

# ***Ecology***

Name \_\_\_\_\_ Teacher \_\_\_\_\_ Period \_\_\_\_

## ***Introduction:***

In this lesson, you will research a specific ecological system with its unique animals and plants. You will prepare a report, in the form of a PowerPoint presentation, a booklet, or an oral presentation, that details the facts you have learned from researching your particular topic. You will also be asked to prepare a poster that will be judged by the students from an art class as to the poster's quality of presentation. This lesson will help you understand the beauty and majesty of our planet's ecology.

## ***Materials:***

crayons  
markers  
posterboard  
scissors  
magazines

## ***Procedure:***

1. Choose an ecosystem from the following list:
  - a. Freshwater
  - b. Tropical
  - c. Savanna
  - d. Desert
  - e. Temperate Grassland
  - f. Temperature Deciduous Forest
  - g. Coniferous Forest
  - h. Tundra
  - i. Ocean
2. Obtain all necessary materials from the lab cart.
3. Using the Internet, Biology textbooks, and other resources, indicate the physical conditions of your chosen ecosystem. The conditions that you should indicate include, but are not limited to, the following:
  - a. Latitude
  - b. Temperature
  - c. Rainfall
  - d. Population
  - e. Unique resources
  - f. Economical value
4. Indicate how you would get to your chosen ecosystem and what you would need in order to exist in the ecosystem.
5. Describe the flora and fauna present including an explanation of the following:
  - a. The food web
  - b. Nitrogen cycle
  - c. The water cycle

6. Put all this information into a booklet or PowerPoint presentation to be presented to the class.
7. Choose one endangered species present in your chosen ecosystem and obtain at least one cool fact, one that would be of special interest about this organism. This cool fact is to be placed on an art poster and judged by the art classes after the ART teacher has instructed the art class students on what to look for in a poster as to the following checklist in #8.
8. Art poster assessment:
  - a. Visual appeal - 20 pts.
  - b. Proper dimensions of objects portrayed on the poster - 20 pts.
  - c. Legible Lettering – 20 pts.
  - d. Use of multiple colors - 20 pts.
  - e. Content correct - 20 pts.

***Applicable Websites:***

<http://www.ibinder.uwf.edu/steps/>  
 Earthscape Explorer -Endangered Ecology  
 Discovery Science-CD  
<http://www.Ecostyems.com>  
<http://www.endangered.com> [www.natureserve.org](http://www.natureserve.org).  
<http://www.ecoflorida.org>  
<http://www.endangered.few.gov/ia/a/sas8f.htm>

***Assessment:***

You will be asked to present your work, PowerPoint presentation, booklet, or oral presentation, to the class as the assessment portion of this activity. You will be judged on many factors as this activity includes many aspects of the learning process. You will find the list of points possible for assessment in the table below.

***Points for Ecology - PowerPoint Presentations-Booklet Posters-Oral Presentations***

Assessment Area – Students must address the following;	Points Possible
Physical conditions: e.g., longitude, latitude, temperature	10 pts
Population present	10 pts
Unique resources and economical value	10 pts
Directions to ecosystem	10 pts
Flora and fauna present	10 pts
Food web explained	10 pts
Nitrogen cycle explained	10 pts
Water cycle explained	10 pts
Endangered species present	10 pts
Steps being done to protect these endangered species	10 pts
Art poster points	10-100 pts possible
"Cool fact"	10 pts
Oral Presentation	20 pts