

**DIG
IT**

POLLINATORS



Illinois Extension

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

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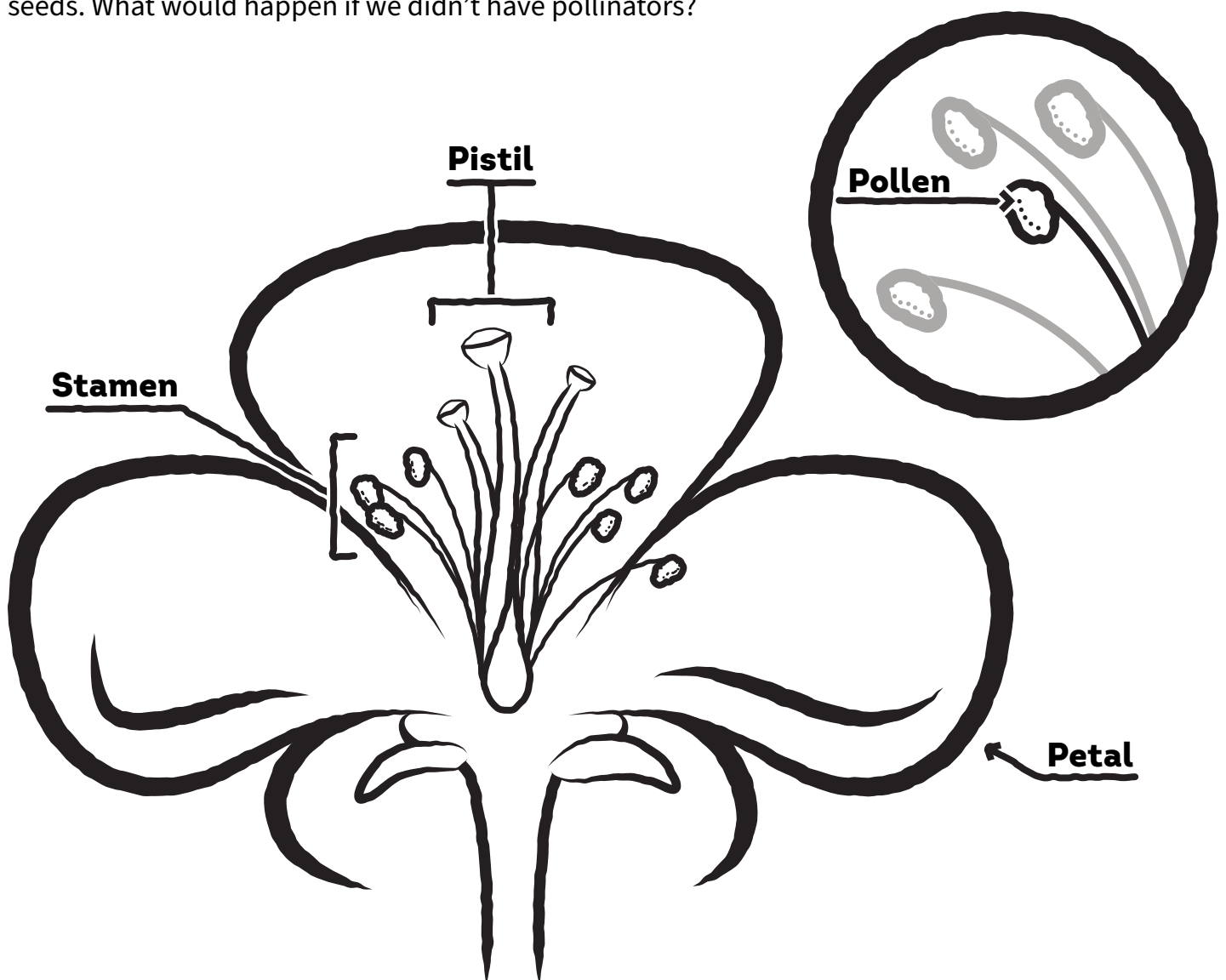
What is Pollination?

