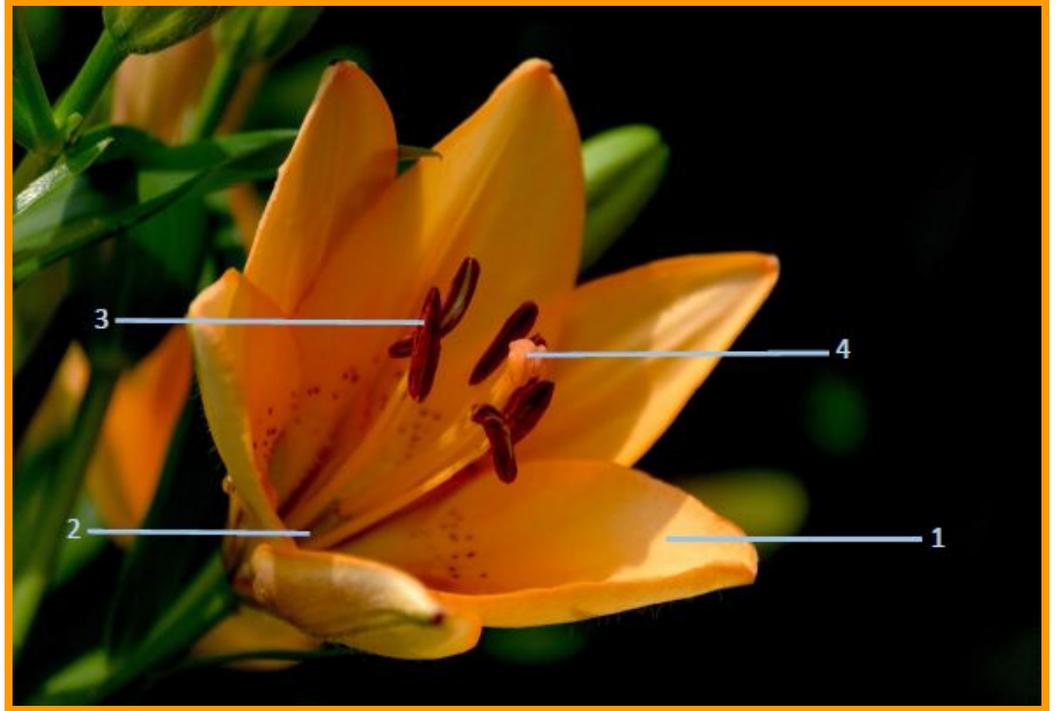


Name: \_\_\_\_\_



# The Pollination Process

This flower is a lily, and it is pollinated by bees and moths. Pollination is important to this plant because without pollination, it could not make seeds. Let's learn more about how pollinators help plants reproduce by following the steps of the pollination process.



1. \_\_\_\_\_ have bright colors and distinctive markings that help attract pollinators to the flower. These markings can include nectar guides, which help guide pollinators to the nectar reward.
2. When the pollinators land on the flower, they are looking for food. The \_\_\_\_\_ hold nectar, a sugary liquid. It's a great meal for pollinators! The nectar is located deep within the flower, so pollinators must brush the stamen and pistils to get to their meal.
3. Pollen is produced in the \_\_\_\_\_, the male part of the flower. When the pollinator moves around the flower to get to the nectaries, some pollen is brushed off onto the pollinator's body.
4. As the pollinator continues to move around the flower, it transfers some pollen from its body to the \_\_\_\_\_. The pollen gets stuck there, and a pollen tube is formed, allowing the pollen to travel down to the ovule. Once this happens, the flower can make a fruit that contains seeds.

