Would you like to help out local pollinator populations such as butterflies and bees? Take a look at this activity that makes a house, feeder and water station! Everything a pollinator needs during breaks between looking for flowers!

PART ONE - CREATE THE HOUSE!

This part of the activity is a time to get create homes for bugs, bees and other pollinators to live in or stay like a hotel.

**Resources/materials needed:** Bamboo or straws, tube or frame of some sort at least 6 in” deep, toilet paper tubes, glue, string, block of wood, sticks, drill, drill bits, screws

**Skills:** Cognitive, Motor Skills, Environmental Appreciation, Hand-Eye Coordination, Technical Skills

**DIRECTIONS:**

**Step 1:** Gather materials according to what you have access to. Bamboo shoots as well as other hollow shoots work great for this activity. If you do not have access to that, simply drilling holes in sticks will suffice. If you are drilling holes, you will need various sizes of drill bits big enough to house bees and small insects. You will also need a box/frame/container for these tubes/sticks to fit into that is at least 6” deep. You can also use a block of wood.

**Step 2:** After you gathered your materials it is time to fit everything to size. Depending on your container, the size may be different. Measure the depth of the container and saw the shoots or sticks with a fine toothed hand saw. You can leave 1/2-1” extra to stick out slightly. Make sure both sides of the stick are cut evenly.

**Step 3:** Now take your drill and make holes on both sides of the sticks or block of wood with various drill bits. Make them big enough for bees and small insects. Sizes can vary. Drill both sides. An adult should do this part and either put the sticks in a vise or clamp it on its side before drilling. Have enough sticks and bamboo shoots to fit. Tie them in groups or just fit them in your container snugly. You may have to insert more sticks to have it firmly fitting together. Place in an area by flowers or somewhere tucked away.
PART TWO - PAPER TUBE HOUSE

Want to provide homes for bees but don’t have access to a drill? This is a kid friendly version of making a pollinator home!

Resources/materials needed: paper bag or thin cardboard, scissors, ruler, string, tape, utility knife, plastic bottle

Skills: Cognitive, Motor, Hand-Eye Coordination, Environmental Appreciation, Whole Brain-Development

DIRECTIONS:

Step 1: Gather your materials and make sure your bottle is clean and dry before you begin. You will need a large paper bag or two, scissors, ruler, a pencil, utility knife, awl, and a flat surface to work on.

Step 2: Take your plastic bottle and start cutting off the ends. Make sure you end up with a pretty much even cylinder. An adult should be doing the cutting for safety reasons. Cut two holes in line with each other near the edge where you just cut the ends off. This is for the string to hang.

Step 3: Use a ruler to start measuring and drawing about 30-2" x 5.5" rectangles out of the paper bag or light cardboard. After they are drawn out, start cutting.

Step 4: Once the rectangles are cut it is time to start rolling into tubes. Use a pencil to act as a hole. Put the pencil near the long edge of the paper and start rolling around. Once it is rolled, fuller secure with some tape. Scotch or masking works fine.

Step 5: Take the container and string the holes that you made. You can keep it long and create a double or triple knot at the end and push the string from inside out of the hole push the rest of the string from the outside in the other side and knot it. You can also tie string the full way around the bottle in 2 places.

Step 6: Now fit the tubes in the plastic container snugly. If you need more to keep them from falling out, create more. Pick a place to hang such as off a tree branch. Now bees can start moving in!

Reflection: Talk about your experience. Which home do you think the bees will do best in? Keep observing to see if any bugs or pollinators have made a home!
PART THREE - SUGAR SHACK: FEEDER

Pollinators need some snacks to gain some energy to look for flowers to pollinate! Create a feeder for your local bees and butterflies!

