

POLLINATION EXPLORATION

Focus Lesson: Pollination Exploration

Materials:

Paper
 Colored pencils/crayons/markers
 Cotton balls
 Tape
 Colored chalk
 Honey
What if There Were No Bees?: A Book about the Grassland Ecosystem (Food Chain Reactions) by Suzanne Slade
The Honeybee Man by Lela Nargi and Kyrsten Brooker

Time: 40-45 minutes

*Common Core Standards:

[CCSS.ELA-LITERACY.SL.2.1](#)

Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.

[CCSS.ELA-LITERACY.RI.2.3](#)

Describe the connection between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text.

Thinking Skill: Sequence, Generate and Extend Ideas

Objective:

Students will act out the pollination process and the relationship between bees and flowers.
 Students will know how pollen transfers from flower to flower.
 Students will recognize the importance of pollination for the production of honey.

Connection:

We need bees to make honey. Bees need food from the flowers and plants need bees to pollinate flowers from which most fruits and vegetables grow. The interactive relationships in nature are important and essential to our everyday nutrition and life. If we continue to explore where our food comes from, we must examine the world of bees and pollination to appreciate how honey is made and how our food is dependent on pollination from bees, wasps, moths, and other pollinators.

Explicit Instruction:

Honey Bees are very important to plants and flowers. Bees are pollinators and honey bees are one type of bee. Pollinators are animals that help plants make more plants by spreading pollen from one plant to another. Bees are attracted to the bright colors of flowers. Once the bee lands on a flower, it moves inside the flower to drink the nectar. The pollen sticks to the bee's hairy body. When the bee climbs out of the flower, it combs the pollen from its hair and pushes the pollen onto its back legs. Then, the pollen can be scattered onto more flowers! We can eat honey because of bees' pollination. Again, these processes are all interconnected and plants that rely on species pollination (ie. bees, wasps, moths) will not grow fruits and vegetables.

Guided Practice:

Read *The Honeybee Man*. Discuss the journey the bees take to make their honey. Today we will practice being pollinators. Once we are finished we may find a sweet treat at the end of our journey!

Divide the class in two. Ask one half to draw a picture of a honeybee. Remind them what honeybees look like and distribute the books among the tables for research.

Ask the other half to draw a picture of a flower. Model a picture on the board. Instruct these students to color the middle of their flowers with the colored chalk. Model where to color chalk. Distribute at least 6 different chalk colors. Explain that the chalk will act as pollen.

For the honeybees: model how to tape a cotton ball to their bee pictures so that they resemble the fine hairs on the bodies of the honeybees. Distribute cotton balls and tape to students.

Independent Practice:

When they have colored their pictures, have the students who drew flowers move to different areas of the classroom with their papers. Stand like a flower.

Ask the honeybees to move from flower to flower gathering the pollen (chalk) with the hair on their bodies (cotton balls). Students should dab the chalk with their cotton balls on their papers.

They will pick up the pollen from one flower and then transfer it to another flower. Demonstrate with student volunteer.

After 2-3 minutes of pollination, ask students to look at their cotton balls and notice all the different colors, as well as the centers of the flowers.

If time permits, have students switch roles.

Reflection – Group Share:

Collect students back as whole group. Distribute honey and ask for explanations of the pollination process. Examine flowers and cotton balls to see how the “pollen” spread from flower to flower.

Were there certain flowers the honeybees found more attractive than others? Which bee collected the most pollen? Does the honey taste sweeter after all your hard work?

As students are tasting their honey read *What If There Were No Bees?: A Book about the Grassland Ecosystem* by Suzanne Slade.

Reading list:

What if There Were No Bees?: A Book about the Grassland Ecosystem (Food Chain Reactions) by Suzanne Slade

The Honeybee Man by Lela Nargi and Kyrsten Brooker

Teacher Note: