VICTORY GARDENS

Lesson and Activity Suggestions for Grades K - 2

Pollination

Your life has changed a lot this spring, just like the children and their families during WWII. Right now, in the United States and all over the world, children and their families are fighting a different kind of battle. Instead of a war, we are in a battle against a virus called COVID-19. Like the children and adults during WWII, you and your friends, neighbors, and parents are being asked to sacrifice some things to help our country. Some of the things you've had to sacrifice include going to school, visiting friends, going to restaurants, the movies, the park, and even toilet paper!

1943

2020

While the battles we are fighting and the sacrifices we are making are different, there is something that you and children from WWII have in common, and that is your Victory Garden! During WWII, children planted victory gardens at their schools and their homes, and adults planted victory gardens at their place of work. No matter where they lived, in the city or in the country, families planted Victory Gardens together. Now you and your families, as well as many other families across the country, are growing Victory Gardens, too!

How is your Victory Garden growing? Have you seen any changes? Your garden plants have seen a lot of different types of weather! I hope they've survived the cold air and the hail of last week. In earlier lessons you learned that plants need air, water, and soil to grow. You've also learned about vegetables and fruits and how they are different. Most recently, you learned about the important parts of plants and flowers, soil and mud, and how worms help keep the soil healthy to help plants grow.

In this lesson, you will learn about a process called **pollination**, which plays an important role in your garden!

Pollination

At the start of this Victory Garden project, we provided you with seeds and plants that are *really* vegetables, and others that we *call* vegetables, but are technically fruits, like the tomato. You many want to return to lesson two if you need a review. For today's lesson, you need to know that all fruits require pollination, but only some vegetables require pollination, in order to grow the edible portion.

Let's go through what you were given and if it will pollination to produce the fruit or vegetable we want to eat. We will return to the last column after we learn more.

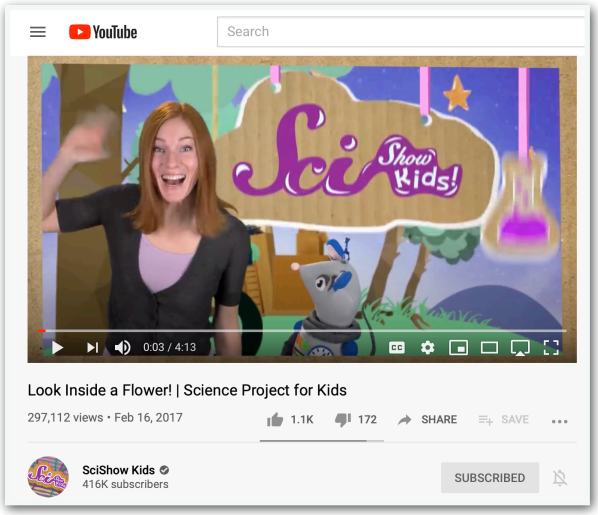
Plant	Is pollination required for edible portion	What kind of pollinator?
Beans	Yes	Self
Radish	No	
Carrots	No	
Cucumbers	Yes	Insect/bird
Sweet Corn	Yes	Wind
Lettuce	No	
Tomatoes	Yes	Self
Peppers	Yes	Self
Onion	No	
Pumpkins	Yes	Insect/bird



