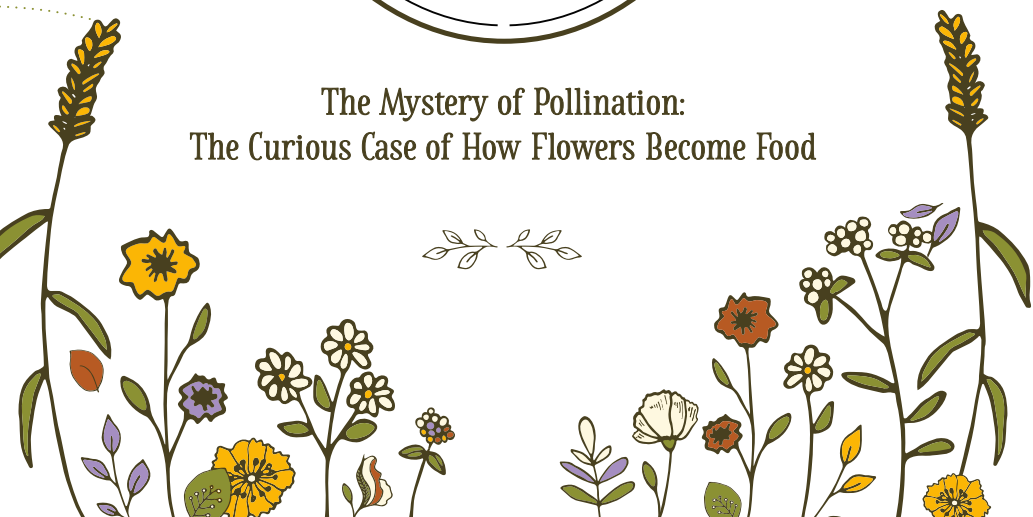


POLLINATOR PASSPORT



The Mystery of Pollination:
The Curious Case of How Flowers Become Food

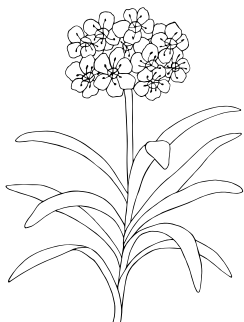


STUDENT PASSPORT

Scientific Investigator Division

Detective:

Grade:



The Pollinator Passport program was made possible through the generous support of **Beekeeper's Naturals**.

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Curriculum created by **The Bee Cause Project**
to inspire the next generation of
environmental stewards.

www.thebeecause.com



CASE FILE #PP-001:

The Curious Case of How Flowers Become Food

Dear Detective,

We need your help to solve a very important mystery.

Across gardens, farms, and forests, something strange is happening. Flowers are blooming, but without help, many of them cannot finish their job. Fruits are not forming as they should, seeds remain unscattered, and crops are wasted. Our food supply could depend on solving this case.

Do you like fruit? Delicious strawberries, ripe watermelon, bananas – even chocolate. They all need help from farmers, food scientists, agronomists, agricultural engineers - and most importantly, pollinators. Nuts, pumpkins, chocolate, tomatoes, passion fruit, mangos, apples, peaches, pears, and so many other foods that we love to eat rely on the power of pollinators to grow and thrive.

The farmers have discovered the strangest problem with their crop this year. The berries do not look very appealing and taste even worse. They are worried about not selling the crop this year, but are not sure what is happening to their berries. We've got to help them solve this mystery.



YOUR MISSION:

Uncover the secret of pollination and why it matters. Learn how flowers become the foods we love & find ways that you can help support the creatures who make it possible.

Complete each clue, finish your activities, gather the evidence, and earn a stamp! Collect all 5 stamps to become a Certified Pollination Detective!



MISSION BRIEF



Clue #1

The Flower Puzzle — WONDER



Have you ever wondered why flowers are so colorful and smell so sweet?

Flowers aren't just pretty. They're typically colorful and sweet-smelling by design!

