Insect

Life Science | Lesson Guide

Kindergarten

Photo Description

A small insect with orange and black colors is sitting on a white daisy flower. The insect has long thin legs and antennae, and the flower has white petals around a bright yellow center. The insect is visiting the flower to find food.

Scientific Phenomena

The Anchoring Phenomenon shown is pollination in action. The insect (appears to be an assassin bug or similar) is visiting the daisy flower, likely seeking nectar or hunting for prey. While feeding, pollen grains stick to the insect's body and legs. When the insect moves to another flower, it transfers pollen, helping plants reproduce. This mutualistic relationship benefits both the insect (which gets food) and the plant (which gets help reproducing).

Core Science Concepts

1. Living things need food to survive - The insect visits flowers to find nectar or other insects to eat
2. Plants and animals help each other - Flowers provide food for insects, and insects help plants make seeds
3. Body parts have special jobs - The insect's legs help it walk on flowers, and its antennae help it find food
4. Plants have parts that do different jobs - Flower petals attract insects, and the yellow center holds pollen and nectar

Pedagogical Tip:

Use hand motions when teaching about pollination - have students pretend to be bees flying from flower to flower, "collecting" pollen on their hands and transferring it to new flowers. This kinesthetic approach helps kindergarteners understand the concept through movement.

UDL Suggestions:

Provide multiple ways for students to observe insects and flowers: use magnifying glasses, real flowers when possible, high-quality photos, and picture books. Some students may be afraid of insects, so start with photos before introducing live specimens, and always respect students' comfort levels.

Discussion Questions

- What do you notice about the insect's body parts? (Bloom's: Observe | DOK: 1)
- Why do you think the insect chose to land on this flower? (Bloom's: Analyze | DOK: 2)
- How might this insect help the flower? (Bloom's: Apply | DOK: 2)
- What would happen if there were no insects to visit flowers? (Bloom's: Evaluate | DOK: 3)

Extension Activities

1. Flower Investigation Station - Provide real flowers (daisies, sunflowers) with magnifying glasses for students to observe flower parts and look for visiting insects
2. Pollinator Pretend Play - Students wear yellow chalk or washable paint on their hands and "visit" paper flowers around the classroom, leaving "pollen" prints
3. Insect Body Parts Craft - Create insects using pipe cleaners, counting to ensure six legs and adding antennae to reinforce insect characteristics

NGSS Connections

- Performance Expectation: K-LS1-1 - Use observations to describe patterns of what plants and animals need to survive
- Disciplinary Core Ideas: K-LS1.C - Organization for Matter and Energy Flow in Organisms
- Crosscutting Concepts: Patterns - Patterns in the natural world can be observed and used as evidence

Science Vocabulary

* Insect: A small animal with six legs and three body parts
* Pollen: Yellow powder that helps flowers make new seeds
* Nectar: Sweet liquid that flowers make to attract insects
* Pollination: When pollen moves from one flower to another flower

External Resources

Children's Books:
- The Magic School Bus: Inside a Beehive by Joanna Cole
- Waiting for Wings by Lois Ehlert
- The Flower Hunter by William Carlos Williams

YouTube Videos:
- "Pollination for Kids" - Simple explanation of how bees help flowers make seeds (https://www.youtube.com/watch?v=WqHzkatdwLs)
- "Insects for Kids" - Introduction to insect body parts and characteristics (https://www.youtube.com/watch?v=wyWpTIkyg7k)