



Looking for ideas to get your students excited about math and science?

The EPA provides many resources to inspire and engage your students.

And we've made those resources easy to find ...



The Democratic Caucus of the House Committee on Science Presents:

EPA Resources for Teachers

<http://sciencedems.house.gov/resources/EPAresources.htm>

**Prepared at the direction of Representative Mark Udall,
Member, House Committee on Science**



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Our website has even more EPA resources. The outline below details the variety of information available.

Resources for Educators

EPA Resources for Teachers

General Resources to Get You Started

- The EPA's Teaching Center
- Environmental Education and Training Partnership (EETAP)
- EE Link
- Envirofacts Data Warehouse
- National Environmental Education and Training Foundation

Visual Resources

- EPA's Downloadable Educational Publications
- EETAP Program Materials
- "After the Storm" VHS Television Program
- Estuary Live
- "Journey to Planet Earth" Video and Companion Resources

Finding resources in your area

- EPA Regional Environmental Education Coordinators
- EPA Regional EE Resources

EPA Enrichment Opportunities for Schools and Classrooms

- Project A.I.R.E
- SunWise Program
- AirDefenders
- Acid Rain Sourcebook
- The Water Sourcebooks
- EcoKids Online Teacher's Resource Page
- Bureau of Land Management Environmental Teacher's Resources
- Science NetLinks
- Wetlands Education
- Science Fair Fun!
- Quest for Less Activities
- Classroom Earth
- Environmental Education for Kids (EEK!) Teacher's Resources
- Educating Young People about Water
- The Global Water Sampling Project
- Hazardous Waste Superfund Education Program
- GLOBE
- Global Rivers Environmental Education Network (GREEN)
- National Wildlife Federation's Outdoor Classroom
- Alice Ferguson Foundation
- Biodiversity Education Network Resources Page
- Project WILD
- WET (Water Education for Teachers) in the City
- Earth Day Network Educator's Network

Log on for more information:
<http://sciencedems.ouse.gov/resources/eparesources.htm>

EPA Enrichment Opportunities for Schools and Classrooms (cont'd)

Earthman Project Teacher's Community
Environmental Literacy Council
Facing the Future: People and the Planet Teacher's Corner
EarthSeeds
The Groundwater Foundation
Keep America Beautiful Teacher's Resource Page
Maggie's Earth Adventure
Project Learning Tree

EPA Workshops and Summer Programs for Teachers

The Watershed Project

Resources for Students

EPA Resources for Students

K-8 Resources

EPA Kid's Site (K-4)
EPA Student Center (5-8)
Kid's Air—Air Quality Index for Kids
Interactive Water Cycle
Planet Protector's Club for Kids
Endangered Species Protection Program
Acid Rain Kid's Site
The Happy Earth Day Coloring & Activity Book
Environmental Education for Kids (EEK!) Future Careers in the Environment
Young Eco-Hero Awards
Watershed Excursion
Follow a Drop

9-12 Resources

EPA's High School Environment Center
Easy Breathers
Your Car & Clean Air
Global Warming Facts & Your Future
Zip Code Search of EPA Resources
Recycling
Volunteer for Change
Stream Corridor Project
World Water Monitoring Day
Water Where You Live
Healthy School Environment Resources

Fun and Games

EPA Grants & Awards

Environmental Education Grant Program

With almost \$3 million in funds, the Environmental Education (EE) Grant Program is an excellent opportunity to enhance your students' learning experience. Established in 1990, the EE Grant Program awards more than 200 grants annually. Grants of \$50,000 or less (the majority of grants issued) are awarded by the EPA's 10 regional offices, and grants totaling more than \$50,000 are awarded by the EPA Headquarters in Washington, D.C.

Page 7 lists the addresses of the 10 regional offices.



Please note: Teachers are asked to work with your school or school district to apply; individuals are not eligible for this program.

For more information, rules, requirements and deadlines pertaining to the EE Grant program, please visit www.epa.gov/enviroed

New to the grant process? Download the EPA's Grant-Writing Tutorial!

This interactive software tool will walk you through the grant-writing process and help you learn to write more competitive grants.

