

glen foerd

This lesson is part of an ongoing monthly series that encourages young adults to learn about the environment through hands-on activities. These activities are recommended for ages 8+ and are designed using materials that most households have on-hand.

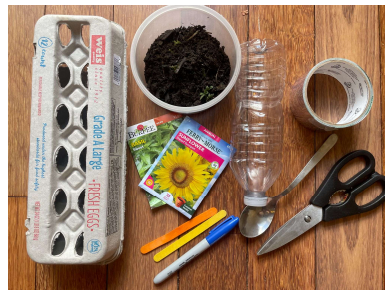
What do plants need to grow? How does a greenhouse help? This month we will explore what plants need to grow by building our own mini greenhouses.

Mini Greenhouse



Materials:

- Clear plastic water bottle (any size)
- Egg carton
- Scissors
- Spoon
- Soil (potting soil or soil from outside)
- Seeds
- Tape
- Craft Sticks
- Marker



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Directions:

1. Rinse and dry the plastic water bottle. Once the bottle is dry, put the cap back on the water bottle.
2. Using scissors, cut the water bottle in half. Have an adult help with this step! The plastic water bottle halves will be the top part of your greenhouse.
3. Place tape along the cut edge of the plastic water bottle halves.
4. Using scissors, cut out two (2) individual cups from the egg carton.
5. Using the spoon, fill individual egg cups with soil. Note: the soil should be moist. If your soil is dry, place soil into a bowl and add water to it before placing it in the egg cups.
6. Add seeds to each cup making sure they are buried in the soil.
7. Using the marker, write the type of seeds on a craft stick and place in soil.
8. Place egg cups next to the window and cover each egg cup with the water bottle halves.
9. Watch your plants grow! Note: using a spray bottle, water your plants every few days. When your plants get bigger, plant them in a pot or in the ground outside.



What exactly is happening?

Plants need water, sunlight, warm temperatures, air, and nutrients to grow. A greenhouse can provide a stable environment for plant growth. The clear plastic water bottle allows sunlight to enter giving plants the maximum amount of sunlight. As the light enters, it is absorbed by the plants and in the process converted into heat energy. This heat energy gets trapped inside the plastic water bottle and warms the air. The sunlight and warm temperatures provide the right conditions for plants to grow, even in the winter when it is cold outside.

Why is this important?

The greenhouse effect on Earth works the same way as a greenhouse for plants! During the day, sunlight shines through the atmosphere and warms up the Earth's surface. As night falls, the Earth's surface cools and releases heat back into the air. Some of this heat is trapped in the atmosphere by heat-trapping gases called greenhouse gases. Carbon dioxide,

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for example, is a greenhouse gas. Without this greenhouse effect, the Earth would be too cold for life to exist.

Want more?

Come visit our garden house and rose garden at Glen Foerd. The garden house, which faces our Rose Garden, was the head house of five large greenhouses erected by the original owner of Glen Foerd. The greenhouses were altered with new ownership and dismantled entirely by the late 1920s, allowing the rose garden more prominence. At that point, the garden house became a playhouse for the children who lived at the estate, and today it houses gardening supplies.

Want to share your Mini Greenhouse with us? Email us at kateriley@glenfoerd.org with Mini Greenhouse Activity as the subject. We would love to see your work!