Pollination is a process that allows plants to reproduce or make new plants. Pollination happens when the **pollen** moves from the **stamen** (male flower part) to the **pistil** (female flower part).

Pollen can't move by itself, so how does it get to the pistil? Sometimes wind or rain can help the pollen move, but most plants need insects and animals to transfer the pollen.

Once pollination occurs, the flower will begin to form a fruit that will contain seeds. Fruits and seeds come in all shapes and sizes. Can you think of a fruit that has seeds in it? If you plant that seed, will it grow into a new plant?

Pollinators like bees, bats, birds, and butterflies are important to the pollination process. Many foods that we grow depend on pollinators to produce fruit and seeds. What would happen if we didn't have pollinators?



What are Pollinators?

Pollinators help plants create seeds by carrying pollen from one plant to another. Many plants need pollinators to create seeds, and pollinators need plants to survive. This **relationship** is so important to some species, that you cannot have one without the other.

Plants cannot move. This means they need other living things to help move the pollen. These animals that help move pollen are called **pollinators**. Some pollinators are mammals like rodents or bats. But most pollinators are insects. Beetles, butterflies, moths, wasps, and flies are all very common insect pollinators. However, some of the best pollinators out there are bees.

You may have heard of **honeybees**. A honeybee is actually a domesticated insect, kind of like a cow. Humans have raised honeybees for thousands of years to help pollinate crops that grow food for us to eat.

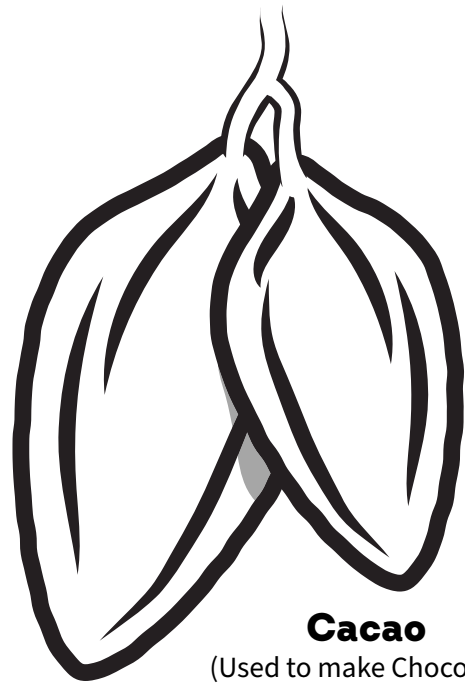
There are lots of other bees that live all around you that also help pollinate plants. **Native bees** come in all sizes and can be as small as a grain of rice or as big as your thumb. Different native bee species are active at different times of the year and are very important pollinators. Even though many people only think of honeybees as pollinators, our native bees can be useful pollinators for our food crops.

Bee facts: Most native bees live alone and are harmless, so long as you leave them alone. They simply are collecting pollen for their young and couldn't care less if you are nearby.

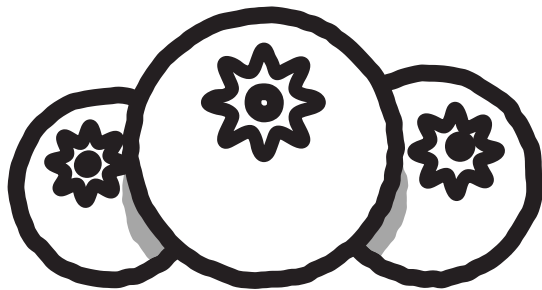


Why are Pollinators Important?