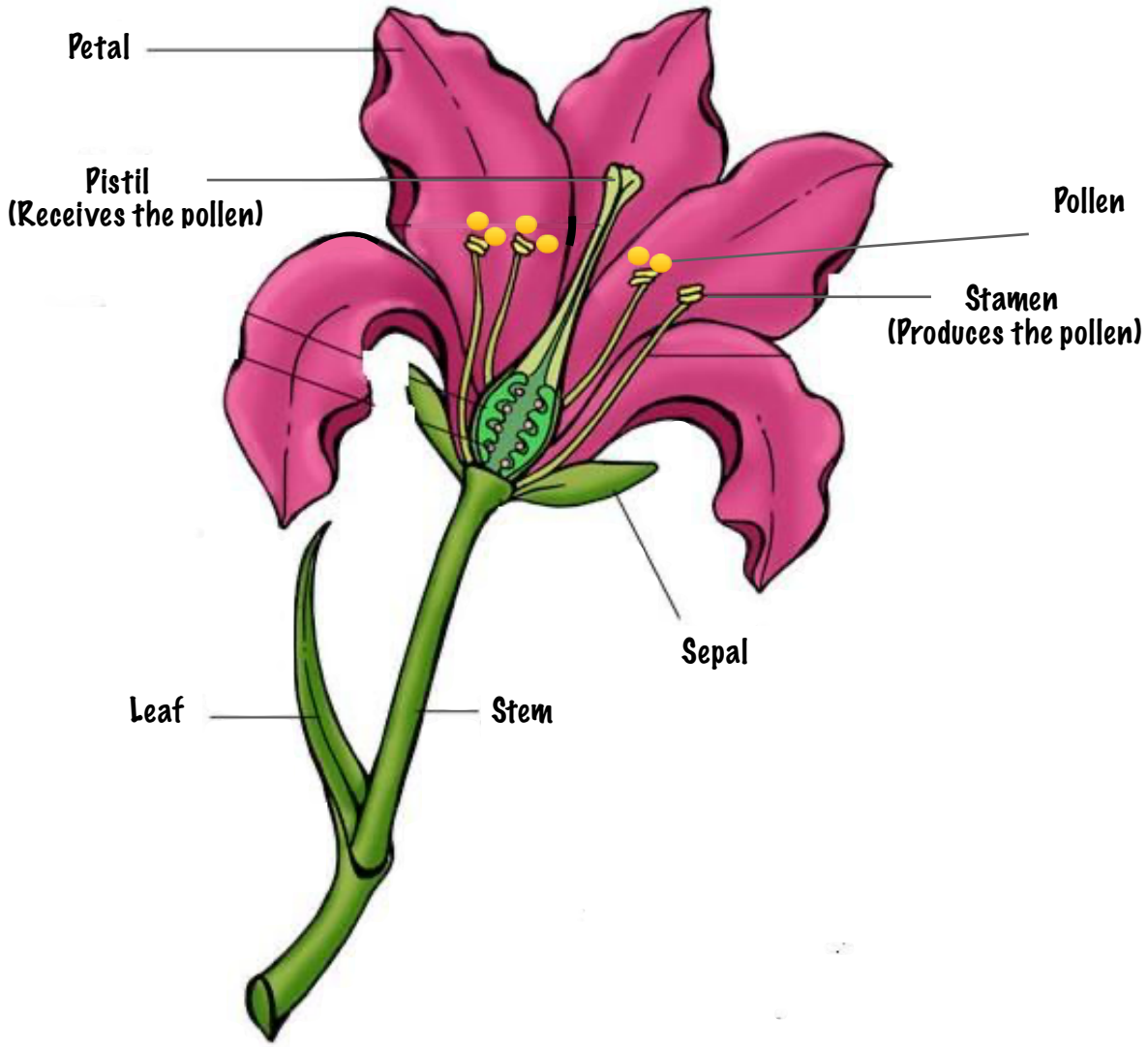


You have learned the basic parts of a plant in earlier lessons. Today we are going to look more closely at the flower portion of a plant.

Watch the video "Look Inside a Flower!" By SciShow Kids on YouTube: https://www.youtube.com/watch?v=R9sn7HZM7uY. If you have a flower available, there is a great dissection activity involved. Regardless, the diagram below will help you as you watch the video and learn about the parts of the flower.

