

# NORTH JUNIOR HIGH GARDEN-TO-PLATE CLASS BOISE, IDAHO

If there's one thing Diana Ellis has learned about junior high students over the past 20 years, it's that they LOVE to eat. Have them grow the very items they're consuming, and "kids find it amazing."

Ellis, a science teacher at North Junior High in Boise, Idaho, leads the Garden-to-Plate class, where growing and eating fresh foods take center stage.



Students grow vegetables in the outdoor garden and indoor growing lab, harvest the produce, and learn how to create tasty and nutritious dishes from what they've grown.

This past year, students grew chard, carrots, leeks, potatoes, pumpkins, peppers, tomatoes, beets, lettuce, strawberries and herbs.

Favorites meals created from this bounty included potato and Swiss chard saute, pumpkin cookies, and

Vegetable fried rice, which will be a featured recipe in the children's book *Our Super Garden* by Anne Nagro.

While eating what they've grown is the pay-off, students get hands-on science and math lessons while working in the garden and kitchen.

They explore the cycle of food production from compost to harvest, how food plants are adapted to their environment, the propagation of plants from seeds and cuttings, the nutritional value of different vegetables, and the interdependence between plants and animals.

Students also develop skills of observation, hypothesizing, experimentation, measurement, problem solving, estimation and calculation, and learn basic cooking and life skills, like kitchen safety, teamwork, eating seasonally and locally,





and the willingness to try new foods. Students even share what they've learned with their families, often creating the nutritious dishes at home for all to enjoy.

Ellis, who was inspired by Alice Waters' Edible Schoolyard in California, would like to see the Garden-to-Plate program expanded throughout the district.

"With a little planning and support, any school could duplicate it, and I would be very happy to help make that happen."



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# Engaging Students in Hands-On Lessons that Connect Food, Health, and the Environment

## Garden-to-Plate Project Comes to North Jr. High



Dean Cohen (left) and Darian Cratty, 7th grade students at North Jr. High, carefully separate seeds, pulp and pumpkin flesh. Students used every part of the vegetables they grew and tried many tasty new recipes during the Garden-to-Plate project.

Imagine teenagers happily washing and chopping fresh vegetables, and actually eager to taste a new potato and Swiss chard sauté. It might sound a little hard to believe, but that is exactly what is happening at North Jr. High School where students participate in growing, harvesting, and cooking their own vegetables in the Garden-to-Plate project.

Diana Ellis, Science Teacher at North, wanted to bring plant science indoors and onto the dinner plate. "I'm always trying to create opportunities for kids to grow their own food," Ellis said. "Alice Waters' Edible Schoolyard in California (edibleschoolyard.org) was a big inspiration in making the leap to combine plant science with a 'kitchen lab.'"

Last fall Ellis launched the program with a visit to the Boise

Community Garden (boisegardens.together.org) so students could see how local gardeners were succeeding. From there students had many opportunities to work with plants and learn about gardening including starting seedlings, transplanting larger plants, weeding and harvesting food. Foods they grew include Swiss chard, carrots, leeks, potatoes, pumpkins, peppers, tomatoes, beets, lettuce, strawberries and herbs.

Besides the obvious plant science lessons, students came away with many other life lessons. They learned to try new foods, all about the Boise growing season, and kitchen safety during food prep, and some were a little surprised to learn new things through the harvesting process.

### "I AM MORE EDUCATED ABOUT GARDENING"

"I thought it was pretty neat how you harvested potatoes," said Colin Nowierski. "You just dig them up and then you can eat them. Now I think I am more educated about gardening."

There were some challenges to make the Garden-to-Plate project successful, "I was worried my seeds would die, and I did have to replant it twice before it grew," said North student Carl Krutz.

"Our seedlings were in the window and grew too moist and then grew mold," said Emily Volk. "We replanted and learned what we had done wrong."

Ellis credits the success of the Garden-to-Plate project with one simple fact, "In 20 years of teaching I've learned that junior high kids LOVE to eat. When you combine that with actually growing what you eat, kids find it amazing."

Students who enrolled in the course came away with a whole new appreciation for fresh vegetables. "The grocery store vegetables look so fake, now that I've seen fresh," remarked Fiona Taylor, 7th grade. "Now I am eating a lot more greens than I did before because I learned how much I liked them in class."

These new eating habits may transcend the classroom kitchen and impact the home; many students shared recipes they had prepared in class with their families. "I made the Swiss chard and potatoes for my family and they loved it," Volk reported. She also said that taking the course has increased her desire to assist with her family garden.

Another lesson that Ellis tries to bring to the classroom is to harvest wisely, using all the fruits and vegetables and pulling seeds for next year's garden. "With the pumpkins, we roasted the flesh and then used that to make pumpkin cookies, we roasted the seeds and saved some to replant, and we froze the pulp so the next class could use

it to make cookies," Ellis said. "My goal is to help students learn the connection of food and where it comes from and the wise use of energy and resources."

Nestled in the corner of the North Jr. High School yard, the school garden serves as a working lab for students. Ellis carefully plans the layout for the garden, as well as the planting and harvesting. During winter months students utilize indoor growing labs so they can participate in each phase of the project, regardless of when they take the course. This spring students will plant the garden for students who will return next fall.

Ellis' love of science, gardening and teaching have created a fun way for students to learn about food. She hopes the success of the Garden-to-Plate project will continue. "Our school plans to offer the course again next year for 7th graders. I would love to see it offered at other junior highs throughout the District. With a little planning and support, any school could duplicate it, and I would be very happy to help make that happen." Contact Diana Ellis at [diana.ellis@boiseschools.org](mailto:diana.ellis@boiseschools.org) for more information.



North Jr. High School students proudly display the Swiss chard & potatoes they harvested this past fall as part of the school's Garden-to-Plate project. Back row (L to R): Loren Decking, Ayris Tubbs, Olivia Henkel, Fiona Taylor, Nicole Neviasser, Whitney Taylor. Front row (L to R): Dakota Binegar, Campbell Bouch.

### GARDEN-TO-PLATE FACTS

From August to January:

- 46- 7th graders have grown, harvested, and cooked meals from the North Jr. High garden.
- Over 75 pounds of Swiss chard, carrots, leeks, potatoes, pumpkins, peppers, tomatoes, beets, lettuce, strawberries and herbs were harvested.
- 300 worms have been fed on kitchen scraps in the school's worm bin.
- In December, students harvested salad greens they had grown outside in their garden and made salads for 22 people.

### Garden-to-Plate Course Content

Students explore two areas of applied science: Food crop production and food preparation for nutrition. In the school garden, students plant seeds and seedlings and harvest the edible produce. Through these activities, students experience the cycle of food production from compost to harvest to a meal. Students also study the seasonal nature of plant growth as it relates to the types of food locally available. In the kitchen classroom, students create nutritious dishes from their harvest, learning how to prepare and eat seasonal produce in a variety of appealing ways. Students analyze the food choices of Eastern hemisphere cultures and compare them to their own food preferences. Topics from 7th grade World Studies Course are incorporated into this objective. Science and math process skills of observation, hypothesizing, problem-solving, estimation, calculation, experimentation and measurement are embedded in garden and kitchen lessons.