Forestry and Conservation

Course Description:

The curriculum for this elective course is developed from Wisconsin Standards for Agriculture, Food and Natural Resources. During this course, students will complete a variety of assignments ranging from completing research on forests in Wisconsin to exploring trees and forest ecosystems in their backyard. Students also have the opportunity to engage in discussions about current events that deal directly with forestry and ecology. The information in this course overview outlines what students should understand and be able to do by the end of the trimester.

Mastery Standards:

Students will explain interrelationships between natural resources and humans necessary to conduct management activities in natural environments. (NR1)

Students will apply scientific principles to natural resource management activities. (NR2)

Students will apply knowledge of natural resources to production and processing industries. (NR3)

Students will demonstrate techniques used to protect natural resources. (NR4)

Unit	Description of Unit and Learning Targets
Unit Title: 1. Understanding our Forest Essential Questions: ● Identify plants and/or trees that you would expect to be a part of the following stages of a forest succession in your area:Pioneer Species, Seral Communities, or Climax Communities ● List natural and artificial interruptions that could take place in the forest you visited that could change, slow or restart a succession. What signs did you see that such an interruption has taken place in the past?	Students will……. Learning Targets: ● Students will be aware of the values provided by forest resources ● Students will be able to list and discuss how forests are changed by human activity and natural forces ● Students will understand and be able to explain natural forest succession
Unit Title: 2. Forest Regions and Types Essential Questions: ● Determine the percentage of total land area in your home county that is covered by forests. ● Use a map of your county and information you can find to identify and explain the areas that are forested vs. land areas that are in other uses.	Students will... Learning Targets: ● Students will be able to name and describe the major forest regions of the world and will be able to discuss the factors that determine where forests are maintained and the factors that influence the types of forests found in different parts of the United States.
Unit Title: 3. Identifying Trees	Students will...

Essential Questions:	Learning Targets:
- Write out a list of tree species you know about that are growing in your general area. They may be in your backyard, a farm woodlot, along the roads and highways, and in local forests. - Share your list in class to develop a master list of all the tree names you and your classmates were able to compile. Discuss your lists in class. - Were there differences in the names used for the same kind of tree? - Do you think there may have been some errors in the common names used? - Were your lists specific enough? For example, were you and your fellow students able to list different species of oaks, pines, spruces or maples? - Acquaint yourself with different types of identification guides you can find at Internet sites and/or in your library. Select one or more that you feel you could use to identify the species of a tree or trees in your area and explain how to properly use it.	- Students will recognize important differences among tree species. - They will understand the methods used to identify the species of a tree and will gain experience identifying trees found in your local area.
Unit Title: 4. Forest Threats Essential Questions: - Of the forested areas you know about in and around your community, which of them has the greatest risk of a wildfire? Explain why. What do you feel should be done to reduce this risk? - Name one or more invasive species that has damaged or could threaten forest ecosystems in your area. Look for some Internet sites that may provide some help in finding an answer. Include those links below. - List some forests or forest areas you know of that may be threatened by increasing Off Highway Vehicle (OHV) traffic. What do you feel should be done to protect these forests? - Give some examples of where forests in your area have been fragmented. Why do you suppose this happened? What do you feel should be done about it?	Students will... Learning Targets: - I will be able to list and discuss the four major threats to U.S. forest resources and - I will be able to identify and discuss examples of those threats in local forest ecosystems.