

Native Plants and Pollinators

Teacher Guide



Materials

- Native Plants & Pollinators activity booklet (available on website)
- Native Plants & Pollinators PowerPoint (available on website)
- 1 lb. of honey
- Pollinator “grab bag” with chocolate, almonds, ketchup packets, coffee beans, and other pollinator-dependent treats inside
- Cheese puffs for pollination activity
- Napkins for cheese puffs
- Baby wipes for cleanup

Optional Materials for Seed Planting Activity

- Washable markers
- Native flower seed (email us if you have questions on where to buy native seed!)
- Biodegradable cups (poke holes in the bottom for drainage): <https://greenpaperproducts.com/disposable-biodegradable-10ounce-hot-cups-smme10r-cb.aspx>
- Potting soil

Native Plants & Pollinators Activity Booklet Guide

Section 1: What is Pollination?

Discuss **pollination** with the students. What is pollination? Who are the **pollinators**? Make sure to emphasize that without pollination, plants cannot produce seeds to reproduce!

Section 2: What are Native Plants?

Discuss native plants, non-native plants, and invasive plants using posters or a PowerPoint as visual aid.

- **Native plants** are most beneficial for the environment because of the special relationships they have with birds, pollinators, and other wildlife. They are also hardy and well-adapted to a specific region’s climate.
 - Give examples of plants that are native to your area. Examples for NE Illinois: purple coneflower, swamp milkweed, wild bergamot, black-eyed susan, partridge pea, and more!
- **Non-native plants** are plants that don’t “belong” in an area. Non-native plants have been introduced to a region, often by humans accidentally or for ornamental use. Not all non-natives are bad for the environment. Many non-native plants are used in garden landscaping and provide pollinators with food and shelter. Although they are used by pollinators, they do not have the close, symbiotic relationships with local insects and wildlife that native plants do.
 - Give an example of a non-native plant: hydrangea (from Asia), tulips (from Central Asia and Turkey)
- **Invasive plants** aggressively take over an area, and deplete valuable resources like nutrients, water, sunlight, and space. These plants are unhealthy for the ecosystem and compete with native plants.
 - Give an example of an invasive plant: honeysuckle, autumn olive

Activity: Match the insect or bird with its favorite native plant.

Discuss how native plants provide food and shelter for wildlife. You can continue to use posters of a PowerPoint as visual aids.

- Honey bees rely on native plants and flowers for nectar to make their honey. One of their favorite plants is Wild Bergamot, also called “Bee Balm”.
- Monarchs feed on the nectar of native plants. Their caterpillars can only survive by eating milkweed leaves! Monarchs lay their eggs on milkweed plants. What would happen if milkweed disappeared?
- Goldfinches use native plants for nesting material and food. They love to eat the seeds of Purple Coneflowers.

- The Ruby-throated Hummingbird needs a lot of nectar from plants to supply energy for its extremely high metabolism. One of their favorite native plants is the Blazing Star.

Section 3: Pollinators and Agriculture

Go over the facts about pollinators and agriculture, emphasizing how important pollinators are to create the food we eat every day. Tie everything back together with a discussion about honeybees and honey. Students should make the connection that pollinators are vital to the production of food, and that native plants support our pollinators.

Show 1 lb. of honey to the class. Ask them to guess how many flowers the bees had to visit to make the honey. After some guesses, tell them that it takes about **2 million visits** to flowers to make just 1 lb. of honey!

Call up volunteers to reach into the pollinator grab bag and pull out an item that relies on pollinator species: chocolate, coffee, almonds, and ketchup are just a few examples!

Activity: Circle your favorite pollinator to help pollinate your classmates' flowers.

Have the students circle their favorite pollinator. They will now assume the role of that pollinator!

Give each child a few cheese puffs to eat. The cheese puff "dust" on their fingers represents the pollen from the flowers – they (as the "pollinator") use the pollen and nectar for energy. The students will rub the cheese puff dust on a classmate's flower to "pollinate" the flower. The flower can now produce seeds to grow new plants!

Optional Activity: Decorating and Planting Native Plants

Tip: Black-eyed Susans are easy-to-grow, quick germinating native flowers and a good option for this activity!

Students can take some time to decorate a biodegradable cup. They will then visit the soil station and fill their cup $\frac{3}{4}$ with soil. Back at their desks, they will be given a generous pinch of seed to sprinkle ON TOP of the soil. They can *very gently* mix the seeds into the soil, so that they are still very near the surface. When planting native plants, you want them to be at most 1/8"-1/4" below the surface. Press the seeds down lightly with your finger and water them.

Students can take home the cups or place them on the windowsill to germinate and grow!