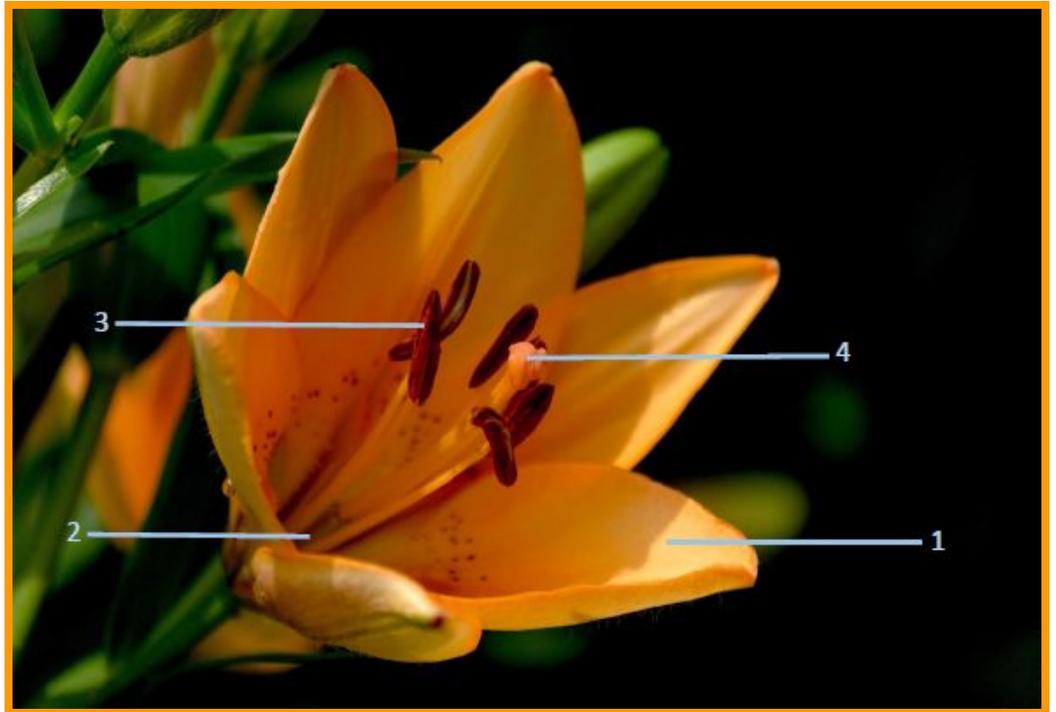
## Word Box

pistil  
stamen  
nectaries  
petals



# The Pollination Process

This flower is a lily, and it is pollinated by bees and moths. Pollination is important to this plant because without pollination, it could not make seeds. Let's learn more about how pollinators help plants reproduce by following the steps of the pollination process.



1. Petals have bright colors and distinctive markings that help attract pollinators to the flower. These markings can include nectar guides, which help guide pollinators to the nectar reward.
2. When the pollinators land on the flower, they are looking for food. The nectaries hold nectar, a sugary liquid. It's a great meal for pollinators! The nectar is located deep within the flower, so pollinators must brush the stamen and pistils to get to their meal.
3. Pollen is produced in the stamens, the male part of the flower. When the pollinator moves around the flower to get to the nectaries, some pollen is brushed off onto the pollinator's body.
4. As the pollinator continues to move around the flower, it transfers some pollen from its body to the pistil. The pollen gets stuck there, and a pollen tube is formed, allowing the pollen to travel down to the ovule. Once this happens, the flower can make a fruit that contains seeds.