Their bright colors and scents help attract pollinators, the animal agents that assist flowers with reproduction.

Inside every flower are tiny parts that must work together to make fruits and seeds.

But here's the twist: most flowers can't move on their own. They need a helper to carry a special powder called pollen from one flower to another.



Without that transfer...



**NO
APPLES**



**NO
PUMPKINS**



**NO
STRAWBERRIES**



What or who do you think helps flowers move pollen?

What do you think happens if pollen doesn't move from flower to flower?



PASSPORT EVIDENCE LOG



Take a **Flower Power Walk** to observe flowers and log them in the **Pollination Log** below.

Date	Location	Pollinator Type	Flower Visited	Notes & Observations



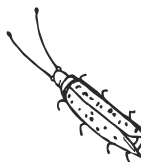
Look closely!

Pollinators can be big or small. They may land for a second or stay awhile!



**Draw and label a flower:**

Label the parts of the flower and show where **pollen** is located. Add a **pollinator or other insect** that you observed.





List one type of flowering native plant that grows in your area using your zip code.

What are some of the pollinators that are attracted to your flower? Include flower name.



What would happen if bees didn't help move the pollen?



Draw or write your prediction.



Key Terms

Use your own words to explain the following terms as part of your evidence collection.

BEEHIVE:

CORBICULA - "POLLEN PANTS":

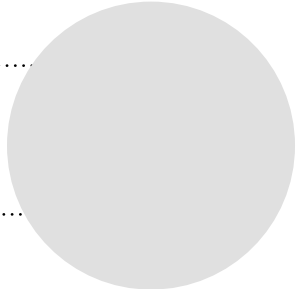
BEE POLLEN:

COLONY:



I wonder...

Collect your
Official Detective Sticker
& head to the next clue!



MISSION BRIEF



Clue #2

The Pollinator Team — DISCOVER

Hello, Detective!

Have you ever stopped to wonder who helps flowers move their pollen from place to place? And more importantly, **HOW**? Bees may be the most famous pollinators, but they aren't working alone! Butterflies, moths, beetles, flies, hummingbirds, bats, and even wind and water can help flowers grow fruits and seeds.

FLOWERS AND
POLLINATORS
WORK LIKE A TEAM!

Each pollinator has special body parts that help it collect nectar and move pollen:



Bees have fuzzy hairs called **setae** that trap pollen easily.



Butterflies use long mouth parts called **proboscises** to sip nectar.



Hummingbirds use long **beaks** and **tongues** to reach deep flowers.



Moths and bats help pollinate flowers at **night**.



PASSPORT EVIDENCE LOG



Complete the
Pollinator Bodies
exploration.



Complete the
Pollinator Feeding
Station exploration.



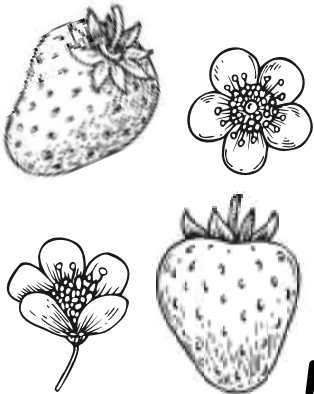
Draw or describe your favorite pollinator.

Label the parts of the body and show where pollen is gathered. Be sure to include the mouth parts and how the pollinator moves through the garden.





What type of flower is your pollinator attracted to?



Which pollinator do you think pollinates strawberries? Consider the shape of the strawberry flower and the shape of the pollinator’s mouth & body parts.



Draw or write your prediction.

A small icon of a pencil pointing towards the drawing area.

Key Terms

Use your own words to explain the following terms as part of your evidence collection.

SETAE:

POLLINATOR:

BEE:

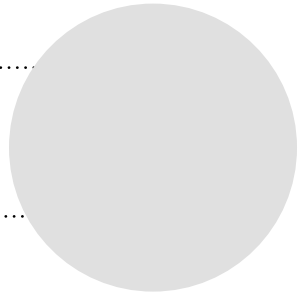
SCALES:

PROBOSCIS:

ATTRACT:

I wonder...

