Composting is
On a balmy June evening, about 25 middle-schoolers from Columbia Secondary School for Math, Science, and Engineering (CSS), a public specialized school in the South Harlem neighborhood of New York City, are gathered in a 1/10-acre garden on Amsterdam Avenue at 119th Street, enthusiastic participants in a workshop on urban composting. Instead of playing the role of passive listeners, though, they are the teachers, energetic and knowledgeable proselytizers on everything from the finer points of brown matter versus green to the care of compost facilitating red worms.

Among the many visual aids they've created for the workshop is a large poster board titled "School Compost: Our Story." It includes the key talking points, "Why do we compost?" "How do we compost?" and "Why is composting at school awesome?" As they proceed to answer these questions, the person who has taught them just how awesome composting is, 6th-grade English and philosophy teacher Meredith Hill—"Professor Hill" to her students—beams proudly as she wanders among four teaching teams earnestly showing and telling before a rapt audience of parents, gardeners, and educators.

Team leaders Maya, 7th grade, and Chloe, 8th grade, describe the group's basic compost recipe of "greens, browns, oxygen, and water"—worms optional. "Greens" are fresh leaves, grass clippings, and kitchen scraps that are high in nitrogen, while "browns" are composed of dried leaves, twigs, and even paper bags. Each participant is given a small cutout of a food or trash item and asked to place it in the proper category: compost, trash, or recycling. "Can you compost magazines?" asks a parent. "You can compost newspaper," authoritatively answers eighth-grader Kelly, "but not magazines," because of the type of ink used and the glossy paper.

The garden got its start in 2011, when school community members noticed a neglected parks-department site not far from the school. Hill and her charges have transformed it into an urban oasis brimming with several dozen types of vegetables and herbs, including kale, mint, basil, tomatoes, eggplant, and Swiss chard, as well as a number of pollinator-attracting perennials such as roses, echinacea, daisies, and bee balm. The CSS garden is one of almost 900 school and community gardens in the city that are part of the NYC Parks GreenThumb community gardening program—the largest in the nation. Hill also registered the garden with Grow to Learn, a citywide public-private partnership that supports public and charter school gardens in New York City.

CSS's organic garden became the perfect starting point to engage students in all parts of the growing and cooking and eating process," explains Hill. A compost

By Nancy Matsumoto  Photography by Valery Rizzo

Opposite: Urban compost in the making at a New York City middle school; in learning about how compost gives life to the soil, the students also discover how gardening and food and community are closely intertwined. Right, top and center: The class takes its lesson into the neighborhood, spreading the message of composting and health. Right, bottom: Educator Meredith Hill puts gardening and composting on the curriculum at Columbia Secondary School in Harlem.
enthusiast who, when she has free time, helps hand-sort food scraps and build window boxes for community compost projects, Hill wanted to see the school’s waste processed on site instead of being trucked to a composting site in Delaware, as the city did until 2012. So she introduced her students to hands-on urban composting, or what she calls “the missing link in terms of building a sustainable system.” More than 200 public schools in the city are engaged in composting projects now, and that number continues to grow, according to David Hurd, director of the Office of Recycling Outreach and Education for the nonprofit environmental organization GrowNYC.

Hill’s students started their adventure in composting in the classroom with eight worm-filled bins procured from the city sanitation department’s NYC Compost Project and the community-based Lower East Side Ecology Center. They began outdoor composting along with the outdoor garden, and are working toward the goal of eventually collecting and composting all the school’s waste.

Some students have brought their zeal for composting into their homes, too. Chloe’s family keeps a worm bin in their apartment, and they have donated lots of food scraps to the CSS compost project. “I freeze it, which kills off all the fruit fly eggs,” says Chloe’s mom, Carrie Worthington. “Chloe taught me that.” Working with worm bins has its ups and downs. There was the time the class added too much water to the bins, causing the waterlogged worms to escape. In another incident, which 6th-grader Ashley calls “the great radiator wipeout of 2011,” a janitor placed a worm bin on the radiator overnight. “When we came back, our worms were fried,” recalls Ashley.

Back at the workshop, a kid teaching team introduces the galvanized metal trash bins for maturing compost and demonstrates the hand-turners used to aerate and mix the compost. Once finished, the rich black gold the class has made is used to fertilize the raised beds of their garden. Having read as a class assignment the young readers edition of Michael Pollan’s The Omnivore’s Dilemma, 6th-grader Niagalie knows that their lovingly tended mix is “a lot healthier than store-bought” chemical fertilizers, or those used on large-scale commercial farms, which she calls “disturbing.”