The program includes:

- Detailed information and tips on writing a proposal
- How to complete a grant application package
- A program-specific section on EE
- Examples of good, complete grant packages
- References
- Resources and contacts
- A mock grant-writing activity where you are able to compare your results to a successful grant application

Download the Program:

<http://www.epa.gov/grtlakes/seahome/grants.html>

EPA's Current Educational Priorities:

1. Build state capacity to deliver EE programs
2. Use EE to advance state education reform goals
3. Improve teaching skills
4. Educate the public through community-based organizations
5. Educate teachers, health professionals, community leaders, and the public about human threats from pollution, especially as it affects children
6. Promote Environmental Careers

Regional EPA Environmental Education Contacts

Region	States/Territories Represented	Contact Person	Mailing Address
1	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	Kristen Conroy conroy.kristen@epa.gov	U.S. EPA, Region 1 Environmental Education Grants (RAA) 1 Congress Street, Suite 1100 Boston, MA 02114
2	New Jersey, New York, Puerto Rico, Virgin Islands	Teresa Ippolito ippolito.teresa@epa.gov	U.S. EPA, Region 2 Environmental Education Grants Grants and Contracts Management Branch 290 Broadway, 27th Floor New York, NY 10007-1866
3	Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia	Ruth Corcino-Woodruff corcino-woodruff.ruth@epa.gov	U.S. EPA, Region 3 Environmental Education Grants Grants Management Section (3CG00) 1650 Arch Street Philadelphia, PA 19103-2029
4	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee	Alice Chastain- chastain.alice@epa.gov	U.S. EPA, Region 4 Environmental Education Grants Office of Public Affairs 61 Forsyth Street SW Atlanta, GA 30303
5	Illinois, Indiana, Minnesota, Ohio, Wisconsin	Megan Gavin gavin.megan@epa.gov	U.S. EPA, Region 5 Environmental Education Grants Grants Management Section (P-19J) 77 West Jackson Boulevard Chicago, IL 60604
6	Arkansas, Louisiana, New Mexico, Oklahoma, Texas	Bonnie King and Marsha Alexander king.bonita@epa.gov alexander.marsha@epa.gov	U.S. EPA, Region 6 Environmental Education Grants (6XA-A) 1445 Ross Avenue Dallas, TX 75202-2733
7	Iowa, Kansas, Missouri, Nebraska	Denise Morrison morrison.denise@epa.gov	U.S. EPA, Region 7 Environmental Education Grants Office of External Programs 901 N. 5th Street Kansas City, KS 66101
8	Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming	Christine Vigil vigil.christine@epa.gov	U.S. EPA, Region 8 Environmental Education Grants 999 18th Street (80C) Denver, CO 80202-2466
9	Arizona, California, Hawaii, Nevada, American Samoa, Guam, N. Marianas, Palau	Kathy Goetz and Bruce Sivils goetz.kathy@epa.gov sivils.bruce@epa.gov	U.S. EPA, Region 9 Environmental Education Grants (PPA-2) 75 Hawthorne Street San Francisco, CA 94105
10	Alaska, Idaho, Oregon, Washington	Sally Hanft hanft.sally@epa.gov	U.S. EPA, Region 10 Environmental Education Grants Public Environmental Resource Center 1200 Sixth Avenue (ETPA-086) Seattle, WA 98101

President's Environmental Youth Awards

Do you have a student who has done something exceptional? If so, you can sponsor them for the President's Environmental Youth Awards (PEYA)!

PEYA promotes awareness of our nation's natural resources and encourages positive community involvement. Since 1971, the EPA has sponsored this program which recognizes youth across America for projects demonstrating their commitment to the environment. Students in all 50 states and the U.S. territories are invited to participate in the program.

Projects submitted in the past have covered a wide range of subject areas from recycling programs in schools and communities; construction of nature preserves; major tree planting programs; videos, skits, and newsletters created by students that focused on environmental issues; to environmental science projects. To be eligible to compete, a student or students **sponsored by an adult (that's you!)**, must submit their completed application to their local EPA regional office.



