WILDCAM OBSERVATIONS

What observations can you make about wildlife?

OVERVIEW

Students imagine they are working on a project to research animal behavior. As part of their research, they analyze video and record their observations.

For the complete activity with media resources, visit:
http://www.nationalgeographic.org/activity/wildcam-observations/

Program

DIRECTIONS

1. Show students the presentation Making and Recording Observations.
Use the Powerpoint presentation to introduce students to the importance of observations—both in daily life and in scientific research. As a class, discuss differences in powers of observation among species; differences between scientific and casual observations; factors that impact human observations; and techniques scientists use to record observations.

2. Divide the class into small groups and have each group designate a leader.
Divide the class into small groups. Explain that each student will complete an individual worksheet and that the group leader will summarize findings on a group worksheet. Have each group choose a leader.
3. Introduce the WildCam program.
Explain to students that National Geographic's WildCam program is a conservation initiative that uses the Internet to connect people to Earth's last remaining wild places. The program used to stream live video from digital cameras located in the wild. Ask students to imagine they are working on a project to research animal behavior. As part of their research, they will analyze archived videos of animals in the wild and record their observations on a worksheet.

4. Distribute the worksheet and introduce the task.
Distribute the WildCam Observations worksheet. Make sure each student has one and provide one additional worksheet to each group to use when they report back to the class. Read through the directions with students. Assign an archived WildCam video or support students in selecting an archived video from the National Geographic Crittercam and WildCam website, as needed.

5. Have students watch the video and complete the worksheet.
Provide students with enough time to watch the video more than once. Have students complete their individual worksheets and then work together as a small group to summarize findings on the group worksheet.

6. Have students share their work.
To complete the activity, ask groups to report back to the whole class and compare their observations.

7. Have a whole-class discussion.
Use the prompts below to guide a discussion about the strengths and weaknesses of using stationary cameras to study wildlife.

- What are the strengths or weaknesses of using video to study animal behavior in the wild? (Possible responses: Strengths—can observe animal behavior from remote locations that may be challenging for human observers because of climate or location; the camera may be less intrusive than a human observer;
a video recording is permanent and can be shared and reviewed.
Weaknesses—the camera is in a fixed location so it does not capture action
that is out-of-range.)

- **How is the location of the camera a factor in terms of what is recorded?**
  (Possible responses: The camera is in a static position but animals move; the
camera can record only what is within range of the lens and microphone.)
- **Is there additional data that the camera does not record?** (Possible responses:
  anything outside the range of the camera; smell; temperature.)

**Modification**

If time allows, have students use the WildCam worksheet to observe and record
details from a real field location nearby.

**Informal Assessment**

Have students write a paragraph that summarizes the observations they made.

**Extending the Learning**

Students can observe humans as another example of studying animal behavior.
Select locations where students can observe unobtrusively, such as the school
library, cafeteria, or gym. Ask students to observe and record the types of
behavior they think they are seeing, such as feeding behaviors, social behaviors,
and territorial behaviors. Have students record their observations and report
back their findings. Encourage students to think about why scientists watch
behaviors and what can be learned by looking and observing.

**OBJECTIVES**

**Subjects & Disciplines**

- **Geography**
  - **Physical Geography**
Science
• Biological and life sciences

Learning Objectives

Students will:
• make observations of species in the field
• record those observations in a scientific manner

Teaching Approach

• Learning-for-use

Teaching Methods

• Cooperative learning
• Multimedia instruction
• Visual instruction

Skills Summary

This activity targets the following skills:

• Critical Thinking Skills
  • Remembering
  • Understanding
• Geographic Skills
  • Acquiring Geographic Information
  • Organizing Geographic Information
National Standards, Principles, and Practices

NATIONAL GEOGRAPHY STANDARDS

• Standard 8:
The characteristics and spatial distribution of ecosystems and biomes on Earth's surface

NATIONAL SCIENCE EDUCATION STANDARDS

• (5-8) Standard C-4:
Populations and ecosystems
• (9-12) Standard C-6:
Behavior of organisms

PREPARATION

What You’ll Need

MATERIALS YOU PROVIDE

• Pencils
• Pens

REQUIRED TECHNOLOGY

• Internet Access: Required
• Tech Setup: 1 computer per learner, Projector
• Plug-Ins: Flash

PHYSICAL SPACE
GROUPING

- Small-group instruction

RESOURCES PROVIDED: UNDEFINED

- National Geographic Animals: Crittercam and Wildcam

RESOURCES PROVIDED: HANDOUTS & WORKSHEETS

- Making and Recording Observations
- Wildcam Observations

BACKGROUND & VOCABULARY

Background Information

Some species are relatively easy to locate and observe—they might be larger, more abundant, have unique characteristics, or stay rooted in place. Other species are more elusive—think of species that are small or agile, able to run, fly, or swim away. Or think of species that are active only at night, or live only in the tallest treetops or the darkest caves. Yet, during a BioBlitz, every species, large and small, counts. So, while participants need to know where to look and what to look for, it's also important to know how to make and record scientific observations.

Prior Knowledge

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Recommended Prior Activities
- Field Investigations
- Neighborhood BioBlitz
- North Atlantic Right Whales
- Plot Study Observations

Vocabulary

<table>
<thead>
<tr>
<th>Term</th>
<th>Part of Speech</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>behavior</td>
<td>noun</td>
<td>anything an organism does involving action or response to stimulation.</td>
</tr>
<tr>
<td>bioblitz</td>
<td>noun</td>
<td>a field study in which groups of scientists and citizens study and inventory all the different kinds of living organisms within a given area.</td>
</tr>
<tr>
<td>climate</td>
<td>noun</td>
<td>all weather conditions for a given location over a period of time.</td>
</tr>
<tr>
<td>conservation</td>
<td>noun</td>
<td>management of a natural resource to prevent exploitation, destruction, or neglect.</td>
</tr>
<tr>
<td>observation</td>
<td>noun</td>
<td>something that is learned from watching and measuring an object or pattern.</td>
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<tr>
<td>research</td>
<td>noun</td>
<td>scientific observations and investigation into a subject, usually following the scientific method: observation, hypothesis, prediction, experimentation, analysis, and conclusion.</td>
</tr>
<tr>
<td>species</td>
<td>noun</td>
<td>group of similar organisms that can reproduce with each other.</td>
</tr>
<tr>
<td>wildlife</td>
<td>noun</td>
<td>organisms living in a natural environment.</td>
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</tbody>
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For Further Exploration

Websites

- National Geographic: BioBlitz
- National Geographic Animals: Crittercam and WildCam