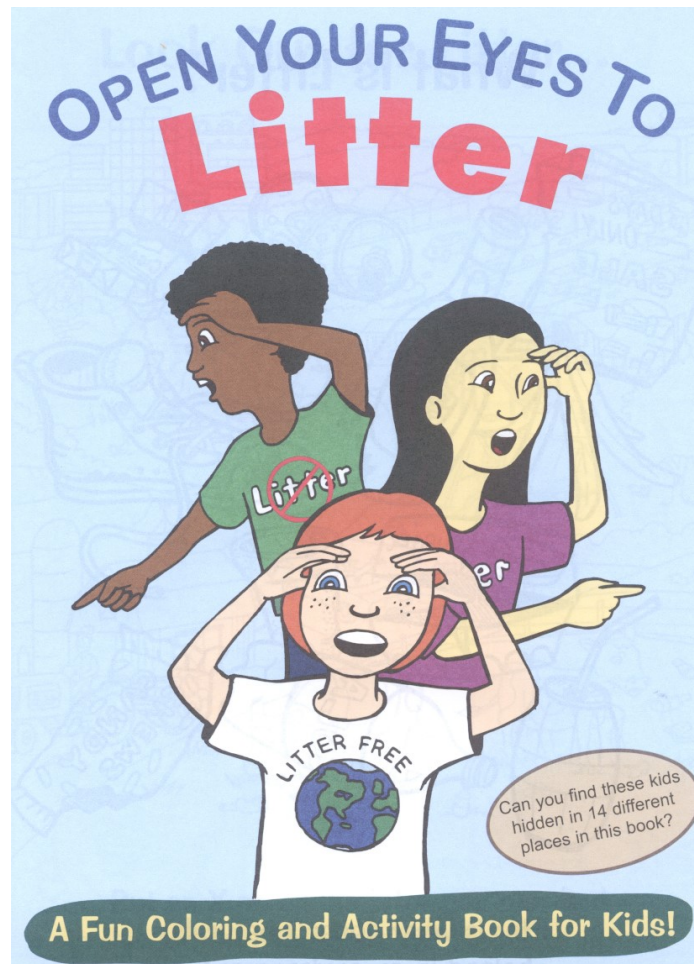


OPEN YOUR EYES TO LITTER—VOLUME 1

A TEACHER'S GUIDE

Created by Keep Pennsylvania Beautiful
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KEEP
PENNSYLVANIA
Beautiful

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Empowering Pennsylvanians to keep
our communities clean and *Beautiful*.

Produced with funding from the PA Department of Environmental Protection.

OPEN YOUR EYES TO LITTER

TEACHER'S GUIDE

Our goal in creating this guide was to provide teachers with a resource whether they wanted to use OPEN YOUR EYES TO LITTER as a singular activity or as a supplementary part of a longer, multi-disciplinary Litter/Recycling/Earth Month Theme involving many resources. Most activities can be adapted to suit a variety of grade levels. Feel free to pick and choose whatever works for your classroom. **Our experience is that the more hands-on, real life activities you involve your students in, the more they integrate their own personal connection with the environment and understand that one person can make a difference.** If you live in an area that has a Keep Pennsylvania Beautiful affiliate, the folks there can be a valuable resource. Keep Pennsylvania Beautiful also offers support for anyone in a county where there is no chapter. Visit www.keeppabeautiful.org for an affiliate listing.

The booklet was carefully written so as not to encourage young readers to pick up trash. Likewise, if you choose to use any of the following teaching suggestions, be sure to **use common sense and build safety** into all activities. Encourage parents and volunteers to accompany students involved in research out into the community. Use gloves where necessary and don't go anywhere alone.

TEACHING SUGGESTIONS

Regardless of the age group you are working with, we suggest beginning your Litter Study with a **K-W-L activity**. Using three large sheets of chart paper, label one Things We **KNOW**, the next, Things We **WANT to Know**, and the third, Things We **LEARNED**. Use the first two lists at the very start of your theme. This will make you aware of the knowledge your students bring to this study, so that you aren't needlessly re-teaching and you learn which students have knowledge that they could present as a mini-lesson. The second list helps you and the students focus on the specific questions they have and direction your children's research will take. This will be valuable information to use when locating resource materials, speakers and special projects. It can also be added to, as your theme progresses. The third list can be used as a culminating activity that brings together all the knowledge that each student, small group and speaker brought to the learning experience.

WEBBING - Another valuable technique which works well with all age groups, is to **create a Web at the beginning of your theme**. Draw a circle on chart paper or the blackboard and write your theme title in the middle. Encourage the children to brainstorm related topics or questions they have about the theme and add them as arms to the web. Use straight lines radiating out from the center circle with the related word in a circle, just like the one in the center. Group connected topics together as fingers off the arms, such as all science-oriented items, all creative art projects, and all research or social studies areas. This can be displayed and added to throughout your study. Guiding your children through this learning process helps them to make connections between topics and understand that real-life learning isn't separated into "courses". A copy of the web that was used in the creation of the litter activity book is on page 29.

The Resource List, Glossary, list of Environmental Education Centers and Waste Management and Illegal Dumping Laws are here to complement your own classroom's research and investigation. The Internet and municipal and state agencies are also invaluable resources. Use them. The

Look in this column
to see how

OPEN YOUR EYES TO LITTER

is linked to

Pennsylvania Academic Standards

Grade 4

***Environment & Ecology
(E)***

and

***Science and Technology
(S)***

Grades 3 and 5

***Reading, Writing, Speaking
and Listening (R)***

and

Mathematics (M)

glossary (See page 11) gives you a working vocabulary and source for spelling words and writing assignments.

Page 1 **SCIENCE** - Discuss the items shown. When would these items be considered unnatural to an environment?

When is a soda can, candy wrapper or any of these other items, not litter?

Brainstorm a LITTER LIST with your students. Keep track of all the different kinds of litter they spot. Post it in your classroom and encourage students to add to it throughout your Litter/Earth Month/Recycling Theme.

Brainstorm another list – WHERE LITTER IS FOUND. Post it as well, and encourage additions to it throughout your Theme. Are some locations more common litter sites than others? This can be a great graphing activity.

Page 2 Have students describe the different communities shown. How did the litter get in these communities? Using the information you gather about types of litter and where it is found, have students try to create a **LITTER PROFILE** of what activities people are involved in when littering occurs. You could take this a step further and make note of the area surrounding the litter and the activity of the people nearby. (Was the litter surrounding a street drain after a rainstorm? Was the litter around the edges of ball field after a game? Was litter blowing in the street after a garbage pickup in the area?)

MATH - Encourage an **EYE SPY LITTER** counting activity. Have students, individually or as a class, count how many items of litter they SPY on their way home from school (or to and from another such activity). Identify either pieces of litter or categories of litter (bottles, paper, cans, etc.). Make a graph to show the results. This could be a great bulletin board display.

MATH - Make up math problems. Count the number of pieces of litter in a square foot of littered space. Measure how many square feet of littered area there is. Using that information, estimate how many pieces of litter are in the whole area.

Page 3 **RESEARCH PROJECT** - Talk about how litter affects us and our environment. Have students choose a topic to research and present, about how it is affected by litter. Topics include waterways, cities, crime statistics, health, farmers, animals, birds, plants, business owners, tourists, taxes, hikers/ runners/walkers, and kids. Let students suggest topics. Include pictures (hand drawn as well as photos) and create a class book. Share with others at school, take to other places (retirement homes, libraries, town offices, etc.). Take turns bringing home to share with families.

WRITING - Get in small groups and share how litter has affected you or your environment in some way. Use this as the starting point for a writing activity. Help someone to SEE the littered area that affected you and to FEEL your feelings about it and then put what you SEE and FEEL into words.

Pg. E4.8.4.C Identify everyday human activities and how they affect the environment.

E4.2.4. D Identify those items that can be recycled and those that cannot.

E4.3.4.B Identify litter and its effect on the environment.

Pg. 2 S3.1.4E Recognize change in natural and physical systems.

