



LEARN ABOUT POLLINATORS AT THE CONSERVATORY

These pocket demonstration gardens inspire caregivers and delight children. It is the caregiver who is empowered to make a positive change in the daily life of a child, and this colorful, charming, do-it-yourself garden collection encourages parents, grandparents and teachers to take away creative ideas to do just that.

The garden is alive with butterflies and native bees. Children especially like to watch the ruby-throated hummingbird fly in for a taste of nectar at the feeder. A secret stepping stone path leads to the center of the “Most Beautiful Rain Garden Ever.”



POLLEN/FLOWER DISSECTION

Pollen is a fine powdery substance, usually yellow in color, which are microscopic grains that come from the male part of the flower called the anther. When an insect visits a flower, these tiny pollen grains collect on the insect's legs or other body parts and then is carried to other flowers - this is called pollination.



HOW TO DISSECT A FLOWER

Materials needed:

- 🌻 construction paper (black or blue) you can also use any dark surface
- 🌻 tweezers - optional
- 🌻 magnifying glass - optional
- 🌻 flower bloom that you can easily see the flower parts:
Lily, Petunia, Honeysuckle, Hibiscus



1. Take your flower bloom and carefully pull back the petals.
2. Next look for the anther, it looks like a grain of rice.
3. Now touch the anther to the paper or dark surface.
4. You should see something that looks like yellow dust on the paper or dark surface - these are the tiny pollen grains.
5. If you have a magnifying glass take a look at the pollen grains with it.
6. Do the pollen grains look different using the magnifying glass?
If so, what is the difference?



Now in your journal, draw what the pollen grains look like to you.

POLLINATION OBSERVATION

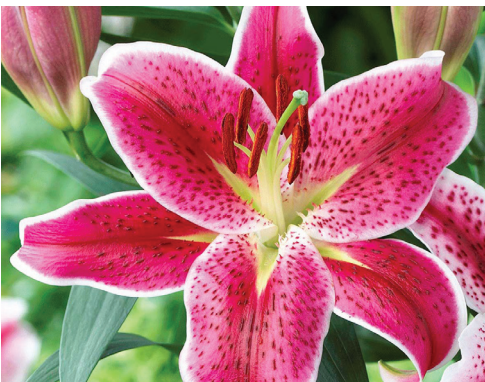
Pollination is when pollen is moved within one single flower or carried from flower to flower by animals as birds, bees, bats, butterflies, moths, beetles, or by the wind. Now it's time to put your observation skills to the test.

BECOME A SCIENTIST!

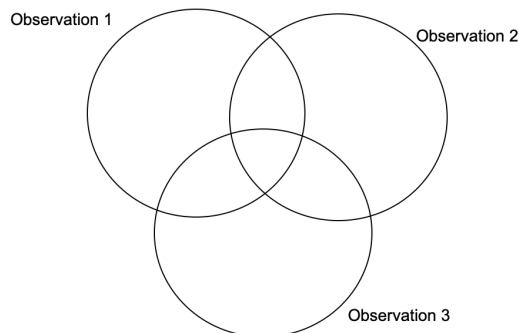


Materials needed:

- 🌿 paper/notebook
- 🌿 pencil
- 🌿 crayons/color pencils



1. Find a flowering plant
2. Observe it for about 8 mins
3. Write down what you observed
4. Now find second, different flowering plant
5. Observe it for about 8 mins
6. Write down what you observed
7. Now find third, different flowering plant
8. Observe it for about 8 mins
9. Write down what you observed
10. Now make a venn diagram on another piece of paper
11. Label it as shown - then fill in the venn diagram with your observation data to help you organize your data:



BEE HOUSE

Bees live in groups called colonies. Each colony has one queen. The queen has a longer body than all of the other bees in the colony. Drone bees are smaller than the queen. They are male bees and their only job is to mate with the queen so she can lay more eggs. One colony will have about 100 drone bees. Worker bees are the smallest bees in the colony. They are all female and have lots of different jobs including feeding the larvae; cleaning the hive; creating wax and using it to make new cells; grooming and feeding the queen; guarding and protecting the hive; and leaving the hive to collect pollen, nectar, and water. There are thousands of worker bees in the colony.



