



POWDER-POWERED POLLINATION

Grade Level

K-3

Length of Lesson

45 minutes

Objective

By the end of this lesson, students will have a better understanding of the process of pollination.

Materials Needed

- Juice boxes
- Boxed Macaroni & Cheese
- Paper Flower Cutouts
- Black Pipe Cleaners
- Paper Plates
- Hand Lens (optional)
- Copies of student worksheet

Standards

NGSS

K-LS1-1; 2-LS2-2

Lesson Summary

This lesson is designed to give students a hands-on activity that shows how pollinators like butterflies pollinate flowers.

Suggested Sequence of Events:

1. Set Up: Collect materials for each student/group.
2. Read *Flowers are Calling* by Rita Gray to help students better understand why pollinators are attracted to certain plants.
3. Read through AITC Pollinator Ag Mag to learn about the importance of pollinators. Interactive online versions can be found on our website.
4. Pre-Activity Discussion: What is pollination? Why is pollination important to humans? Who pollinates the food that we eat? How do pollinators actually do this important work?
5. Complete the activity following the procedures:
 - Give each student or group of students a paper plate, hand lens, pipe cleaner, juice box, and paper flower.
 - Students should tape or glue the paper flower to the top of the juice box and insert the straw into the juice box.
 - As they do this, the teacher should come around and pour some of the cheese powder from the boxed macaroni onto each plate. Students can share plates to reduce the quantity needed.
 - Next, students should bend their pipe cleaners onto the pointer finger of their non-dominant hand to form the legs of their pollinator (see picture on next page).
 - Using the student worksheet as their guide, students should complete the remainder of the activity steps.
 - Students will “visit” the first flower on the paper plate and rub their “legs” onto the cheese powder.
 - Then, they should visit the next flower on the juice box. Students should drink nectar with their proboscis (straw) and then gently bounce their “legs” on the flower to allow some of the pollen to fall off.
 - As they do each step, students should record their findings on the student worksheet.
6. Whole class discussion and reflection of activity.

TEACHER RESOURCES

Extension Ideas:

- Have students color/draw on the flowers to reflect what they would be drawn to if they were pollinators.
- Read *Flower Talk: How Plants Use Color to Communicate* by Sara Levine to learn more about what attracts pollinators to different plants.
- Have students create a comic strip showing the process of pollination.
- Have students learn about the body parts of a butterfly by creating a version of our Bag Butterfly lesson and attach their butterfly wings (ziplog bag and tissue paper pieces) to their finger using another pipe cleaner.
- Find videos online of different pollinators collecting nectar and pollen from flowers.
- Use the leftover macaroni to complete our Commas in a Series worksheet. Students can glue the macaroni to represent where the commas should go.
- Go to agintheclassroom.org to contact your County Literacy Coordinator for free classroom sets of our Ag Mags!





Science

POWDER-POWERED POLLINATION

STUDENT WORKSHEET

How do pollinators help plants grow?

Attach your new "legs" to your finger to turn into a butterfly! Take your butterfly to visit the flower on the table. Walk your butterfly legs through the pollen on the plate. What happens?

Draw what you see:

Tell a friend and then write what you see:

Next, land your butterfly on the other flower. Have your hungry butterfly use its proboscis (straw) to drink some nectar (juice). Gently tap your legs on the small flower. What happens?

Draw what you see:

Tell a friend and then write what you see:

What happened when your butterfly visited each flower? Why are these hungry butterflies and other pollinators important to our daily lives? Tell a friend and then write about how butterflies and other pollinators help plants grow.