S3.2.4C Recognize and use the elements of scientific inquiry to solve problems.

M2.1.3C Represent equivalent forms of the same number through the use of concrete object, drawing, word names and symbols.
G Use concrete object to count, order and group.
H Demonstrate an understanding of one-to-one correspondence.
J Estimate, approximate, round or use exact numbers as appropriate.

M2.6.3&5 Gather, organize, and display data using pictures, tallies, charts, bar graphs and pictographs.

M2.2.3A Apply addition and subtraction in everyday situations using concrete objects.

M2.2.5A Create and solve word problems involving addition, subtraction, multiplication and division of whole numbers.

Pg. 3 R1.8.3&5A Select a topic for research.
B Locate information using appropriate sources and strategies.
C Organize and present the main ideas from research.

R1.4.3B Write informational pieces using illustrations when relevant.
R1.4.5B Write multi-paragraph informational pieces.

	Emphasize descriptive words and sharing feelings. Use poetry, essay, or short story, etc.		S3.2.4B Describe objects in the world using the five senses.				
Page 4	<p>Have fun completing the puzzle.</p> <p>Some students might like to create their own Word Search. Give them appropriately sized graph paper to work with. Make copies and staple together into a book for each student. Share with others. (See Glossary page 11).</p>		<p>R1.5.3&5A Write with a sharp, distinct focus identifying topic, task and audience.</p> <p>B Write using well-developed content appropriate for the topic.</p> <p>E Revise writing to improve organization and word choice; check the logic, order of ideas and precision of vocabulary.</p> <p>F Edit writing using the conventions of language.</p>				
Page 5-6	<p>SOCIAL STUDIES - Invite a farmer to share what his farm produces and how litter affects his land, animals, machinery, and family. Most will have interesting and troubling stories to share of damaged machinery and injured animals, as well as time lost scouting fields for litter prior to harvesting or down time for repairs. Additionally, if a tractor or harvester is disabled due to repairs caused by litter damage, entire crops can be lost to bad weather because of these delays.</p> <p>FARM FACTS: Replacement costs</p> <table><tr><td>Dairy cow - \$1,000+</td><td>Beef cow - \$400+</td></tr><tr><td>Tractor tire - \$500+</td><td></td></tr></table> <p>WRITING - Write Letters to the Editor of local or school newspapers bringing this problem to the attention of your community.</p> <p>SOCIAL STUDIES - Invite a veterinarian or wildlife rehabilitation specialist in to share their experiences with litter affecting animals. (Many animals that ingest litter require expensive surgery or die.)</p>	Dairy cow - \$1,000+	Beef cow - \$400+	Tractor tire - \$500+		Pg. 5-6	<p>E4.4.4.A Know the importance of agriculture to humans.</p> <p>E4.4.4.B Know that food and fiber originate from plants and animals.</p> <p>E4.4.4.C Identify tools and machinery used in the production of agricultural products.</p>
Dairy cow - \$1,000+	Beef cow - \$400+						
Tractor tire - \$500+							
Page 7	<p>WRITING - Either individually or as a group, complete the poem and share. Bring in pictures of trashed or dumped sites. Use them as a prompt for student's own poems or stories.</p> <p>WRITING/ART - Be creative. Make your own Word Poem. Using your best printing or interesting computer fonts, create a work of art using your poem as the focal point. Mount on colored paper or tag board and add a colorful illustration. Display on a bulletin board or in the hall (or refrigerator at home).</p>		<p>R1.4.3C Write an opinion and support it with facts.</p> <p>1.4.5C Write persuasive pieces with a clearly stated position or opinion and supporting detail, citing sources when needed.</p>				
Page 8	<p>LANGUAGE ARTS - Complete the puzzle.</p> <p>Be really creative. Make your own crossword puzzle. Share with others.</p>	Pg. 7	R1.4.3&5A Writes poems, plays and multi-paragraph stories.				
Page 9-10	If you have a Keep Pennsylvania Beautiful affiliate in your county, ask to use the Litter IQ Board, an interactive electronic display board that creates litter awareness, in your classroom or school for a week or so.						

RESEARCH/SCIENCE - Do research to find out how long it takes other common household items to biodegrade.

SOCIAL STUDIES - Invite an “antique bottle hound” in to talk to your class about their finds in old dumps. Many old farms had dumps on them and families discarded lots of household items in them. (Up until the 1970’s, the Penn State Extension Office offered farmers guidelines for disposing of their own trash on their own lands.) We’ve all learned a lot about the environment—even the experts!

HISTORY - This track could lead to a social studies/ archeology arm to your theme’s web. Much of what we know of early civilizations, both at home and abroad, has come from studying what archaeologists have dug up. You might want to have an interested small group (or speaker) present a mini-lesson on archaeological finds from your local area. Also, in many areas, curbside pickup was not available until the 1950’s. Find out when curbside pickup was first available in your area and discuss how trash was disposed of prior to that time.

Pg. 9-10

R1.6.3&5F
Use media for learning purposes.

A great **MATH** prompt.

- ◆ Using the student’s ages, look for the litter that was deposited about the time they were born.
- ◆ How old would they be when a leather shoe would finally decompose?
- ◆ Would they ever see the day when an aluminum can would decompose?
- ◆ Create math problems. Ex. What year would a tin can have been deposited if it decomposed in the year 2005? Encourage students to make up their own problems.

R1.6.3&5A Listen to others

- Ask questions
- Distinguish fact from opinion

M2.2.3A Apply addition and subtraction in everyday situations using concrete objects.
2.2.5A Create and solve word problems involving addition, subtraction, multiplication and division of whole numbers.

Page 10 Complete this page as a **SCIENCE** experiment. Have each child bring in something to “plant” and compare after 4 weeks, 2 months, 6 months, etc., for a year-long project.

Discuss **composting** and how decayed leaves, grass and vegetable food scraps can make valuable nutrients to improve and fertilize gardens and soil. The Pennsylvania Department of Environmental Protection (DEP) website can be of help here too.

Pgs. 11-12 Introduce the concept of **watersheds** to your students. Whenever rain falls, snow melts, or people put something on or into the ground, eventually it drains into the nearest creek or stream, which then flows into a river, which then flows into the ocean. Help them to understand the impact humans have on the plants and animals in a watershed.

How do waterways become polluted? Storms, litter, drainage pipes, etc. What are the items found on these pages?

What happens when it rains or in the spring when the snow melts?

M2.4.3A Make, check and verify predictions about the quantity, size and shape of objects and groups of objects.

SCIENCE - Encourage children (with a parent if younger) to **examine a stream** or river nearby. List the types of litter they see. How do they think it got there? What effect does it have on the water? If the water is clear, how much trash is visible on the streambed?

Invite a **DEP waterway specialist** to share their expertise with the children. (See pg. 24 for the DEP office in your region.) Many schools in PA have students and teachers trained to test water samples. Take samples from several locations and test. Discuss your results.

Explore **ecosystems** with your students. What are they?

Talk about the kinds of plants, animals, and nonliving things in the **ecosystems** pictured on these pages. Explore how they depend upon each other.

Are ecosystems only what we can see?
What happens when something from outside (like litter or illegal dumping) impacts that ecosystem?

Explore what educational programs your local **watershed association or environmental education center** (see attached list—pg. 16) may offer. Many of them have wonderful programs to share with your students or offer teacher training so that you can become more knowledgeable about watersheds.

Page 13-14 Discuss the litter around your home and neighborhood. Is it in the city or the country? Look at the expressions on the children's faces. What do you think they are feeling?

Page 15 **ART** - Draw a picture of where you live and the litter you find there.

