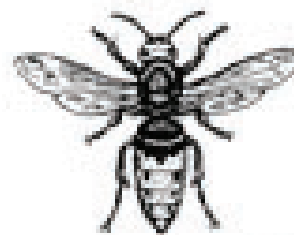
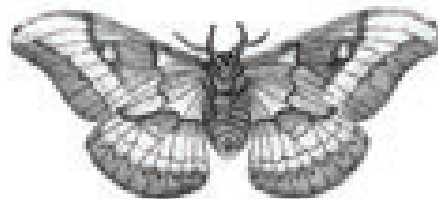
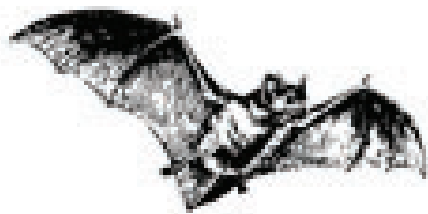


Nature on the Brink

Field Notes

Pollinators



Pollinators are vital to agriculture, helping plants reproduce by transferring pollen between flowers. Bees, butterflies, birds, bats, and other insects enable the production of fruits, vegetables, nuts, and seeds. About 75% of the world’s major food crops depend on pollinators, making them essential for global food security and biodiversity.

However, pollinator populations are declining due to habitat loss, pesticide use, climate change, and intensive farming practices. This decline threatens crop yields, food quality, and ecosystem balance.

Promoting sustainable farming—such as reducing pesticide use, planting flowering cover crops, and conserving natural habitats—can help protect pollinators. Supporting their survival ensures higher agricultural productivity and a healthier environment for future generations.

Field Information

Location: _____

Date: _____

Weather: _____

Temperature: _____ °F

Habitat Type (circle one): Forest / Meadow / Pond /
Schoolyard / Other: _____

What do you notice first about this environment?

Pollination: What is it?

Pollination is the process that helps flowering plants make seeds. It happens when pollen — a tiny powder made by a flower — moves from one part of the flower to another. This can happen with the help of wind, water, or animals like bees, butterflies, beetles, birds, and even bats.

When the pollen reaches the right spot, the flower can grow seeds, fruits, and new plants. Without pollination, many of the foods we eat and the wild plants around us wouldn't be able to grow. Pollination keeps ecosystems healthy and helps nature continue its cycle of life.