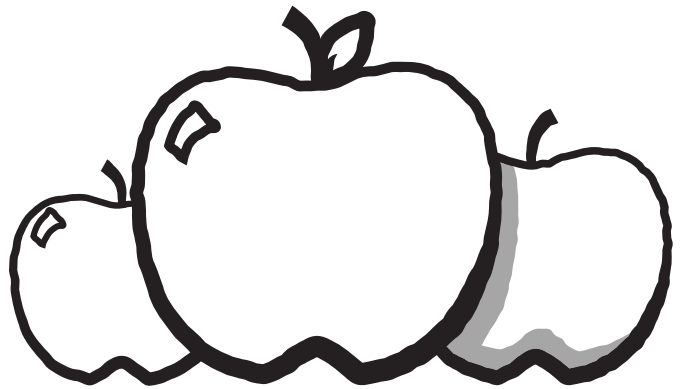
Did you know that one in every three bites of food we eat is because of pollinators? Without pollinators, there would be lots of different fruits and vegetables we wouldn't have anymore. Below are some examples of fruits and vegetables that need pollinators. Can you think of others? Do you grow any of these plants?



Cacao
(Used to make Chocolate)



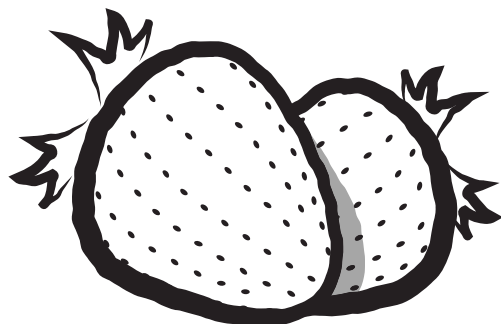
Blueberries