Photo courtesy of the EPA

IN FOCUS: Allyson Lien Humann Elementary School Lincoln, Nebraska

Allyson Lien, a fifth grade student and the EPA Region 7 2004 Winner, helped to develop "Awesome Aquifers," a new Science Olympiad event. In addition, Allyson has taught others in her community about groundwater through hands-on activities, showing adults and young people alike that they can make a difference in addressing groundwater issues. She has devoted hundreds of weekend and evening hours to Earth Day and environmental education events where she has taught others about groundwater using fun activities that she developed. A very creative environmental educator, she taught people what an aquifer is by making one with ice cream, chocolate, gummy worms, and other food products, and she explained the elements of the water cycle by directing the design of colorful bracelets in a Water Cycle Bracelets activity. Allyson has voluntarily taken action to benefit the environment by continuously learning and teaching others. Her work even earned her a trip to the 2004 Tunza International Children's Conference on the Environment where she shared her knowledge with over 450 delegates from 52 countries!

For more information and to download the application, go to:
<http://www.epa.gov/enviroed/awards.html>

Classroom Enrichment Resources from the EPA: Programs and Toolkits

The SunWise Program

A free EPA program, the SunWise School Program is an environmental health education program that aims to teach children and their caregivers how to protect themselves from overexposure to the sun. SunWise Partner Schools receive materials that facilitate cross-curricular classroom learning. The program also encourages schools to provide a sun-safe infrastructure, including shade structures and policies that promote sun protection in a school setting.

The SunWise Program Toolkit

The Kit includes activities (broken down for K-2, 3-5, and 6-8) focusing on:

- The science behind UV radiation and stratospheric ozone;
- The health risks from overexposure to UV radiation; and
- The steps you can take to protect yourself.

The Kit also includes fun visual aids, such as a UV-sensitive Frisbee and comic book.

To become a SunWise Partner school and become eligible for the Toolkit, visit <http://epa.gov/sunwise/becoming.html> to fill out the online registration form.



The SunWise Toolkit
Photo provided by the EPA

Air Defenders Educator's Kit

The Air Defenders Educator's Kit is loaded with materials about open burning, air quality and respiratory health.

The kit includes:

- A music CD containing music by and for Air Defenders
- A data CD containing the Air Defenders Interactive Educational Game
- A VHS Videocassette featuring the Wisconsin Department of Natural Resources short musical "Give Burn Barrels The Boot."
- Three "cool" posters that offer valuable information about air pollution:
 - The Air Defenders characters in vibrant, kid friendly colors.
 - An explanation and illustration of how air pollution triggers asthma.
 - Information about the chemicals released when open burning occurs
- A Music Teachers' Guide with Air Defenders sheet music, lyrics, and a guide to the tracks on the music CD.
- A Pamphlet entitled "Give Burn Barrels The Boot."

To order the kit, please visit:

<http://www.airdefenders.org/teacher/kitOrder.htm>

Project AIRE

Project A.I.R.E (Air Information Resources for Educators) was developed by EPA to focus the attention of elementary, junior high and high school students on air pollution issues. The units in this package encourage students to think more critically and creatively about air pollution problems and the alternatives for resolving them. Topics covered include: air quality, rainforests, radon, the creation of environmental laws, the greenhouse effect and ozone. This resource kit is clearly labeled by grade level for your convenience.



Materials are available for download:

<http://www.epa.gov/region01/students/teacher/aire.html>

Climate Change, Wildlife, and Wetlands: A Toolkit for Teachers and Interpreters

The EPA, in partnership with the National Park Service and with input from the U.S. Fish and Wildlife Service, developed a kit for use when talking with your students about how climate change is affecting our nation's wildlife and public lands.



This kit contains case studies, visual aids, activities, skits and more. Individual components of the award-winning kit may be viewed and downloaded or ordered free of charge (free binder includes video, CD-ROM, printed trail cards and a printed wheel card for calculating greenhouse gas emissions).

To obtain this informative kit, please visit:

<http://yosemite.epa.gov/oar/globalwarming.nsf/content/ResourceCenterPublicationsOutreachMaterialORWKit.html>

The Planet Protectors Club for Kids (K-5)

The Planet Protectors Club was formed by kids who want to help the reduce waste and save environmental resources. Members of the Planet Protector's Club learn how to recycle and reuse materials at school and at home. Anyone can join. As a Planet Protector, your mission is to improve the world around you by making less trash. Planet Protectors also help other people learn to reduce, reuse and recycle. To access the educational resources, activities and games that accompany the club please visit: http://www.epa.gov/epaoswer/education/kids_ppc.htm



The Make A Difference Campaign for Middle School Students (6-8)

EPA's "Make a Difference" campaign is aimed at educating and engaging middle school students in resource conservation and environmental protection. This campaign helps students to make informed decisions for protecting the environment in their day-to-day life. The resources available through the Make A Difference "Your Life, Your World, Your Choices" resource kit will inspire students to reduce, reuse and recycle waste -- to "make a difference" at home, at school and in their community. The kit includes:

- You Can Make A Difference: Learn About Careers in Waste Management
- The Life Cycle of a CD or DVD
- Reuse + Recycling= Waste Reduction: A Guide for Schools
- Volunteer for Change: A Guide to Environmental Community Service (available in Spanish)
- A Collection of Solid Waste Resources CD-ROM
- Service Learning: Education Beyond the Classroom (available in Spanish)
- Got Your Driver's License? You Can Make a Difference
- "Greenscaping" Your Lawn and Garden

To order the kit, call 1-800-490-9198 or visit this website for more information:

<http://www.epa.gov/epaoswer/education/mad.htm>



Students in Pennsylvania "Made a Difference."

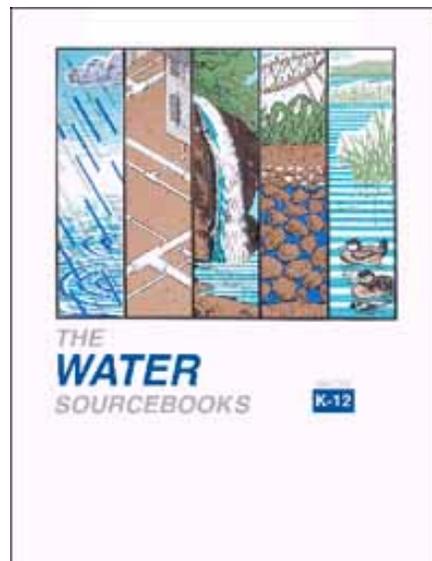
Photo courtesy of the EPA

Stimulating Young Minds: Activities and Experiments

The Water Sourcebooks

The Water Sourcebooks contain 324 activities for grades K-12 divided into four sections: K-2, 3-5, 5-8, and 9-12. Each section is divided into five chapters: Introduction to Water, Drinking Water and Wastewater Treatment, Surface Water Resources, Ground Water Resources and Wetlands and Coastal Waters.

This environmental education program explains the water management cycle using a balanced approach showing how it affects all aspects of the environment. Activities contain hands-on investigations, fact sheets, reference materials, and a glossary of terms. Activities are organized by objectives, materials needed, background information, advance preparation, procedures and resources.



A sample groundwater activity for grades 6-8 can be found on pages 16-22 of this booklet.

To download the Water Sourcebook appropriate for your students, please visit: <http://www.epa.gov/safewater/kids/wsb/>



Superfund Classroom Activities

The Superfund program was created in 1980 to locate, investigate and clean up the worst sites nationwide damaged by years of dumping hazardous chemical wastes. The activities are separated by grade level (ranging from K-12) and the season of year they can be conducted. There is also a video and educational program (grades 7-12) that has been developed and is available free of charge.

To access the Superfund Materials, please visit: http://www.epa.gov/superfund/students/cls_act/index.htm

Acid Rain Experiments



Want to teach your students about acid rain and its effects on the environment? The EPA has developed many experiments complete with detailed instructions, materials lists and question/answer sections for your use. These experiments are intended for students in middle and high school and will likely require use of a science laboratory.

A sample experiment is included on page 14 of this booklet.

To access these experiments, please visit:

<http://www.epa.gov/acidrain/experiments/index.html>

Science Fair Fun: Designing Environmental Science Projects

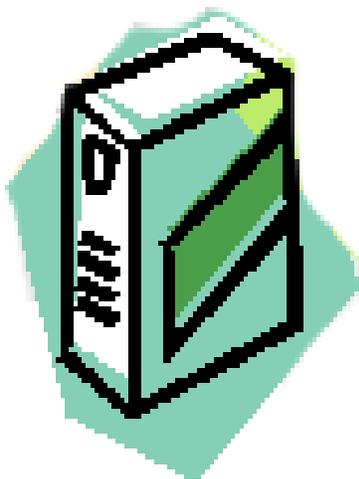
The EPA has assembled a booklet designed specifically for students that introduces them to the world of science fairs. The booklet not only provides general ideas for choosing a topic, but also contains several sample projects that have proven successful in the past. *Science Fair Fun: Designing Environmental Science Projects* comes complete with a step by step guide to conducting a project and a glossary of terms. This guide book is a useful sourcebook for both you and your students.