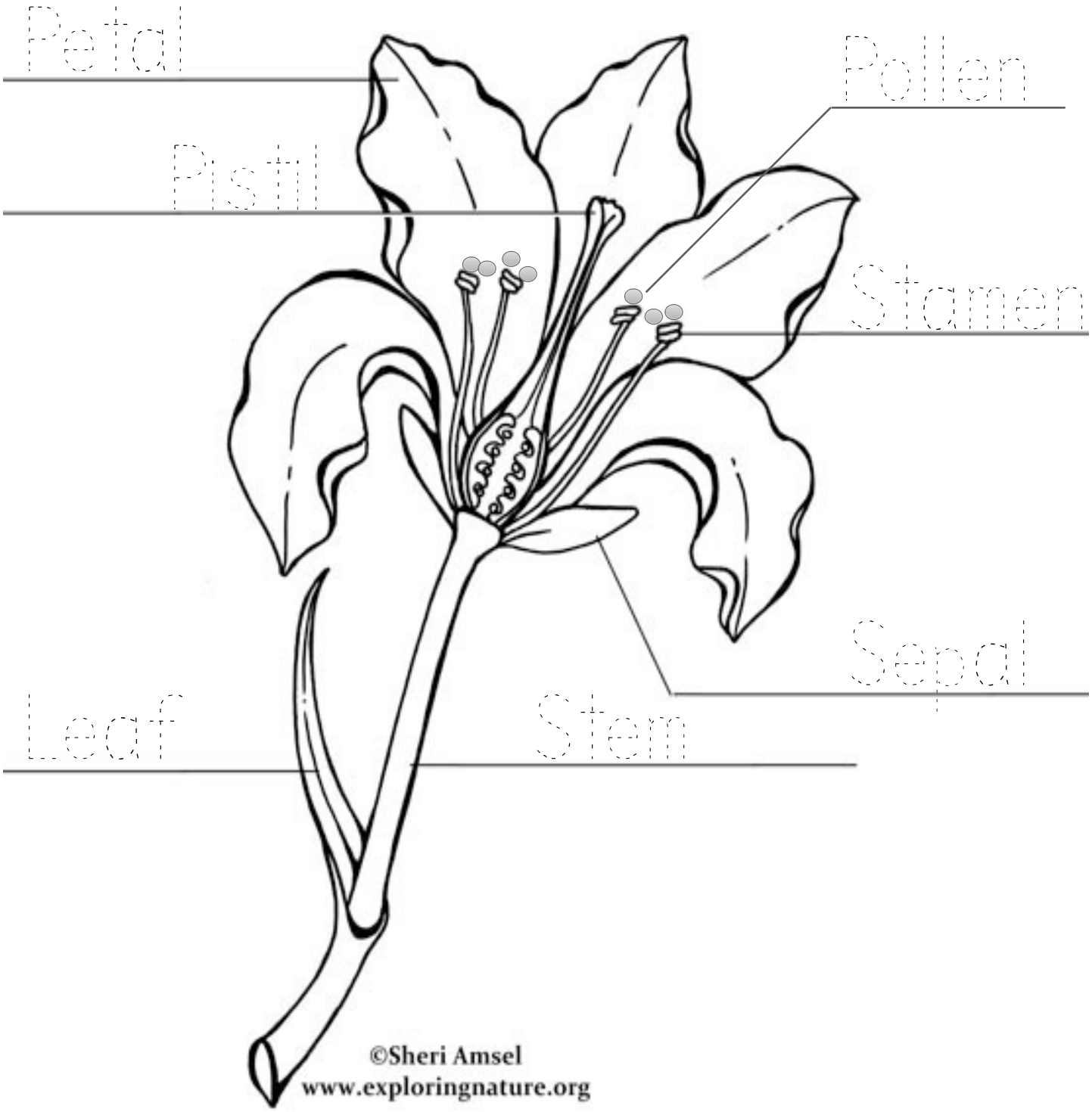


The Parts of the Flower



The Parts of the Flower

Trace over the parts of the flower below. Then color it all into a beautiful flower that would attract lots of pollinators!