Page 16 What items could be repaired? (sock, bicycle) Although the children might never have seen anyone mending, they may have read about it or been told about it by a grandparent. What items could be reused? And how? (milk jug, jar, hot container, newspaper)
What items could be recycled? (can, paper, juice bottle, apple core (discuss composting), some people use newspaper to pack things in or for wrapping paper)
What items are trash? (candy wrapper, band aid, drinking straw)

Share Pennsylvania's Recycling Law. Log on to the Department of Environmental Protection's website at www.dep.state.pa.us to find out lots more and locate recycling information. (See page 10 for more info on laws) Is your school mandated to recycle? (Call your local municipality.) Does your school have a recycling policy? (The DEP site can help.) Is it being implemented?
Does your community provide recycling opportunities for the residents?
Does your family recycle? What items? Could they do more?

4.7.4. B Explain what happens to a living thing when its food, water, shelter or space is changed.

4.1.4. B Identify different types of precipitation.

4.1.4. C Identify living things found in water environments.

4.1.4. E Recognize the impact of watersheds and wetlands on animals and plants.

E4.2.4.A Identify how the environment provides for the needs of the people.

E4.3.4.A Identify different areas where health can be affected by air, water or land pollution. Identify actions that can prevent or reduce waste pollution.

E4.6.4.A Identify plants and animals with their habitat and food sources. Identify a local ecosystem and its living and nonliving components. Identify animals that live underground.

E4.8.4.C Identify everyday human activities and how they affect the environment. Identify examples of how human activities within a community affect the natural environment.

E4.2.4. D Identify those items that can be recycled and those that cannot. Identify use of reusable products.

Invite your county recycling coordinator to share information on local recycling laws and programs.

Discuss **closing the loop**—the **reduce, reuse, recycle and buy recycled** circle which will help us manage our waste.

One man's trash is another man's treasure.

SOCIAL STUDIES - These questions can promote valuable discussion. Not everyone mends, fixes, composts, or reuses. Share “trash treasures” that your children’s families have found or been given and then either reused or repaired. Help children to understand that just because something is broken or they don’t want it anymore, it doesn’t have to go into the trash. Entire agencies exist to find good uses for items others don’t want or need any longer – Goodwill, The Salvation Army, church rummage sales, consignment shops, second-hand stores, yard sales, and flea markets. Non-profit groups collect unused food from restaurants and transport to soup kitchens and food pantries to feed hungry people.

Organize a class or school flea market. Collect items no longer wanted (with parent’s permission!), price (decide on something reasonable – everything less than \$1) and have a fundraiser for your class project, school library, or a speaker. Some schools do this monthly to give different classes the experience and responsibility of organizing, working on, and receiving the \$ from these events.

Organize a **SWAP**. Collect items of similar value, such as used books or games, and for every item you bring in, you may take one home.

SCIENCE – Learn about nature’s recyclers. Worm bins are available to schools for learning about vermiculture and what wonderful recyclers worms are. Watching these little critters turn lunch scraps and newspaper into valuable planting medium is like magic. Some science catalogs offer bins at a very reasonable cost or try the science/environmental ed. department of a local college. They are also available through your local recycling coordinator. They often have materials available to share with teachers. It’s amazing what is out there if you just ask!

RESEARCH - Find out what your school or classroom does with its waste. (Paper, boxes, books, food, desks, chairs, trash) Is there a way your class could have a positive impact on this?

ART - Make your own paper from scraps. Many art/project books have directions for this using common household items such as a blender and screens. Experiment with plant dyes for interesting colors. Small grants are often available to teachers through their school districts or state programs, to help cover the minimal expenses for this wonderful learning

E4.3.4 B Describe how people can reduce pollution.

E4.9.4 Explain how the recycling law impacts the school and home.

R1.6.3&5D Contribute to discussions
E Participate in small and large group discussions and presentations

experience. Kids really get excited about it and it is easier than you'd think. Use the paper to highlight your student's writing, artwork and projects created throughout this theme.

Page 17-18 Look at each scene. How could each of these "accidents" happen?

Has it ever happened to you?

Can you think of any other situations where littering happened by accident?

Who could be responsible for cleaning up litter accidents?

Have you ever picked up someone else's litter?

S3.2.4C Recognize and use the elements of scientific inquiry to solve problems.

- Design an experiment
- Conduct an experiment.

Page 19 **VALUES** - Have you every hung out with friends and just tossed your pop cans, candy wrappers, or fast food wrappers? Were you ever with someone who has? What were your feelings at the time? Did you feel any peer pressure? Did you say anything? If you had the opportunity to say something to the person who littered, what would it be?

Have small groups write and perform a short "litter skit" aimed at litter awareness. Encourage changes in behavior, not blame.

Page 20 Illegal dump sites can be found all over Pennsylvania and across the United States. Thoughtless and uncaring people choose to dump trash on the sides of roads or over banks, rather than paying for trash pickup or disposing of it responsibly.

Why do you think they do this?

What problems do you think it causes the people living in the area, the people visiting the area, the animals and the environment? Pg. 17-18

What happens when people throw garbage and food scraps into illegal dumps? (Insects, rats and other animals are attracted to it.) How do those pests affect humans? How do we get rid of them?

How do you think this affects the creatures living in the stream? Along the banks of the stream?

What happens when rainfall drips through all that trash and is absorbed into the soil? Suppose someone dumped old paint, pesticides, or motor oil onto the ground?

Explain the role of the **Department of Environmental Protection** and its responsibility in enforcing rules to keep our land, air and water clean. Invite someone from their office to speak with your class. (see page 24 for list) They have many programs available.

E4.8.4.C Identify everyday human activities and how they affect the environment. Identify examples of how human activities within a community affect the natural environment.

How does your family dispose of trash? If you have curbside pickup, where does it go when it leaves your house? Does it go to an incinerator or a landfill. What are other ways that gar-

Pg. 20 E4.3.4.A Identify different areas where health can be affected by air, water or land pollution. Identify actions that can prevent or reduce waste pollution.

bage is managed?

Invite Keep Pennsylvania Beautiful staff to share their experience helping to organize community cleanups of illegal dump sites. They have some programs especially designed for kids. The Fugitive Tire Program helps organized, pre-registered youth groups, such as Scouts, church groups and clubs, clean up trashed tires from their neighborhoods and roads, while learning about the environment and earning a bounty for each tire they capture. Similar groups can also clean up and adopt a road, street, or block that they care about for regular litter removal. Signs identifying the group and the adoption are placed at either end of the area and the group agrees to maintain it for at least two years. The Keep Pennsylvania Beautiful Adoption Program helps caring groups adopt most locally maintained roads and complements PennDOT's Adopt-A-Highway program which offers adoption of state-maintained roads.

E4.5.4.A Know types of pests.
E4.5.4.B Explain pest control.

Throughout TG

R1.6.3&5D Contribute to discussions
E Participate in small and large group discussions and presentations.

Pgs. 21-22 Have fun finding the items hidden in the mountain of trash.

E4.1.4. C Identify living things found in water environments.

Page 23 **ART** - Draw a picture of yourself and some of the litter that you have seen or been impacted by. Did you ever trip over or almost run over someone's litter, accidentally create litter by leaving something outside that got blown around or spilled, or use someone else's litter to make something useful for yourself?

S3.6.4A Identify waste management treatment processes.

Page 24 Discuss what things you could do to show you care about the environment.

E4.7.4. B Explain what happens to a living thing when its food water, shelter or space is changed.

- Collect information about programs from the Internet and share with others.
- Teach others something you have learned about litter.
- Get involved in a project to make your world a better place. Kids can make a very big difference.
- Draft letters on a litter issue you care about (on computer), edit, and send them to people in government or business who could help you promote positive change.
- Share your concerns with others in "Letters to the Editor" of your school or town newspaper.
- Present what you have learned to others: other classes in your school or at an Earth Day celebration or invite parents for a program.

Page 25 This project can be done as a classroom project (younger and older children could work together) or as an at-home family activity.

Look for other projects that help you to recycle your throw away items. Many art project books now contain such environmentally friendly activities. Create your own. Share with others. Encourage kids to teach kids.

