

Birds and Birdfeed

4th Grade

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References:

- Columbus Public Schools Science SLC Guide

Benchmarks:

SLC 8: Evaluate observations made by other people.

Objectives:

Distinguish verbally and in writing the difference between inference and observation. Determine the reliability of scientific results.

Materials:

- Vaseline
- Peanut butter
- pine cones
- Ziplock bags
- newspaper
- string [to tie around the cones in order to hang them]

Initial Demonstration:

Ask student what birds need to survive; i.e. what are the basic needs of birds. Follow this up with asking what the birds eat. Demonstrate a suet ball.

Initial Observations:

- Birds eat suet, seeds, and insects.
- Suet is [often times] made up of peanut butter and fat and seeds.

Target Model:

- Birds eat suet, seeds and insects to satisfy their basic needs.

Procedure:

Coat $\frac{1}{2}$ the cones with Vaseline and the other half with peanut butter. Then roll the cones in bird seed. Hang the cones up outside at home and *observe* them every night to see what changes have occurred. Pay particular attention to any evidence that the bird

seed is being eaten by birds. Make sure that the students take the cones out of their bags before they hang them up.

Did the birds prefer to eat the seed covered pinecones that with the peanut butter or the Vaseline? What were the students' *observations*? What were the students' *inferences* from these observations? Did each student get the same general results? Was this a *reliable* experiment? For assessment you can have the students write these things down in their journals instead of or after class discussion.

Target Observations:

- The birds ate the peanut butter suet much more than the Vaseline suet.

Target Revised Model:

- The birds will prefer the cones with peanut butter b/c peanut butter is food and Vaseline is not.

Summary:

Students will have observed birds satisfying the basic need of food. They will observe that the birds are picky, and will avoid consuming a substance that is not nutritious for them to eat.