

Chippewa Valley Montessori Lesson Plan

Standard:	A.4.1, A.4.5, C.4.2, C.4.3, C.4.5, C.4.6, C.4.7, C.8.1, C.8.2, C.8.3, C.8.4, C.8.9
Level:	E1
Subject Area:	Science
Lesson title:	This is for the Birds
Lesson created by:	Karen Bejin

Overview of lesson: Encourage children to observe the natural wonders of nature by involving them in this study of birds, their habitat, and the foods they eat. This lesson asks students to produce questions about birds, research the answers, and make a report to their classmates. They will also design an experiment to see if birds will come to a new feeder in a habitat at school and/or near their home, make observations, record data, draw conclusions, and report these findings back to their classmates.

Materials and Resources Needed: large paper or chalkboard to list student questions about birds and to make a class chart to hold the data they collect, 5”X7” note cards, bird books, encyclopedias, or computer resources to look up information; drawing paper and drawing utensils; bird seed, small paper cups, potato or other chips, small rubber bands, wire or ornament hangers, small strips of tag board (cut from the 5”X7” note cards).

Details of the Lesson:

Beginning: Show children pictures of birds (bird books, calendar pages, cards) and ask them what they know about birds. Make a list of their characteristics. Ask them some questions they have about birds, and record their questions. Write the questions on 5”X7” note cards and hand them out to children or pairs of children, so they can research answers to some of their questions. Give them a large piece of drawing paper so they can sketch or color details about their answer to help them present their findings to the larger group.

Continuing: Use some pictures of birds to show students, so they can try to guess if a bird lives in our area or not. Show birds like a robin, cardinal, flamingo, parrot, goldfinch, toucan, etc. Tell students they are going to design an experiment to learn more about the birds that live around their school (and/or their homes.) Students will build a simple bird feeder, predict a place in the school yard that they believe is a good place to hang it (the place is their variable), and check it (observations) twice a day at the same times (or as often as the class has time for). In the classroom a large chart can be created with columns for the students’ names, location of the feeders, how much, if any, of the potato chip and seed is gone, and other things they observed while checking their feeders. Each time the feeders are checked students should approach

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carefully, watching for birds that are present. They should then check their feeder and record if a bird has eaten the chip, thus releasing the bird seed, and how much of the bird seed is remaining. At the end of a week have the students look at the class chart and analyze the data they have so far: did birds discover any of the feeders in that amount of time? Were birds more likely to find and eat from feeders in a certain area? Did height off the ground make a difference? What kind of science are you studying when you are studying the behavior of an animal like a bird? After the class discussion write a week one conclusion. Continue the experiment for as long as desired.

To build the feeders: Each student should have a 3 oz. Dixie cup, large potato or other chip, a Dixie cup full of birdseed, wire or ornament hanger, small strip of tag board (it works to cut about a 1 cm strip from the end of a 5"X7" note card), and a rubber band. The bottom of the glass will be the top of the feeder. Students can loop the wire or the ornament hook through the top of the feeder. Then they should get help to staple the tag board strip across the bottom of the feeder, leaving enough room to slide the potato chip through it. Invert the cup and fill it with birdseed; then slide the potato chip under the tag board strip to hold in the birdseed. The rubber band can be placed over the tag board strip and around the entire cup (the tag board strip keeps the potato chip from breaking under the rubber band.) Carefully turn the feeder back over and it is ready to hang.

Assessment: Students should know some answers to their original questions that were emphasized and discussed. They should understand that scientists keep all but one thing the same in designing their experiments and the thing that changes is called a variable. The variable was where they placed their feeders. Students can also be assessed as they tell which feeders attracted birds early on and which didn't, and the conclusions they came to about the data they collected. A drawing or writing can be used to help illustrate their conclusions. Students should be able to answer questions asked by their peers. Some students may wish to repeat their experiment in another school location or at a home location.

Taking it further: Students can use materials from home to create their own bird feeder designs. Materials should be ones they are reusing, or found objects, not purchased materials. They can create a design they believe will be most effective, and try to predict what kinds of birds will be attracted to their feeders. Feeders can be placed at school or at home, and a journal or log should be kept each day of their observations. After a determined period of time students can share their results with the class.