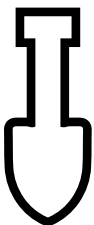
Apples



Pumpkins and Squash



Strawberries



Dig Deeper

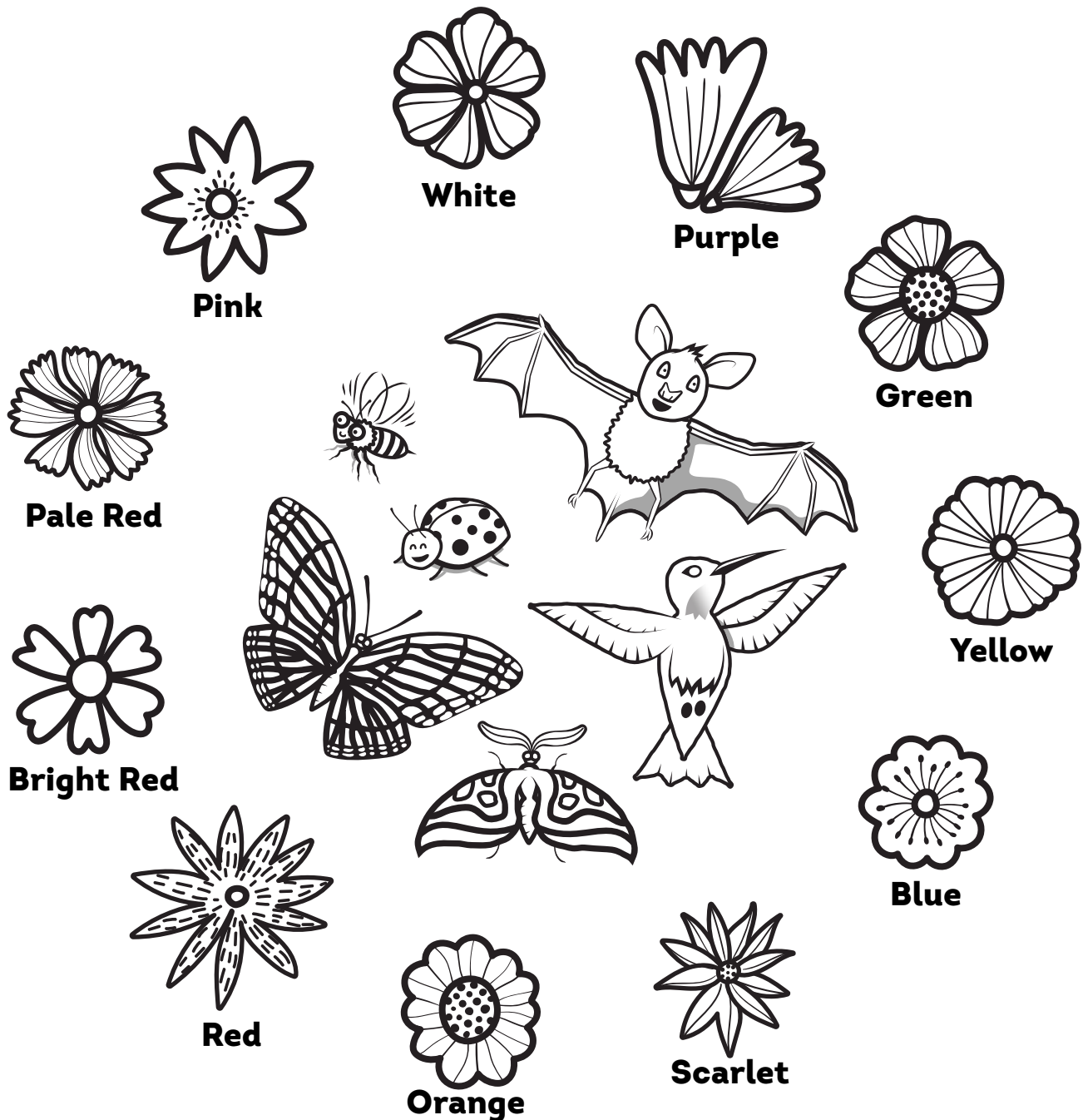
We usually think about fruit when we talk about food that needs to be pollinated because that is the part of the plant we eat. But many vegetables need to be pollinated too, even though we don't eat the fruits of those plants. Can you think of why that is? It's because we need seeds to grow these plants, like beets, carrots, lettuce, and herbs.