Page 26 Please have students fill out the survey and mail to PA CleanWays. The information will be used to create data about children's environmental and litter education aware-

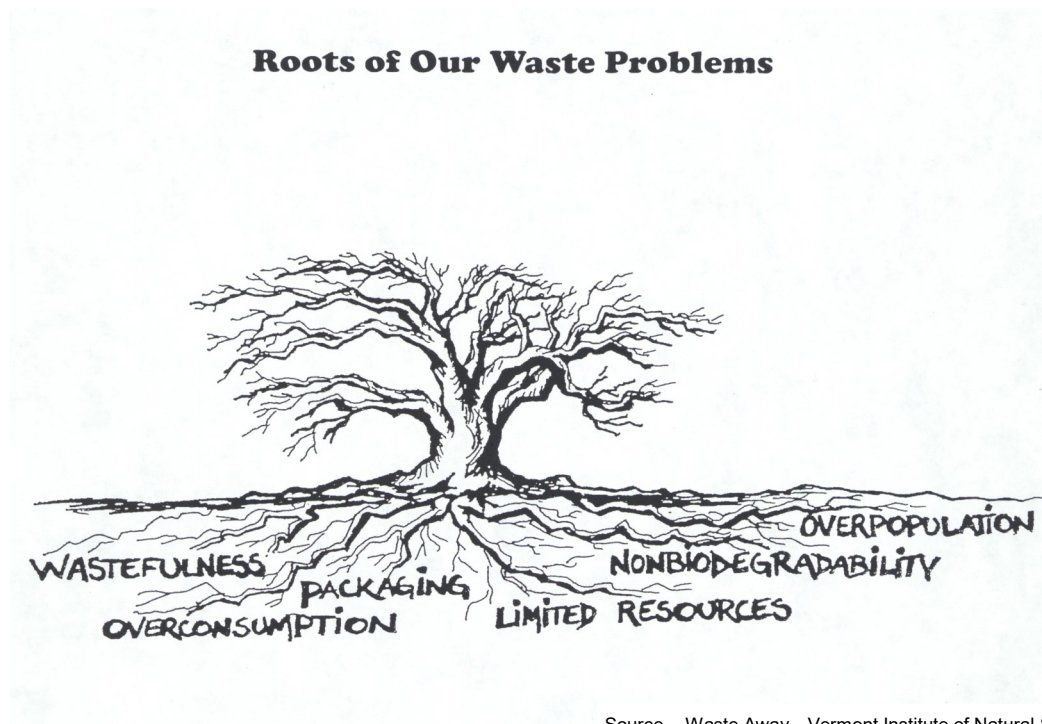
ness.

Pg. 24

R1.6.3&5C Speak using skills appropriate to formal speech situations.

Use technology throughout this theme to research and expand learning.

S3.7.4C Identify basic computer operations and concepts.
D Use basic computer software.
E Identify basic computer communications systems.



Source—Waste Away—Vermont Institute of Natural Science

Waste Management and Littering and Illegal Dumping Laws

Laws are made by people at the local level by borough, township, city, and county officials, at the state level by legislators, and at the federal level by Congress. Federal laws affecting the environment, such as water and air quality and waste management, are enforced by the U.S. Environmental Protection Agency. These laws are like an umbrella covering all 50 states. The states then make laws conforming to the federal laws, but they may be stricter, depending on local issues and environmental concerns of the people.

In Pennsylvania, the legislature enacted the **Pennsylvania Municipal Waste Planning, Recycling, and Waste Reduction Act**, known as **Act 101**, in 1988. The act came on the heels of federal regulations passed about the same time that regulate waste hauling, handling of municipal solid waste, hazardous waste, and new laws on the construction of landfills. Those new laws resulted in the closure of many landfills located just outside of individual communities, because they were not lined and did not comply with the new regulations. Numerous landfills were then constructed with liners to better protect groundwater.

Pennsylvania's Act 101 places the responsibility of collection of municipal waste with municipalities, cities, boroughs, and townships. Counties must adopt waste management plans and provide for disposal capacity for waste generated by people in each county. Typically, capacity is assured through contracts between county officials and landfills or waste-to-energy facilities, which incinerate trash.

The act also set new standards for recycling in Pennsylvania, requiring all communities with 5,000 or more people and a population density greater than 300 people per square mile to recycle at least three items. Schools, institutions, commercial establishments, and businesses in those communities are also required to recycle. The act set 25 percent of the waste stream generated by Pennsylvanians as a recycling goal. When the goal was met, the state legislature then adopted Act 57 of 1997 which set a new goal of 33 percent.

To help communities set up recycling programs, Act 101 imposed a \$2 per ton fee on each ton of trash disposed at Pennsylvania landfills or incinerators. The fee, reauthorized by Act 57, is used to fund grants to counties and municipalities for recycling programs.

Communities that are required to recycle, known as mandated communities, adopted local laws, or ordinances, to make local requirements for their recycling programs. Local ordinances also may determine how trash is collected at the curb, may prohibit open burning and dumping on private and public property, may require permitting or licensing of waste haulers, and may provide for contracting with waste haulers.

While some local governments prohibit littering and illegal dumping through ordinances, the activities are also prohibited by a number of state laws. Local police or code enforcement personnel may enforce the local laws. Pennsylvania State Police, Game and Fish Commission officers, or Department of Environmental Protection staff may enforce state laws.

Penalties for violating local, state, or federal laws, may include the following:

- Paying fines
- Going to jail
- Having your vehicle taken away from you
- Having to pay for site cleanup or security
- Taking ownership of your property
- Taking away your licenses or permits
- Requiring you to perform community service activities

Some of the fines and penalties collected are used for litter or illegal dumping prevention programs. For example, some fines collected may be placed in accounts used to pay citizens as reward money, or the money can be earmarked for illegal dump cleanups. Sometimes judges require people found guilty of breaking these laws to perform environmental community service projects such as trash cleanups or beautification projects.

Glossary of Terms as Related to Solid Waste

Aluminum	A lightweight, non-rusting metal, commonly used to make soda cans, airplane bodies, and frames for lawn chairs.
Accidental Litter	Material that is deposited unintentionally, such as debris from accidents, material that falls from loaded vehicles or flies out of open bed vehicles. Includes items that spill from overloaded or tipped trash cans and items dropped or left behind by people.
Biodegradable	Able to be broken down by microorganisms and sunlight (photo degradable) into simpler forms.
Community	A group of people living in the same area or a group of people who have close ties and common interests.
Compost	A rich, soil-like mixture that is produced when organic materials, such as yard, garden and kitchen wastes, break down.
Conservation	The wise use of natural resources to minimize their loss and waste.
Commercial Waste	Solid waste coming from businesses such as stores, markets, office buildings, restaurants, shopping centers, and theaters.
Corrugated Cardboard	Cardboard made up of several layers, including a middle layer that is bent into a series of ridges and grooves with air spaces in between.
Decompose	The process of something breaking down. To rot.
Degrade	To break down into simpler forms.
Durable	Made to last a long time.
Deliberate Litter	Materials thrown down, discarded or left behind intentionally in inappropriate locations, including beverage, snack and other convenience food packaging.
Disposable	Meant to be thrown away after a single use or a few uses, rather than to be saved and reused many times.
Disposal	The act of throwing out or away. May happen in approved landfill, ocean dumping or incineration.
Drop Off	Method for collection of recyclable materials in a designated spot.
Dump (Illegal, Open or Fly Dump)	A site used to dispose of solid waste that does not have proper approval and permitting from solid waste regulatory agencies.
Ecological Impact	The effect that a human or nature caused action has on living organisms and their environment.
Ecosystem	A system made up of a community of living things together with their environment.

Enforcement	Actions taken to make sure that federal, state or local environmental laws are being followed. May result in corrective action, fines or criminal charges for violations.
Environmental Protection Agency	The agency of the U.S. federal government responsible for protecting human health and to safeguard the natural environment.
Essential	Necessary.
Garbage	Solid waste or trash—anything that we throw away.
Glass	A material made by melting silica. Used for making windows, containers, lenses, etc.
Groundwater	Water beneath the earth's surface that supplies wells and springs.
Hauler	Garbage collection company that offers complete refuse removal service; many will also collect recyclables.
Household Hazardous Waste	Hazardous products used and disposed of by residential rather than industrial consumers. Include paints, stains, pesticides, solvents and other materials containing chemicals that can catch fire, react or explode or that are corrosive or toxic.
Household Waste	Solid waste composed of garbage and rubbish which normally originates in a private home or apartment. It may contain a significant amount of toxic or hazardous waste.
Incinerator	A furnace or other unit used for burning.
Incineration	The process of burning waste products.
Industrialist	A person who owns or manages an industry.
Infectious Waste	Hazardous waste which can cause infections in humans. Includes contaminated animal waste, human blood, and blood products and discarded sharps (needles, scalpels and medical instruments).
Land Disposal of Waste	Involves hauling garbage to an area owned by a community or a private firm. Such areas range from unsanitary <i>open dumps</i> to properly operated <i>sanitary landfills</i> .
Landfill (also see sanitary landfill)	A place permitted by a solid waste regulatory agency where unwanted materials are deposited, compacted and covered with dirt.
Leachate	Water that percolates through a dump or landfill, picking up pollutants along the way.
Litter	Waste materials carelessly discarded or accidentally deposited in an inappropriate place. Littering is against the law.
Mandatory Recycling	Programs that legally require consumers to separate trash so that some or all recyclables are recycled rather than disposed.
Microorganisms	Tiny living things that can be seen through a microscope.
Municipal Solid Waste	Solid waste from homes. In some states, this includes waste from offices and stores. (The EPA has definitions and rules, states can further define and regulate solid waste.)

Natural Resources	Things in the world around you, such as trees, water, animals, soil and minerals, which are used to make products.
Non-point Source Pollution	Pollution without a single source or origin. Pollutants are generally carried off land by water. Farming, forestry, urban litter, mining, construction and city streets are among the causes. Litter is a non-point source pollutant.
Nutrients	Chemical ingredients in food that provide nourishment.
Office Paper	High grade papers such as copier paper, computer printouts and stationery. Usually generated in homes, schools, and businesses.
Oil	A substance made by prehistoric decay of organic matter, and currently used to produce many products, including fuels and plastics.
Packaging	Ways of wrapping products to protect them, advertise them, or make them convenient for sale.
Paper	A thin material made from pulp from wood, plants, old paper, or rags. It is used for writing, wrapping, and drawing. Specialty papers include those used in hospitals and for packaging.
Pest	An insect, rodent, fungus, weed or other form of land, water or plant life that is harmful to health or the environment.
Planned Obsolescence	A marketing concept developed to increase production and sales by creating products which must be replaced frequently (either because they have gone out of style or are designed to break easily or be disposed of).
Photo Degradation	The process of breaking down through exposure to sunlight.
Pollutant	Any substance that negatively affects the health of humans, animals, or ecosystems.
Pollution	In our environment, the condition of being dirty or impure, especially as a result of wastes.
Precycling	Reducing the amount of waste generated by avoiding disposables and over-packaged articles. Paper, glass, metals, and some plastics are commonly recycled items.
Product	Something made by working with raw or recycled materials. Usually sold.
Properties	Characteristics.
(RCRA) Resource Conservation & Recovery Act	This 1976 federal act gave EPA the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous wastes.

Recyclable	Able to be used instead of raw materials to make a new product.
Recycle	To make materials such as glass, aluminum, paper, steel and plastic into new products.
Reduce	To decrease the amount of waste we produce by buying only what we need, avoiding disposables, and buying products that are not over-packaged.
Refuse	Trash, rubbish, anything thrown away.
Runoff	Rain, snow melt, or irrigation water that runs off the land into streams or other surface water. It can carry pollutants from the air and land into the receiving water.
Renewable Resources	Something we use from nature that can be replenished. For example, trees are a renewable resource; a tree can be planted to take the place of one that has been cut down. Oil is not a renewable resource; it takes million of years for oil to form.
Residual Waste	Nonhazardous industrial waste. It includes waste material (solid, liquid, or gas) produced by industrial, mining and agricultural operations. It excludes certain coal mining wastes and wastes from normal farming activities.
Reuse	To extend the life of an item by using it again, repairing it, or creating new uses for it.
Salvage	To save materials from destruction. When old houses are torn down, the lumber, bricks, trim boards, and fixtures can be salvaged and reused in other building projects.
Sanitary Landfill (also see landfill)	A place permitted by a solid waste regulatory agency where unwanted materials are deposited, compacted, and covered with dirt. Modern sanitary landfills also have systems for collecting and treating leachate, the polluted water that drains out from the landfill.
Solid Waste	The things we throw away: household trash, yard and kitchen wastes, old machinery and equipment, and many agricultural and industrial wastes.
Storm Sewer	A system of pipes that carries water runoff from buildings and land surfaces.
Surface Water	All water naturally open to the air (rivers, lakes, reservoirs, ponds, streams, and oceans.)
Toxic	Able to cause injury or illness through chemical or biological means.
Uninhabitable	Unable to support life.

Urban Runoff	Storm water from city streets and impermeable surfaces (such as parking lots) that carries pollutants into the sewer systems and receiving waters.
Waste Disposal	The process of getting rid of the waste material that people generate. People produce <i>gaseous waste</i> , such as carbon monoxide from cars; <i>liquid waste</i> , such as sewage; and <i>solid waste</i> . The many kinds of solid waste include paper and plastic products, bottles and cans, food scraps, and junked automobiles and appliances.
Wasteland	Desolate land, unable to support life.
Waste Reduction	The process of producing less waste. For example, people can reduce waste by minimizing what they use and by reusing and recycling items.
Watershed	The land that drains into a stream. The watershed for a major river may include a number of smaller watersheds that eventually combine.

Pennsylvania Environmental Education Centers By County

A detailed description of the Pennsylvania Department of Conservation and Natural Resources (DCNR) Environmental Education and Interpretive Program is available for the DCNR facilities listed below or for more information, call 1-888-PA-PARKS or visit <http://www.dcnr.state.pa.us/stateparks/education/index.aspx>.

For more information on environmental protection efforts in your community, visit the Department of Environmental Protection at www.dep.state.pa.us.

Adams County

- **Caledonia State Park**, Fayetteville, DCNR 3-month environmental education and interpretive program. 717-352-2161.
- **Strawberry Hill Nature Center and Preserve**, 1537 Mt. Hope Road, Fairfield, PA 17320 (717) 642-5840.

Allegheny County

- **Beechwood Farms**, 614 Dorseyville Road, Pittsburgh, PA 15238-1618 (412) 963-6100.
- **Frick Environmental Center**, 2005 Beechwood Boulevard, Pittsburgh, PA 15217 (412) 422-6558.
- **Pittsburgh Voyager**, 1501 Reedsdale St., Pittsburgh, PA 15233, (412) 231-2712. Website address: www.pittsburghvoyager.org.
- **The Rachel Carson Homestead**, 613 Marion Ave. Springdale, PA 15144 (724) 274-5459 Website address: www.rachelcarson.org.

Beaver County

- **Raccoon Creek State Park**, 3000 State Route 18, Hookstown, PA 15050-1605 DCNR 9-month environmental education and interpretive program. (724) 899-2200.

Bedford County

- **Blue Knob State Park**, 124 Park Rd., Imler, PA 16655-9207. DCNR 3-month environmental education and interpretive program. (814) 276-3576.
- **Shawnee State Park**, 132 State Park Rd., Schellsburg, PA 15559-7300. 3-month environmental education and interpretive program. (814) 733-4218.

Berks County

- **French Creek State Park**, 843 Park Rd., Elverson, PA 19520-9523. DCNR 9-month environmental education and interpretive program. (610) 582-9680.
- **Hawk Mountain Sanctuary Association**, 1700 Hawk Mountain Rd., Kempton, PA 19529 (610) 756-6961.
- **J. Larry Boling Environmental Education Center**, New Morgan, PA (610) 286-6844.