**Resources/materials needed:** Plate/plant saucer (plastic is easier to hang), jar with lid, nail, hammer, string, washers, flowers, sponge, water and sugar

**Skills:** Cognitive, Motor, Hand-Eye Coordination, Environmental Appreciation, Creativity, Self-Expression, Whole Brain-Development

**DIRECTIONS:**

**Step 1:** Gather your materials and decide if you want to make the plate, jar version or both! If you plan on using the plate, consider a plastic plant saucer for easy hanging, or you can purchase plate stands and attach to the back and use washers as you tie it to string. If you decide to use the jar, a screw on lid is required.

**Step 2** Using a plastic plant saucer or aluminum pie plate, poke 3 or 4 holes evenly spaced with an awl or nail. Insert strings and tie it so it will hang evenly.

If you are using a ceramic plate, Attach wire plate holder to back and tie string around each corner about 1 ft long each. You can add glass beads on each string to attract butterflies. Tie the strings to a washer above the plate to hang from.

If you are using a jar, poke a large hole in the lid with a hammer and nail. Weave string and hot glue in a way that the jar will hang securely face down.

Visit: [www.ehow.com/way_5484767_homemade-butterfly-feeder.html](www.ehow.com/way_5484767_homemade-butterfly-feeder.html) for more instruction on how to tie the jar.

**Step 3:** Make the food by combining 10 parts water and 1 part sugar in a pot over the stove and heat until the sugar dissolves and let cool.

**Step 4:** Take a fresh sponge and cut a piece 1/4" thick off the end and about 1-2" long. Insert through the lid in the hole. Twist to try to get through and use a nail to push.
Place a sponge on the plate/saucer (can be cut in a shape) Fruit and flowers can also be placed on the plate.

**Step 5:** Add a few spoonfuls of sugar water onto the sponge (plate version) until saturated but not overflowing. Hang the plate where you see fit!

If you are making the jar, fill the jar halfway or more with the sugar water. Put the cap on with the sponge securely and hang up.

**Reflection:** What do you see feeding on the pollinator food?
PART FOUR - WATER STATION

Bees and butterflies need water too! Providing a water station keeps them hydrated!

**Resources/materials needed:** Plate/shallow bowl/plant saucer/pie pan, marbles, stones, glass pebbles, water, tomato cage, plant pot

**Skills:** Cognitive, Motor, Hand-Eye Coordination, Sensory, Environmental Appreciation

**DIRECTIONS:**

**Step 1:** Find your materials! If you have a big ceramic plate or plant saucer that is perfect! If you would like to have it raised, you can use a tomato plant cage and find a plate that fits the hole at the top perfectly. A large plant terracotta pot turned upside down makes a great stand as well. The saucer/plate should be sturdy enough to hold rocks and water, so thin plastic should be avoided.

**Step 2:** Fill the plate with the stones and marbles. It should make a even layer of stones across the bottom. If you want the stones to be more sturdy, you can glue them to the bottom of the pot. This makes refilling it with fresh water easier. Just make sure the glue is fully dry before you add water.

**Step 3:** Place your stand if you choose to use one in the place you want the pollinators to drink! In a garden by flowers would be lovely. Now place your saucer of stones in place. It can also be on the ground, just make sure it is level.

**Step 4:** Pour water in the saucer so that the tops of the stones above the surface. This gives the bees and butterflies a place to stand while they drink. Keep refilling as needed!

**Reflection:** Talk about your experience. Do enjoy working with all of the natural materials? Do you think the pollinators will like their new homestead? What part of the the homestead do you like the most? What would you do differently?

**Resources:**
- bangordailynews.com/2020/05/24/homestead/heres-how-to-build-a-perfect-pollinator-hotel/
- ehow.com/way_5484767_homemade-butterfly-feeder.htmlthewhoot.com/whoot-news/diy/butterfly-feeder-diy-video
- carolinahoneybees.com/diy-bee-waterer/
- offgridworld.com/protect-your-local-pollinators-with-a-diy-bee-watering-station/
- ehow.com/way_5484767_homemade-butterfly-feeder.html
- craftinvaders.co.uk/how-to-make-a-simple-bee-water-station-for-your-garden/