

# ANIMAL ENCOUNTERS

*When your students encounter wildlife, the opportunity for observation may be brief. This activity will help your students take advantage of the situation, offering a structure for deliberate observation and getting the observations to paper as fast as possible.*

When you find an animal in the field, there is no way to know how long you will be able to observe it. It helps to have a plan to allow you and your students to get the most out of what you see. This activity is a template for action: Begin by having students verbalize their observations as they get out journals, then briefly prompt students to use words, pictures, and numbers to record what they observe. If the animal sticks around and students are still engaged, offer different suggestions to focus their journaling without interrupting the group. When the animal leaves, debrief by sharing questions. The level of detail that students remember about the animal encounter will be much higher than if they had not used their journals or verbalized their observations. Having an approach for animal encounters in your “back pocket” allows you to be flexible and to respond to the environment. You can also weave this activity into a learning experience, use it as an opportunity to jump into further research about the animal, or make connections to science concepts.

## NATURAL PHENOMENA

You can use this protocol with any animal encounter in the field. This approach works for mammals, birds, insects, reptiles, and amphibians. The longer, closer, and less obstructed the view the better, but go with what you get. Even a quick glimpse of a deer in passing is rich with information if you intentionally remember what you see.

## PROCEDURE SUMMARY

1. Say observations out loud as long as you can see the animal.
2. Use words, pictures, and numbers to describe the appearance and behavior of the animal, using words to capture what is difficult to draw quickly.
3. Because the animal will move, start several drawings and work on one whenever an animal assumes that pose.

*Note:* There is no whiteboard demonstration for this activity because students should be looking at the animal, not you. Direct their attention toward the animal and tell them to verbalize their observations while they get out their journals and pencils. Then give verbal instructions as quickly as possible, instructing students to keep their eyes trained on the animal while they listen to you.

## PROCEDURE STEP-BY-STEP

1. **Make sure everyone can see the animal.**
  - a. “James found an animal! Show us where it is. Raise your hand if you don’t see it yet. Who can give clear directions to describe how to find it?”
2. **Get the group started verbalizing observations (in a soft conversational voice) as they get out their journals, encouraging them to listen to one another’s ideas.**
  - a. “To help us remember the details we see and to make sure we observe accurately, I want everyone to start describing the details of how the animal looks and what it is doing, out loud in a soft conversational voice. [This is generally not loud enough to scare animals away.]”

### Time



Introduction: 1 minute  
Activity: Variable depending on the cooperativeness of the animal  
Discussion: 10–15 minutes

### Materials



Journals and pencils

### optional

Binoculars

### Teaching Notes

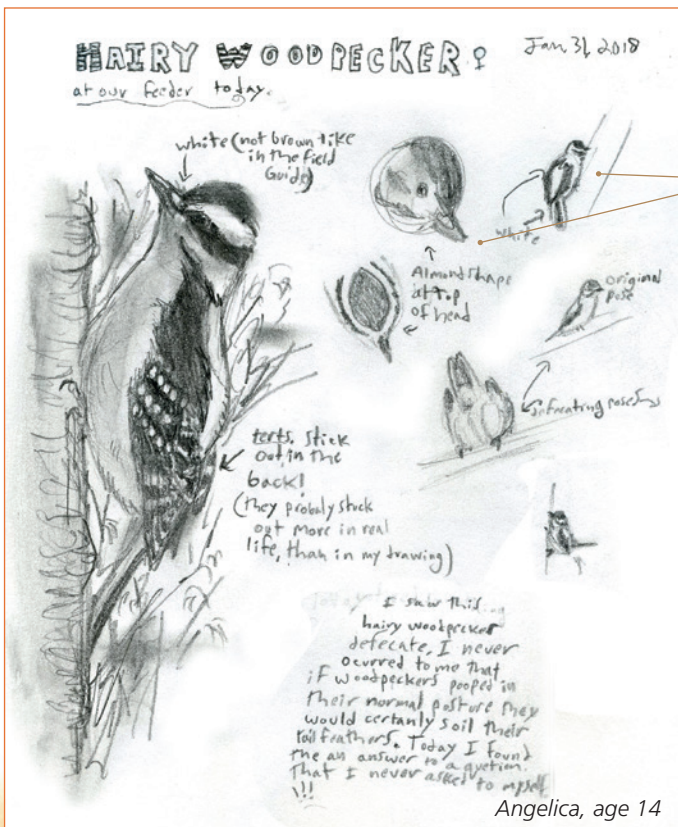


Verbalizing observations is an important aspect of nature study and a critical part of this activity. If students describe what they see out loud, they will remember with greater detail and clarity what they have observed. The first moments of observation are the most critical, as the animal you are watching may disappear the next moment. Don’t wait until you have passed all the journals out to start observing. Tell students to start a stream-of-consciousness list of observations, describing how the animal looks, what it is doing, and anything else they notice. After a minute of this intense directed observation, students will be ready to start transferring observations to paper.