- **Nolde Forest Environmental Education Center**, RR#1, Box 392, Reading, PA 19607.

Blair County

- **Canoe Creek State Park**, RR 2, Box 560, Hollidaysburg, PA 16648. DCNR 9-month environmental education and interpretive program. (814) 695-6807.

Bradford County

- **Mt. Pisgah State Park**, RD 3, Box 362, Troy, PA 16947. DCNR 3-month environmental education and interpretive program. (570) 297-2734.

Bucks County

- **Bucks County Audubon Society**, 6324 Upper York Road, New Hope, PA 18938 (215) 297-5880.
- **Churchville Nature Center**, 501 Churchville Lane, Churchville, PA 18966 (215) 357-4005 or visit www.churchvillenaturecenter.org.
- **Honey Hollow Environmental Education Center**, 6324 Upper York Road, New Hope, PA 18938 (215) 297-5880.
- **Nockamixon State Park**, 1542 Mountain View Drive, Quakertown, PA 18951. DCNR 3-month environmental education and interpretive program. (215) 529-7300.
- **Peace Valley Nature Center**, 170 Chapman Road, Doylestown, PA 18901 (215) 345-7860.
- **Silver Lake Nature Center**, 1306 Bath Road, Bristol, PA 19007 (215) 785-1177.
- **Tyler State Park**, 101 Swamp Rd., Newtown, PA 18940. DCNR 9-month environmental education and interpretive program. (215) 968-2021.

Butler County

- **Jennings Environmental Education Center**, 2951 Prospect Rd., Slippery Rock, PA 16057. DCNR 12-month environmental education and interpretive program. (724) 794-6011.
- **Lutherlyn EE Center**, P.O. Box 355, Prospect, PA 16052 814-865-9079.
- **Moraine State Park**, 225 Pleasant Valley Rd., Portersville, PA 16051. DCNR 3-month environmental education and interpretive program. (724) 368-8811.
- **Robert A Macoskey Center for Sustainable Systems Education and Research** at Slippery Rock University. The center is a renovated farmhouse that serves as a demonstration and research site for the Master of Sustainable Systems degree program at SRU. It's been in operation since 1990. Website: www.sru.edu.

Cambria County

- **Disaster's Edge Environmental Education Resource and Development Center**, 1889 Park St., St. Michael, PA 15951, (814) 472-2120 .
- **Prince Gallitzin State Park**, 966 Marina Rd., Patton, PA 16668. DCNR 9-month environmental education and interpretive program. (814) 674-1000.

Cameron County

- **Sizerville State Park**, 199 E. Cowley Run Rd., Emporium, PA 15834. DCNR 9-month environmental education and interpretive program. (814) 486-5605.

Carbon County

- **Beltzville State Park**, 2950 Pohopoco Dr., Lehighton, PA 18235. DCNR 9-month environmental education and interpretive program. (610) 377-0045.
- **Carbon County Environmental Education Center (CCEEC)**, 151 East White Bear Dr., Summit Hill, PA 18250, (570) 645-8597.
- **Hickory Run State Park**, RR 1, Box 81, White Haven, PA 18661. DCNR 9-month environmental education and interpretive program. (570) 443-0400.

Centre County

- **Black Moshannon State Park**, 4216 Beaver Rd., Philipsburg, PA 16866. DCNR 3-month environmental education and interpretive program. (814) 342-5960.
- **Poe Valley State Park**, c/o Reeds Gap, Milroy, PA 17063. DCNR 3-month environmental education and interpretive program. (814) 349-2460.
- **Shaver's Creek Environmental Center**, Penn State University, 508 A Keller Bldg., University Park, PA 16802 (814) 863-2000.

Chester County

- **Brandywine Valley Association**, 1760 Unionville-Wawaset Road, West Chester, PA 19382 (610) 793-1090.
- **French Creek State Park**, 843 Park Rd., Elverson, PA 19520. DCNR 9-month environmental education and interpretive program. (610) 582-9680.
- **Great Valley Nature Center**, P.O. Box 82, Route 29 & Hollow Rd., Devault, PA 19432. (610) 935-9777.
- **White Clay Creek State Park**, P.O. Box 172, Landenberg, PA 19350. DCNR 3-month environmental education and interpretive program. (610) 274-2900.

Clarion County

- **Cook Forest State Park**, P.O. Box 120, Cooksburg, PA 16217. DCNR 3-month environmental education and interpretive program. (814) 744-8407.

Clearfield County

- **Parker Dam State Park**, 28 Fairview Rd., Penfield, PA 15849. DCNR 12-month environmental education and interpretive program. (814) 765-0630.

Clinton County

- **Kettle Creek State Park**, 97 Kettle Creek Park Lane, Renovo, PA 17764. DCNR 3-month environmental education and interpretive program. (570) 923-6004.

Columbia County

- **Ricketts Glen State Park**, 695 State Route 487, Benton, PA 17814. DCNR 3-month environ-

mental education and interpretive program. (570) 477-5675.

Crawford County

- **Pymatuning State Park**, 2660 Williamsfield Rd., Jamestown, PA 16134. DCNR 9-month environmental education and interpretive program. (724) 932-3141.

Cumberland County

- **Colonel Denning State Park**, 1599 Doubling Gap Rd., Newville, PA 17241. DCNR 3-month environmental education and interpretive program. (717) 776-5272.
- **Kings Gap Environmental Education Center**, 500 Kings Gap Rd., Carlisle, PA 17013 (Newville). DCNR 12-month environmental education and interpretive program. (717) 486-5031.
- **Pine Grove Furnace State Park**, 1100 Pine Grove Rd., Gardners, PA 17324. DCNR 3-month environmental education and interpretive program. (717) 486-7174.

Dauphin County

- **Wildwood Lake Sanctuary**, Dauphin County Parks & Recreation, 100 Wildwood Way, Harrisburg, PA 17110. (Located near Harrisburg Area Community College). (717) 221-0292.

Delaware County

- **Environmental Living Center**, Pennsylvania Resources Council, at Ridley Creek State Park, Media, PA (610) 353-1555.
- **John Heinz National Wildlife Refuge at Tinicum**, 8601 Lindbergh Boulevard, Philadelphia, PA 19153, (215) 365-3118.
- **Natural Lands Trust, Inc.**, 1031 Palmers Mill Road, Media, PA 19063 (610) 353-5587.
- **Ridley Creek State Park**, 1023 Sycamore Mills Rd., Media, PA 19063. DCNR 9-month environmental education and interpretive program. (610) 892-3900.
- **Stroud Water Research Center**, Academy of Natural Sciences, 970 Spencer Road, Avondale, PA 19311 (610) 268-2153.
- **The Taylor Memorial Arboretum**, 10 Ridley Dr., Wallingford, PA 19086, (610) 566-9133.

Erie County

- **Asbury Woods Nature Center**, 4105 Asbury Road, Erie, PA 16506 (814) 835-5356.
- **Glinodo Center**, 6270 East Lake Road, Erie, PA 16511-1533, (814) 899-4584.
- **Presque Isle State Park**, 301 Peninsula Dr., Suite 1, Erie, PA 16505. DCNR 12-month environmental education and interpretive program. (814) 833-7424.

Fayette County

- **Ohiopyle State Park**, Dinner Bell Rd., Ohiopyle, PA 15470. DCNR 6-month environmental education and interpretive program. (724) 329-8591.

Forest County

- **Cook Forest State Park**, River Rd., Cooksburg, PA 16217. DCNR 3-month environmental education and interpretive program. (814) 744-8407.

Franklin County

- **Caledonia State Park**, 40 Rocky Mountain Rd., Fayetteville, PA 17222. DCNR 3-month environmental education and interpretive program. (717) 352-2161.
- **Center for Sustainable Living**, Wilson College, 1015 Philadelphia Ave., Chambersburg, PA 17201 (717) 264-4141.

Fulton County

- **Cowans Gap State Park**, 6235 Aughwick Rd., Fort Loudon, PA 17224. DCNR 9-month environmental education and interpretive program. (717) 485-3948.

Greene County

- **Ryerson Station State Park**, 361 Bristoria Rd., Wind Ridge, PA 15380. DCNR 3-month environmental education and interpretive program. (724) 428-4254.

Huntingdon County

- **Greenwood Furnace State Park**, PA 305 and Broad Mountain Rd., Huntingdon, PA 16652. DCNR 9-month environmental education and interpretive program. (814) 667-1800.

Indiana County

- **Yellow Creek State Park**, 170 Route 259, Penn Run, PA 15765. 3-month environmental education and interpretive program. (724) 357-7913.

Jefferson County

- **Clear Creek State Park**, 38 Clear Creek State Park Road, Sigel, PA 15860. DCNR 3-month environmental education and interpretive program. (814) 752-2368.
- **Cook Forest State Park**, River Rd., Cooksburg, PA 16217. DCNR 3-month environmental education and interpretive program. (814) 744-8407.

Lackawanna County

- **Lackawanna State Park**, RR 1, Box 230, Dalton, PA 18414. DCNR 12-month environmental education and interpretive program. (570) 945-3239.

Lancaster County

- **Holtwood Land Management Area**, 2 New Village Rd., Holtwood, PA 17532, (717) 284-6274.
- **Lancaster County Environmental Center**, One Nature's Way, Lancaster, PA 17602. (717) 295-2055.
- **Middle Creek Wildlife Management Area**, P.O. Box 110, Kleinfeltersville, PA 17039, (717) 733-1512.
- **Muddy Run Recreation Park, Philadelphia Electric Company**, 172 Bethesda Church Road West, Holtwood, PA 17532 (717) 284-2538.

Lawrence County

- **McConnell's Mill**, RR 2, Box 16, Portersville, PA 16051. DCNR 3-month environmental education and interpretive program, (724) 368-8091.

Lebanon County

- **Middle Creek Wildlife Management Area**, P.O. Box 110, Kleinfeltersville, PA 17039, (717) 733-1512.

Lehigh County

- **Wildlands Conservancy**, 3701 Orchid Place, Emmaus, PA 18049, (610) 965-4397.

Luzerne County

- **Frances Slocum State Park**, 565 Mt. Olivet Rd., Wyoming, PA 18644. DCNR 9-month environmental education and interpretive program. (570) 696-3525.
- **Lacawac Sanctuary**, RR 1, Lake Ariel, PA 18436. (570) 689-9494.
- **Ricketts Glen State Park**, 695 State Route 487, Benton, PA 17814. DCNR 3-month environmental education and interpretive program. (570) 477-5675.

Lycoming County

- **Little Pine State Park**, 4205 Little Pine Creek Rd., Waterville, PA 17776. DCNR 6-month environmental education and interpretive program. (570) 753-6000.

Mercer County

- **McKeever Environmental Learning Center**, 55 McKeever Lane, Sandy Lake, PA 16145, (724) 376-7585.

Monroe County

- **Monroe County Environmental Education Center**, 8050 Running Valley Road, Stroudsburg, PA 18360-0917 (570) 629-3061.

Montgomery County

- **Briar Bush Nature Center**, 1212 Edge Hill Road, Abington, PA 19001 (215) 887-6603.
- **Evansburg State Park**, 851 Mayhall Rd., Collegeville, PA 19426. DCNR 9-month environmental education and interpretive program. (610) 489-3729.
- **Morris Arboretum of the University of Pennsylvania**, 9414 Meadowbrook Ave., Philadelphia, PA 19128 (215) 247-5777.
- **Riverbend Environmental Center**, P. O. Box 2, 1950 Spring Mill Road, Gladwyne, PA 19035 (610) 527-5234.

Montour County

- **Montour Preserve, Pennsylvania Power & Light Company**, R. D. 1, Box 292, Turbotville, PA 17772 (717) 437-3131.

Northampton County

- **Jacobsburg Environmental Education Center**, 835 Jacobsburg Rd., Wind Gap, PA 18091. DCNR 12-month environmental education and interpretive program. 610-759-7616.
- **The Roving Nature Center**, 2572 Mountain Road, Bath, PA 18014. 800-284-0973.

Perry County

- **Little Buffalo State Park**, RR 2, Box 256A, Newport, PA. DCNR 12-month environmental education and interpretive program. 717-567-9255.

Philadelphia County

- **Academy of Natural Sciences of Philadelphia**, 1900 Ben Franklin Parkway, Philadelphia, PA 19103. 215-299-1080.
- **Cobbs Creek Environmental Education Center**, 4601 Market St., Philadelphia, PA 19139 (215) 560-3986.
- **Pennypack Environmental Center**, 8600 Verree Rd., Philadelphia, PA 19115-4118. (215) 671-0440.
- **The Schuylkill Center for Environmental Education**, 8480 Hagy's Mill Rd., Philadelphia, PA 19128-1998. 215 482-7300.

Pike County

- **Pocono Environmental Education Center (PEEC)**, R. R. 2, Box 1010, Dingmans Ferry, PA 18328 (570) 828-2319.
- **Promised Land State Park**, Greentown, DCNR 9-month environmental education and interpretive program. 570-676-3428.

Potter County

- **Sizerville State Park**, Emporium, DCNR 9-month environmental education and interpretive program. 814-486-5605.
- **Old Bull State Park**, Cross Fork, DCNR 3-month environmental education and interpretive program. 814-435-2169.

Schuylkill County

- **Hawk Mountain Sanctuary Association**, 1700 Hawk Mountain Road, Kempton, PA 19529 (610) 756-6961.
- **Tuscarora State Park**, RR 1, Box 1051, Barnesville, PA 18214. 3-month environmental education and interpretive program. 570-467-2404.
- **Locust Lake**, Barnesville, 3-month environmental education and interpretive program. 570-467-2772.

Somerset County

- **Laurel Hill State Park**, Somerset, DCNR 9-month environmental education and interpretive program. 814-445-7725.

- **Ohiopyle State Park**, Dinner Bell Road, Ohiopyle, PA. DCNR 6-month environmental education and interpretive program. 724-329-8591.

Sullivan County

- **Ricketts Glen State Park**, Benton, DCNR 3-month environmental education and interpretive program. 570-477-5675.
- **Worlds End State Park**, State Highway 154, Forksville, PA 18616. 3-month environmental education and interpretive program. 570-924-3287.

Susquehanna County

- **Woodburne Forest & Wildlife Sanctuary**, RD#6, Box 6294, Montrose, PA 18801. 570-278-3384.

Tioga County

- **Leonard Harrison State Park**, 4797 Rt. 660, Wellsboro, PA 16901. DCNR 6-month environmental education and interpretive program. 570-724-3061.
- **Hills Creek State Park**, 111 Spillway Rd., Wellsboro, PA 16901. DCNR 3-month environmental education and interpretive program. 570-724-4246.

Union County

- **R.B.Winter State Park**, 17215 Buffalo Rd., Mifflinburg, PA 17844. DCNR 9-month environmental education and interpretive program. 570-966-1455.

Venango County

- **Oil Creek State Park**, 305 State Park Rd., Oil City, PA 16301. DCNR 9-month environmental education and interpretive program. 814-676-5915.

Warren County

- **Chapman State Park**, RR 2, Box 1610, Clarendon, PA 16313-9801. DCNR 3-month environmental education and interpretive program. 814-723-0250.

Wayne County

- **Lacawas Sanctuary**, RR#1, Box 1683, Lake Ariel, PA 18436. 570-689-9494.

Westmoreland County

- **Keystone State Park**, 1150 Keystone Park Road, Derry, PA 15627. DCNR 9-month environmental education and interpretive program. 724-668-2939.
- **Saint Vincent College Environmental Education Center, The Monastery Run Improvement Project**, 300 Fraser Purchase Road, Latrobe, PA 15650-2690 Phone 724-805-2330
Focus: Abandoned Mine Drainage, Wetlands, and Wildlife Habitat, Coal Mining, and Milling
Education Opportunities: Wetland Education Tours, a hands-on experience to learn about AMD
Passive Wetland Treatment Systems for grades 3-12. Scout adventure programs for Scout Groups. Self-guided tour of how the wetlands mitigate AMD. Environmental education classroom located in the historic Gristmill within the Monastery Run Improvement Project Area.

