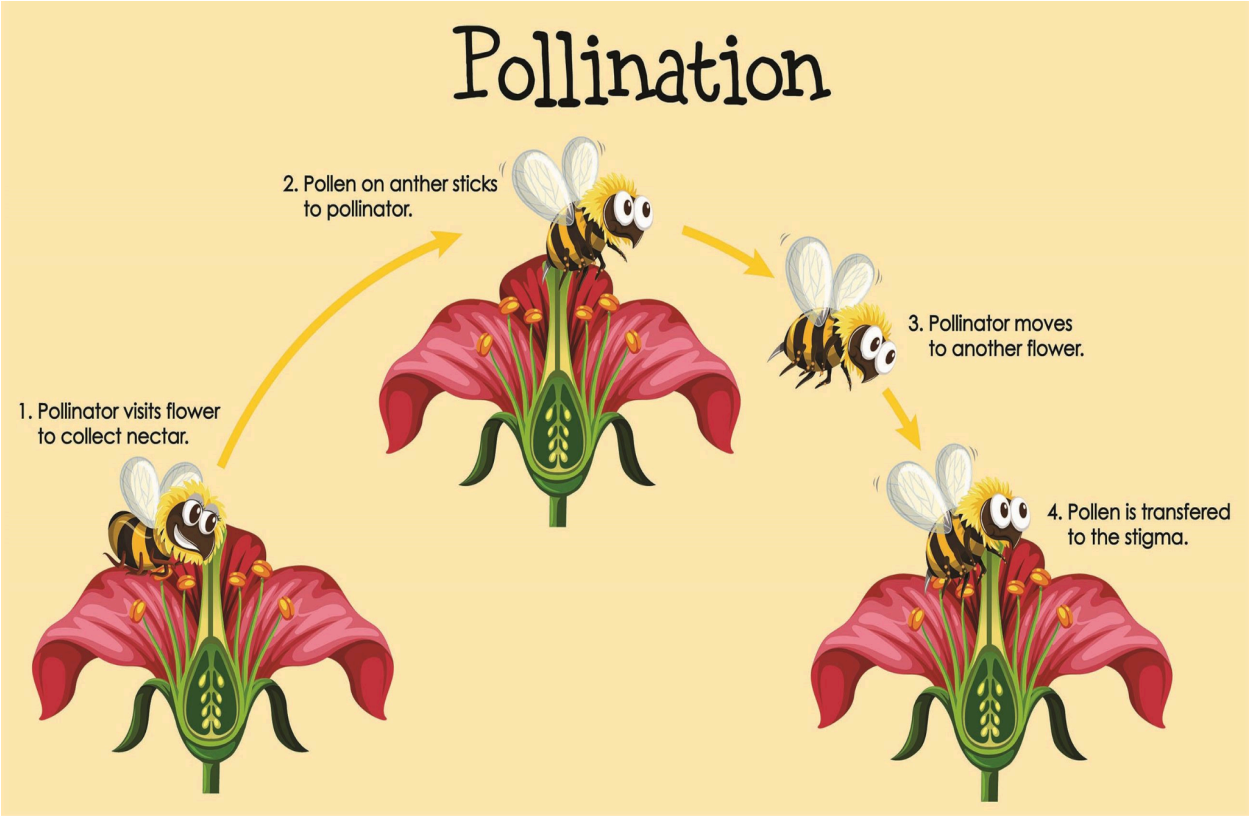
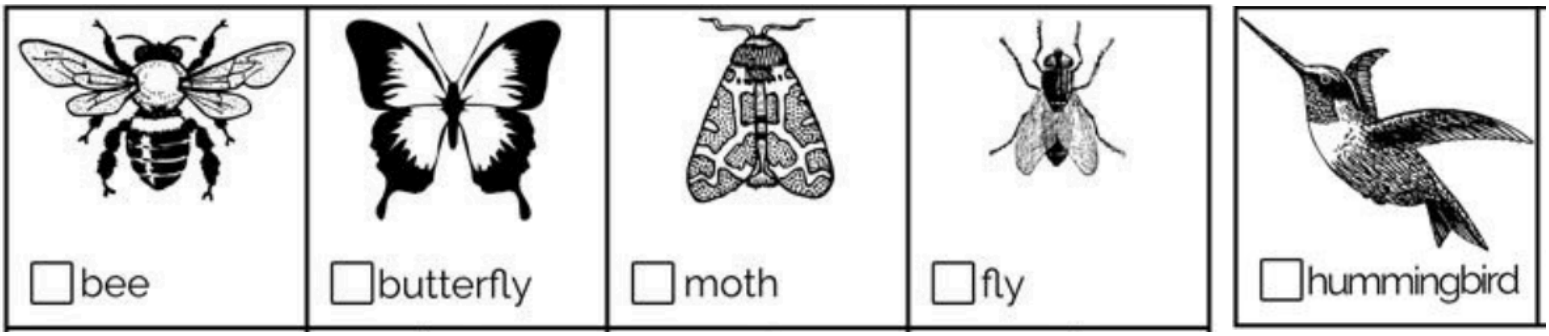
# What is a Pollinator?

A pollinator is an animal that visits a plant for food (nectar/pollen) and in the process, moves pollen from the anthers of a flower to the stigma of the same flower species. This produces seeds/fruits and helps the next generation of plants.




Source: Manhattan Parks and Rec

Examples of pollinators include bees, butterflies, moths, flies, even birds!




Source: New Castle DE Parks & Rec

Pollinators and plants that interact in this way have a **mutualistic relationship**, where both benefit from one another!

Plants provide pollinating organisms with food, while pollinators help plants multiply!