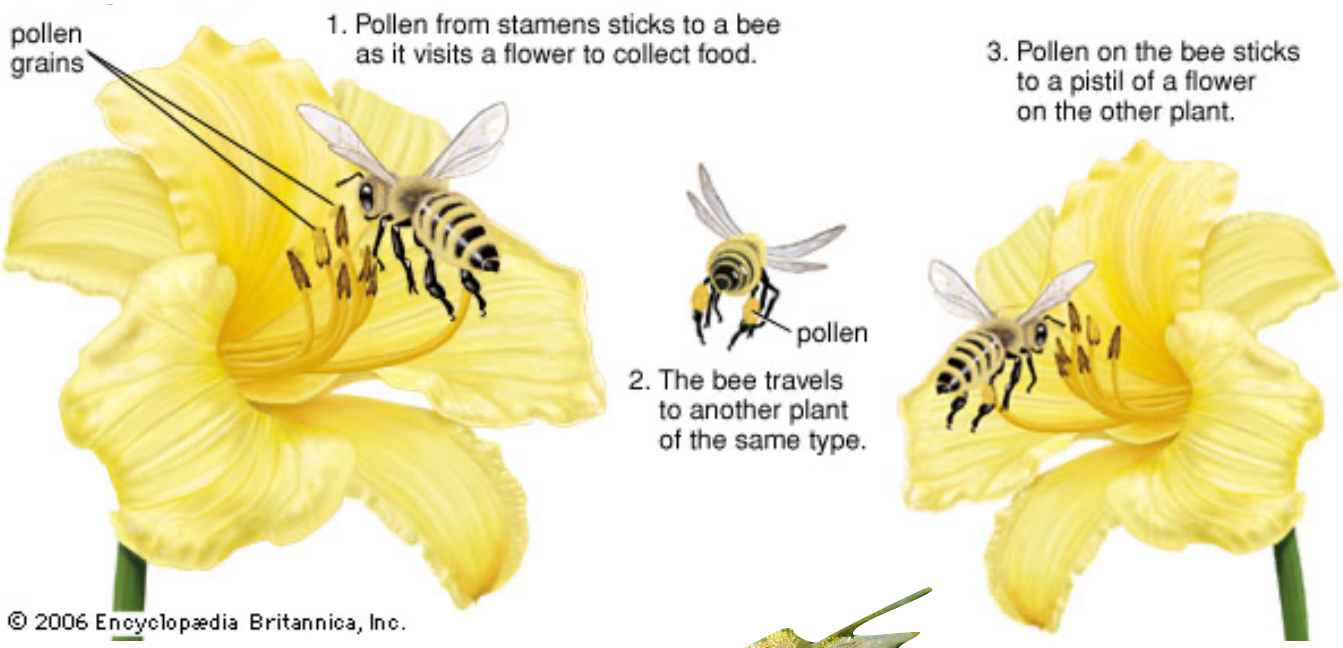
Pollinators

Pollination occurs when the pollen of a flower moves from the stamen to the pistil. This triggers a reaction that causes the flower to produce the fruit or vegetable that we want to eat.

How does the pollen get from the stamen to the pistil? It take **POLLINATORS**. Return to page two of this lesson to look at the chart again. The plants that require pollination to occur also have a kind of pollinator listed in the last column. The kinds listed are insect/bird, wind, or self.

Insect or Bird Pollinators

Many insects, like bees and butterflies, or birds, like bats and hummingbirds, travel from flower to flower. When they land on a flower, pollen sticks to their bodies. When they travel to a different flower, some of it falls off on that flower.



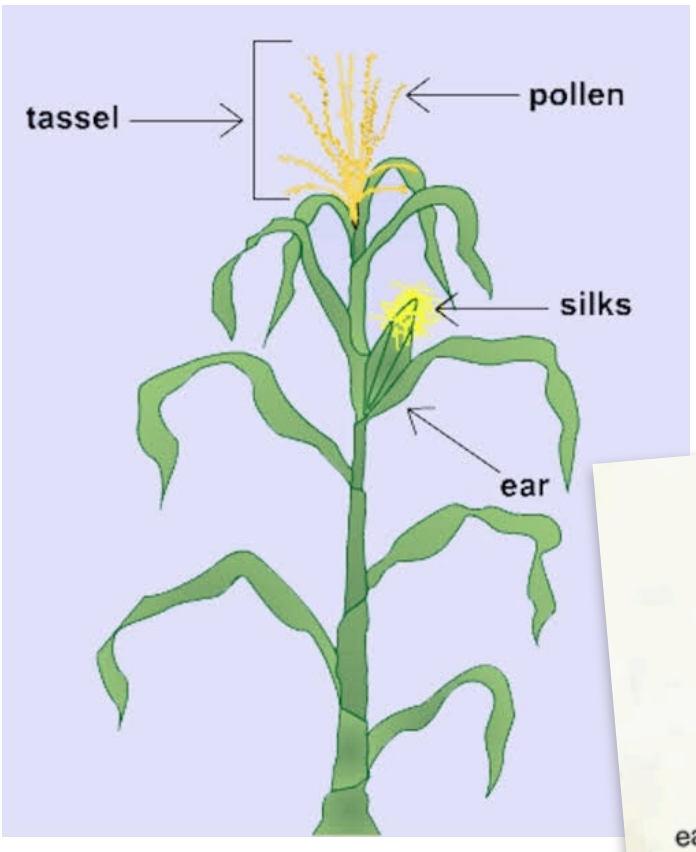
Take a closer look at this bee. Do you see all the pollen that is stuck to it?

