

# Lesson Activity Bank

Lesson Title: From Sheep to Sweater

## Rationale:

Ecological history is an important part of any human story. Land forms, local environments, and natural resources dictate the way humans live on and use the land. Good stewardship of land, natural resources, and objects ensure that the human story can continue successfully.

## Goals:

- Environmental Literacy Scope & Sequence benchmark: Social and natural systems may not function as well if parts are missing, damaged, mismatched, or misconnected.
- Key systems concepts and supporting concepts: parts and objects (biotic factors, group), interactions and relationships (cause and effect, ecosystem, population, reciprocity), subsystems (community, ecosystem, habitat), inputs and outputs (innovation and invention, resources, waste), change over time (climate, geomorphism, innovation and invention, population)

## Teacher Resources:

Community POWER – [www.rethinkrecycling.com](http://www.rethinkrecycling.com)

US EPA Stewardship – [www.epa.gov/stewardship](http://www.epa.gov/stewardship)

National Institute of Environmental Health Sciences (NIH) – [www.niehs.nih.gov/about/orgstructure/stewardship/](http://www.niehs.nih.gov/about/orgstructure/stewardship/)

Minnesota Department of Natural Resources - [www.dnr.state.mn.us](http://www.dnr.state.mn.us)

Carver County Extension Office – [www.extension.umn.edu/county/carver/](http://www.extension.umn.edu/county/carver/)

Carver County Environmental Center – [www.co.carver.mn.us/departments/LWS/env-svc/envirocenter.asp](http://www.co.carver.mn.us/departments/LWS/env-svc/envirocenter.asp)

Carver County Environmental Services – [www.co.carver.mn.us/departments/LWS/env-svc](http://www.co.carver.mn.us/departments/LWS/env-svc)

Land use reports

*For the Love of Our Earth* by P.K. Hallinan

*The Lorax* by Dr. Seuss

*The Wump World* by Bill Peet

*The Wartville Wizard* by Don Madden

*Shelburne Farms Project Seasons* by Deborah Parrella

*50 Simple Things Kids Can Do to Save the Earth* by The EarthWorks Group

*Earth Book for Kids* by Linda Schwartz

*Conservation* by Christine Peterson

*Land Preservation* by Christine Peterson

## Accommodations for Learners:

Buddies

Books in native languages about protecting the environment

Read along tapes  
Group work  
Parent supervisors/volunteers  
Allow more time  
Shorter lengths of assignments

Field Trip/Guests:

Visit a farm that uses sustainable farming methods (Contact: Laura Kieser, Extension Educator, at (952) 466-5306 or Erin Anderson, CCHS Education Coordinator, at (952) 442-4234 for more information.

Invite a Native American storyteller to your classroom to tell stories about their nation's relationship to the Earth.

Visit the Carver County Environmental Center and Rain Garden (Contact: Bill Fouks, (952) 361-1842 or visit [www.co.carver.mn.us/departments/LWS/env-svc/envirocenter.asp](http://www.co.carver.mn.us/departments/LWS/env-svc/envirocenter.asp))

Speaker from Carver County Soil and Water Conservation District (Contact: Terry Meiller at (952) 442-5101)

Complete a community trash pick up (vests and bags can be obtained from Carver County Public Works by calling (952) 466-5200 or visiting [www.co.carver.mn.us/departments/PW/](http://www.co.carver.mn.us/departments/PW/))

Invite a caretaker from anywhere to talk about the meaning of stewardship (groundskeeper at a park, curator at a museum, farmer, etc.)

Student Reading/Literature:

Textbooks (Social Studies/Science)

National Geographic

Websites

Storybooks on land stewardship:

- *For the Love of Our Earth* by P.K. Hallinan
- *The Lorax* by Dr. Seuss
- *The Wump World* by Bill Peet
- *The Wartville Wizard* by Don Madden

Oral Language:

Students tell stories and experiences

Sing

Poetry

Daily P.A. announcements

Written Language:

Letters to the principal or school board

Letters to the editor

Poems

Songs

Campaigns

Stories

## Journal Entries

### Social Skills:

Group work  
Pair share  
Presentations  
Debates

### Social Studies:

What is *stewardship*?  
How does it affect our environment?  
How has technology changed the meaning of stewardship?  
How does our population affect pollution?  
What are the land use statistics for Carver County?  
How does stewardship affect other environmental concerns, such as pollution or recycling?  
How can we encourage more people to become stewards of the environment?  
What are different kinds of stewardship? How can you personally be a steward every day?

### Art:

Posters  
Collages  
Brochures  
Book illustrations  
Draw pictures about what the world would look like if we didn't take care of the earth

### Music:

*Put on Your Green Shoes* CD by Various Artists  
*Mother Earth* CD by Tom Chapin  
Songs about our world/the United States/communities  
Songs about nature

### Science:

Environmental effects  
How can we use science to be good stewards of the environment?  
How does this affect our ozone layer?  
How does this affect our water?