Collect your
Official Detective Sticker
& head to the next clue!



MISSION BRIEF



Clue #3

The Plant Lifecycle — CONNECT

You’ve discovered that pollinators help move pollen between flowers. *But why does that matter so much?*

- 🐝 Flowers use pollination to make seeds.
- 🐝 Seeds grow into new plants.
- 🐝 New plants grow flowers and fruits.

That means pollination helps keep the entire plant lifecycle going!



APPLES



CUCUMBERS



STRAWBERRIES

Many foods we eat every day began as flowers:



BLUEBERRIES



EVEN CHOCOLATE!



Can **you** connect the clues between flowers, seeds, plants, and food?

Scientists say that about

1 in 3 bites of food

we eat depends on **pollinators!**





PASSPORT EVIDENCE LOG



Complete the “**Every Third Bite Tag**” mission



Draw or describe the plant lifecycle.

Seed → Plan → Flower → Fruit → Seed





List three foods that depend on pollinators, as well as the pollinators that help the plant:

1

Food:

Pollinators:

2

Food:

Pollinators:

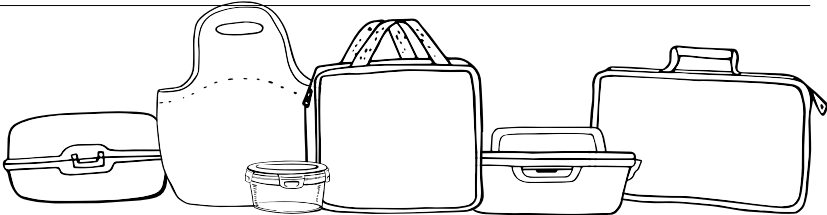
3

Food:

Pollinators:



What foods would disappear from your lunchbox or plate without pollinators?



Key Terms

Use your own words to explain the following terms as part of your evidence collection.

LIFECYCLE:

SEED:

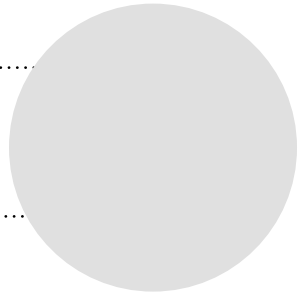
FRUIT:

FLOWER:



I wonder...

Collect your
Official Detective Sticker
& head to the next clue!



MISSION BRIEF



Clue #4

The Food Connection — EXPLORE

Pollinators do more than help flowers grow; they help create many of the foods we love to eat!

Bees visit flowers to collect nectar and pollen. As they travel from flower to flower, they help plants produce fruits, vegetables, nuts, and seeds.

Different flowers create different flavors of honey. Different pollinators visit different plants.

That means **pollinators help create food diversity around the world!**



Can **you** explore the connection between flowers, pollinators, and the foods on your plate?



PASSPORT EVIDENCE LOG



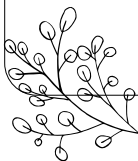
Complete the **Honey Tasting** Detective Lab.

Which honey variety was your favorite? Why?



Draw or describe your favorite pollinator-dependent food.

Include at least one pollinator that supports your favorite food!





List your favorite foods from each color of the rainbow.



Red

Orange

Yellow

Green

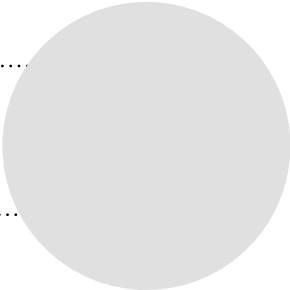
Blue

Indigo

Violet

I wonder...

Collect your
Official Detective Sticker
& head to the next clue!



MISSION BRIEF FINAL

Clue #5

FINAL MISSION BRIEF — ACT

Congratulations, Detective! This is where you take action.

Pollination doesn't just give us food—it gives us **healthy food**.