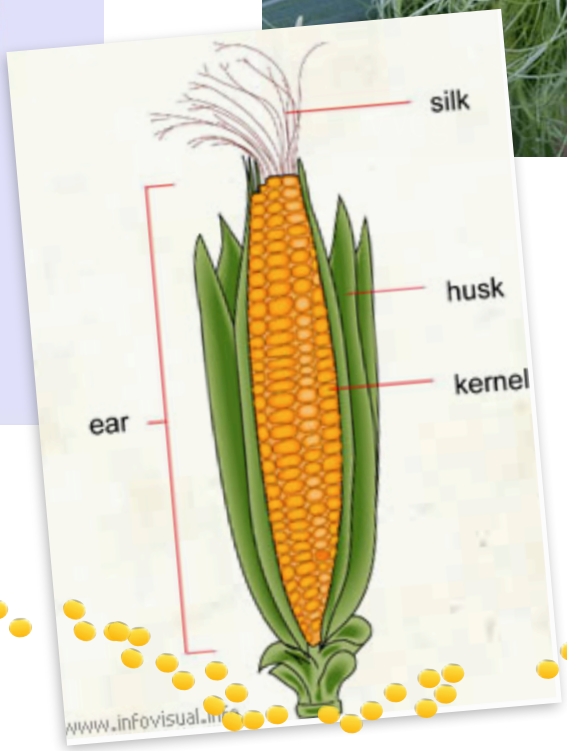
Wind Pollinator

Many plants, like the corn you have planted, depend on wind to carry the pollen from one plant to the next. The pollen on your corn will be produced on Because really large tassels on top of the plant. The wind will blow the pollen to the feathery silks of another corn stalk. This will trigger an ear of corn to be produced. Did you know that when we eat corn, we are actually eating the seeds of the plant? Kernels of corn are seeds of the corn plant.

One tassel with many pollen grains.

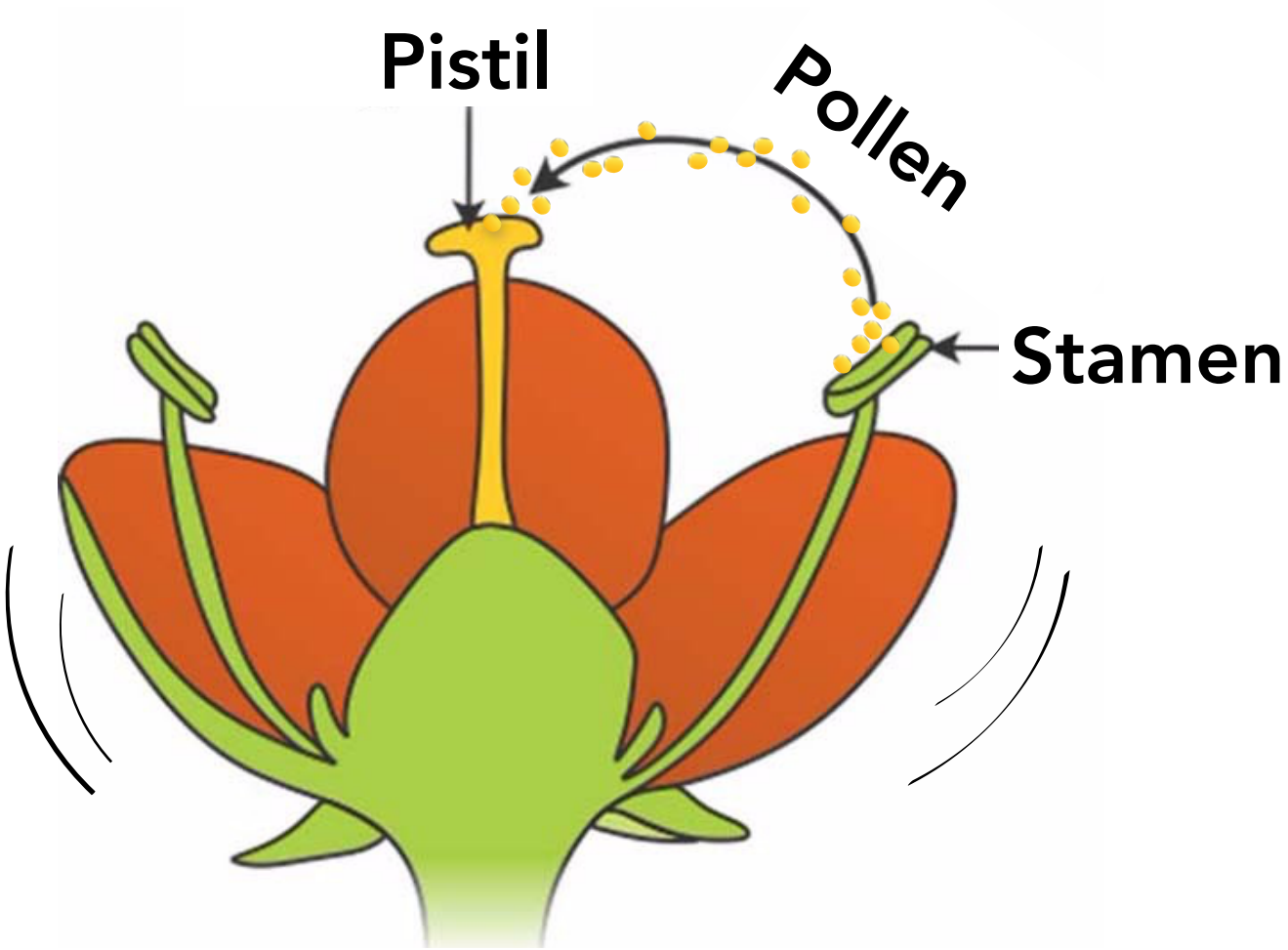
Silks to catch the pollen.





Self Pollination

Many plants are also capable of pollinating themselves. Anything that causes the plant to shake can cause pollen to travel from the stamen to the pistil, which then starts the flower to create the fruit or vegetable that we eat.



What kinds of things might shake the flower? Draw pictures in the boxes of two things that might shake the flower and cause the pollen to move from the stamen to the pistil.

Pollination Song

To the tune of: "This Land Is Your Land"

What does a plant need
To make a new seed?
Three things give flowers
Reproductive powers—
the sticky pollen,
the slender stamen,
and pistils make the flower whole.

What gets the pollen going
To keep new plants growing?
Different kinds of birds do,
Or the wind that's blowing.
Butterflies and bees,
Carry pollen they need
That's what makes pollination work.

If a flower's not scented,
Or brightly colored,
And the flowers are smaller
In clusters tighter
With stamens longer
the signs are stronger
This plant spreads pollen on the wind.

When bright colored flowers
Have a sweet perfume
And a sugary nectar
Then chances are good
That birds and insects active
Find the plants attractive
And they'll spread the pollen as they go.

Challenge Activity

Using your EPIC app, search, read, and listen to the story Seeds, Bees, and Pollen. When you have finished, use what you learned to answer the questions below. (You might even want to listen to the story two times. If you need help, ask an older sibling, parent or another adult to help you.)

1. What must flowers trade with other flowers to make seeds? (Not sure? Go back and reread page 6 to find the answer.)

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2. **Sort** the Pollinators.

Bees	**Dogs**	**Ants**	**Bats**	**Cats**
Butterflies	**Snakes**	**Birds**	**Mice**	**Elephants**

Pollinators	NOT Pollinators

3. Use the **Glossary** on page 23 to answer the following question:

What is the meaning of the word **nectar**?

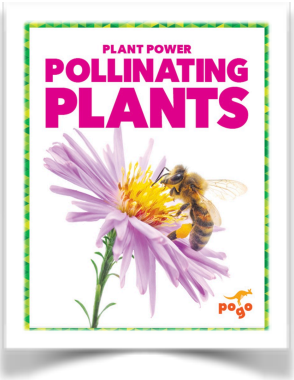
_____

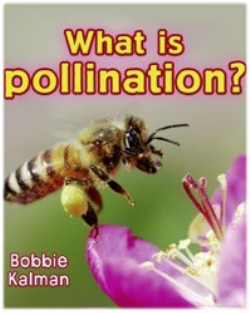
_____

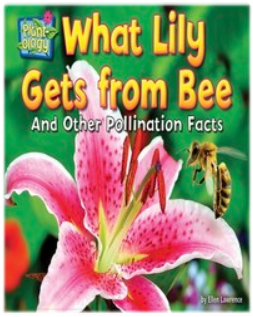
_____

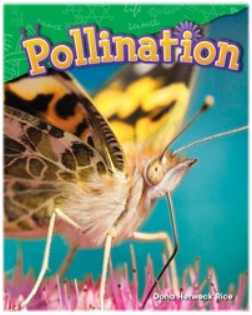
Here are some other books that can be found on your Epic! app. Using the search bar, find the titles below to continue learning more about Pollination and Pollinators.. Enjoy!

Books about Pollination and Pollinators:









Video: