GROWING INDOORS

Plastic Bottle Terrariums for All Ages

It’s the time of year again where we make terrariums with the kids. Last year’s batch was so successful, they’re still growing! These self-sufficient closed systems only need to be watered once, making them a low effort, sustainable project that will continue to delight.

Elyse designed a poster that showed the five components of the terrariums: gravel, activated charcoal, sphagnum moss, soil, and plants. This gave the kids a reference to work from as they prepared their own bottles for succulents, pink polkadot plants and cilantro seeds.

The kids carefully assembled layers of pebbles, charcoal, moss, and soil in donated plastic bottles. The dried sphagnum moss keeps the soil from filtering down into the other layers, and the charcoal purifies the water as it drips down, removing mold, bacteria, and other contaminants. The plants take up water through their roots and release it in a process called transpiration. This is similar to sweating. Water exits the leaves as water vapor, through tiny holes called stomata. The water vapor collects at the tops of the terrariums and drips down through the layers, where the process begins again.

Carefully assembling the terrarium’s layers

Over the next few weeks, the Voyagers, Navigators, and Adventurers will be able to watch their plantings thrive in a self-contained, self-sustaining ecosystem.

The Adventurers practiced their teamwork and their listening skills
CREATIVE CONNECTIONS CAMP (CCC)

During the February vacation week, 19 school age children, some of them Lemberg graduates, attended the Lemberg CCC camp led by Chandra Pieragostini. Among their many fascinating science and art explorations, these campers also built terrariums in recycled plastic bottles.

We had informative discussions of the cyclic process inside a closed terrarium, during which the kids referenced their own experiences and perspectives. Many of them remembered this project from last year, and were able to recount for the rest of their group the evaporation, condensation, and filtration processes with little prompting from the garden team. It was wonderful to see older kids helping to guide younger kids in assembling their terrariums.

Choosing plants for their terrariums

Discussing the water cycle and the plant life cycles

Proud terrarium builders
PARENT WORKDAYS RETURN

On Saturday, March 14, from 9:30-11:30 AM, we’ll have our first parent garden workday of the 2020 season. We’ll be filling the playground raised beds with fresh compost, and preparing the gardens for the growing season ahead.

RSVP to Beth Lowe at: belowe@brandeis.edu

COMING SOON

It’s almost time to start planting peas outdoors! It will be exciting to be in the garden again. In early April, we’ll have a brand new high-efficiency irrigation system installed, thanks to a grant from the Brandeis Sustainability Fund. The system is connected to satellite weather stations and automatically controls watering based on the weather forecast and actual rainfall. We’ll also be able to manually control each of the five zones from anywhere in the world on a smartphone. How amazing is that! And it will free up time for our team to spend more hours with educational programs, while reducing our outdoor water use by up to 50%. We’re proud to be part of Sustainable Brandeis!

On March 19, we’re hosting a group of middle school students from McDevitt School in Waltham. They’ll be constructing their own raised bed in the Apple Garden and planting some early greens. We hope this will be the beginning of ongoing collaborations with several Waltham Schools.

TEACHER PROFESSIONAL DEVELOPMENT

At the end of February, we held a teacher professional development night to educate teachers about best practices for environmental education in early childhood settings. After a presentation about the value of combining constructivist exploration with some direct instruction and vocabulary building, we gave the teachers a chance to explore the worm bin, learn worm anatomy, and make worm fertilizer. These activities are popular with all ages, and even the youngest children enjoy watching and feeling the worms. Our goal was to send the teachers off with confidence to integrate new science explorations in their classrooms.

Teachers exploring worms
DONOR APPRECIATION

We have new donors we’re excited to tell you about:

WholeKids’ Foundation, the philanthropy branch of WholeFoods Market, is funding edible plantings in the playground.

Hannaford Market has offered to fund some infrastructure upgrades to our outdoor classroom area. More details will come soon.

We’d also like to acknowledge and thank our generous supporters, The FS Foundation, Village Bank and the Feinberg family for this year’s gifts, making possible our wonderful environmental education programs at Lemberg.