To download a copy of this publication, please visit:

www.epa.gov/epaoswer/osw/kids/pdfs/sciencefair.pdf

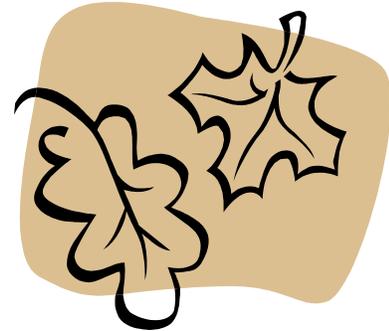
Sample Science Project Idea: Soap Box Opera



Often it is more economical to buy larger rather than smaller sizes of products. Purchasing larger quantities is known as "buying in bulk." For example, a 5-ounce box of brand "X" laundry detergent might cost \$3. Dividing 5 into \$3 gives us a cost of 60 cents per ounce. A 10-ounce box might only cost \$5, making the cost 50 cents per ounce. Buying in bulk might have advantages other than cost savings. Examine the ratio of carton material to product quantity. Does buying larger quantities also require less packaging material per unit measure of the product? Could people lessen their impact on the environment by buying in bulk?

Acid Rain Experiment: Observing the Influence of Acid Rain on Plant Growth (page 1 of 2)

Acid rain often damages plants by washing away nutrients and poisoning them with toxic metals. This rain can, however, have direct effects on plants as well. In this experiment you will observe one of the direct effects of acid water on plant growth. The experiment takes about 2 weeks.



Materials

- 4 cups or jars
 - distilled water
 - white vinegar
 - measuring cups
 - stirring spoon
 - 2 cuttings of a philodendron plant (1 leaf and small amount of stem)
 - 2 cuttings of a begonia or coleus plant (1 leaf and small amount of stem)
- notebook and pencil

Instructions

1. Pour 1 teaspoon of vinegar into 2 cups of distilled water, stir well and check the pH with either pH paper or a garden soil pH testing kit. The pH of the vinegar/water mixture should be about 4. If it is below pH 4, add a sprinkle of baking soda or a drop of ammonia, stir well, and recheck the pH. If it is above pH 4, add a drop or two of vinegar and again recheck the pH.

2. Measure the pH of the distilled water using either pH paper or a garden soil pH testing kit. If the pH is below 7, add about 1/8 teaspoon baking soda or a drop of ammonia, stir well and check the pH of the water with the pH indicator. If the water is still acidic, repeat the process until pH 7 is reached. Should you accidentally add too much baking soda or ammonia, either start over again or add a drop or two of vinegar, stir and recheck the pH.

3. Put one of the following labels on each cup or jar:

- | | |
|---------------------|----------------------------|
| —water philodendron | —water begonia (or coleus) |
| —acid philodendron | —acid begonia (or coleus) |

Acid Rain Experiment: Observing the Influence of Acid Rain on Plant Growth (page 2 of 2)

4. Pour about a cup of distilled water into the water-philodendron and water-begonia cups.
5. Pour about a cup of the vinegar/water mixture into the acid-philodendron and acid-begonia cups.
6. Put one philodendron cutting into each philodendron labeled cup, covering the stem and part of the leaf with the liquid.
7. Put one begonia cutting into each begonia-labeled cup, covering the stem and part of the leaf with the liquid.
8. Set the cups where they are not likely to be spilled and where they will receive some daylight.
9. About every 2 days, check to be sure that the plant cuttings are still in the water or vinegar/water. You may need to add more liquid if the cups become dry.
10. After 1 week, compare the new root growth of each plant in distilled water with the new root growth of its corresponding plant in acid water. Record the results.

After 2 weeks, again observe the plant cuttings for new root growth and record the results.

Questions and Answers

Which plant cuttings had the fastest root growth, those in distilled water or those in acid water?

