

# Ecology/Environment Merit Badge Worksheet

## Requirement 1

Explain the meaning:

Ecology \_\_\_\_\_  
Biosphere \_\_\_\_\_  
Ecosystem \_\_\_\_\_  
Plant Succession \_\_\_\_\_  
Limiting Factor \_\_\_\_\_

Give an example:

Plant Succession \_\_\_\_\_  
Limiting Factor \_\_\_\_\_

## Requirement 2

With the help of your counselor, pick an area of 3 hectares to study. City Scouts may pick an area in a large park, if a better place is not available.

What was the place you selected? \_\_\_\_\_

## Requirement 3

Visit the area four times for 2 hours each time. Do it once a week on different times **OR** if in camp, different days of the week at different times. Record the following:

Date and Time \_\_\_\_\_ Temperature, Rain, and Wind \_\_\_\_\_  
Animals \_\_\_\_\_  
What the Animals Doing \_\_\_\_\_  
Plants \_\_\_\_\_  
Type of Rocks and Soil \_\_\_\_\_

Date and Time \_\_\_\_\_ Temperature, Rain, and Wind \_\_\_\_\_  
Animals \_\_\_\_\_  
What the Animals Doing \_\_\_\_\_  
Plants \_\_\_\_\_  
Type of Rocks and Soil \_\_\_\_\_

Date and Time \_\_\_\_\_ Temperature, Rain, and Wind \_\_\_\_\_  
Animals \_\_\_\_\_  
What the Animals Doing \_\_\_\_\_  
Plants \_\_\_\_\_  
Type of Rocks and Soil \_\_\_\_\_

Date and Time \_\_\_\_\_ Temperature, Rain, and Wind \_\_\_\_\_  
Animals \_\_\_\_\_  
What the Animals Doing \_\_\_\_\_  
Plants \_\_\_\_\_  
Type of Rocks and Soil \_\_\_\_\_

Scout Name \_\_\_\_\_ Unit # \_\_\_\_\_ Date \_\_\_\_\_

## Requirement 4

Write about your study in 500 words or more showing: a) How climate, topography, and geology have influenced the number and kinds of plants and animals; b) How the living and non-living elements are interrelated; c) Why it is important that people understand this.

### Requirement 5

With your counselor, plan and carry-out a project on one of the following:

- The effect of water-holding capacity of soil on plant life. The relation of plant cover to run-off. How both are related to the water and oxygen cycle.
- The influence of land plant life on temperature, light intensity, wind velocity, and humidity. The influence of water plant life on the water environment. How both land and water plants affect animal life.

### Requirement 6

- Do a short talk to a Scout group regarding what you did for **Requirement 5**.

### Requirement 7

The cause of water pollution and what it does to rivers and lakes \_\_\_\_\_

\_\_\_\_\_

The cause of land pollution and what it does to the environment \_\_\_\_\_

\_\_\_\_\_

The cause of air pollution and what it does to the environment \_\_\_\_\_

\_\_\_\_\_

How chemicals get into the tissues of animals miles away from where they were used \_\_\_\_\_

\_\_\_\_\_

### Requirement 8

What can you and other people do to solve a local problem, air pollution, water pollution, or litter \_\_\_\_\_

\_\_\_\_\_

### Requirement 9

Name three positions in environmental science and their duties.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_