Activity #10: *The Tale of Chipilo* Be a Wildlife Biologist!

<u>Purpose</u>: This activity has students practicing observation skills particular to a wildlife biologist that studies birds. They will journal, make detailed observations, draw, and label pictures.

Materials per student:

- Nature Journal (or paper and clipboard)
- Pencils, colored pencils, small pencil sharpeners
- Binoculars (if available)

(For 1st and 2nd Graders *) per group of four:

- Toilet paper rolls at least eight
- Masking tape
- String
- Meter stick
- Hole-punch

*NOTE: While the toilet paper roll binoculars (see illustration) may seem a bit childish for older students, there is merit in using them. While a student is looking through them, the student is not so distracted by other things around them. It can allow for deep and concentrated observation.

DO NOT let students bring binoculars from home. This can create a variety of problems that could interfere with the learning experience.

Preparation:

- If you are making the binoculars, be sure to have all the necessary toilet paper rolls. Ask the students at least a week ahead of time to start bringing in empty rolls or start collecting them yourself.
- Scout out your surroundings for a reliable area to watch birds. City birds (grackles, house sparrows, starlings, doves and pigeons) are generally easy to find. You also might put out some feeders or water (could be as simple as a clay pot bottom filled with water) a couple weeks in advance to attract birds to a particular area.
- If there are no birds to watch, that is not a problem. Find another animal to watch. This could be squirrels, or any number of insects, such as ants, pill bugs, dragonflies, butterflies, etc... An active ant pile works well too.
- Gather materials for the groups.

- Photocopy the directions for making "binoculars" (one copy per two students).
- A week before this class, talk to the students about wildlife biologists and what they do. Show pictures and videos of them. Discuss what they might want to wear on the "Be a Wildlife Biologist" day including comfortable clothing, a hat, and appropriate shoes.
- Send a note home to parents so they can help their child dress appropriately and remind the students the day before about their clothing.
- You might ask for reliable parent volunteers to come help on the day.

Class Time:

One class period, and then periodic ten-twenty minutes periods

Activity:

Begin the discussion with one of the most important pieces of equipment a wildlife biologist would use – a pair of binoculars. If you have a pair, bring them to class to show the students. Tell them that binoculars help biologists focus in on birds and other animals and allow them to more carefully watch their behaviors. Then tell them they are going to make "binoculars" and although there won't be any special lenses in them to help them see farther, they will help them to stay focused on their subject.

After passing out materials to groups, put a set of directions between each pair of students to be partners. Help as needed in the construction of the binoculars.

Once the binoculars are made and extra materials put aside, begin a discussion about how a wildlife biologist might act in the field in order to be a good observer of animals. Hopefully, some of these things will come up, but some may need to be prompted. A list could include the following: quiet, observant, good note-taker, patient, curious, and motionless. Have the students write these down in their nature journal.

Then discuss some things that a wildlife biologist might be observing. Relate this to Manuela, the wildlife biologist in *The Tale of Chipilo*. Make a list. You could include such things as how birds fly, what they are feeding on, how they use their beak, interactions with other birds, stalking or feeding methods, how high they seem to fly, how they walk or hop, and notes and drawings on the size and characteristics. Have the students write these down in their nature journal as well.

Ask the students how long they think they could observe – have the students raise their hands to agree on a certain period of time for quiet observation the first time. For some students, five minutes will be too long while others might be able to watch much longer.

Go to your designated spot with all your supplies and begin the observations. Depending on the student, it might be best to leave a large space between each of them. It is best to begin with a very short observation and then move to longer observations as the students get used to it. If students get restless, prompt them with a question that might invite them to write and observe more. It is always good for the

teacher to model what is expected, so bring your own journal, and work along with them if possible. Be sure to leave time at the end to process.

Class Discussion:

After returning, invite students to share some of their observations and discoveries. What questions do they now have? Have them write those questions in their journals.

Ask them to look over the list of qualities of an observant wildlife biologist? Which things were easy for them; which things were hard? Why? Is there anything they could do differently next time? Is there anything the whole group might do differently next time? How long do they think they could do it next time?

Assess the Student:

- What are three things you observed?
- What are some possible reasons for the behavior you saw?
- Look over their nature journal for at least three observations noted.

Extension/Homework:

- Make bird/animal observations from another place, such as a local park or their backyard. Spend 10-15 minutes in observation and detailing notes in their nature journal. Do this four times.
- Read a biography of a famous person who studied wildlife such as John James Audubon, Jane Goodall, Dian Fossey, or Alan Rabinowitz. Create a poster or powerpoint presentation detailing their life.
- Interview a local wildlife biologist and write it up as a news story or create a video.

Alignment:

Grade 3 (red)Grade 4 (blue)Grade 5 (green)Grade 6 (purple)

English Language Arts & Reading student expectations: 1(A-E), 3, 4(A,B), 9, 11, 15(A,B), 17(A-E), 19, 22(A-C), 23(A-D), 24(A-G); 1, 2(A,B), 7, 9, 13(A,B), 15(A-E), 17, 20(A-C), 21(A-C), 22(A-D); 1, 2(A,B), 7, 9, 13(A,B), 15(A-E), 17, 20(A-C), 21(A-C), 22(A-E); 1, 2(A,B), 7, 12(A,B), 14(A-E), 19(A-C), 20(A-C), 21(A-C) Mathematics student expectations: 11(A); 11(A); 10(C); 8, 11(A) Science student expectations: 1(A,B), 2(A,E,F), 3(A,D), 4(A), 9(A,B), 10(A); 1(A,B), 2(B,D-F), 3(A,D),

Science student expectations: 1(A,B), 2(A,E,F), 3(A,D), 4(A), 9(A,B), 10(A); 1(A,B), 2(B,D-F), 3(A,D), 4(A), 7(C), 9(A), 10(A); 1(A,B), 2(C-F), 3(A,D), 4(A), 9(A,B); 1(A,B), 2(C,E), 3(A,D), 4(A), 12(E,F)Social studies student expectations: 4(D), 17(A,B,C,E), 18(A-C); 7(B), 9(C), 21(A-C), 22(A-E); 7(B), 8(B), 24(A-C), 25(A-E); 3(A), 6(A), 21(A-C), 22(A-E)

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Activity #10: The Tale of Chipilo-Make Your Own "Binoculars"

Materials:

hole punch toilet paper rolls (2) masking tape meter stick

string

- 1. Cut string one meter in length.
- 2. Work with a partner. One student holds the two rolls of toilet paper together.
- 3. The other student tapes the two rolls of toilet paper in two places.
- 4. Punch a hole about a half cm on the outer sides of one end of both toilet paper rolls.
- 5. Make a double knot of the string through one of the holes and then loop the string around your neck so that the binoculars can easily be brought up to the eyes, but don't fall below the waist.
- 6. Make a double knot of the string on the opposite hole.
- 7. Cut off any excess string.
- 8. See illustrations for details.

