

Pollinator Gardening classroom activities

For use with “Pollinator Gardening” *Trail Tales*, Spring 2014, pages 12-13

Classroom Discussion Questions

Why are pollinators important?

Can you think of examples of pollinators? (Not just bees! Also butterflies, moths, flies, birds, bats, and ants)

What kinds of plants do those pollinators need?

Activity 1

Objective: To learn about native plants and the pollinators they support.

Materials: books on pollinators, computers with access to the internet

Procedure:

1. Discuss as a class the biome you live in. What types of plants are common in that biome?
2. Have students research plants that are native to your region. The Lady Bird Johnson Wildflower Center at the University of Texas, Austin, is a terrific resource to use: <http://www.wildflower.org/plants/>
3. On the Wildflower Center site, have students select their state, then have small groups of students select different habits from the drop-down menu (shrub, tree, vine, grass, etc.)
4. You can also divide students within those groups to research different light and water requirements to get a feel for what grows in the shade, or near a stream, or out in a field.
5. Ask students to investigate some of the plants that come up by clicking on the name of the plant.
6. Can they find one that supports beneficial insects? (Some plants have entries specifically for this near the bottom of the page.)
7. What kinds of beneficial insects are found on what kinds of plants?

Activity 2

Objective: To create a pollinator garden to support local pollinators.

Materials: seeds for native plants; school milk cartons, rinsed, dried, with tops removed, one per

student; potting soil; tray to catch spills; watering can with water; paper towels (this activity works well with one or two central stations that have all needed materials)

Procedure:

1. Discuss the types of seeds available and the pollinators they support.
2. Have students label a milk carton with their name.
3. Have students fill the carton 2/3 full with potting soil.
4. Students should sprinkle seeds on top of the soil (seeds can be all of one type or can be a mix).
5. They should then add ½ inch or more soil to cover seeds (according to seed packet directions).
6. Water gently.
7. Place milk cartons on a tray in a window that receives light.
8. Water periodically, being careful not to overwater.
9. When the seeds sprout, students can measure them (this is a great measuring/graphing/math activity).
10. When the weather is warm enough, leave the seedlings outside during the day to harden them off.
11. Students can plant their seedlings at home or the class can create a pollinator garden on school grounds.
12. Enjoy the pollinators!

Activity 3*

Objective: To create habitat for native bees by building a nest block.

Materials: untreated 4" x 6" block of wood; drill with a variety of drill bits ranging from 2.375 mm (3/32 inch) to 9.5 mm (3/8 inch) diameter; ruler; pencil; shingle or other flat piece of wood for a roof; nail(s) to hang the block when it is finished; goggles; hammer; nails

Procedure:

1. Cut the block of wood into one or more smaller pieces 8-12 inches in length.
2. Using the ruler and pencil, measure and mark the location of the holes on the shorter side of the wood. Each pencil mark will be the center of a hole; marks should be ¾ inch apart. Leave at least 1 inch on all outer edges.
3. Wearing goggles for safety, attach a drill bit to the drill and drill holes into the wood. Space out the holes made by this particular drill bit to allow for other diameter holes to be interspersed between them. The holes should be deep without penetrating the back side of the block. Ideally, the holes will end ½ inch from the back wall. To encourage a variety of bee and wasp species, use different drill bits to make slightly larger and smaller holes. Small holes (up to ¼ inch diameter) should be 3 to 5 inches deep. Holes larger than ¼ inch should be 5 inches to just under 6 inches deep.
4. If the drill goes all the way through the wood, back the block with a thin sheet of untreated wood after drilling, as the bees will not use holes that go all the way

- through.
5. On the back side, drill a hole for hanging the block. This hole should angle slightly toward the top of the block.
 6. Nail the roof onto the top of the block.
 7. Hang the block in a location where it will face southeast to catch morning sunlight. Also ensure that it will not sway with a strong wind (a second nail at the base may be needed).

*Adapted from Bambara, Stephen. (2002) How to Raise and Manage Orchard Mason Bees for the Home Garden. NC State University, North Carolina Cooperative Extension.
<http://www.ces.ncsu.edu/depts/ent/notes/Other/note109/note109.html>