Flower Colors Matter!

Pollinators are picky about favorite colors like YOU!

- Bats like white, green, or purple flowers.
- Bees seek white, yellow, or blue flowers.
- Beetles want white or green flowers.
- Birds like scarlet, orange, red, or white flowers.
- Butterflies seek bright red or purple flowers.
- Moths want pale red, purple, pink, or white flowers.

Draw a line from the pollinator to their favorite flower.



How Can YOU Help Pollinators?

- **Create an inviting place in your yard for pollinators to live.**
 - Plant a pollinator-friendly garden with a wide variety of plants that bloom from spring through fall.
 - Build a Mason bee house. They nest in holes in wood instead of building beehives.
 - Provide a source of water for the pollinators, like a butterfly puddle.
 - Let some dead plant material and leaves stay in the garden during the winter to give them a protected spot to overwinter.
- **Be nice to the pollinators.**
 - If you leave them alone, they will not hurt you. Look, don't touch.
 - Avoid using pesticides in your home or garden to kill insects.
- **Share with others why pollinators are so important.**

Build a Butterfly Puddle

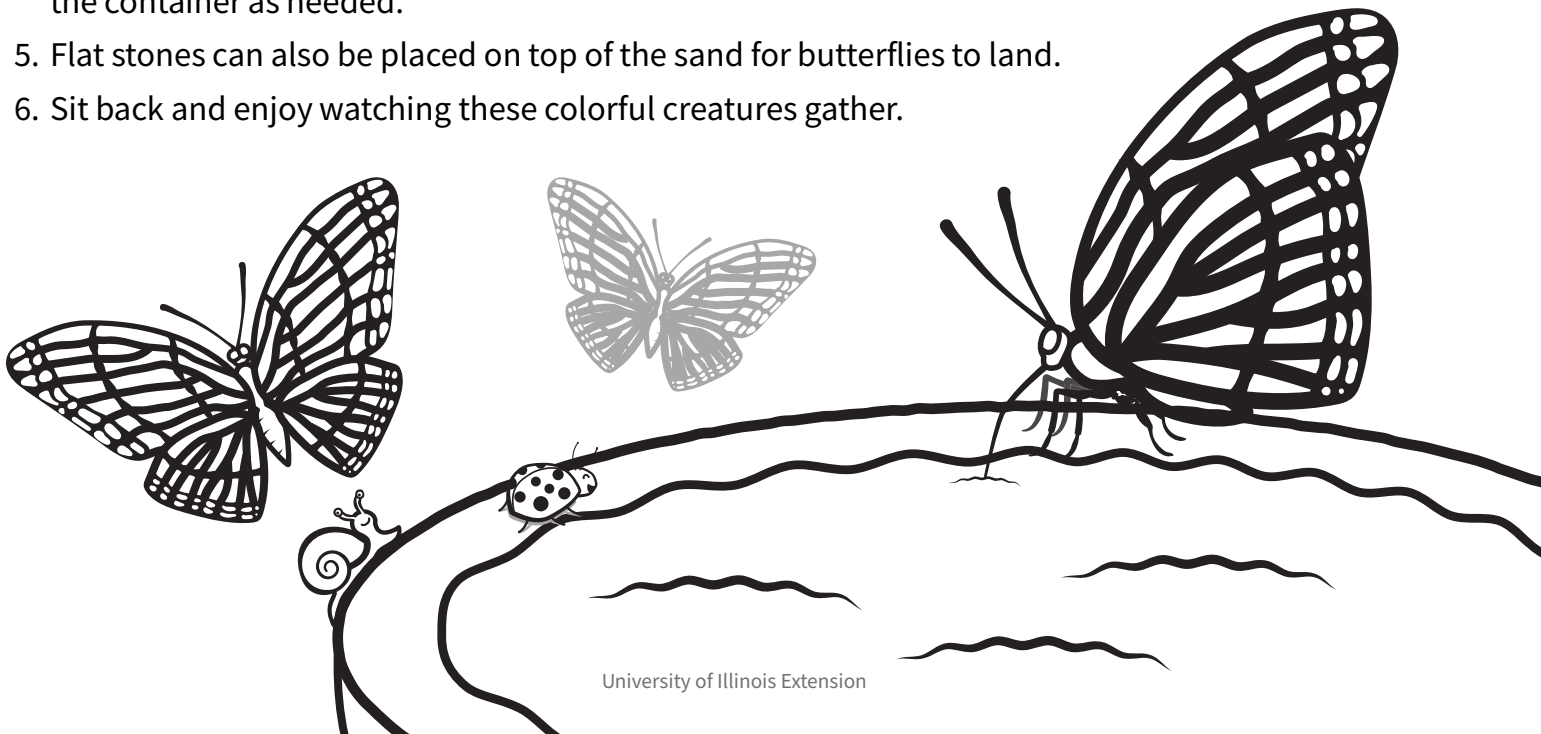
Make your garden more butterfly-friendly with a drinking puddle. Shallow water sources provide the necessary salt and amino acids for our fluttering friends.

Materials:

- Shallow tray or dish
- Sand
- Soil
- Compost
- Stones (flat)
- Salt

Directions:

1. Start with a shallow container that can hold water, such as a saucer or pie pan.
2. Fill the container with sand, level it off, and create an indentation in the center to collect water.
3. Lightly sprinkle soil, compost, or salt over the sand to provide nutrition. Avoid inert potting soil.
4. Add water to the container and place it in your garden amongst your plants. Replace the water in the container as needed.
5. Flat stones can also be placed on top of the sand for butterflies to land.
6. Sit back and enjoy watching these colorful creatures gather.



Parts of a Flower

Petal: The colorful part of a flower.

Pollen: A powdery substance on the stamen of a flower.

