NC STATE UNIVERSITY

Plants for Human Health

January 2019

FRESH from the Garden

Teacher Feature

Juli Roach is a second grade teacher at Furr Elementary in Concord, NC. The school garden is mostly a one-woman project, borne of her astonishment eight years ago that her suburban students didn't know where food came from before arriving at the grocery store. While she would welcome other teachers or grades to participate, no one has joined her yet. She says, "For many teachers it may feel like, one more thing." But she's found that it's really not one extra thing to teach because she can integrate what she's already



teaching. She laughs, noting that second grade is the only elementary grade where plants are not part of the standards, but she hasn't had any trouble integrating math (measurement, rectangular arrays), science (heritable traits, weather, natural resources, the insect life cycle), social studies (Thomas Jefferson), and writing (how-to books, observation journal).

As a seasoned gardener now, we asked Juli to share some advice about gardening based on her experiences.

1. Follow the "1 new thing" rule

Just tackle "1 new thing" each year and, quite literally, "grow" the garden over time. For two years, she only grew peas and carrots; now her garden plan includes carrots, peas, lettuce, spinach and strawberries. Especially if you're an amatuer green-thumb, it can be easy to overdo and find yourself overwhelmed. Follow the adage, "Start small, dream big."

2. Choose crops that grow to maturity during the school year

Some of the most familiar vegetables, like corn, tomatoes, squash, and cucumbers require warm summer temperatures, and though they can be planted in the spring, the students will be out of school by the much-anticipated harvest time. Cool season veggies are "cool for school!"



3. Set clear behavior expectations

Juli says that in the classroom she follows the "3 strikes and you're out" discipline model, but in the garden, it's "1 and done." The first week, she sends a lot of kids back inside, but it instills the rules quickly, and students recognize the garden is a privilege. In the spring, the class spends the last hour of the school day in the garden every nice day. (Juli is part of a Spanish immersion team, so she has two groups of 20 students, alternating every other day.)

4. Have procedures in place

In Juli's classroom, there is a job for everyone; a job that is assigned prior to leaving the classroom. Jobs include: weeding, measuring, recording, watering. Juli carefully selects which students are capable of responsibly using the hose. The watering is otherwise done with a cup and a bucket.

5. Share your vision

While it may seem that Juli shoulders the garden, she acknowledges support from others that make it all happen. At the same time Juli saw a need to start a garden, a Boy Scout was looking for an Eagle Project. Her principal connected the two and the Scout raised the funds and built 6 raised beds in the school courtyard. A local church hosts 2 clean-up days at the school and the garden is always included as one of the project areas. She has posted needs or even dreams on Facebook and found friends with connections. Most recently, she wanted to add a butterfly house and a Girl Scout troop stepped up to fill that request. She has received donations from local businesses. She has started including gardening supplies on her classroom Amazon wish list. She's also excited to be applying for a grant this year to fund an irrigation system.

This year's "1 new thing" is starting a K-5 Garden Club. While many of her past students are likely participants, others are excited for the opportunity to get their hands dirty and see what the garden is all about.



Grant Opportunity

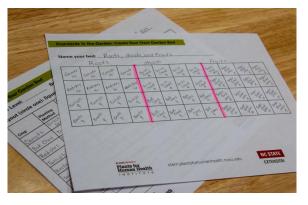
The <u>Gro More Grassroots Grant</u> provides funding for the development of new or expansion of existing youth garden programs and green spaces.



Winners will be selected based on their commitment to the maintenance and sustainability of their garden program including plans for growth and future fiscal stability. Grant awards are in the amounts of \$500 and \$1,000.

Applications must be submitted by Friday, February 15, 2019.





Not sure where to start? Ready to go, but need a little push? Check out our new resources on the **PHHI STEM website**.

Unit Plans

This resource consists of a garden bed designed around a specific purpose, a list of integrated standards that can be introduced, taught or reviewed, as well as ideas of how and when to incorporate the standards. Many of the unit plans contain one or more

literature link. Unit plans can be found under each grade level listing on the **Lesson Plans page**.

Create Your Own Garden Bed

Use **this resource** to design your own bed or have students design their dream garden. Use the grid to teach area, perimeter, coordinate planes, and arrays.

Planning Your Garden Bed

One of the most challenging tasks in gardening can be figuring out how to coordinate your planting. Use **this worksheet** to help you identify what information you will need to get your bed started and harvested.



In the Garden Now



Plant

Have you started seeds indoors yet? Most transplants will need approximately 5-7 weeks growing indoors and an additional week of hardeningoff (carried out during the day to adjust to colder air temperatures). Keep in mind, if your target date for planting transplants outdoors is March 1 you would have needed to plant indoors January 1-15. Since that time has already passed you will need to buy most of those transplants rather than growing them indoors (transplants cost



Harvest

You may still be harvesting lettuce, spinach, kale and other green leafy vegetables from fall plantings.

Plan approximate harvest dates for spring crops and think about what you will do with the harvest.



Maintenance

Remove all weeds and debris from garden beds.

Top off the beds with additional soil if there is less than 6-8" of soil remaining.

Apply an organic fertilizer to the soil surface 3 weeks before planting your first crop; just use a rake to work it in and level the soil. The plants will use this nutrition as they grow; fertilizer will need to be applied prior to each growing season. If you plan to plant on around \$0.50 each). Don't waste time and money planting inside once it is too late. Not sure if it's too late for a certain crop, contact Doug or Amy and they'll guide you through the planning guide.

February 15, apply fertilizer on January 23.



Remind Alert

Many of you may be subscribed to get messages from Amy and Doug about local weather threats through Remind. We want to pass along a change in Remind functionality. Unless Remind and Verizon resolve a fee dispute, starting January 28, 2019, Remind will no longer send text messages to phones that use Verizon Wireless as their carrier. Verizon customers can still receive Remind messages



through the Remind mobile app or through email notifications. Make sure your Remind account is set up appropriately to continue receiving messages through Remind without interruption.

Find more School Garden Resources on our website:

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Questions? Contact us!

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