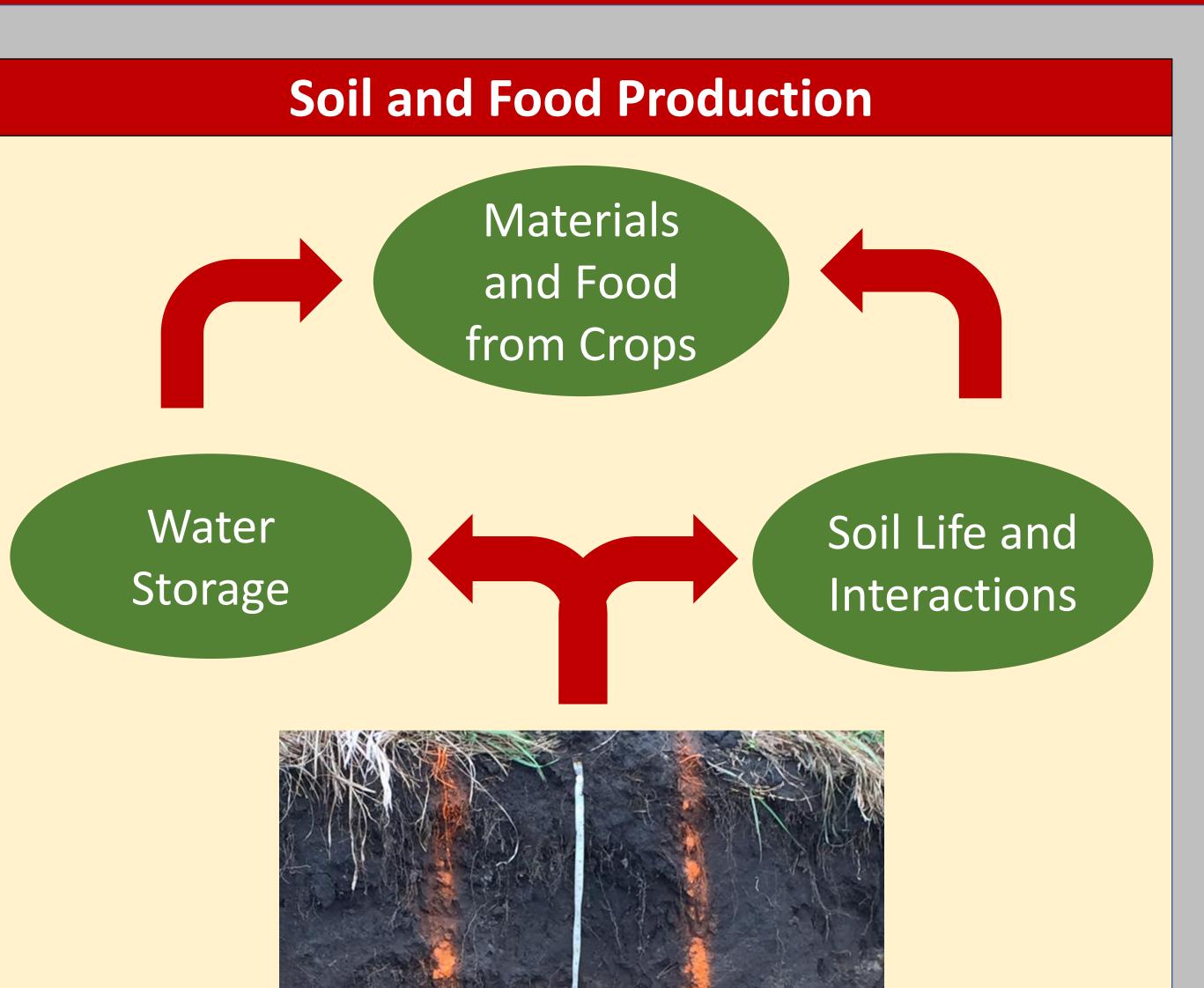


Down to the Roots: Teaching Soil Health to 1st Grade Students

Kolby Grint

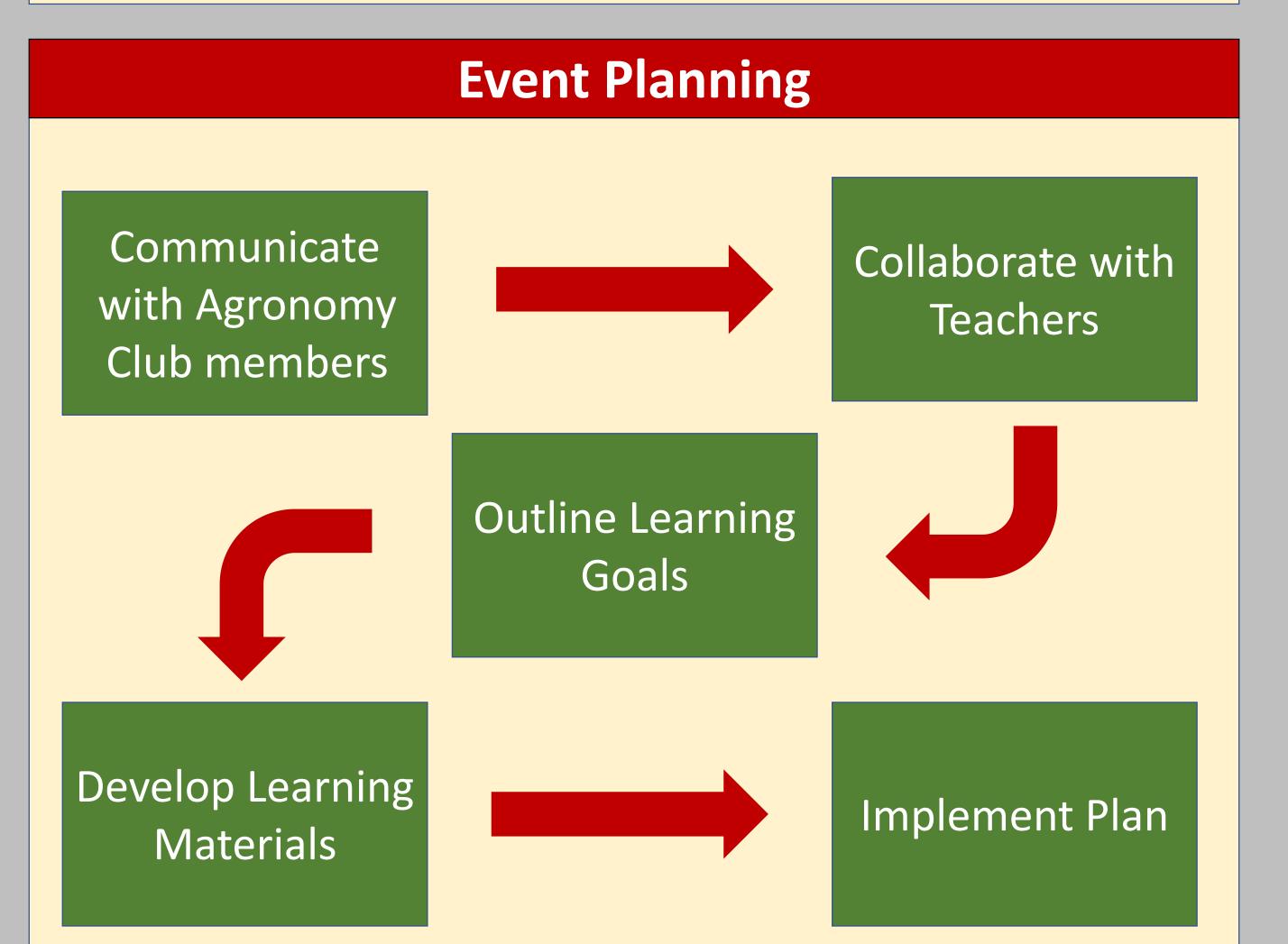
Department of Agronomy and Horticulture





Event Objectives

- Correlate activities to what students are currently learning in 1st grade soil curriculum
- Demonstrate to students why and how soil organisms contribute to soil health
- Show students how differences in soil particle size effects soil water storage and availability
- Help students connect the products and food they know or consume with soil and agriculture



