# What Animals Live in the Forest Ecosystem of the Knobs Region?

**Question:**
What animals live in the forest ecosystem of the Knobs Region?

**Core Content**
SC-06-4.7.1
Students will describe the consequences of change in one or more abiotic factors on a population within an ecosystem.

MA-06-3.1.2
Students will describe, and provide examples of the elements (e.g., sides, vertices, angles, congruent parts) of two-dimensional figures (circles, triangles, quadrilaterals, regular polygons), and will apply these elements and figures to solve real-world and mathematical problems**.**

**Excellence in Environmental Education Guidelines for Learning (Pre K-12)**.
Strand 2.2
A) Organisms, populations, and communities—Learners understand that biotic communities are made up of plants and animals that are adapted to live in particular environments.
Strand 2.4
C) Resources—Learners understand that uneven distribution of resources influences their use and perceived value.

**Objectives:**
Students will be able to:
- Describe sources of food, water and shelter in a forested area
- Measure the 4 aspects of slope
- Predict what types of wildlife will be in the forest ecosystem

**Materials:**
*For each student*
Maywoods Wildlife Log Book, clipboard
*For each group*
Compass, clinometer

**Part I Procedure:**
1. After receiving an orientation to the Maywoods facility and their Maywoods Wildlife Logbook, walk students to the forested area where one remote camera is located. Explain the use and function of the remote cameras.
2. As a large group, discuss what food, water and shelter is available at that site.
3. In their groups, have students measure the 4 components of slope and record that in their Logbook.
4. Next, have each individual student make and justify their predictions about what wildlife might live in this area. This should be recorded on the appropriate page in their Logbook. The justification should be based on what they know about food, water, shelter and slope.
5. Repeat the same discussion and measurements at the second camera.
6. Explain to students that they will observe wildlife over the next month at these slopes by accessing the remote cameras from their classroom.

**Part I Assessment:**
1. Completion of the appropriate Logbook pages

2. Participation in the slope discussion

**Part II Procedure**

1. After returning to school, time should be scheduled every few days for students to access the remote cameras through EKU Division of Natural Areas website (http://www.naturalareas.eku.edu/camera.php)
2. After observing the photographs, students should record any sightings and related data on the Animal Sightings Log Entry pages in the Logbook.
3. This should be done for 4-6 weeks.
4. In groups, have students determine the numbers and kinds of wildlife they observed and any patterns related to these observations. For example, were there more animals seen at night, during the day, during the full moon, at the camera on the steepest slope, etc.

**Part II Assessment**

Completion of the attached Maywoods Animal Prediction Check activity sheet.

**Maywoods Animal Prediction Check**

Using your logbook and the things you have learned since the field trip please answer the following questions.

1. **Were your predictions of the animals you would find at the camera spot accurate? Explain your answers.**

2. **What habitat or abiotic factors do you believe affected the animals being captured on the camera?**

3. **What if any patterns concerning the animals you observed? Explain.**

4. **Would you recommend the Knobs forest ecosystems as a good hunting place for local sportsman? Explain your answer by using the data you collected from the cameras and what you know about wildlife habitat.**