



Animal Observations

Lesson at a glance:

Students will practice animal observation skills used by scientists in the field or by animal care workers at a zoo or aquarium. They will become familiar with at least one species of animal as they record behaviors of an individual belonging to that species. Students will also make connections about animal behavior and other adaptations and how this relates to the animal's environment.

Materials:

- Mammal/Bird/Reptile Observations** worksheet
- Scratch paper
- Pens or pencils
- Clipboards
- A place where students can observe animal

Background information:

Following a review of mammal, bird and reptile characteristics, explain the following about wildlife research:

When studying an animal in the field or any situation it is important to do it discretely. Many scientists will find creative ways to blend into the animal's environment so as not to disrupt an animal's natural behaviors.

Some habitats are easier in which to observe an animal's behavior without being detected. Going undetected can be very difficult, or even impossible, when observing some animals. Scientists inevitably must use equipment such as cameras, radio transmitters and vehicles that make noise and are certainly noticeable to animal life. Another challenge to studying animals is that some of them can be especially difficult to find.

At a zoo or aquarium animals are accustomed to being watched by people and therefore, their behavior will never be entirely "natural." This is not to say that observing animals in a captive situation is not valuable. Much of what we know about animal behavior comes from observing those in captivity.

Activity:

Optional: Have your students practice recording observations on people. Send them out into the hallway at school and observe their classmates.

1. Bring your students to Utah's Hogle Zoo where they can observe the animals.
2. Have your students work in pairs.
3. Assign each pair of students an animal group to observe (mammals, birds, reptiles). Depending on your time at the Zoo, you could assign your students to do observations on each animal group.
4. Provide each student with an observation sheet, scratch paper, a pen or pencil and a clipboard.
5. Instruct the students to become familiar with their observation sheets before beginning their timed observation.
6. Have the students stand at separate areas so that they are making their own observation. (This will be important later in the activity.)
7. Suggest that they take notes on scratch paper during their observation, and then use those notes to record their data on their observation sheets.



Summary:

As partners:

1. Have the students compare their observations. Remind them that just like real scientists, each student's observations will be analyzed and recorded slightly differently.
2. Discuss how certain behaviors may stand out and other behaviors may be overlooked. Ask them why do they think this is?
3. What were some of the similarities and differences between the behaviors of the two animals they observed? How do the similarities or differences help these animals to survive?

As a class:

1. Discuss your students' observations. Did anyone see anything they didn't know how to describe? See if anyone else in the class made a similar observation or has an idea of why the animal was doing the behavior.
2. Was their animal active or inactive? Why do they think this was the case?
3. Was the animal interacting with the Zoo visitors? Keepers?
4. Did the students see any type of enrichment?
5. What were some of the differences they observed between mammal, reptile and bird behavior.
6. Discuss some of the challenges faced by scientists studying wildlife, such as mammals in the field.

Extensions:

- Have a field biologist visit your classroom.

Utah Science Content Standards Addressed:

Biology Core Science Benchmark

Ecosystems are shaped by interactions among living organisms and their physical environment. Ecosystems change constantly, either staying in a state of dynamic balance or shifting to a new state of balance. Matter cycles in ecosystems, and energy flows from outside sources through the system. Humans are part of ecosystems and can deliberately or inadvertently alter an ecosystem.

Standard 1: Students will understand that living organisms interact with one another and their environment.

- **Objective 1:** Summarize how energy flows through an ecosystem.
- **Objective 2:** Explain relationships between matter cycles and organisms.
- **Objective 3:** Describe how interactions among organisms and their environment help shape ecosystems.

Science Core Benchmarks

Grade 3 Science Benchmark

For any particular environment, some types of plants and animals survive well, some survive less well and some cannot survive at all. Organisms in an environment interact with their environment. Models can be used to investigate these interactions.

Standard 2: Students will understand that organisms depend on living and nonliving things within their environment.

- **Objective 1:** Classify living and nonliving things in an environment
- **Objective 2:** Describe the interaction between living and nonliving things in a small environment.

Grade 4 Science Benchmark

Utah has diverse plant and animal life that is adapted to and interacts in areas that can be described as wetlands, forests and deserts. The characteristics of the wetlands, forests, and deserts influence which plants and animals survive best there. Living and nonliving things in these areas are classified based on physical features.

Standard 5: Students will understand the physical characteristics of Utah's wetlands, forests, and deserts and identify common organisms for each environment.

- **Objective 1:** Describe the physical characteristics of Utah's wetlands, forests and deserts.
- **Objective 2:** Describe the common plants and animals found in Utah environments and how these organisms have adapted to the environment in which they live.
- **Objective 3:** Use a simple scheme to classify Utah plants and animals
- **Objective 4:** Observe and record the behavior of Utah animals.

Adapted from "Recipe for a Forest," *Sharing Nature With Children*, J. Cornell, 1979 and *Recipe for an Ocean*, Oregon Coast Aquarium



Mammal Observations

Observation one:

1. Choose a mammal to observe. My mammal is a:

_____.

2. You will observe your mammal for five minutes.

Start time: _____ End time: _____

3. Record the following information:

- Describe your animal's body shape. You may draw a picture if you like.

- Describe how your animal moves.

- What is your animal doing?





Reptile Observations

Observation one:

4. Choose a reptile to observe. My reptile is a:

_____.

5. You will observe your reptile for five minutes.

Start time: _____ End time: _____

6. Record the following information:

Describe your animal's body shape. You may draw a picture if you like.

Describe how your animal moves.

What is your animal doing?



Observation two:

3. Choose a different species of reptile to observe. My second reptile is a:

_____.

4. Spend the next two minutes observing your second reptile. This time note similarities and differences between your first and second observations. Record your observations below.

Start time:_____ End time:_____

Similarities	Differences

Summary:

3. List some of the challenges that you faced while making your observations today.

4. Describe some of the challenges that you think scientists might face when studying reptile behavior in the wild.



Bird Observations

Observation one:

7. Choose a bird to observe. My bird is a:

_____.

8. You will observe your bird for five minutes.

Start time: _____ End time: _____

9. Record the following information:

Describe your animal's body shape. You may draw a picture if you like.

Describe how your animal moves.

What is your animal doing?



Observation two:

5. Choose a different species of bird to observe. My second bird is a:

_____.

6. Spend the next two minutes observing your second bird. This time note similarities and differences between your first and second observations. Record your observations below.

Start time:_____ End time:_____

Similarities	Differences

Summary:

5. List some of the challenges that you faced while making your observations today.

6. Describe some of the challenges that you think scientists might face when studying bird behavior in the wild.