

Picky Pollinators

Objective: The students will be able to describe the complementary relationships between pollinators and the plants they pollinate. They will be able to identify and illustrate how flowers have developed to encourage pollination.

Common Core State Standards:

CCSS.ELA-Literacy.RI.4.5; W.4.2; W.4.4; SL.4.1; SL.4.3; SL.4.4; SL.4.5

Next Generation Science Standards:

Heredity: Inheritance and Variation of Traits: 3-LS3
Biological Evolution: Unity and Diversity: 3-LS4
Engineering and Design: 3-5-ETS1

Materials:

- Paper
- Coloring utensils
- Picky Pollinator worksheet (found on page 30)
- *Pollinator and plant example photos may be helpful



Instructions:

1. Explain or review how pollinators carry pollen from one flower to another of the same species. Hummingbirds, honeybees, bats, butterflies and other pollinators have adapted to make sure that they have enough food, and likewise, flowers have developed adaptations to attract specific pollinators.
 - ⇒ An example of this is the red trumpet flower. It's long narrow tube shape is perfect for a hovering hummingbird. But it would not attract a honey bee. Honey bees are attracted to sweet scents (the trumpet flower is relatively scentless) and they need somewhere to land while they collect the nectar of the flower.
2. Provide every student with a worksheet on the next page and coloring utensils, then pair the students up.
3. Each student should ask his or her partner the questions on the sheet regarding their favorite color, shape, snack, etc. and record the answers.
4. Using their partner's responses, have each student design and draw a flower that would effectively attract their partner.
5. Have the students present the flowers to the class, making sure they identify which specific features would attract their partner and why?

Lesson Extender:

- After the students have designed a flower to attract a pollinator, have the partners switch papers again. Now each student must draw a pollinator with adaptations to collect the food/nectar/reward from the flower, and features which might also collect pollen from the flower. Write a short paragraph explaining how each feature works to accomplish its goal.