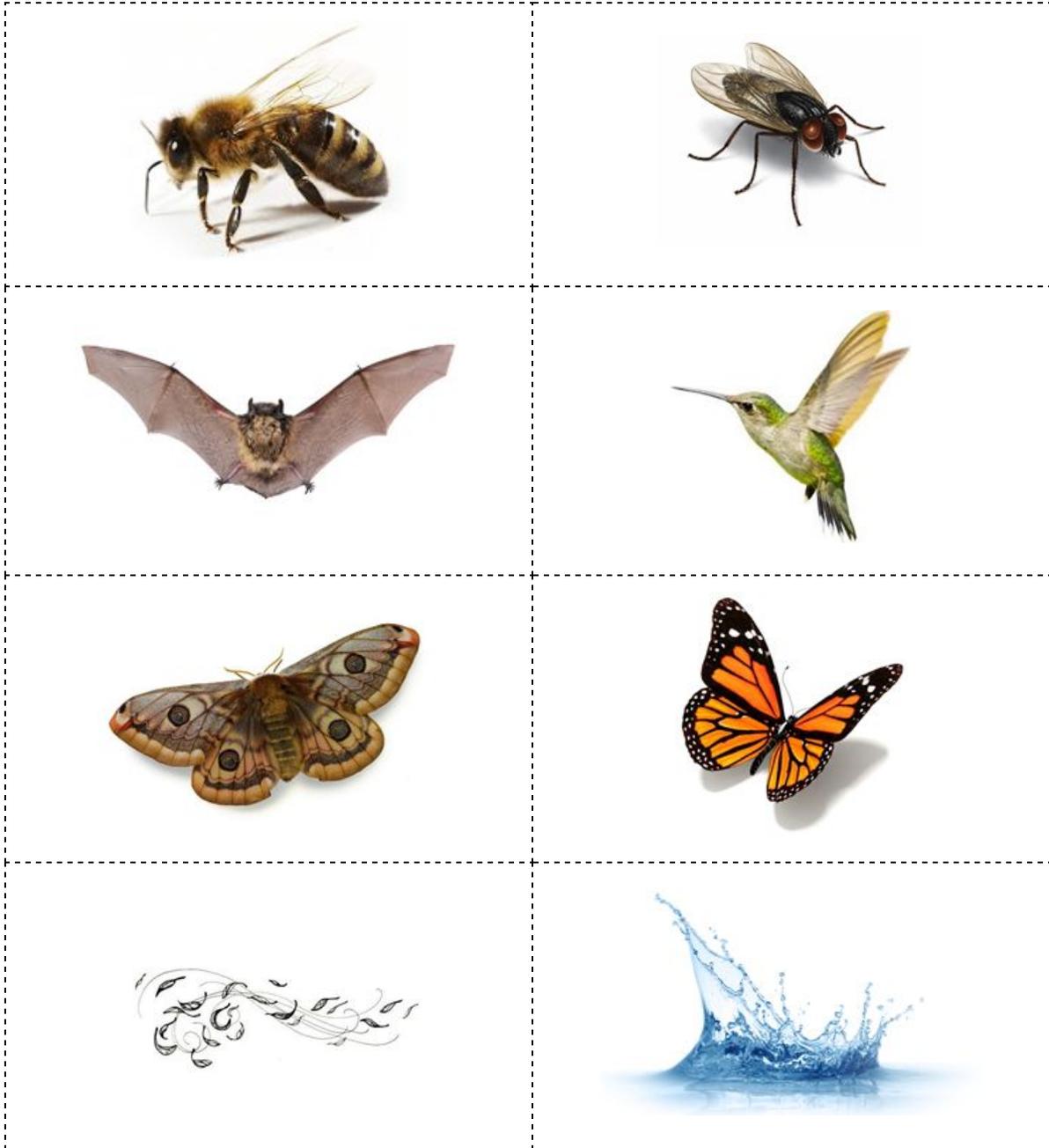
## Word Box

pistil  
 stamen  
 nectaries  
 petals

Name: \_\_\_\_\_

# ✿ Pollinator Matching Game ✿

Match these pollinators to the plants they pollinate using the pictures and clues on the following pages. Then cut out each pollinator card and glue it in the empty space beside the flower it would pollinate.



Name: \_\_\_\_\_



I have a strong odor that resembles a dead animal. That might smell yucky to you, but my pollinator loves it!



My flower has brightly colored petals and is large, so my pollinator has a place to land while drinking nectar with its proboscis.



My pollinator loves my purple color! I also have nectar guides that show my pollinator where to find sweet nectar and pollen.



I grow in wetlands and ponds, where my stems are often under water. My pollen isn't very sticky.



Name: \_\_\_\_\_



**My flower is very large and has plenty of sweet nectar, which gives my large mammalian pollinator energy to fly at night.**



**I have red leaves called bracts that help attract pollinators. My yellow flower's tube shape that matches my pollinator's mouth.**



**My flowers are small and they are not very brightly colored. My pollen is light and it can drift away from my flowers easily.**



**My flowers are white so they can easily be seen at night. Their strong sweet smell helps attract my pollinator.**



# Pollinator Matching Game

Students will use the clues in the images and text to match each pollinator to a plant that it might pollinate. The pollinators featured in this game are:

**Bees:** Bees are the most common pollinators around the world, and there are thousands of different species of bees in North America. Some do live in hives, but many are solitary and make their nests in the ground or in trees. They gather nectar and pollen to eat and to make honey. Flowers pollinated by bees have strong visual signals to attract their pollinators. Most are yellow, white, or purple and have nectar guides, or markings that help draw the bee to the center of the flower, where pollen and nectar are located. Many are flat-faced, but some have a shape that forces the bee to crawl inside to get nectar. When the bee is completely inside the flower, even more pollen sticks to its body and can be transferred to other flowers.

**Butterflies:** A butterfly's mouthpart is called a proboscis, and it works like a long, thin straw. The butterfly uses it to suck up nectar from flowers. This means a flower pollinated by butterflies can have a longer (tube) shape because a butterfly can extend its proboscis deep into the flower. Butterflies cannot sip nectar and fly at the same time, so they need a landing pad, or part of the flower they can rest on while seeking and drinking nectar. Flowers pollinated by butterflies are often clustered and brightly colored, most often blue, purple, red, and yellow.

**Moths:** Moths look like butterflies and have a similar life, but they are nocturnal. This means they are active at night, rather than during the day. Moths often pollinate flowers that have a strong, sweet smell and light colors because they are easiest to spot at night.

**Hummingbirds:** Hummingbirds' eyes are sensitive to the color red, so they are particularly drawn to red flowers (also orange, pink, and yellow). Hummingbirds have long beaks that are well-suited to tube-shaped flowers. This flower shape is an adaptation that benefits the plant, because it forces the hummingbird to reach deep inside the flower for nectar. As the bird seeks nectar, pollen rubs off on its head. While feeding, hummingbirds hover in place rather than landing on the flower, so flowers that droop or hang are likely pollinated by hummingbirds.

**Bats:** Bats are nocturnal, or active at night. Some use echolocation to find food, while others use scent. Flowers pollinated by bats often have a strong musty fragrance at night, which helps the bats find them. They are usually large and produce lots of sugary nectar, which provides bats with energy to fly around. Bats access the nectar using their long tongues.

**Flies:** Some flies are attracted to the smell of decomposition, so flowers that smell putrid, or like rotting meat, are likely pollinated by flies. These flowers are often red or dark in color and completely lack nectar. Other flies visit flowers to drink nectar, eat pollen, or lay eggs. In doing so, they help the flower by pollinating it.

**Wind:** Not all plants are pollinated by animals. There are also abiotic, or nonliving, means of pollination. Wind-pollinated plants don't need showy or fragrant flowers to attract animal pollinators. This means their flowers are often green, dull brown, or colorless. These flowers don't have sticky pollen, allowing it to blow on the wind from one flower to another.

**Water:** Water-pollinated plants are similar to wind-pollinated plants, in that they have less showy flowers because they do not need to attract an animal pollinator. Some water plants produce little pollen boats that float on the surface of the water until they reach another flower.