

Edible STEM

What is iQ: smartparent?

iQ: smartparent is an Emmy-winning multimedia television and web series designed for parents that will empower them with new knowledge, tools, and abilities to successfully guide their children through the changing landscape of digital media and technology. It's a growing community of caregivers, national experts, educators, and parent bloggers who want to understand the opportunities and challenges of media as it relates to the development of their children. *iQ: smartparent* was created by WQED Multimedia in 2012.

About this Episode

This iQsmartparent episode is all about food! We're making edible models to help kids explore everything from the life cycle to how plate tectonics work; and we'll also explore the science of a farm-to-table diet. On-set guests include a Master Gardener and educators, and engaging field packages will feature Abraham Lincoln Elementary School, which received a Let's Move Pittsburgh mini-grant. The program promotes a healthy lifestyle and students in their diverse student body (including an ESL and refugee population) engage in a range of tasks to teach them how to grow food, harvest it, and prepare it.

Discussion Questions

1. Gardening and cooking are very STEM-focused activities. How can you include these everyday experiences in your child's learning? What are some ways you can get even the youngest child to participate in the gardening/cooking process?
2. What are some edible STEM creations you can do at home? Try some recipes from our "Online Resources" section.
3. Does your child know how different plants grow? Or how gelatin is made?
4. Do you know of any gardening programs in your community? How can you and your family get involved?
5. What are some benefits of getting your child involved in gardening and cooking? Why is farm to table cooking so important?
6. What are some skills your child can build from sprouting seeds and doing container gardening? Try journaling, taking photos, and making predictions about the process.

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About the Guests



Will Tolliver, Jr. - Manager of Early Childhood Learning at Children's Museum of Pittsburgh. Will Tolliver is a Garden Educator with Grow Pittsburgh because he loves working outside with children and sharing his passion for the environment and education with them, their teachers, and their parents! Prior to joining Grow Pittsburgh, Will was a program associate at the Pittsburgh Association for the Education of Young Children (PAEYC) where he provided administrative and logistical support to grant-funded education initiatives while he simultaneously developed curriculum. Before that, Will was the Homewood nature educator at the Pittsburgh Parks Conservancy (PPC), where he blended environmental education and early childhood literacy with community outreach and engagement. Will was responsible for management, development, and implementation of Buzzword Pittsburgh, an initiative supported by PNC Grow Up Great. Will also sits on the Pennsylvania EE Capacity Leadership Team, an initiative to increase diversity in environmental education, and is an Alumni Fellow with the Pennsylvania Department of Education's Office of Child Development and Early Learning (OCDEL). Will loves shoes, entertaining, and long romantic walks through the park (with his dog.)



Rebecca Colangelo – Teacher at South Fayette Township Elementary School, PA. Trial, experiment, redesign, evaluate, collaborate, and improve are familiar words to Rebecca Colangelo's second-graders. Incorporating STEAM—science, technology, engineering, the arts, and math—and using the engineering design process are hallmarks of her classroom. She has created a maker space within her classroom and challenges her students to be thinkers and designers every day. Ms. Colangelo and her students attend various STEAM showcases in the region to share what they are doing, and her classroom is open to other educators as a model. Each year, Carnegie Science Center honors a select number of deserving educators, science/technology leaders, and organizations for their outstanding work in our region and Rebecca was the recipient of the 2018 Carnegie Science Award Winners.

https://thealmanac.net/news/several-local-teachers-win-stem-awards/article_40d9285a-7329-11e8-815f-cb603c0ab2c2.html

www.youtube.com/watch?v=WpDrgzHlxCU

Online Resources

Solar Pizza Oven –INSTRUCTIONS www.sciencebuddies.org/stem-activities/solar-oven

Learning Through the Garden <https://njaes.rutgers.edu/fs1211/>

Kids Gardening Resources www.kidsgardening.org/

Library of Congress on School Gardens www.loc.gov/rr/program/journey/schoolgardens.html

U.S. Department of Agriculture – Food and Nutrition Services – School Gardening
www.fns.usda.gov/school-gardening

American Community Gardening Association <https://communitygarden.org/>

Children’s Museum of Pittsburgh – Garden <https://pittsburghkids.org/exhibits/garden>

Gardening: Germinating seeds at home – INSTRUCTIONS

www.education.com/science-fair/article/seed-germination-methods/

www.peepandthebigwideworld.com/en/educators/curriculum/family-child-care-educators/plants/activity/guided-activity/157/planting-bean-seeds/

<https://teachingmama.org/germination-activity-grow-seeds-in-a-jar/>

<https://fantasticfarm.org/2010/03/germinating-seeds-in-paper-towel/>

PBS Teachers Blog: Abraham Lincoln Elementary School Garden

www.pbs.org/education/blog/growing-and-learning-together-creating-a-school-garden

Recipes from PBS Food www.pbs.org/food/

Kitchen Science Experiments You Can Eat

www.buzzfeed.com/morganshanahan/19-kitchen-science-experiments-you-can-eat?utm_term=.usLvaOgY1#.npr3xA198

25 Edible Science Experiments for Kids

www.playideas.com/25-edible-science-experiments-for-kids/

Raising a foodie: kid-friendly cooking classes in Pittsburgh

www.kidsburgh.org/kid-friendly-cooking-classes-in-pittsburgh/

Phipps Conservatory Classes and Programs

www.phipps.conservatory.org/classes-and-programs

Phipps Conservatory Homegrown Community Garden Program

www.phipps.conservatory.org/classes-and-programs/for-communities/homegrown

Let's Move Pittsburgh www.phipps.conservatory.org/lets-move-pittsburgh

Search for Garden-Related Volunteer Opportunities with Pittsburgh Cares
www.pittsburghcares.org/search

Community Gardens in Allegheny County– Grow Pittsburgh
www.growpittsburgh.org/garden-and-farm-resources/community-gardens/current-graduated-gardens/

Gardening Information from Grow Pittsburgh
www.growpittsburgh.org/garden-and-farm-resources/info-hub/

Nature Cat Plant Journal
<https://pbskids.org/learn/naturecat/pdf/PlantJournal.12.7.15.pdf>

Nature Cat Miniature Garden
<https://pbskids.org/learn/naturecat/pdf/MiniatureGarden.12.7.15.pdf>

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