Fruits and vegetables provide:

- ➔ Vitamins that keep your body strong
- ➔ Nutrients that help you grow
- ➔ Energy to think, play, and solve mysteries

YOU SOLVED THE MYSTERY!

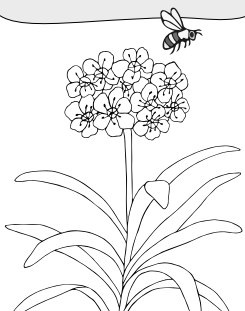
- ✓ You **wondered** how pollinators move pollen.
- ✓ You **discovered** how flowers make seeds and fruits.
- ✓ You **learned** how pollination helps grow the food we eat.
- ✓ You **explored** how people can help protect pollinators and support diverse foods and healthy ecosystems.

**Now it is
your turn
to ACT!**

People can protect pollinators by creating healthy habitats, planting native flowers, providing natural nesting spaces, and teaching others about pollinator conservation. Pollinators need **food, water, shelter & safe habitats**.

Without pollinators, many healthy foods would disappear; however, with your help, pollinators can continue helping plants, farms, gardens, forests, and people all around the world.

The mystery is solved... but your mission is just beginning. Our pollinators keep our planet filled with fresh foods and healthy ecosystems, and it's yours to protect.





PASSPORT EVIDENCE LOG



Complete your **Bee a Friend Action Plan**.



Draw or describe at least one way you will help pollinators.



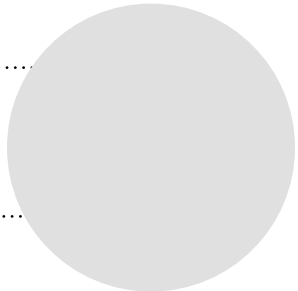
List one native flower you could plant:



What is one thing you can teach others about pollinators?

I wonder...

*Collect your
Official Detective Sticker
& head to the next clue!*



 **WORD
SEARCH**



K P R X D E G U J G J I V K K N X B J H
W U E O K I K L Q Y J P C E C V X E F D
D P E L O I L U D J L O Q B P G O E L R
I B F K J S B K R S E L S N A E W H O H
D H L I A S U G G U V L E S X G O I W W
F P U D O S N V Z W K E K B J V L V E E
D M A P P W E B Y A Z N P N G W R E R C
K W H S D B E Q X S F X O P A V I A C O
C U L A P Q X D S F X V L I T R S C R R
N O R I K L N R K T O W L F T H P B D B
R O L I Y X X A F K S Y I L R H R W T I
R T N O T K A D H N B C N O A N O S V C
F D G G N U X G N H S Z A A C Z B F D U
B P N G T Y L C I H U M T L T I O N F L
E J O O J U K M N K I G O Z E U S P F A
E E O Z E Y J Z W J T A R D Z S C O S J
O F U G Q Q A L I F E C Y C L E I Z B W
Q F X L S E G A U T Z U C M J I S Q W F
S E E D F R U I T U C W F H I S E T A E
W F C M U M K N C Z N W T I R P A A K H

BEEHIVE	POLLINATOR	LIFECYCLE
CORBICULA	BEE	SEED
POLLEN	SCALES	FRUIT
COLONY	PROBOSCIS	FLOWER
SETAE	ATTRACT	





CERTIFICATE OF COMPLETION

CONGRATULATIONS!

This certifies that

has successfully completed the Pollinator Passport and
solved all five pollinator clues!

By exploring flowers, bees, butterflies, bats, birds, and other
amazing pollinators, you've discovered how these tiny heroes
help grow the foods and plants we depend on every day.

You're now an **Official Pollinator Protector!**



CASE CLOSED!

POLLINATOR PROMISE

I promise to appreciate and protect pollinators by planting flowers, respecting their habitats, and sharing what I’ve learned with others. Every small action I take can help bees, butterflies, birds, bats, and other pollinators thrive!

SIGNATURE



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