical education class. Sixth-grade student enjoys the potato sack race at the Family Picnic. Above: A science student photographs lady's slippers in the wild. Sixth graders construct icosahedrons in math class. Beautiful Hewes Brook runs through Crossroads Academy's 140-acre campus.

curriculum has since been adopted by many schools across the nation. Crossroads teachers use stories, discussion, and service projects to highlight and reinforce these virtues.

For example, second-grade teacher Marjorie Martin read her class a story about children who met a homeless woman. At the beginning of the story, she reminded the class about the day the school had "packed the truck" with donated warm clothing for the Upper Valley Haven. When she was halfway through the story, she stopped reading it and gave the class a writing assignment. How would the children in the story tell their mother about the homeless woman? What would they say? Each second-grader wrote their own version of "Telling Mother," reflecting on a moral issue and practicing their writing at the same time.

This integration of knowledge and

virtues is typical of Crossroads. Head of school Jean Behnke observed that when she joined Crossroads, she thought that Core Knowledge and Core Virtues were both important but mainly separate. Now at Crossroads, she sees how the pursuit of knowledge and the practice of virtues are interconnected. The learning process requires practical virtues like diligence, perseverance, and courage. At the same time, reflection on choices and character helps students understand literature and history on a deeper level.

One of the best things about Crossroads Academy is the excitement among the students. They clearly enjoy learning because they are learning "real stuff." They read challenging literature, encounter the historical past, and do science experiments that would be more typical of high school or even college. They develop their writing



skills, learn foreign languages, present speeches, perform in plays, and sing in choral groups. They participate in the community through clothing drives, volunteer work, and endangered species restoration. "Strong minds, kind hearts" is meaningful, exciting, and fun for these students.

It's wonderful to know that this entire program got its start with people right here in the Upper Valley, and that it's moving across the country. Wherever the program reaches, it will improve the lives of students, their families, and their communities.

For More Information

Crossroads Academy

95 Dartmouth College Highway Lyme, NH (603) 795-3111 www.crossroadsacademy.org

The Core Knowledge website includes a downloadable book on curriculum sequence: www.coreknowledge.org

Core Virtues website: www.corevirtues.net