Event Execution



Demonstration of water storage between different soil textures

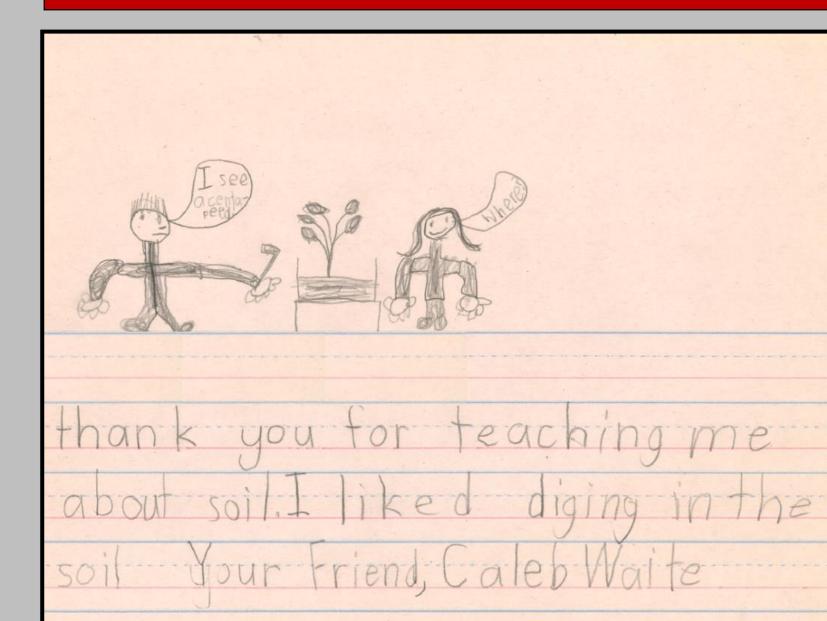


Demonstration of soil life and their interactions with plants

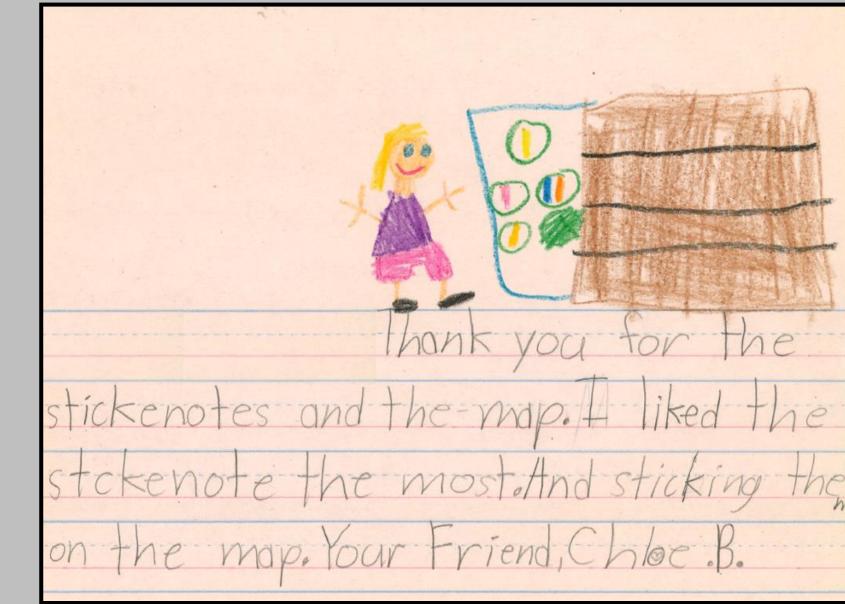


Demonstration of materials and foods from crop production

Student Responses







A total of 80 students participated in the activity

- The activities were repeated in 4 40-min sessions
- During each session, 3-4 students worked at a station, rotating every 10 min
- Students regrouped at the end to answer questions posed by the team leader
- Teachers followed up with additional discussion about the activities in their respective class

Summary & Future Event Plans

- Positive club involvement in the community
- Student feedback indicated the activities were well retained
- Students were engaged and enjoyed all of the activities
- Future programming will include
 - Improving communication and planning with teachers
 - Better alignment with what students are already learning in the classroom
 - Expanding the outreach to more Lincoln Public School Elementary Schools

Acknowledgement

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References

- 1. Brophy, Jere, Janet Alleman, and Carolyn O'Mahony. "Primary-grade students' knowledge and thinking about food production and the origins of common foods." *Theory & Research in Social Education* 31.1 (2003): 10-50.
- 2. Trexler, Cary J., Alexander J. Hess, and Kathryn N. Hayes. "Urban elementary students' conceptions of learning goals for agricultural science and technology." *Natural Sciences Education* 42.1 (2013): 49-56.
- 3. Margenot, Andrew J., et al. "Integrating Soil Science into Primary School Curricula: Students Promote Soil Science Education with." Soil Science Society of America Journal 80.4 (2016): 831-838.