The plants grown in distilled water should grow faster than plants grown in acid water. Acid water, like acid rain, can directly damage plants and slow or stop new growth.

NUTRIENTS AND WATER QUALITY

6 - 8

OBJECTIVES

The student will do the following:

1. List changes in water conditions caused by various pollutants, such as household chemicals, that often end up in aquatic environments.
2. Describe potential effects on animals and plants caused by these pollutants.
3. Classify sources of pollution.

BACKGROUND INFORMATION

Two nutrients that are essential for the growth and metabolism of plants and animals are nitrogen (N), and phosphorus (P). Plant growth depends on the amount of phosphorus available. Phosphorus is present in low concentrations in numerous bodies of water, so it is a growth-limiting factor. Since nitrogen is found in several forms, it is frequently more available than phosphorus. Nitrogen is used by plants to make plant proteins, which animals convert into their own proteins when they eat the plants.

Even though nutrients are needed, too much nutrient material in the water can cause pollution. Algae use up phosphorus quickly. When there is excess phosphorus, a vast growth of algae called an algal bloom can occur. The water may then look like pea soup. The algae rob the water of oxygen needed to sustain life. Some forms of nitrogen can cause similar problems in water.

There are several ways that excess nutrients get into the water. Both nitrogen and phosphorus are part of living plants and animals and become part of organic matter when the plants and animals die and decompose. Nutrients come from human, animal (including pet), and industrial wastes. Other sources of nutrients are human activities that disturb the land and its vegetation, such as road and building construction, farming, and draining of wetlands for development. Normally, nutrients are held in the soil and stored in the wetlands. When soil erodes and washes away, it carries the nutrients along until it ends up in the water. If wetlands are drained for development, they can no longer filter nutrients from runoff.

Terms

nutrient: an element or compound, such as nitrogen, phosphorus, and potassium, that is necessary for plant growth.

algal bloom: a heavy growth of algae in and on a body of water; usually results from high nitrate and phosphate concentrations entering water bodies from farm fertilizers and detergents; phosphates or algal blooms also occur naturally under certain conditions.

point source pollution: pollution that can be traced to a single point source, such as a pipe or culvert (Example: industrial and wastewater treatment plant discharges).

SUBJECTS:

Biology, Ecology

TIME:

Takes place over the course of about one month. Set up approximately two weeks ahead of experiment.

MATERIALS:

5 clear 1-qt or larger containers (plastic soda bottles or canning jars)
water with algae from a freshwater pond or purchased from a supply house
plant food
aged tap water (allow to sit about 48 hours)
light source (direct sunlight or strong artificial light)
pollutants: cooking oil (colored red), detergent (not green), vinegar
camera and film (optional)
student sheet

nonpoint source pollution (NPS): pollution that cannot be traced to a single point, because it comes from many individual places or a widespread area (Example: urban and agricultural runoff).

ADVANCE PREPARATION

- A. Set up jars at least two weeks before the experiment begins. Explain to the class that they are setting up model water environments for an experiment to be done later. Plants in a wetland or other aquatic system need nutrients to grow. Nutrients are found in all natural systems. Fill the jars with aged tap water. Add one teaspoon of plant food to each jar and stir well.
- B. To improve the quality of the model, use pond water or try adding a bit of soil from a pond or aquarium gravel along with the water. Place the jars in a window where they will get good indirect light or light provided by an incandescent or fluorescent light source. The jars should not be placed in a cold location.
- C. Explain to the students that they will be using the model aquatic environments to test the effects of certain pollutants that come from home. Students should decide on household products to use—products that they feel are used frequently, are often dumped down the drain, and thus end up in waterways. Students should bring samples of these materials from home.

PROCEDURE

I. Setting the stage

- A. Begin with a classification exercise explaining that students are to organize what they already know about pollution. Some water pollution comes from specific sources such as drains, pipes, effluent from industry—outfalls. This is called point source pollution. Other kinds of pollution come from many widespread sources and are called non-point source pollution. Write these terms on the chalkboard making two columns. Have students suggest things that pollute the water and place them in categories in the chart.
- B. Explain that students will conduct pollutant tests with the models set up two weeks ago.

