



"The world will be saved by what we do, not by what we say" - Meredith Ford, Student

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simplify and in this process, we have made our jobs more difficult. By separating environmental discourse from our curriculum, we have made it harder for our students to make the natural connections that exist between subjects such as science, math, history, and culture. *We can aid student learning by reconnecting curriculum and we can use environmental discourse as the bridge between subject matter.*

Environmental education should not be seen as an addition to an already packed classroom curriculum. Rather, it should be seen as the common link between the classroom subjects. In the same way that the food web can link a lichen to an elephant, environmental education can be used to bind subjects as it is the common bond that all subjects share.

Environmental Education For Educators:

"Wonders of Watersheds" Teacher Workshop

This June, educators from Geauga and Lake Counties attended the "Wonders of Watersheds" teacher workshop. The workshop was facilitated by Annie Rzepka, Public Education Specialist for Geauga SWCD, Beth Landers, Education Coordinator for Lake SWCD, and Nancy Speck, retired teacher and Geauga Board of Education Member. A grant from the Ohio Environmental Education Fund made this workshop possible.



"Wonders of Watersheds" provided teachers with the opportunity to spend the week learning about the wonderful watersheds of Lake and Geauga Counties, and participation in hands-on activities and demonstrations. Field trips were planned throughout the week and included fish shocking at Hidden Valley with the Division of Wildlife, Stream Quality Monitoring, trips to Headland Dunes, White Pine Bog and more! Participants were fortunate to meet and listen to resource specialists from several divisions of the Ohio Department of Natural Resources (ODNR), the Holden Arboretum, and the Nature Conservancy.

All participants are now certified to teach Project Wild, Aquatic Wild, Project Learning Tree, and Project Wet. Some teachers took advantage of the two graduate credits that were offered through Ashland University. Each participant received a \$135 stipend

This workshop is conducted annually. If you are interested in receiving information about next years workshop, contact Annie Rzepka at Geauga SWCD, at 440-834-1122, or Beth Landers at Lake County SWCD, at 440-350-2730.

2004 Conservation Poster Contest

This year, the Lake and Geauga SWCD received numerous entries for the annual Conservation Poster Contest. After much consideration, the following winners were chosen.

Gauga County

Grades 2-3

1st place- Michaela McNish, Jordak Elem.
2nd place- Tyler E. Evans, Jordak Elem.

Grades 4-6

1st place- Sara Mullet, Burton Elem.
2nd place- Ashley Harris, Burton Elem.

Grades 7-9

1st place- Cari Crawshaw, Berkshire High

Grades 10-12

1st place- Allison Wiggins, Berkshire High
2nd place- Adam V. Miller, Berkshire High

Lake County

1st Place- Julie Kriz, Wickliffe M.S.

The following winners went on to compete at the Area Competition: Michaela McNish, Sarah Mullet, Cari Crawshaw, Allison Wiggins, and Julie Kriz.

Sarah Mullet from Burton Elementary was victorious at the State Level, and will continue on to the National Competition! Way to go Sarah, and congrats to all the winners!



Activities for the Classroom

What Did Your Lunch Cost Wildlife? (Grades 4-8)

Activity from Project WILD

Subject areas: Social Studies, Language Arts, Science, Environmental Education

What you need: Writing and drawing materials

Objective: Students will (1) trace some foods from their sources to the consumer; (2) identify the impact those foods and their processing have in wildlife and the environment in general; and (3) recommend, with explanations, some food habits that could benefit wildlife and the rest of the environment.

The Activity:

1. Select a food item. Identify the item's ingredients. In a discussion with students, trace the item's ingredients all the way back to their origin. Include where and how they grew or were formed and how they were harvested, processed, transported, packaged, and made available to the consumer.
2. Ask the students to generate a list of foods they either brought or bought for lunch. Be sure to include any packaging materials food came in.
3. Ask each students to pick one food to trace all the way back to its origins, including where and how it grew and how it was harvested, processed, transported, packaged, and made available to the consumer—the student. Ask the students to make simple flow diagrams of the path the food takes.
4. Next, ask the students to write a paragraph, create a picture, present a report, design a diagram, or use a chart to illustrate how the transportation of their food product has affected wildlife and the environment.
5. Ask the students to discuss and summarize their findings.
6. Ask the students to think of changes they could make in their own lunch habits that would be likely to have a beneficial—or at least less harmful—effect on wildlife and the environment. Have them describe the reasoning for this change, and evaluate the consequences.

****Extension:** Map the energy used to grow and transport food to the consumer and include the impact on other specified natural resources along the way.



Web of Life (Grades 4-8)

Activity from Project Learning Tree

Subject areas: Science, Language Arts, Visual Arts

What you need: Magazines to cut up, paper, writing utensils, ball of yarn or string

Objective: Students will examine one particular part of an ecosystem (a forest) and will discover the ways in which the plants and animals are connected to each other. (Any ecosystem can be used for this activity.)

