Here is a very close connection between the soil, the plants, and all animal life, including people. Understanding this connection, and the impact we have upon it, is important to preserving the wilderness, as well as to our own well-being as members of the web of nature.

**Requirements**

1. Name three ways in which plants are important to animals. Name a plant that is protected in your state or region, and explain why it is at risk. (.25 hours)
2. Name three ways in which animals are important to plants. Name an animal that is protected in your state or region, and explain why it is at risk. (.25 hours)
3. Explain the term “food chain.” (.25 hours)
   1. Give an example of a fourstep land food chain and a four-step water food chain.
4. Do all of the requirements in FIVE of the following fields:
   1. Birds
      1. In the field, identify eight species of birds.
         1. Take photos of these birds (with a time stamp). Document where you saw them with the date. (.5 hours per bird)
      2. Make and set out a NEW birdhouse OR a feeding station OR a birdbath. (4 hours)
         1. Watch the NEW environment you created for 15 minutes a day for one month. Record your findings with dates in a journal log.
         2. List what birds used it during that month.
   2. Mammals (3 hours)
      1. In the field, identify three species of wild mammals.
         1. Take photos of these mammals. Document where you saw them with the date.
      2. Make plaster casts of the tracks of a wild mammal.
   3. Reptiles and Amphibians (3 hours)
      1. Explain how to distinguish between venomous snakes and non-venomous snakes in our area.
      2. In the field, identify three species of reptiles or amphibians.
         1. Take a photo of them, document where you saw them with the date.
   4. Insects and Spiders
      1. Collect, mount, and label 10 species of insects or spiders. (.5 per insect)
      2. Hatch an insect from the pupa or cocoon; OR hatch adults from nymphs; OR keep larvae until they form pupae or cocoons; OR keep a colony of ants or bees through one season. (2 hours)
   5. Fish
      1. Catch and identify two species of fish. (.5 hours per fish)
      2. Collect four kinds of animal food eaten by fish in the wild. (.5 per sample)
   6. Mollusks and Crustaceans
      1. Identify five species of mollusks and crustaceans. (.5 hours per mollusk)
      2. Collect, mount, and label six shells. (.5 hours per sample)
   7. Plants (1.5 hours)
      1. In the field, identify 15 species of wild plants.
      2. Collect and label the seeds of six plants OR the leaves of 15 plants.
   8. Soils and Rocks (1.5 hours)
      1. Collect and identify soils found in different layers of a soil profile.
      2. Collect and identify five different types of rocks from your area.

NOTE: In most cases, all specimens should be returned to the wild at the location of original capture after the requirements have been met. Check with your teacher for those instances where the return of these specimens would not be appropriate.

Under the Endangered Species Act of 1973, some plants and animals are or may be protected by federal law. The same ones and/or others may be protected by state law. Be sure that you do not collect protected species.

Your state may require that you purchase and carry a license to collect certain species. Check with the wildlife and fish and game officials in your state regarding species regulations before you begin to collect.