
Spencer Hardy

Lesson 1: The Power of Pollination

Theme
Pollination supports life on all levels of the food chain.

Learning Objectives
Students will understand the process of pollination and its ecological importance.

Corresponding Activities for this Lesson
- Conservation Connections
- Busy Bees, Busy Blooms

Materials
-
- Lesson 1 PowerPoint
- Book: What's Inside a Flower?
- Conservation Connections cards
- String
- Laminated flower parts and labels
- Felt backing for flower assembly

Lesson

1. **Explain to students that today we will be learning about the role of pollination and how biologists at the RIDEM Division of Fish and Wildlife are helping protect the animals that play a huge part in the process.**

2. **Read through the *What's Inside a Flower?* book.**
    - Review flower parts by having students piece the laminated flower parts together.
    - Hand out the pieces to students and have them come to the front of the classroom one by one to Velcro their flower part to the felt backing. Once organized, quiz students on the functions of each part. For very young students, you can limit flower anatomy to the four broader terms, listed here, and can go more in depth with older students. There's a lot of new words here! You can review all of the flower parts using the animated diagram in the PowerPoint.
        - ***Sepals***: protect the ovary
        - ***Petals***: attract pollinators with bright colors
        - ***Pistil***: female parts made up of the sticky **stigma** which collects pollen, the **style**, which leads down into the **ovary** where new seeds are made.
        - ***Stamen***: male parts made up of the **filament** which supports the **anther**

which creates and holds pollen.

3. **Ask students if anyone gets especially sneezy in the spring or fall?** This is due to pollen, a yellow powder that helps a plant make new seeds (which grow into new plants) and sometimes gets into our noses and causes allergies.

4. **Ask students how the pollen moves from one flower to another. Explain there are some plants that use wind and water, but most plants need an animal to help spread the pollen, also known as a pollinator!**
    - Ask students to name some pollinators: bees, butterflies, moths, bats, birds, beetles, ants and even mice
    - Describe how when pollinators move from flower to flower, they accidentally knock against the stamen and pollen gets stuck on their fur or feathers.

5. **What brings pollinators to flowers? Do they pollinate on purpose?**
    - Color and smell attract pollinators to the flowers, letting them know that there is tasty nectar to drink and pollen to eat. Pollinators are looking for food, and accidentally spread the pollen while they are snacking!
    - ***Play the Busy Bees, Busy Blooms game from Project WILD to illustrate the concept of pollination.***

6. **Explain that when we think about plants and animals, we can't think about just one at a time, we have to think of how they all fit together, like pieces of a puzzle. If one piece is missing, the puzzle will never be complete.**
    - Pollinators are especially important because they help create new plants, and plants are able to make their own energy, unlike other living things. Herbivores have to eat plants to get energy. Then, when carnivores eat herbivores, the energy goes into their bodies! Plants also create oxygen, which we all need to breathe, so we want lots of pollinators to help create lots of energy and oxygen for our planet!

7. **Wrap up with the Conservation Connections Activity.**