

Photo Description



A small insect with orange, black, and brown colors sits on top of a white daisy flower. The insect has long thin legs and antennae, and the flower has white petals around a bright yellow center.

Scientific Phenomena

This image demonstrates the Anchoring Phenomenon of insect-flower interactions for survival. The insect is likely feeding on nectar from the daisy while potentially transferring pollen between flowers. This mutualistic relationship occurs because insects need food (nectar) for energy, while flowers need help moving their pollen to reproduce. The insect's body structure - including long legs for perching and antennae for sensing - helps it successfully interact with flowers.

Core Science Concepts

1. Animal body parts help them survive: The insect has specific body parts (legs, antennae, mouthparts) that help it get food from flowers.
2. Plants and animals depend on each other: Flowers provide food for insects, while insects help flowers reproduce by moving pollen.
3. Living things have basic needs: Both the insect and flower have needs for survival - the insect needs food, and the flower needs help reproducing.
4. Body parts match what animals do: The insect's long legs help it walk on flower petals, and its antennae help it find flowers.

Pedagogical Tip:

Use hand gestures and body movements when discussing insect body parts. Have students pretend to be insects by using their arms as antennae to "sense" flowers around the classroom.

UDL Suggestions:

Provide tactile experiences by bringing in plastic insects and flowers for students to manipulate while learning about body parts and functions. This supports kinesthetic learners and students who benefit from hands-on exploration.

Discussion Questions

- What body parts help this insect get food from the flower? (Bloom's: Analyze | DOK: 2)
- How do you think the insect and flower help each other? (Bloom's: Evaluate | DOK: 3)
- What would happen if there were no insects to visit flowers? (Bloom's: Create | DOK: 3)

- What patterns do you notice about how the insect's body parts match what it needs to do? (Bloom's: Apply | DOK: 2)

Extension Activities

1. Insect Body Part Investigation: Provide magnifying glasses and plastic insects for students to identify and count body parts, then draw and label their observations.
2. Flower Dissection: Use real daisies or other large flowers to let students gently take apart petals and observe the yellow center where pollen and nectar are located.
3. Pollination Simulation: Students use cotton swabs dipped in colored powder to transfer "pollen" between artificial flowers, mimicking how insects move pollen.

NGSS Connections

- Performance Expectation: 2-LS4-1 - Make observations of plants and animals to compare the diversity of life in different habitats.
- Disciplinary Core Ideas: 2-LS4.D and 1-LS1.A
- Crosscutting Concepts: Structure and Function and Patterns

Science Vocabulary

- * Insect: A small animal with six legs and three body parts
- * Nectar: Sweet liquid inside flowers that insects drink for food
- * Antennae: Long thin body parts on an insect's head used for smelling and feeling
- * Pollen: Tiny yellow powder that helps flowers make new flowers
- * Pollination: When pollen moves from one flower to another with help from insects

External Resources

Children's Books:

- The Magic School Bus: Inside a Beehive by Joanna Cole
- What Do Insects Do? by Susan Canizares
- From Seed to Plant by Gail Gibbons

YouTube Videos:

- "Pollination for Kids" - Simple explanation of how insects help flowers reproduce: <https://www.youtube.com/watch?v=LQbChhbgJRA>
- "Insect Body Parts Song" - Educational song about insect anatomy for young learners: https://www.youtube.com/watch?v=f_tFKa2_YBQ