You know who else benefits from this mutualistic relationship? **HUMANS!**

Without the movement of this sticky powder called **pollen** (from one plant to the next) we would not have food such as fruits, vegetables and nuts. Pollination also provides medicine and promotes healthy habitats. With this in mind, us humans must protect pollinators and host plants everywhere we can!

Here at Bethpage State Park, this is our goal. We have built this garden with careful consideration of pollinators and the plants they love to visit. Take a moment to explore this area and observe pollinators in action!

**Task 1**: Draw the pollinators you see visiting plants. Feel free to label your plants based on the plant signs you see in the garden!

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**Task 2**: Next, focus on one pollinator and draw its behavior when visiting a flower.

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Here is a picture of a Spicebush Swallowtail Butterfly feeding on a  Butterflyweed plant.

Photo taken by Park Ecologist Yael Weiss

Believe it or not but a butterfly will use its legs to taste! It steps on the plant and is able to detect nectar!

Once it finds the plant it prefers, a butterfly will use a straw-like mouthpart called a **proboscis.**

Circle the proboscis if you can spot it!

Source:Supercoloring.com

Photo taken by Park Ecologist Yael Weiss

Honeybees and Bumble Bees do not just feed on pollen right then and there….but also have the ability to bring back pollen to their hive.

This is made possible by the part of their legs called **pollen baskets**. Think of them as pockets for bees!

How does the pollen stick? Little hairs that cover their legs and a mixture of nectar make pollen attaching super easy.

No wonder bees are great pollinators!

**Fun Fact**: these pollen baskets often make up 30% of a bee's weight!

Can you find the Pollen Basket on the Honey Bee's leg?

Source:Texas A&M Agrilife Extension

**Without pollinators, we would be without some of our favorite foods!**

## Pollinated by Bees

Apple

Avocado

Berries (Raspberries, Strawberries, Blueberries)

Melon (Honeydew, Watermelon, Cantaloupe)

Peaches

Cabbage

Pumpkin

Garlic

Onion

Pepper

Broccoli

Mustard

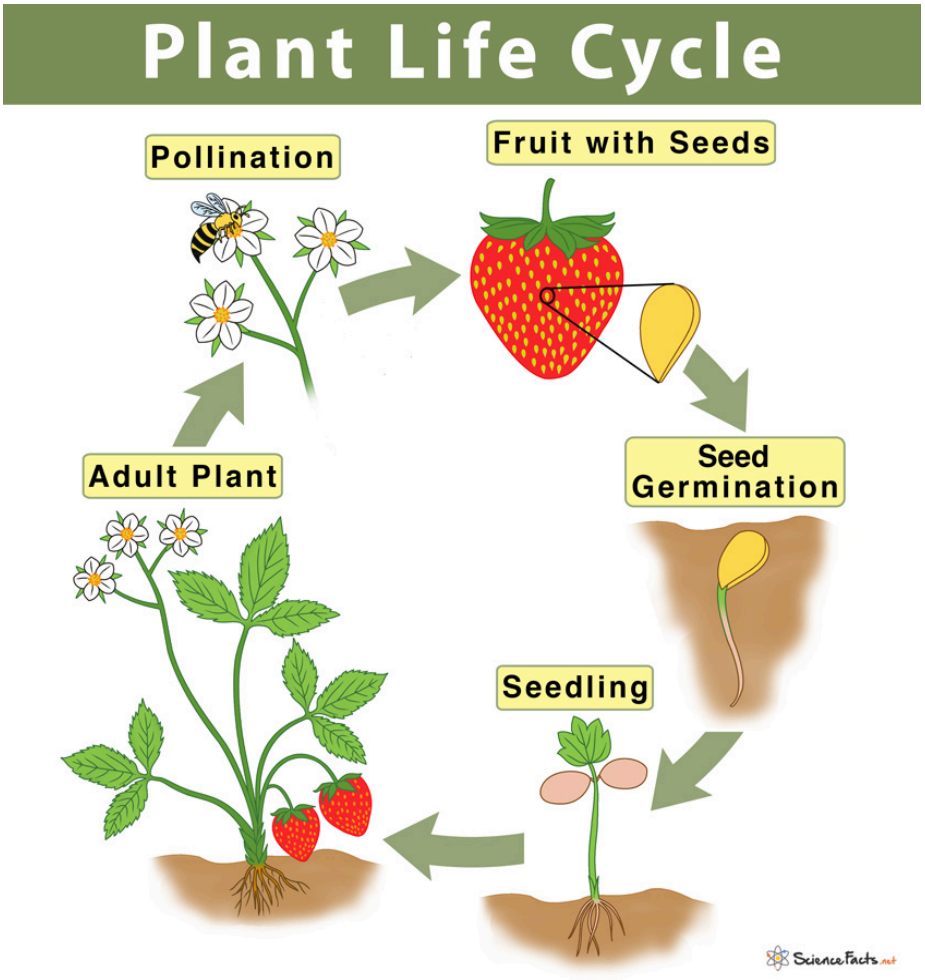
Cinnamon

Coconut

Almond

Cacao (Chocolate)

Cashew




**Fun Fact:** Tomatoes are **self-pollinating**. This means that every tomato plant has **both** the stamen and anther on it and does not need pollen transfer from another plant to make a fruit.. While this is true, Bumblebees still make tomatoes fruit faster by helping brush the pollen off when they visit.

## Pollinated by Butterflies

Dill

Celery

Cilantro

Lettuce Oregano

Lavender

Basil

**Task 3:** Answer the questions below to learn about how pollinators provide for humans!

**What did you have for breakfast or dinner last night?** Draw it below

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Next, circle the ingredients that were in your meal from the lists above.

How many ingredients were brought to you by pollinators?

Which pollinator(s) provided you with fruits, vegetables, nuts, herbs and spices in the meal you had?

**Lesson Plan Created by Bethpage State Park Ecologist Yael Weiss**