Science

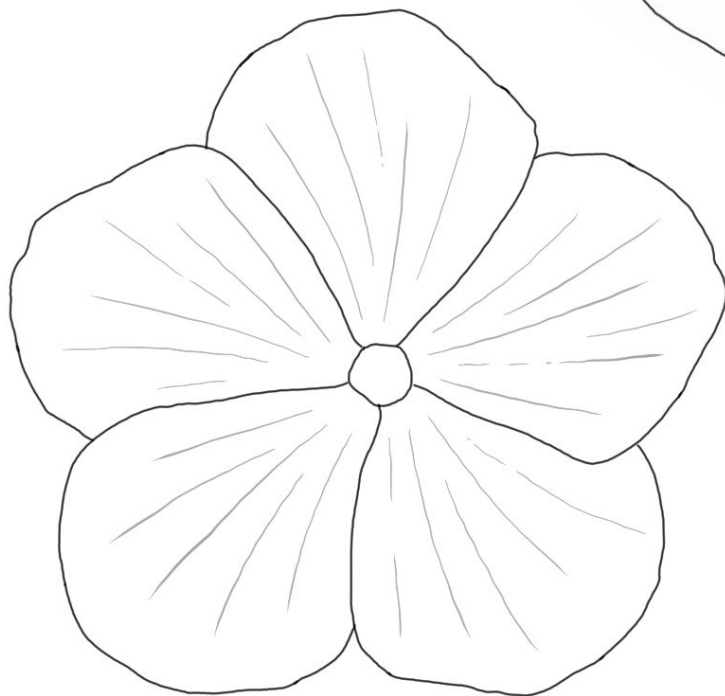
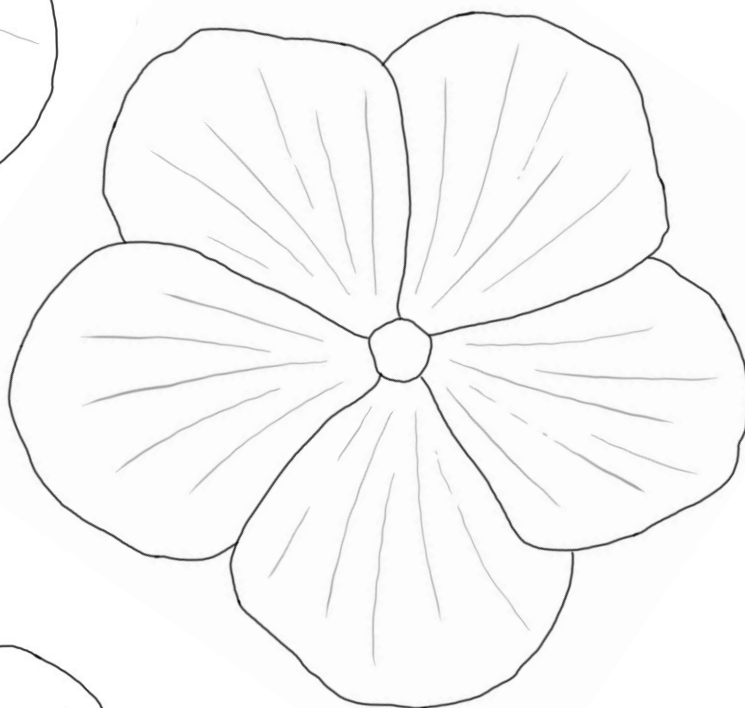
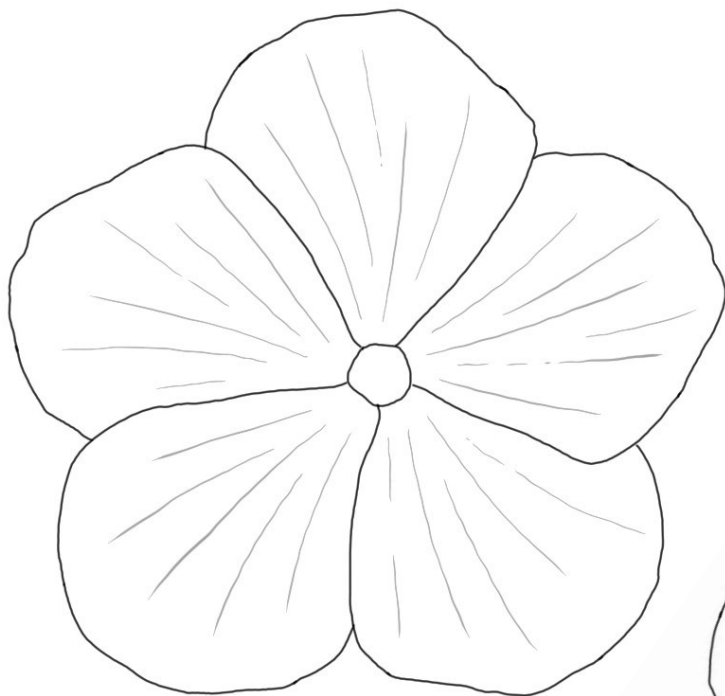
POWDER-POWERED POLLINATION





Science

POWDER-POWERED POLLINATION





POWDER-POWERED POLLINATION

COMMAS IN A SERIES WORKSHEET

Glue the leftover macaroni to each sentence wherever there is a missing comma.

1. Important pollinators include bees
bats butterflies birds moths flies and
small mammals.
2. The petals stamen pistil and sepal
are some important parts of a flower.
3. Bee species include honeybees
bumblebees squash bees carpenter
bees and many more!
4. We can help pollinators by adding
flowers plants and habitat to our
yards.