### Math:

Statistics  
Computing averages  
Reading charts/graphs/maps

### Physical Education/Movement Health:

If we stopped taking care of the environment, would it affect our physical and mental health? Why or why not?  
What human effects would there be of not taking care of the planet (i.e. drinking polluted water, not replacing downed trees, etc.)?  
How does stewardship affect an animal's health and survival?

Technology:

Go to websites on stewardship  
Watch videos

Assessment:

Peer assessment review  
Read journals  
Reflect on lesson plans and make modifications  
Use a rubric  
Observe students and record actions  
Tests  
KWL chart understanding  
Have students explain and respond

Follow-up activity #1

**Eco-History Jeopardy**

Although you may not have covered this information in class, this is a good opportunity to explore new areas of eco-history with the students. This can also be used as an activity at the end of the year.

Create a table with 5 columns and 5 rows on a marker board or large sheet of poster paper. Label each column *Vocabulary*, *Stewardship*, *Pollution*, *Reducing and Recycling*, and *Miscellaneous*. Starting in the upper left corner, label each column in ascending order by 100s (100, 200, etc...). Each box corresponds to an answer and point value. You can choose to make cards to hang on the board, or just erase each point value as it is chosen and read them from a sheet. Divide the students into two teams. Have a student from the first team pick a category and point value. Read the corresponding answer. Then give the teams an allotted amount of time to provide "the question." If the team that answers is correct, award the team the points and give another student a chance to pick another category and point value. If the team is incorrect, that number of points will be subtracted from the team's total and the control of the board goes to the other team. If the team does not have a "question" for the "answer" and the allotted time has expired, the other team can provide the "question." If no team answers the question, no points are added or subtracted and control of the board is passed to the other team.

**Vocabulary**

100 points	all of the natural and living things with which we are surrounded; the climate and conditions in which any organism lives; <i>environment</i>
200 points	any tool or object made or used by humans; <i>artifact</i>
300 points	the process of turning organic wastes into a nutrient-rich mixture that can be used to condition soil and feed plants; <i>composting</i>

- 400 points any substance that can make air, land, or water dirty or impure; *pollution*  
 500 points to move from one country to another; *immigrate*

### **Stewardship**

- 100 points taking care of the earth, water, air, plants, and animals around us that can't always take care of themselves when faced with human activity; *stewardship*  
 200 points naturally occurring things that nature can re-grow or recycle if we use them wisely; *renewable resources*  
 300 points the wearing away of soil by water, wind, and ice; *erosion*  
 400 points one acre is about equal to this many football fields; *about 1-1/3*  
 500 points Minnesota's rank in number of turkeys produced annually; *first*

### **Pollution**

- 100 points noise, water, air, and ground; *types of pollution*  
 200 points the bad air that we breathe in; *air pollution*  
 300 points the trash and other material that seeps into the earth's surface; *ground or land pollution*  
 400 points a body of water that is affected due to the addition of large amounts of materials put into it; *water pollution*  
 500 points unwanted or offensive sounds that unreasonably intrude into our daily activities; *noise pollution*

### **Recycling and Waste Reduction**

- 100 points the place where most trash goes once it's thrown away; *landfill*  
 200 points the amount of trash each person throws away each day; *7 pounds*  
 300 points to process and treat discarded materials so that they can be used again; *recycle*  
 400 points any unneeded item that has been carelessly discarded instead of being disposed of properly; *litter*  
 500 points the percentage of all waste that is paper products; *35% percent*

### **Miscellaneous**

- 100 points fossil fuels (oil, gas, and coal) and minerals (gold, iron ore, and diamonds); *nonrenewable resources*  
 200 points the name of the large deciduous forest that used to cover most of Carver County until its settlement in the 1850s; *the Big Woods*  
 300 points the product from the earth that plastic is made from; *petroleum*  
 400 points a chemical or mixture of chemicals whose manufacture, distribution, use, or disposal may pose a risk to the health of people or the environment; *toxin or toxic*  
 500 points Air, water, greens, and browns; *the four key ingredients for compost*

Follow-up activity #2

### **Native American Stories and Legends**

Resource: *Keepers of the Earth* by Michael J. Caduto and Joseph Bruchac

Provide or have the students find Native American legends about the earth or caring for the earth. You may also want to invite a Native American storyteller to your classroom. These legends can be from a variety of cultures, or you may want to focus on the Dakota people, since they were the last tribe to make their home in Carver County. Students can illustrate the stories, practice their own storytelling abilities, or create their own legends about the world around them. This activity ties in well with a visit to the Carver County Historical Society's *Akta Dakota* exhibit.