

# Pollinators, Meet Your Plants



## Materials:

- copies of each page, folded in half and laminated.
- flowers of different colors, sizes, and shapes

## Directions:

- Show students the different flowers you have gathered. Ask them which one is their favorite. Go around the room and have several students share which flower is their favorite and why.
- Explain to students that just like they prefer some flowers over others, so do pollinators. For example, because a butterfly has a long, slender mouth part (proboscis), they prefer flowers that are long and tube-like. Some flies, on the other hand, have short, round mouth parts much like a sponge. For these pollinators, a wide-open flower is preferred. Or, for other pollinators, like moths, a flower that is open at night is preferred because that is when moths are active. The concept of pollinators preferring some plants over others is known as Pollinator Syndromes.

Just like we have symptoms or characteristics which are specific to a syndrome or illness, pollinators have characteristics that are specific to their preferred plants.

- Brainstorm with students all the different kinds of pollinators we have - bees, butterflies, moths, beetles, ants, birds, bats (although bats are not pollinators in Nebraska, they are in other parts of the world).
- Give each student one card (either a pollinator card or a plant card). Explain to them that they are to use the characteristics of their pollinator or plant to find their match - each plant has a specific pollinator. (note: for several plants, the matching pollinator is not the only pollinator to help pollinate this plant”).
- Once all students have found their match, have the pairs of students explain to the class why they are a match.

## **ANSWERS:**

Ruby-throated Hummingbird .....	Honeysuckle
Bumble Bee .....	Snapdragon
Regal Fritillary Butterfly .....	Butterfly Milkweed
Bat .....	Saguaro Cactus Flower
Ant .....	Wild Strawberry
Soldier Beetle .....	Goldenrod
Flower Fly .....	Apple Tree Flower
Hawk Moth .....	Morning Glory
Pollen Wasp .....	Virginia Waterleaf
Bee Fly .....	Spring Beauty
Leafcutter Bee .....	Aster



## Ruby-throated Hummingbird

- I prefer flowers that are red in color.
- I do not land on the flower when drinking nectar, so I do not need a large landing spot.
- I seek flowers that are funnel shaped for my long, slender beak.
- I want flowers with plenty of nectar... I need a lot of energy to flap my wings this fast!





## Bumble Bee

- I am able to regulate my own body temperature through shivering and basking in the sun. Many early spring and fall blooming plants rely on me for pollination.
- I like to land on the flower when seeking nectar, I do not hover.
- Because I am a heavier pollinator, I am good at pollinating plants that must “open” to reveal their nectar.
- I like lightly sweet smelling flowers.



## Regal Fritillary Butterfly

- I like flowers that grow in clusters so I have plenty of room to land.
- I prefer brightly colored flowers, mainly red, yellow, and orange.
- I want flowers with lots of nectar.
- Because I have a long tongue, I often visit flowers with the nectar hidden deep inside.





## Bat

- Although bats in Nebraska are not pollinators, bats in southern climates are important pollinators.
- Because I am nocturnal, I need flowers that are open at night.
- I am a rather large pollinator, so I need large flowers like large desert flowers.
- I like flowers that are white or pale in color... and I like flowers that are very fragrant and smell like fruit.



## Ant

- I am not considered an important pollinator, but there are millions of me and we do visit flowers, so we do do some pollinating.
- I can not fly, so I visit flowers that are low to the ground.
- I often visit flowers with small, inconspicuous flowers.
- I only pollinate during the day.





## Soldier Beetle

- As a beetle, I am an extremely important pollinator... beetles pollinate 86% of flowering plants globally.
- I often visit showy flowers and yellow in color.
- I am not too particular on the type of flowers... I can pollinate large, solitary flowers like sunflowers and coneflowers or small, cluster flowers like the Nebraska state flower.





## Flower Fly

- I am often referred to as a hover fly.
- Most Flower Flies have sponge-like mouth parts for “soaking-up” nectar and pollen. Thus, I like wide-open flowers.
- There are over 900 species of Flower Flies in North America.
- I am an important pollinator in orchards.



## Hawkmoth

- Unlike most moths, I am crepuscular, so I visit flowers during at dawn and dusk. I am often mistaken for a hummingbird.
- I want flowers that have ample nectar. And, with my long tongue, I like the nectar to be hidden deep inside.
- I can be found feeding on hummingbird feeders, but I also like flowers that are purple, pink, white, or even blue.





## Pollen Wasp

- I am a wasp yes, but I would prefer to visit flowers than sting you!
- My tongue is not nearly as long as bees or butterflies, so I need shallow flowers.
- I will visit a wide variety of flowers, but prefer flowers from the Waterleaf and Figwort families.





## Bee Fly

- I am actually a fly that mimics a bee.
- I do not land on the flower when drinking nectar to avoid predators (like spiders) lurking on the flowers, so I do not need a large landing spot.
- I am often one of the first pollinators out in the spring.
- Although I do not land on the flowers I pollinate, I do get some pollen on my legs to pass to other flowers.



## Leafcutter Bee

- I am a solitary bee, not a colony bee like bumble bees and honey bees.
- I am named because I chew perfect circles out of leaves. I use this material to seal my eggs in their nest chamber.
- Although most leafcutter bees visit a wide variety of flowers, some species specialize in pollinating asters and pea flowers.





# Apple Tree Flower

- I am a pale pink to white flower.
- My flower petals are wide open to allow easy access for pollinators.





# Saguaro Cactus Flower

- My flowers are white with a yellow center.
- My flowers are a cone shape with the pollen deep inside.
- My flowers are very fragrant.



## Butterfly Milkweed

- I am brightly colored and have lots of small flowers... this is called clusters of flowers.
- I can be found in a wide variety of habitats including prairies, wetlands, and even roadsides.



# Snapdragon

- I can be found in a wide variety of colors including yellow, white, pink, red, and orange.
- I must be “opened” ... my large petal must be pushed down for pollinators to reach my nectar.
- I provide my pollinators with a large landing platform.
- My nectar is at the bottom of a long tube.





# Honeysuckle

- I have no landing platform for my pollinators.
- I have a long funnel shaped flower.
- I can be red, white, yellow, or pink in color.
- I can grow as a bush or a vine.



# Goldenrod

- I have clusters of flowers.
- Although there are lots of kinds of Goldenrod, my flowers are always bright, showy yellow.
- I bloom in the late summer.





## Morning Glory

- I can be blue, white, deep pink, or pale pink in color.
- I close my flowers at night, I open them first thing in the morning.
- I am a common garden flower and can be found climbing on fences or trellises.



## Virginia Waterleaf

- I am a common forest flower in Nebraska.
- I grow low to the ground.
- My flowers are not too deep which allows many pollinators to get to my nectar.





## Spring Beauty

- I am one of the first wildflowers to bloom in the spring.
- My flowers can be white, pink, or even striped.
- I am a small plant and do not grow very tall.



## Wild Strawberry

- I grow low to the ground and am often visited by crawling insects.
- I have small white flowers that are not very showy.
- I am usually found in shaded areas with plenty of indirect sunlight.





# Aster

- I am a small flower, but a single flower... I do not form clusters.
- I can be yellow, white, pink or purple in color.
- My petals are long and narrow, and although small, I have plenty of pollen and nectar.

# Answer Key

## Pollinator

Hawkmoth

Bumble Bee

Flower Fly

Ruby-throated Hummingbird

Leafcutter Bee

Regal Fritillary Butterfly

Bee Fly

Soldier Beetle

Pollen Wasp

Ant

Bat

## Plant

Morning Glory

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