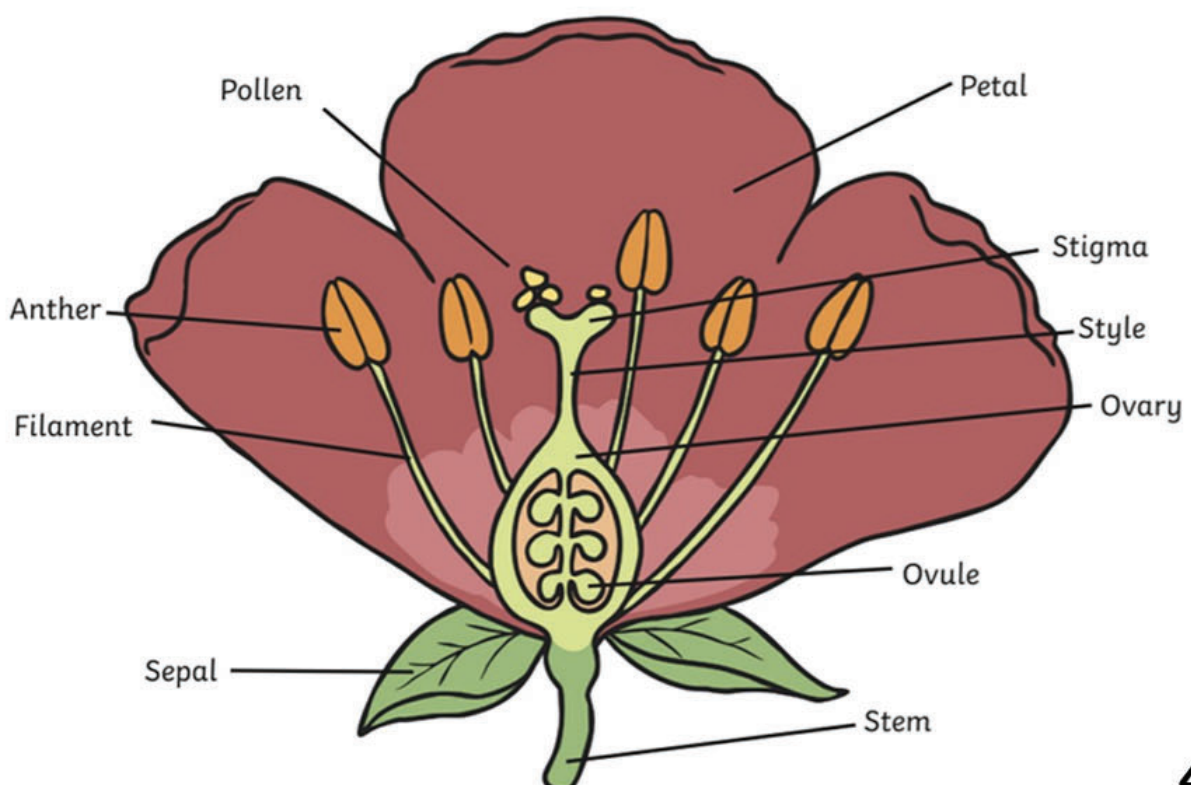


The Process of Pollination

Pollination begins when a pollinator visits a flower to collect nectar or pollen. As it moves around the flower, pollen grains stick to its body. When the pollinator travels to the next flower, some of that pollen is brushed off onto the new flower's stigma — the part that receives pollen.

Once the pollen lands in the right place, it travels down inside the flower and starts the process that forms seeds. These seeds can grow into new plants, helping the cycle continue. Every visit from a pollinator helps a plant reproduce, making pollination one of nature's most important jobs.

Parts of a Flower



Flower Vocabulary

Sepal: this protects the unopened flower. It appears green and leaf-like. However, for certain flowers, such as orchids and lilies, they are the same colour as the petals and tricky to identify.

Ovule: this produces and holds the female reproductive cells. They behave like eggs in the ovary of the flower.

Filament: this holds up the anther of a flower and appears long and stalk-like. It is contained within the stamen and supports the anther.

Anther: this is necessary for reproduction. When producing pollen for the ovule, it is known as the male part of the flower.

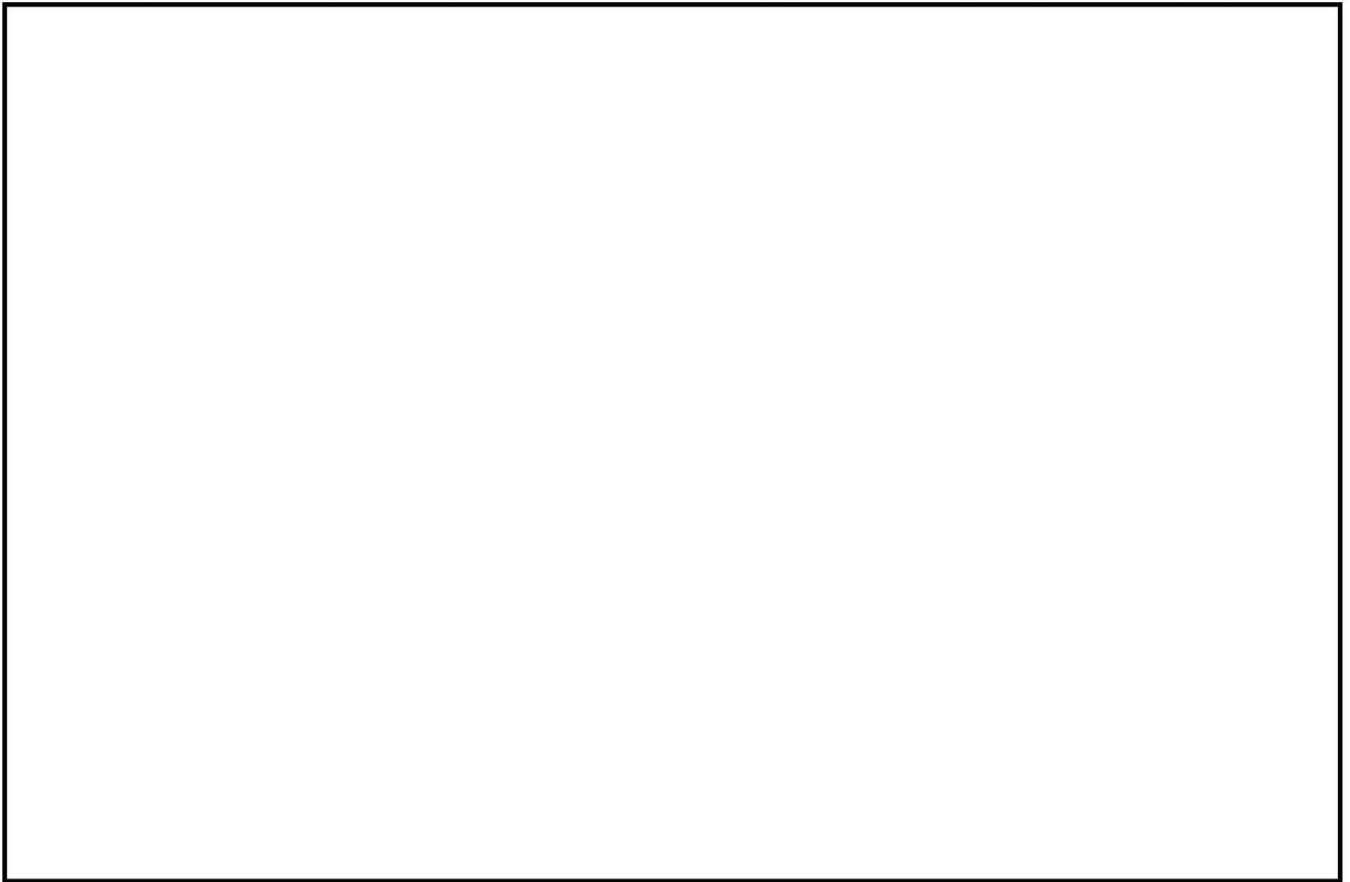
Style: this connects the stigma to the ovary. It assists with reproduction by providing a tube for pollen to travel to the egg and fertilise it.