MAKE A BEE HOTEL

Now we are going to make a Bee Hotel for your backyard. Below are a few links to a couple videos about how to make a Bee Hotel at home using materials that you should have around your house. Below that you will find the written instructions.

<https://www.youtube.com/watch?v=8ADMCezLwWU>

<https://www.youtube.com/watch?v=NaNxUd9Nb48>

<https://www.youtube.com/watch?v=EvSoQWZE7Zk>



Materials needed:

- 🌿 plastic bottle, milk carton or tin can – any size
- 🌿 string or twine
- 🌿 ruler
- 🌿 scissors
- 🌿 pencil
- 🌿 paper bags
- 🌿 materials you can use inside the bee hotel
leaves, pinecones, bark & twigs, moss, cardboard,
wood chips, bamboo, popsicle sticks



SUPERHERO POLLINATORS

Ohio Pollinators: hummingbirds, butterflies, moths, beetles, flies, wasps, and bees. In tropical rainforest areas, bats are important pollinators.

Pollinators help create and maintain habitats and ecosystems that many animals depend on for food and shelter. Honey bees are the most commonly known pollinator and pollinate 90% of our blueberry, cherry and apple crops. Pollen sticks to the bees legs and body, which is then carried to other parts of the flowers or other flowers.

Hummingbirds are also pollinators, they go to flowers to drink nectar found at the base of a flower and then carry the pollen that sticks to their body to other flowers.



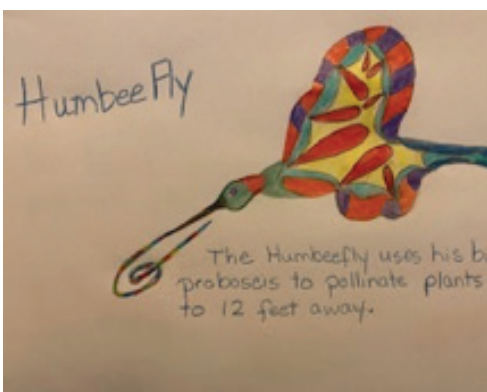
CREATE YOUR OWN SUPERHERO POLLINATOR!

Think of your two favorite pollinators.
All pollinators are superheros!

Now that you have thought of your two favorite pollinators, think about their superpowers. Once you have thought of their superpowers, create your new superhero pollinator.

Things to think about before your start drawing:

- 🌻 What mouth part will it have - chomping, chewing, pinching, slurping
- 🌻 Will the legs be hairy or smooth?
- 🌻 Will the eyes be on the front of the head or the sides
- 🌻 Will you fly fast like a hummingbird or slow like a butterfly?



BUTTERFLY FEEDER

Butterflies can be found all over the world! They live on every continent except Antarctica. Butterflies are cold-blooded creatures so they are more likely to be found in tropical climates. However, in Ohio we have about 384 butterfly and moth species. The Monarch butterfly is the most common and well known species in Ohio. Butterflies are great to have in your garden, because they are pollinators. Did you know that you can build your own butterfly feeder out of supplies that you have at home.



FEED THE BUTTERFLIES

Materials needed:

- 🌿 Plastic container: plate, lid of a to-go container, bottom of milk jug, bottom of a 2 liter
- 🌿 hole punch or something to make holes in the plastic container
- 🌿 cotton balls or sponge
- 🌿 rocks
- 🌿 string



1. punch holes in the side of the plastic container -
2. Run the string through the holes so they meet in the center
3. Tie strings together in the center of the container with enough left over to hang the feeder
4. Make butterfly food:
Mix 10 parts water to 1 part granulated sugar
(use tablespoons or teaspoons depending on the size of your jar),
use hot/warm tap water, this will help dissolve the sugar.
5. Get the cotton balls or sponge damp in the butterfly food.
6. Place cotton balls or sponge on the plastic container.
7. Hang it in a tree and wait on the butterflies to appear.