Stamen: The male part of the flower that makes pollen.

Pistil: The female part of the flower that receives pollen and makes seeds.

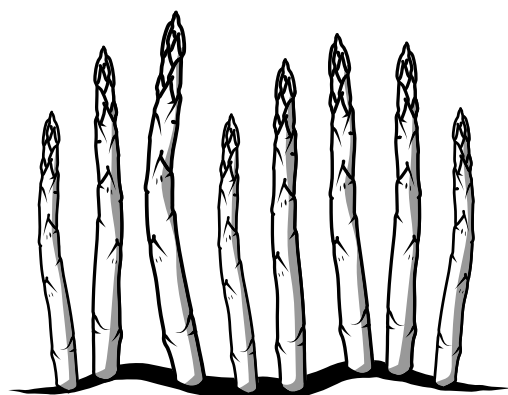
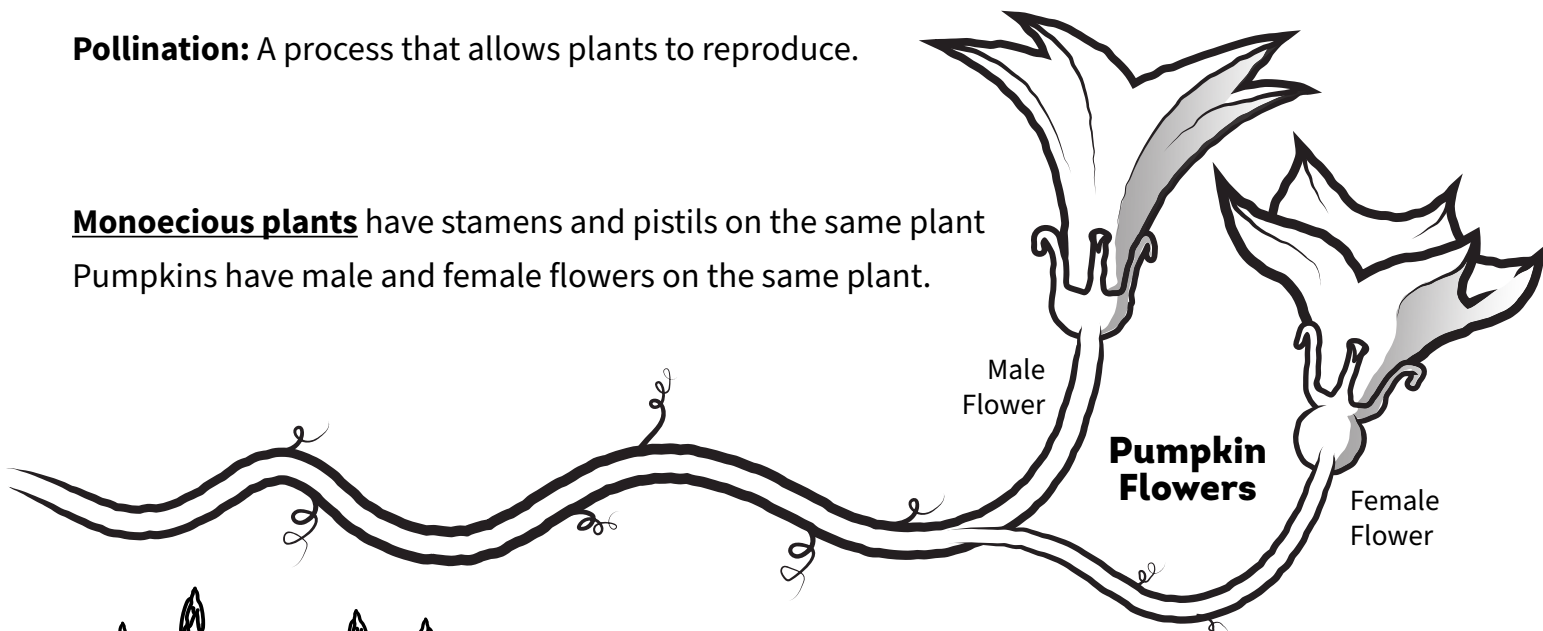
Pollination: A process that allows plants to reproduce.

