# NATURE ACTIVITY

# PROTECTING POLLINATORS Life



Pollination by animals like bees, hummingbirds, moths, bats, butterflies, flies, and beetles ensures the continued existence of millions of plant species — and, in turn, of most animal species, including humans. In this activity, find creative ways to repurpose cartons to help your local pollinator populations thrive.

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Empty paper cartons

Potting soil

Native plant seeds

 Natural and craft materials for pollinator homes

TIME: 1 hour to 6-12 weeks

# **INTRODUCTION:**

Who are the pollinators? Bees, hummingbirds, moths, bats, butterflies, flies, and beetles are a few notable representatives. Pollinators are animals that carry pollen from one flower to another flower, resulting in the growth of fruit and seeds. Their assistance is needed to ensure the continued existence of millions of plant species, and in turn, of most animal species, including humans.

Here is a list of some of our common edible crops that rely on pollinators to make their fruits and seeds:

Fruit: Apples, bananas, blackberries, blueberries, cherries, figs, grapes, grapefruit, kiwi fruit, mango, melons, peach, pear, raspberries, strawberries

Nuts: Almonds, cashews, coconuts

Vegetables: Avocados, beets, broccoli, cabbage, carrots, cauliflower, cucumbers, onion, potatoes, pumpkin, squash, zucchini

Seeds: Flax, sesame, sunflowers

Additional Favorite Treats: Chocolate, coffee, vanilla, sugarcane, tea

According to the Pollinator Partnership, one of every three mouthfuls of our food depends on a pollinator! However, their importance extends far beyond just helping to feed us:

- An estimated 75% to 95% of all flowering plants on Earth need help with pollination.
- Pollinators contribute 217 billion dollars to the global economy.

Unfortunately, studies show that many pollinator populations are in decline. This is due to a wide range of issues, including loss of habitat, use of pesticides in agriculture, disease, and climate change.

Creating awareness about the important role pollinators play in our world is a great first step toward encouraging the support of policies and practices to help protect them.



Follow the Nature Activity instructions on next sheet.





# **INSTRUCTIONS:**

## STEP 1

Begin by introducing kids to pollinators so they know who they are, what they do and why they are important. Visit your yard or a local green space to look for pollinators. Keep track of the insects you see visiting flowers. As you conduct your insect inventory, also check to see if your landscape provides all of the required habitat components which includes:

- Food sources (host plants). Although pollinators in adult stages thrive on flower nectar and/or pollen, the larval stages usually require plant leaves. Pollinator-friendly habitats can be made by allowing parts of landscapes to revert back to wild grasses, weeds, and wildflowers (e.g., milkweed and Queen Anne's lace) that provide food that will attract both their larval and adult stages.
- Water. Be sure to include a water source in your landscape. Butterflies, for instance, sip at shallow pools, birdbaths, and mud puddles; some bees and wasps use mud to build homes. Mud puddles also provide important minerals for some pollinators.
- Nesting sites and overwintering materials. Think about the kinds of places and materials insects and birds need for building nurseries and spending down time, and allow room for them in the plan: flowerpots with drainage holes bottom-up on the ground; small piles of twigs and brush; mud puddles.

## STEP 2

Based on your search, decide if your space provides a good home for pollinators. If the answer is no, brainstorm ways you might be able to use repurposed cartons to help.

\*Important Tip: If you are trying to protect pollinator species, it is important to avoid using pesticides and herbicides. Even organic pesticides derived from plants and microbes can be as harmful to pollinators as they are to pests. Herbicides may wipe out key plants (weeds) that are important food sources for pollinators. Diverse plantings are not only likely to attract pollinators, they are also less likely to have severe pest problems.

### **IDEAS:**

Make Pollinator Homes: Use paper cartons and natural or craft materials to create homes for pollinators to seek shelter, nest, and reproduce. Building mason bee houses is one example. Mason bees build nests in tube-shaped cavities. You can cut off one side of a carton and fill it with reed tubes, store bought "bee tubes" or try making your own tubes from paper and place your new homes near a green space or garden.

Grow Native Plants: Grow pollinator friendly plants in repurposed paper cartons to distribute in your community. You can provide the new plants for free as a community service, or sell them as a way to make money to put towards the creation of pollinator garden at a local school or park. All you need is cleaned-cartons with holes drilled in the bottom, potting soil, seeds and a location with adequate sunlight for growing the plants.

You can research native plants in your area for ideas or focus on plants that you know will be easy to grow. Here are a few ideas:

- Aromatic herbs: coriander, catnip, mint, parsley, lavender
- Annuals: marigold, phlox, bachelor's button, zinnia, cosmos, salvia, sweet alyssum
- Perennials: bee balm, Shasta daisy, aster, coneflower, lobelia, butterfly weed, goldenrod

It is a good idea to use as many plants native to your region as possible, because native plants have evolved closely with native creatures and are well-suited to meet their needs. In fact, some pollinator species are entirely dependent on the availability of certain native plants. The Pollinator Partnership Ecoregional Guides available at http://pollinator.org/guides are a great place to start looking for plant recommendations.

