

WILTON-LYNDEBOROUGH SCHOOL DISTRICT

Better living through hydroponics

By **BRANDON LATHAM**
Monadnock Ledger-Transcript

Hydroponics gardening is a method of growing plants that can be done indoors without soil, and it is the newest cross-curricular learning tool at Wilton-Lyndeborough Cooperative Middle High School.

The two gardens are being used in classes for arts and sciences. Their produce is even being used outside of class in the cafeteria and at home.

"My big goal because of the community we live in, I think we should have raised gardens all around our school," Olympia Clark, WLC family and consumer science teacher, said.

Clark uses the garden in a number of ways in the classroom. It was donated last year by a parent, Pam Holt, and is being worked into the district's goals for STEAM education, highlighting the interactions between science, technology, engineering, art and mathematics.

Clark said that the system works by planting seeds in beds

of clay pellets rather than soil, and feeding them nutrients weekly. They get "sunlight" from powerful fluorescent lights, and water from a continuous pump.

So far, the vegetables grown in the hydroponic gardens have been used in multiple cooking classes at the middle and high school levels. It has also been tied into an art class, where students built garden pallets, and science lessons about pH levels and identifying parts of plants. In coming years, it can be phased into classes on biology, chemistry and more. WLC is partnering with Talie Walley of Walley Works, which provides wellness education, for lesson plans.

That is in addition to just being able to eat the fresh produce grown year-round.

"We planted lettuce and had salads every day," Clark said. "And the people from the cafeteria come in and take what they want that day, like a little basil for the red sauce for lunch."

Along with basil, the garden is growing kale, dill, cilantro,

Swiss chard and various lettuces.

And like anything in school, Clark thinks the benefits go beyond learning and productivity. She mentioned Connor Kennedy, a sixth-grader that she appointed as supervisor of the hydroponics, where he became more social and showed excitement in schoolwork.

"He did not like school, he didn't want to be here," she said. "I'd work with him a couple days a week and now he identifies it as his baby."

Now Kennedy is the leader of the small team of middle schoolers helping maintain the garden. He said it has been a cool experience, but he has mixed feelings about people eating his plants.

"Learning how they grow up like your own child, and this one grew up really fast," he said. "It's sort of cool but at the same time, they're eating my creation."

"If you give kids good food, they're going to want it," Clark said. "And more than the education, I just like how it turns a kid's life around."



STAFF PHOTO BY BRANDON LATHAM
Wilton-Lyndeborough teacher Olympia Clark and sixth-grader Connor Kennedy grow vegetables year-round as a way to merge science and arts curricula.

Defy the limits of learning



GREG O'BRIEN
CONVAL VOICES

It was a Wednesday evening in early April. A small group of students gathered in Room 112A for their weekly history class as part of the Adult Diploma Program at ConVal. Upon hearing the news of the award and with a comical look of disbelief on her face, Talia Rokes asked, "Is it okay to gloat?"

"Of course it is!" I replied. "You earned that right!"

Talia had just learned she was the recipient of an award given by the local chapter of Daughters of the American Revolution and selected by the ConVal Social Studies Department as the U.S. History Student of the Year. It was clear that Talia was not accustomed to academic honors, and she wore the pride in her accomplishment as a smile that was deeply infectious. "Gloat" may not have been the exact right word to express her pride since there was not a trace of smugness. The word that best describes what I witnessed was delight. The next morning, a lovely email filled with gratitude from Talia's mother and father appeared. "We are so proud of her and are happy that you recognized her efforts," her mom wrote.

Later that day, I tracked Talia down for meal selection at the luncheon we would be attending for the award ceremony. I dialed the ceramics classroom where she was spending her TASC time on this day. TASC is an academic intervention and enrichment block that has proved quite successful and

has drawn a lot of attention to ConVal. I asked to speak with Talia. Art teacher Ben Putnam, very loudly and with real affection, announced so everyone in the class could hear, "Did you say you wanted to speak with the award-winning Talia Rokes?" I could hear the same smile from last night in her voice as we talked.