The Activity:

1. Ask the students to work in pairs or teams to brainstorm all the components they think they would need to make a healthy forest ecosystem.
2. Have the students discuss their findings and use them to compile a class list of the plants and animals they might find in a forest. Then have students return to their groups and select a forest organism to study from the group list. Make sure the groups select a variety of plants and animals. For instance, try to have at least two groups study the following kinds of organisms: mammals, insects, birds, reptiles, trees, and herbaceous plants.
3. Instruct groups to collect as much of the following information as possible using the following questions:

* Where does the organism live?	* What does it eat and how does it get its food? What eats it?
* What does it need to survive?	* With what other plants and animals does it live?
* Does it migrate?	* How does it reproduce?
* Where and how does it get its water?	
4. After the students have researched their organisms, have them make a name tag for their forest organism, including a picture. Ask one person from each group to sit on the floor in a circle.
5. Introduce the concept of the web of life and then have the student with a plant hold a ball of string. The team that has the plant will name one way in which another organism in the circle interacts with that plant. The ball of string passes around the circle until all organism interactions with the ecosystem are linked.
6. Now have the students slide back until the string is taut. Tell the students to keep still, but if they feel a tug, they should tug in return. The person holding the original end of the string should gently begin tugging. Keep reminding everyone that if they feel a tug, they should tug in response. Through this mechanism, vibration will spread through the food web until everyone is tugging and the whole web is shaking.
7. Ask the students how the tugging demonstration might illustrate what happens when one of the links of the ecosystem is damaged through natural or human made stress.
8. Ask the students to pick one organism in the system that seems less important than the others, and have it drop out. Ask if any other organisms need to drop out because they depend on that organism. Use this to facilitate discussion about relations within the ecosystem.



Muddy Hands

Tri-County Envirothon: 2004

Geauga, Ashtabula, and Lake Soil and Water Conservation Districts will be sponsoring Tri-County Envirothon, a training session for high school Envirothon Teams looking to sharpen their skills before the Regional Competition in May. Tri-County Envirothon will be held Monday, October 4, 2004 from 9:15am - 1:45pm at Lake Metroparks' Penitentiary Glen Reservation, in Kirtland, Ohio. Teams of students in the 9th through 12th grades are welcome to participate in Tri-County Envirothon.

At the Tri-County Envirothon training session, teams of five students will rotate through four sessions on soils, aquatics, wildlife, forestry, and/or current environmental issues. There will be two sets of presenters. Additional students are welcome to attend the Tri-County Training as long as they are put into teams of five. This is a great opportunity to bring the entire class for an Envirothon experience; Remember, only two teams per school are permitted to attend the Regional Envirothon Competition next May

The 2005 Area II Regional Envirothon Competition will be hosted by Ashland and Richland Counties in the first week of May 05'. This year's theme is "Preserving Cultural and Natural Landscapes". Each of the training sessions will address this theme as it relates to the topic. Sessions will include a 20-minute presentation by a resource specialist, and a short quiz that will test student knowledge of the session topic. The resource specialist will then present the answers and take questions as time permits. In addition to teaching students about soils, wildlife, etc... the resource professionals are happy to share their knowledge and experience with careers in natural resources. Please make your students aware of this opportunity; they may want to prepare questions in advance. Envirothon information and resources can be found on-line at www.envirothon.org.

For more information about the Pre-Envirothon Training Session, or to register your team, or entire class, contact the education specialist at your local soil and water conservation district. Registration deadline is September 17th.

Your SWCD Contacts:

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Lake County and Geauga Soil and Water Conservation District Photo Contest

The Geauga and Lake County Soil & Water Conservation Districts are sponsoring a photography contest focusing on the importance of streams and lakes as vital resources in our daily lives. We are looking for striking images that focus on the important role we all play in helping keep our streams and lakes pollution free and safe. "Clean Water Starts With You" is the 2004 photography contest theme highlighting citizen action in clean water initiatives.

This photography contest is open to persons of all ages living or owning land in Geauga or Lake County.

1. Acceptable print formats are as follows: 35 mm (black and white or color) photographs and high quality digital photographs (600 dpi or higher). Digital photographs must be printed out and submitted as a hard copy. No entries will be accepted via email!! There is no need to submit negatives with your photos. **Note: Photos will not be returned!**
2. The image must be 5x7 or 8x10 in size and can be matted or mounted. No framed photos accepted.
3. Individuals may submit up to (3) photographs for consideration.
4. You must be the sole author and owner of the copyright in photographs entered. Only original and unaltered

photographs will be accepted.

5. An official entry form must accompany each submission.
6. First, second, and third place winners will be chosen and prizes will be awarded. Please consider that your signed submission is your agreement that the photo can be used by the Geauga and Lake County Soil and Water Conservation District without notification or remuneration. Your photo will not be used in any manner for our profitable gain, only for educational purposes related to the Stormwater Program. Local winners will be entered into the regional competition.
7. Images will be judged on adherence to theme (30%), composition (25%), and technical excellence (20%).
8. District employees are not eligible.
9. For more information on the theme of citizen involvement in clean water initiatives, check out the following websites: www.epa.gov/owow/ucando.html, www.rivernetnetwork.org/library/index.cfm?doc_id=122.
10. The deadline for all photography entries is **November 30, 2004**.

For an official entry form, contact the Lake County or Geauga Soil and Water Conservation District.