- b. "Listen to the observations of people standing near you, and add to their observations. Are you seeing the same things?"
  - c. "Continue saying your observations out loud while I pass out your journals and pencils [or while you get your journals out of your bags or backpacks]."
- 3. Tell students to use words, pictures, and numbers to describe the appearance and behavior of the animal, thinking carefully about which note-taking approach is best for the information they're trying to capture.**
- a. "Let's use this opportunity to get as much information down on the page as we can. Use words, pictures, and numbers to record your observations."
  - b. "Some observations are easier to show with written notes than with drawings. Use written notes along with your sketches. These can be in paragraph form to describe behaviors or structures that are difficult to draw, a list of observations down the side, and labels that connect to the drawings with little lines."
- 4. Offer a quick strategy for dealing with the animal's movements: Students start several drawings of different poses, shifting the drawing they are working on when the animal moves.**
- a. "This animal is going to move, but don't let that stop you from drawing it."
  - b. "On your journal page, start three drawings to describe this animal. Make two drawings that show different views

or poses. These could be side and back views, or two different positions the animal returns to often (like head up and head down). The third view will be a close-up of some detail that is interesting to you."

- c. "Bounce around from one drawing to another as the animal moves. When you get a good look at the detailed pose you are interested in, work on that drawing. When you get your side view, work on that drawing. You do not need to finish all three drawings. One will probably get further developed than the others, and that's OK."
- 5. Encourage students to keep working in their journals as long as the animal is there.**
- 6. As time passes, drop in different prompts to focus students' attention, offering the prompts out loud to the group as suggestions (but not requiring that students stop their journaling to listen to you). For example:**
- a. "If you would like, you can begin to find the numbers hidden in your observations. Count, measure, and time things. For example, you might time the number of seconds the animal spends doing different behaviors, estimate the distance between the animal and the forest, count the number of stripes on the animal, and so on."
  - b. "Take a moment to focus on asking and recording questions. If you have not already, make a question mark icon and list as many questions as you can come up with below it. Then go back to observing and add in questions as they come to you."
  - c. (If you are watching a single individual) "How does it look? Begin to focus on recording its body shape, and markings. What is it doing? What behaviors and



Draw different views and postures of the same animal. Combine enlargements, details, and fast posture sketches.

Reinforce key observations that you have drawn with written notes. Add "I wonders" and "It reminds me of."



movements do you see? Focus on context—where is it in relation to cover or other parts of the environment?”

- d. (If you are watching a group of animals) “Can you find one animal that can be clearly distinguished from the others? What characteristics make it unique? Observe the way they group up. How close do they typically space themselves? Does this change? Let’s look for interactions between individuals. Does the behavior of one individual seem to affect others? Let’s think about the group as a whole. How might we describe the behavior of the herd or flock?”

**7. If the animal(s) leave, call the group together to record metadata and to complete field notes from memory, adding in details they haven’t recorded yet.**

- a. “Our observations are not complete without recording the date, time, location, and weather. Add this metadata to your field notes.”
- b. “In time we will forget the details we do not put down on paper. Think for a moment about details or behaviors you observed that are not recorded in your notes. Let’s take five more minutes to fill out the rest of your notes. This could be written descriptions or more details in your drawings.”

## DISCUSSION

Lead a discussion using the general discussion questions and questions from one of the Crosscutting Concept categories. Interperse pair talk with group discussion.

### General Discussion

- a. “Find a partner and discuss the things you saw that were interesting or surprising. Compare your journal entries and approaches to note taking to see what you can learn from each other.”
- b. “Place your journals on this picnic table [or on the ground], open to your last entry. Circulate around and look at the way your classmates recorded their observations. There are many ways to do this kind of work. Find at least three observations that you missed or did not record in your journal. Also look for creative ways that other people recorded their observations. Can you find some journaling ideas that you could use in future observations?”
- c. Ask students to bring up any interesting questions they had, and follow up with discussion of them if students are interested.

### Patterns

- a. “What patterns did you observe?”
- b. “What does that remind you of? Where else have you seen similar patterns? Where would you expect to see similar patterns—for example, in structure, color, or behavior?”

## Cause and Effect

- a. “How did [organism 1] affect [organism 2]? What is your evidence?”
- b. “Did you find any evidence that the [observed animal] may be affected by living or nonliving things in the environment?”
- c. “How do you think the [observed animal] might affect the living or nonliving things in the environment?”
- d. “How might the interactions we observed be affected by the time of day, year, weather, or location? What kinds of things might cause this animal’s behavior to change?”

## ENERGY AND MATTER

*Note:* These questions are appropriate for students fifth grade and above.

- a. “Let’s construct a partial food chain based on our observations. What did you see eating what? Now expand your food chain to a web based on what you have seen in this area, your prior knowledge, and your best guesses about other relationships between animals.”
- b. “Now trace the cycling of matter through the parts of the food chain you just described. Use arrows to show which direction matter is moving among the organisms you observed.”

## Structure and Function

- a. “Study your notes and drawings of the [observed animal]. Do any body parts seem specialized to do specific things or functions?”
- b. “How did you see the animal moving? How did its specific structures help it move? Connect your explanations to the environment, thinking about how the organism’s structures help it survive in this specific context.”

## FOLLOW-UP ACTIVITY

### Using Reference Material

Encourage students to look up more information about the species they observed in the field. Can you find references to behaviors they observed? Can you find details that would be fun to look for the next time the group finds this animal outside? Remind them that all the information in their reference books or online resources originated in the same way: someone making careful observations and recording them in their field notes, just as they had done.