Monoecious plants have stamens and pistils on the same plant

Pumpkins have male and female flowers on the same plant.



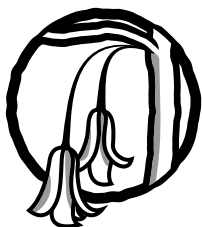
90% of plants rely on pollinators to reproduce.
We're not just pollen your leg!



Asparagus

Dioecious plants have stamens and pistils on different plants.

Asparagus have separate male and female plants.

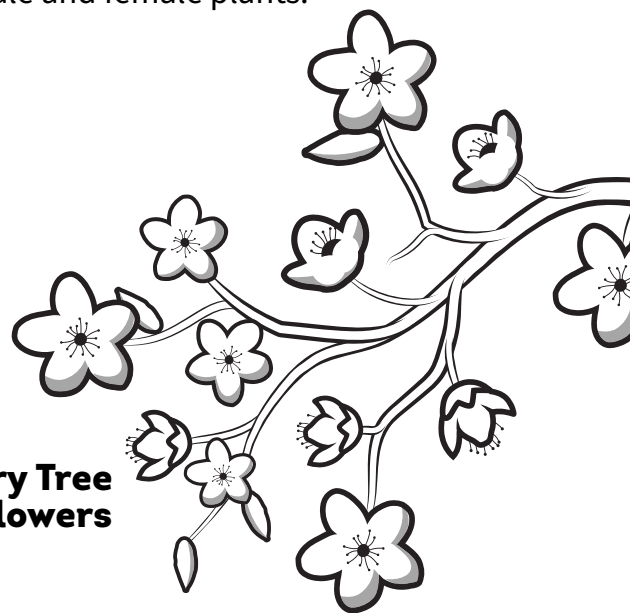


Asparagus Flowers

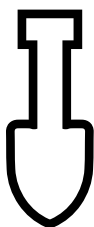
Synecious plants have stamens and pistils in the same flower.

This is also called a "perfect" flower.

Cherry trees have perfect flowers.



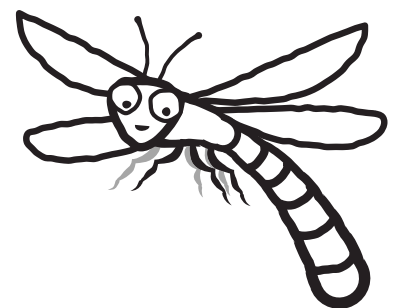
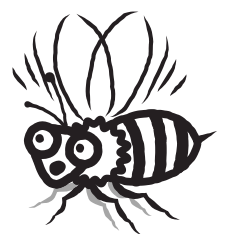
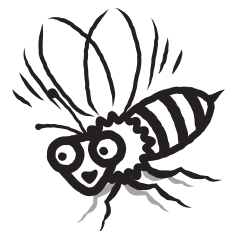
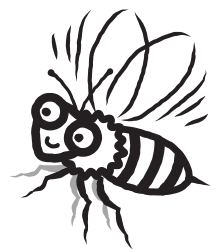
Cherry Tree Flowers



Dig Deeper

Look closely at the flowers you see in your neighborhood. Can you tell the male and female parts of each bloom? Can you see the grains of pollen on the stamens? Which flowers are perfect?

Pollinator Word Search



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

Words to Find:

BUTTERFLY
VEGETABLE
FRUIT
GARDENING
WIND
BEETLES
INSECT
MOTH
POLLEN
POLLINATORS

POLLINATION
HUMMINGBIRD
FOOD
NECTAR
ANT
FLOWER
BEES
WASP
FLIES
BAT

[illegible]