Stigma: this receives and collects pollen grains. The Stigma begins the fertilisation process and is the top of the female part of a flower.

Petal: this is usually brightly coloured to make them attractive to insects.

Plants & Pollinators

Draw or tape a leaf, flower, or pollinator here



Plant Name (if known): _____

Observations (color, height, leaf shape, scent):

Pollinators or Insects Observed

Understanding Pollination

Pollination is the process that allows flowering plants to reproduce. Each flower produces pollen, a fine powder containing the plant's genetic material. For seeds to form, this pollen must move from the flower's anthers (male parts) to the stigma (female part) of another flower of the same species.

Because most plants cannot move pollen on their own, they rely on pollinators—bees, butterflies, moths, beetles, flies, hummingbirds, and even the wind. As these visitors collect nectar or pollen, the grains stick to their bodies. When they move to the next flower, some of that pollen is transferred, completing the exchange.

Once pollen reaches the stigma, it travels down into the flower to fertilize the ovule, which then develops into a seed. This simple transfer fuels entire ecosystems, ensuring new plants grow and providing food and habitat for wildlife.

Pollinators

Bats



Bees

Beetles



Birds

Butterflies



Flies

Moths



Wasps

Wildlife & Sounds

Type of Animal/Bird/Insect

What was it doing?

Sounds or Tracks

What do you think this animal eats or depends on in this habitat?

Bees & Agriculture

Bees play a vital role in agriculture by pollinating many of the crops humans rely on for food. As they move from flower to flower collecting nectar and pollen, they transfer pollen grains that help plants produce fruits, vegetables, nuts, and seeds. This natural process boosts crop yields, improves food quality, and supports biodiversity across farmland. Without healthy bee populations, many agricultural systems would struggle, leading to reduced harvests and fewer nutritious foods. Protecting bees through sustainable farming practices, habitat preservation, and reduced pesticide use is essential for maintaining a resilient and productive agricultural landscape.

G R E A T S O U T H E A S T

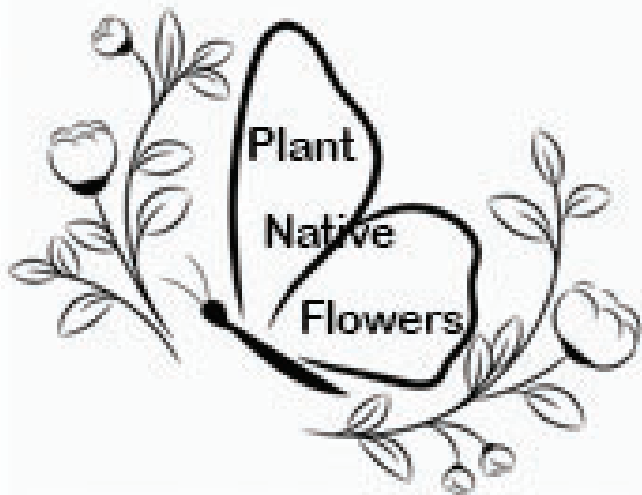


Pollinator Census

The Great Southeast Pollinator Census is a community-science project designed to help people learn about pollinators while collecting valuable data for researchers. Held annually across several southeastern states, the census invites participants to spend just a few minutes observing a flowering plant and counting the insects that visit it. These simple observations help track pollinator populations, highlight trends, and guide conservation efforts. By involving schools, gardeners, families, and nature lovers, the project raises awareness about the importance of pollinators and empowers communities to protect the habitats these species depend on.

Check out www.gsepc.org

How can you help pollinators?



Mini Pollinator Project

Materials

Native Seed Mix

Powdered Clay

Compost or Potting Soil

Water

Bowl

Instructions

1. Combine seeds, clay, and soil in a bowl.
2. Add a little water, just enough to moisten.
3. Roll into balls.
4. Let dry on wax paper or in a tray.
5. Once dry, go outside and toss!

Reflection & Care

What did you learn about how living things depend on one another?

One thing I can do to help protect the environment is...



Remember: Observe, Respect, and Protect the Natural World