A few days before, the Social Studies Department had met as a team to nominate and vote on this year's recipient. At first, the idea of nominating somebody from ADP did not even occur to me. When department leader Nancy Gagnon suggested the possibility, it just seemed so unconventional! However, as names circulated for nomination, it became increasingly clear that Talia, in an unconventional setting, had begun to distinguish herself! As her psychology teacher, Nancy Gagnon agreed – Talia was doing exceptional work. When the vote came and Talia won, I selfishly said I would share the news with her and I was glad I did. Talia's reaction was one of the most rewarding moments of my teaching career in quite a few years.

This story is both a human-interest story with a personal narrative and a story about the limits and the innovations in our sometimes beloved, sometimes maligned public education system. The ADP classes typically attract students who failed some required course, often a last chance for students with behavioral, emotional, and academic challenges. Teaching these classes can be downright unpleasant with an atmosphere of prolonged detention – a weekly "Breakfast Club" without any of the catharsis or soundtrack. It is probably more painful and frustrating for those students to have to take the night class than it is to teach them. Many are entrenched in a pattern of failure that is not easy to unlearn. However, there is a cultural shift taking place

that is replacing this stereotype. Students attending night class and summer school are not exclusively troubled youth and reluctant learners. They are often smart, motivated students who simply do not thrive in a regular classroom environment or want to free up time in their schedule to take electives and Advanced Placement classes.

This year the ADP History class is different than it has been in past years and that change is significant. The students seem to appreciate an opportunity to learn in an environment without the distractions of a regular class. We talk about life and about history. We make connections between the past and today. One evening we talked about how to avoid credit card debt and how to keep records and do taxes. Yet we also learned about the Gilded Age, about the growing wealth inequality that plagued that era and how those same forces are still at work in today's society.

My experience is not an isolated incident. Colleagues like Greg Leonard who teach summer academy are having unprecedented success teaching required courses such as Government and Economics while electives like Forensics are proving popular as well.

Perhaps it is just a very happy accident that I have a weekly night class with motivated, intelligent hard-working students. Talia is one of many students at ConVal who will find success because of the variety of learning opportunities afforded by the district. She and her classmates Jeffery Pinkham and Amber Thompson have made that class the highlight of my week. Talia's particular path has been one of discovery and perseverance. I am delighted she opted to take the ADP class and glad I stuck with it, too.

Greg O'Brien is a social studies teacher at ConVal High School.

Learn archaeology at summer field school

The New Hampshire Division of Historical Resources' 2017 summer archaeology field schools will continue investigations of two different sites, one occupied by Paleoindians 12,000 years ago and the other a 17th-19th century mill community.

Last year's survey of the Livermore Falls site provided evidence of milling and light industrial activities as well as several buildings associated with "the Hollow."

N.H. State Archaeologist

Dr. Richard Boisvert will direct fieldwork and instruction in Jefferson; David Trubey and Edna Feighner, archaeologists at the NHDHR, will direct the Livermore Falls investigations.

Participants will have hands-on instruction in data recovery techniques, artifact identification and excavation documentation. Although most SCRAP field school participants are volunteers, graduate and undergraduate credit through Plymouth State University is available. Volunteers receive the same instruction as credit students.

There is no fee to partici-

pate as a volunteer; however, a \$40 donation to defray the cost of supplies and instructional materials is suggested.

The Jefferson sessions take place June 26-July 7, July 9-21 and July 23-Aug. 4; Livermore Hollow is Aug. 7-18 and Aug. 21-Sept. 1. Fieldwork will take place from 8 a.m. to 4 p.m. on weekdays.

Advance registration for each field school is required by June 2. For more information and to register, visit nh.gov/nhdhr/SCRAP.htm and click on "Upcoming Events & Opportunities," then "SCRAP Field School 2017" or call 271-6433.

A sweet lesson



Sixth-grade Jaffrey-Rindge Middle School students had a sweet visit from Ben Fisk of Ben's Sugar Shack in Temple. His visit was the capstone experience for an interdisciplinary maple syrup unit. Fisk shared with students the history of maple sugaring, different aspects of the maple business — and maple candy.

PHOTO BY LAURA HARDING

Book visit was a hoot

Jackie Cleary, a former teacher at the Cutler School in Swanzey, came to read to Allison Maher's Jaffrey Grade School class last week as part of Teacher Appreciation Week.

PHOTO BY ALLISON MAHER



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