

In response to the call for proposals for the first Cambridge Science Festival, CitySprouts created four workshops on the theme of Everyday Science. The series of workshops we developed, *From Seed to Compost*, provide a hands-on opportunity for children and adults to learn how botany, agriculture and ecosystems are key to life on earth. The four workshops were held from April 24-26 on the following themes:



- An exploration of the food web in the compost bin, and how garden (and food) waste is transformed into soil nutrients
- A self-guided tour of how photosynthesis works in the garden, with emphasis on how solar energy provides us with human energy through the food we grow and eat.
- A hands-on workshop for children and adults on testing soil for pollutants and for nutrients, with practical advice on how to improve the health of garden soil.
- A cooking and tasting workshop featuring the herbs growing in the school garden (one of the earliest edible plants to appear in the spring).

Judy Fallows, community gardener and outdoor educator, developed the Healthy Soil workshop for CitySprouts. There were three parts to this contract: to translate information on soil testing (for lead) in a way that would encourage families and youth to test their own gardens; to develop CitySprouts existing Compost Critters activity as a way to engage young children in learning about healthy soil; to educate CitySprouts staff about lead and urban soil so that we can become informed educators ourselves. Our collaboration with Judy would result in a workshop “kit” that included visual material and talking points so that garden coordinators could lead this workshop become part of a garden coordinators repertoire. She would lead the new workshop at the Science Festival. Judy teamed up with the Lead-Safe Cambridge Program to compile information on soil testing and lead for urban gardeners. The lead-Safe Cambridge program (LSC). Luisa Oliveira and Daniel MacPhee. LSC strives to achieve two major policy goals: increasing access to affordable lead-safe housing for low income families, and preventing the lead poisoning of Cambridge children. Program services include free lead paint inspections and abatement (up to \$10,000 per unit), relocation of families during deleading, and referral for testing and medical follow-up of children under the age of six. LSC also provides soil testing and interim control landscaping services to address lead in soil through its innovative and award winning Safer Soil program. When high levels of lead are found in the soil, grants (up to \$2,500) are provided to enrolled clients for remediation and landscaping.



Lead-Safe Cambridge staff Luisa Oliveira and Daniel MacPhee tailored a presentation for CitySprouts staff, background information on lead in soil. Lead-Safe material on lead and soil testing was added to the CitySprouts workshop kit.

Outreach for the workshops poster displayed in all CitySprouts schools, back-pack flyers sent home to families, posted on our website, electronically sent to CitySprouts mailing list, included in school news, the print and electronic version of the MIT Science Festival Guide, and printed in the Cambridge Chronicle.

In all, 112 people (72 children, 42 adults) attended From Seed to Compost workshops.

Appendix D

The Haggerty School garden workshop took place on 4/24. This workshop featured a nutrient scavenger hunt where participants hunted through the garden for representations of nitrogen, water, and other essential elements for life. At a second station, folks took a look inside the compost bin and saw how “compost life” looks different in the different layers of the bin. No one showed up on Monday 4/24 so we ran it again the next afternoon when three people (a mother and two children) attended.

The Peabody School garden workshop on photosynthesis was held on 4/24. Three stations were set up. There were two solar fountains in a small wading pool to demonstrate the power of the sun’s energy; a display of important products of photosynthesis (fruits and vegetables!) with an accompanying CitySprouts’ handout called “Photosynthesis: We Can’t Live Without It”; and a make-your-own Photosynthesis Kit, which included a small pot, potting soil and wheat grass seeds and instructions to “just add sun, water, and air.” Visitors could snip leaves from a pot of wheat grass to “sample some chlorophyll.” Children also had the option to play the Photosynthesis Game, in which they pretended to be plants, complete with chloroplasts, and reviewed how plants—unique among living things—make their own food. Ten people attended (5 adults, 5 children).

The debut of our Healthy Soil workshop took place at the Morse School garden on 4/25, and then again the next day at the Amigos/MLKing School garden. There were two stations: a short presentation on lead poisoning in urban gardens, including how to test one’s soil and how to read the results of a test; and identifying Compost Critters in the garden compost bins, with a “field guide” to identify beneficial bugs. Children also created a compost cookbook as a way to learn about the recipe For making good compost; the recipe included, among other ingredients, wet (nitrogen) and dry greens (carbon).Thirty-nine people attended at the Morse School (15 adults, 24 children), and twenty-five people attended at the Amigos/MLKing School (18 children, 7 adults).

The final workshop in this series was held in the King Open School garden on 4/26. The garden coordinator gave tours of the garden, highlighting the many herbs growing. After one time around the middle school children gave the same tour to the younger children. One parent and child team felt excited that they could identify mint by the square shape of the stems. At the long table, a station was set up for making butter (shaking heavy cream until butter forms) and adding fresh chives, thyme, basil or dill to sample on bread. Some children had never known that the leaves of herbs could be eaten. They really enjoyed cutting up the basil, chives, thyme to mix in with the butter. Dried chamomile, mint and lavender were available to taste in herb tea (with the electric kettle and fill-your-own tea bags). We also featured on a poster some of the current and historical medicinal uses of herbs. Middle school girls were interested in the medicinal uses of herbs. Thirty-five people attended (21 children, 14 adults).