


Eating Like a Bird: An Experiment with Bird Food

 Teacher-Led Field/Classroom Activity
Science/Language Arts

Which foods are preferred by which birds?



Objective:

Students will design and carry out experiments to explore the food preferences of birds that visit the schoolyard or other local areas.

Students will need:

- One or more bird feeders*
- Several types of bird food—e.g., black oil sunflower seeds, gray-striped sunflower seeds, white millet, Niger thistle seed, mixed wild bird food, cracked corn, different types of fresh or dried (preservative free!) fruits
- Field guides and other resources for identifying birds
- Binoculars (optional)
- Naturalist's Journals
- Bird Feeder/Bird Food Data Collection Sheet (at least one for each student/group)

*Note: You can do this activity using a single bird feeder, but it will be more efficient to use several similar feeders, each with a different type of food. You can use existing or homemade feeders placed together in a protected location. Find information about types of feeders and homemade feeders here: <http://education.audubon.org/activities/backyard-bird-feeders>.

Suggested time:

One class period to design the experiments; three or more class periods to carry out the experiments and analyze and report the results.

What to do:

1. Have a class discussion about what birds eat, starting with the question, "Do all birds eat the same thing?" Encourage children to describe their own observations and experiences and also to speculate. Record their answers on the board or chart paper without labeling them as right or wrong.
2. Explain that students are going to conduct an experiment to determine whether birds prefer some foods over others, and if they do, to identify which birds prefer which foods.
3. With the whole class, brainstorm ideas for conducting an experiment to answer the research question about birds' food preferences. Review with students the importance of keeping variables in the experiment the same except for the one variable they are interested in—the type of food. Create an experimental plan that outlines the steps the class will take to carry out the experiment.
4. Divide students into working groups—making the feeders (if applicable); creating a schedule for placing different food options, observing birds, and recording the results; and so on.
5. Distribute copies of the "Bird Feeder/Bird Food Data Collection Sheet." Make sure students understand the information they will record on the sheet.
6. Assign a number to each feeder. Record the type of feeder(s), feeder number, and type of food in each feeder on the data sheet. For example: Feeder #1, tube feeder, thistle seed.
7. Set aside class time for students to observe and record birds' behavior. Allow enough time for birds to discover and try each different food option. This may be days or weeks.
8. After students have collected enough data, have small groups analyze and create presentations on what the data mean. All groups should start with the same raw data, but each group can come up with its own method for analyzing and presenting its findings.
9. Set aside class time for presentations and discussion. If groups disagree about the findings, invite students to come up with a way to resolve the differences, including another experiment.



Extensions and Variations:

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- Duplicate this experiment using different suet "recipes."
- Repeat the experiment at a different time of year to investigate (1) the preferences of year-round resident birds compared with those of migratory birds and/or (2) whether the preferences of resident birds change as seasons change.
- Design and carry out other experiments—e.g., find out if certain birds prefer one feeder design over another; whether birds choose foods based on color (use nontoxic food coloring to color seeds you know birds will eat); whether birds eat more at different times of day.