Nearby, another team shows off its chicken-wire-fenced leaf bin used to store brown matter, always in short supply. Last year, to remedy the too-wet mix that can result from a lack of browns, Hill arranged to get fall leaves from nearby Morningside Park on a raking day. The students also demonstrate the use of a fine mesh strainer the exact size of the raised beds to separate overly large bits of organic matter. Workshop participants take turns sifting, to cries of “good compost!” from team leaders.

The garden and compost project has been a collaborative effort; in addition to many of Hill’s past and current 6th-graders, a sustainably focused school “Green Team” and a number of community volunteers participate in open gardening hours held Friday afternoons during the growing season. Students and teachers from CSS’s engineering program built raised beds and hoops for the garden, too.

After the workshop, students romp through the garden, tearing off leaves of kale and mint for guests to taste. It’s a sight to gladden the heart of any urban parent whose child is more likely to dial for pizza delivery than reach for the vegetable bin. “I make ‘tacos,’” says 6th-grader Griffin, demonstrating how he wraps a large kale leaf around several leaves of chocolate mint. In their school Garden to Café program, the young gardeners have chopped herbs and veggies to sprinkle on top of cafeteria pizza, roasted kale chips, and brewed their own mint hot chocolate. “We have infinite amounts of mint,” confides Griffin.

Every year, Hill’s experiment in sustainable gardening has grown. To cut down on the huge amount of food waste at CSS, Hill and her students researched

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How to Start Your Own Community Compost Group

Interested in starting your own community compost project? Here are some tips from Andrew Barrett, school garden program coordinator for GreenThumb; Marisa DeDominics, cofounder and president of the nonprofit compost education organization Earth Matter; and David Hurd, director of the Office of Recycling Outreach and Education for GrowNYC. —N.M.

- Organize a dedicated group of volunteers interested in the project. Managing a community compost project is no small task, so the more help, the better!

- Reach out to your city’s sanitation department to see if it can offer support or information or link you to similar projects.

- Identify a location for the project. Check with your local community garden network. If it doesn’t already have an onsite compost project, it may be interested in starting one with you.

- Before you begin, be sure to reach out to neighbors, local officials, and parties that might be affected. Many people fear that compost attracts rodents and creates odors, and accidents will probably happen. To help avoid future conflicts, you should share stories, provide examples, and discuss the potential challenges and benefits of your project with the community from the start.

- Master the art of making compost so that you prevent problems. Make sure you have enough brown materials, such as dry leaves, and adequately aerate the compost. (Our e-book Compostology 1-2-3, available at OrganicGardening.com/ e-books, explains the whole process.)

- Use signs, open hours, workshops, and community events to let people know what you are doing, to educate others about compost, and to get more people involved.

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and wrote a grant proposal to the Citizens Committee of New York City, Manhattan Solid Waste Advisory Board, and Manhattan Borough President Scott Stringer, netting $450 from the city to purchase a 14.7-cubic-foot freezer in which to store food scraps in the classroom until they have a chance to haul them to their garden, a 20-minute walk from school. “We were the group of middle-schoolers walking down the street with a big wheelbarrow and a freezerful of frozen food scraps,” says Maya. “We which Hill adds, it’s way cooler than it sounds.”

This year at CSS, to expand collection of food scraps at lunchtime, the class marked trash bins in the cafeteria with signs reading “Compost,” “Recycling,” and “Trash.” It was a challenge getting students to comply with the separation rules, though, even with student monitors posted by the bins to keep order, says Chloe. “Kids needed a lot of reminding about foam trays, and what stuff was not compostable.”

Laura Norwitz says that through Hill’s gardening elective and her reading of The Omnivore’s Dilemma, her daughter Ellie is “more aware of the social and political issues of large-scale farming and the food industry.” Ellie has educated the family, too. “For years, we were getting the cheapest version of eggs labeled ‘cage-free,’” says Norwitz, “but Ellie told us, ‘cage-free doesn’t mean the chickens were well-raised.’ The family has started buying eggs at the farmers’ market. Another parent, Hiroko Suzuki, says of her son, Ani, “On his first day of gardening, he ate five kinds of vegetables! He doesn’t want to buy regular vegetables; he wants to buy organic.”

It’s clear that these young people’s passion for sustainability, gardening, and composting is due to Hill, who has given students “the opportunity to learn about the impact their lives have on the environment, and what they can do about it.” They know, she says, that “Going green is about being agents of change.”

For a video of the Columbus Secondary School garden and composting project, go to OrganicGardening.com/CSScompost or see our iPad edition.