II. Activity

- A. Take out the jars, which by now should have algae growing in them. Have the class decide on three safe pollutants to test—use more plant food for the fourth jar, use the fifth jar as a control. When the class has decided what to test, add the materials to the four jars. Add a reasonable amount: two tablespoons of a strong detergent; enough oil to just cover the surface; 1/4–1/2 cup of vinegar; one or two teaspoons of plant food. Ask students to explain how each pollutant could get into the environment in real life.
- B. Leave the jars in the light as before. Have the students write their predictions as to what will happen in each container. Photograph the jars (with labels and dates showing) two or three times each week for several weeks.

III. Follow-Up

- A. Results will depend on the type of pollutant used.
 1. Some pollutants, such as the plant food, favor plant growth and will cause an algal population explosion. This is not healthy since it disrupts the balance of organisms. When the algae die and decompose, oxygen is used up. Ask students to name some plants and animals that would be affected by this situation. Oysters and clams would suffocate because they are unable to move to another location to get more oxygen. A thick mat of algae will block out sunlight needed by other plants.
 2. Other pollutants, such as acids, would cause the water to be clear since everything in the water would be killed.

3. The sample with the oil spill may surprise students. If the algae have enough sunlight, they may produce enough oxygen to keep things alive below the oxygen-impervious oil layer. Ask students to consider the effects of a larger spill—ducks and other birds would become coated with oil and not be able to fly, fish gills would be clogged, etc. Ask the students for their conclusions.
- B. Human activities which result in water pollution can affect the water environment in ways that are disastrous for natural communities. Some nutrients are necessary for an aquatic habitat, but having too many is harmful. Have the students explain how.

IV. Extensions

- A. Ask students whether or not they can devise a method to reverse the pollution in their models. (Example: Add baking soda to the acid model to neutralize the acid, which is similar to adding limestone rocks to lakes or streams to lessen the effects of acid rain. Example: Mop up the oil spill with sawdust, cotton, etc. Could students skim off the oil from their model and let oxygen through again?)
- B. Discuss ways to keep pollutants from reaching the water and ways to reduce the amounts that do get through.

RESOURCES

“What’s In the Water?” *Living In Water*, pp. 55-57.

WOW!: *The Wonders of Wetlands*, pp. 80, 87-89.

Directions: Record your observations of changes in water conditions caused by pollutants.

	3 days	6 days	9 days	12 days	15 days	18 days	21 days
Jar #1 (1 tsp. plant food added — pollutant added is motor oil)							
Jar #2 (1 tsp. plant food added — pollutant added is strong detergent)							
Jar #3 (1 tsp. plant food added — pollutant added is vinegar)							
Jar #4 (1 tsp. plant food added — pollutant is 2 more tsp. plant food)							
Jar #5 (1 tsp. plant food added — no pollutant added. This is the control.)							

EPA Training Opportunities and Workshops in EE

Environmental Education and Training Partnership (EETAP) (K-12)

The Environmental Education and Training Partnership (EETAP) is funded by the EPA's Office of Environmental Education through a cooperative agreement with the University of Wisconsin-Stevens Point. EETAP serves as a national leader in the delivery of environmental education training to education professionals.

EETAP supports a wide array of education professionals and is committed to ensuring that ethnically diverse and low-income communities benefit from and actively participate in education that advances student learning and environmental literacy. EETAP has many resources available to teachers including online coursework for graduate credit and a variety of digital media and publications that focus on different teaching methods. In addition, EETAP hosts a variety of conferences and workshops.

For additional information, please visit their website:

<http://www.eetap.org/>

North American Association of Environmental Educators Annual Conference (K-12)

As the premier gathering of environmental educators, the NAAEE conference focuses on a different theme each year. An action-packed event with world-class keynotes, informative workshops and roundtables, a research symposium and field trips, the NAAEE conference is your one-stop shop for all things related to the field of environmental education.



For more information about the conference, visit its website:

<http://naaee.org/pages/index.html>

The GLOBE Program

(Global Learning and Observations to Benefit the Environment)

The GLOBE program is a worldwide hands-on, primary and secondary school-based education and science program.

The program provides:

- Training at professional development workshops
- Teacher's Guide, "how-to" videos and other materials
- Continuing support from a Help Desk, scientists and partners
- Contact with other teachers, students and scientists worldwide

To access these materials, please visit: **<http://www.globe.gov>**