York County

- **Codorus State Park**, 1066 Blooming Grove Road, Hanover, PA 17331-9545. DCNR 9-month environmental education and interpretive program. 717-637-2816.
- **Gifford Pinchot State Park**, 2200 Rosstown Rd., Lewisburg, PA 17339. DCNR 3-month environmental education and interpretive program, 717-432-5011.

DEPARTMENT OF ENVIRONMENTAL PROTECTION—REGIONAL OFFICES

When you reach the regional office, ask to speak with the person who schedules education programs for schools. It is usually the education specialist or community relations person.

SOUTHEAST REGIONAL OFFICE, CONSHOHOCKEN <i>Bucks, Chester, Delaware, Montgomery & Philadelphia counties</i>	(484) 250-5900
NORTHEAST REGIONAL OFFICE, WILKES-BARRE <i>Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne & Wyoming counties</i>	(570) 826-5211
SOUTH CENTRAL REGIONAL OFFICE, HARRISBURG <i>Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry & York counties</i>	(717) 705-4700
NORTH CENTRAL REGIONAL OFFICE, WILLIAMSPORT <i>Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga & Union counties</i>	(570) 327-3636
SOUTHWEST REGIONAL OFFICE, PITTSBURGH <i>Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington & Westmoreland counties</i>	(412) 442-4000
NORTHWEST REGIONAL OFFICE, MEADEVILLE <i>Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango & Warren counties</i>	(814) 332-6945

Resources

Antioch New England Institute is a great source to receive information on many environmental topics that have great concern. They also offer videos, information and free brochures. Call them at 603-357-3122 or explore their website at www.anei.org.

The **Container Recycling Institute** has lots of current info on who is recycling what. They have great links to other sites, and because they are an advocacy group, let you know what current issues they are working on and how you can get involved. Call them at 202-263-0999 or log on at www.container-recycling.org.

Department of Transportation— Each state has a Department of Transportation that offers transportation programs and services to its citizens. Many states offer beautification programs and adopt-a-highway programs in which community groups and youth can get involved. You can access most of them through their website at www.dot.gov.

Earth Force is a national, youth-driven, non-profit educational organization headquartered in Alexandria, VA with six regional offices across the country. Using their Community Action and Problem Solving (CAPS) protocol, local youth provide long-lasting solutions to environmental problems they have identified in their own communities. Their web site www.earthforce.org lets you find out what community change students are currently working on. Their regional sites offer training and technical assistance for Earth Force CAPS educators.

Earth's 911 is a public and private partnership for the environment. Their mission is to empower the public with specific resources in their community to improve the quality of life. Reach them at 1-877-EARTH911 or at their website, www.earth911.org, to locate information about your community. They also have a kids' section.

The Chicago Academy of Sciences offers **Ecological Citizenship (EcoCit)**, a community-wide collaboration with three objectives: To Educate, To Excite and To Empower. They can provide you with hands-on activities built around national and state science standards. Available curricula include Solid Waste and Recycling (5-7) and Vermicomposting (K-8). They also offer community-based service-learning projects. Call 773-755-5100 to find out about exciting projects that are teacher- tested.

The **Environmental Defense Fund** is an established Green organization with a global environmental focus. Features news, alerts and guides for green living. Log on at www.environmentaldefensefund.org for information on recycling and pre-cycling.

Information Ventures, Inc., has information available to the public on air pollution and health, toxic air and the affects of pollution on children, everything you ever wanted to know about the problems of the environment. For more information and free brochures call Environmental Health at 1-215-569-2300 or explore their website at www.infoventures.com.

EnviroLink, a comprehensive resource for individuals, organizations, and businesses working for social and environmental change, can be found at www.envirolink.org It includes educational resources, links to government resources and organizations, and grant writing assistance.

E: The Environmental Magazine, the only independent, environmental magazine in the U.S., has great information on some of the hottest environmental issues like air pollution, health problems, air quality, and consumer products. For more information on how you can subscribe to learn about these issues and receive information call (203) 854-5559 or explore their website at www.emagazine.com.

The **Environmental Protection Agency** has information related to all types of environmental problems from clean air to hazardous waste. To receive free brochures and information on how to become active with saving the environment call (202) 272-0167; or search their website at www.epa.gov and go to their student center where you can explore a wide range of environmental topics including waste and recycling, what's happening in your neighborhood, watershed and state, and environmental club projects. You can also find **detailed info on each region and state** with local contacts and relevant websites.

Green Teacher is a publication chock-full of information on environmental concerns, ideas for teachers to implement, as well as actual examples of EE teachers in action. The resource is loaded with green info and websites. Visit them at www.greenteacher.com.

GreenTreks Network, Inc., creates entertaining programming about individuals, communities, businesses and government bodies that are taking innovative, positive steps to help preserve and protect the environment in PA. Visit them at www.greentreks.org.

Keep America Beautiful is a national program which provides individuals and communities strategies on preventing litter and illegal dumping. They offer tips, facts and information on what you and your group can do to make a difference. Check them out at www.kab.org.

Keep Pennsylvania Beautiful is a non-profit organization with comprehensive programs that address littering, illegal dumping, graffiti abatement, providing alternatives for hard-to-dispose items such as tires, appliances, batteries and HHW (household hazardous waste); education (school programs and educational materials); and, beautification opportunities. They also have a local adoption program for roads not maintained by the PA Department of Transportation. Additionally, there are opportunities for groups and individuals to adopt trails, waterways, blocks and parks. County affiliates exist across the state. Reach them toll free at 877-772-3673 or 724-836-4121 or at their website www.keppabeautiful.org.



Iron Eyes Cody is the Native American actor who, starting in 1971, starred in a series of now-famous Keep America Beautiful public service ads. His face and famous "tear," as pictured in KAB's public service announcements, are credited with awakening the environmental consciousness

of an entire generation of Americans to the problems posed by litter and other forms of environmental pollution. Iron Eyes Cody died on January 4, 1999, but his legacy will live

The **National Center for Environmental Decision-making Research** is a very helpful site with a very long name. It is designed to guide those wanting to make good, responsible decisions about a whole variety of environmental issues through the entire process. It helps you to identify the objectives you want to achieve and the things you need to consider to accomplish that goal. Call 423-974-3939.

Pennsylvania Center for Environmental Education (PCEE) is an environmental education clearing house for the state of Pennsylvania. They have a directory of environmental organizations, an events calendar, and a job listing among other offerings. They can be reached at www.pcee.org.

The **Pennsylvania Association of Environmental Educators**, a nonprofit organization promoting and supporting environmental education activities throughout Pennsylvania, has its website at www.paee.net. Their mailing address is: c/o Schuylkill Conservation District, 1206 AG Center Dr., Pottsville, PA 17901.

The **Pennsylvania Department of Conservation and Natural Resources (DCNR)** educational programs, interpretive programs, and teachers' workshops in state parks are outlined at www.dcnr.state.pa.us/stateparks/education/index.asp.

The **Pennsylvania Department of Education** website for environmental education can be reached via the Department of Environmental Protection (DEP) website at www.dep.state.pa.us/dep/deputate/enved/Ed_ecology.htm. Patricia Vathis is the director of the Office of Environment and Ecology and can be reached by writing, Department of Education, 333 Market St., Harrisburg, PA 17108-1167; or by phoning 717-783-6994.

Pennsylvania Department of Environmental Protection (DEP) has a website especially for educators at www.dep.state.pa.us. There are a variety of links to other Pennsylvania resources, as well as recycling lesson plans and a section on using computers in environmental education. The department's Environmental Education and Information Center, located on the first floor of the Rachel Carson State Office Building in Harrisburg, is open from 7:30 a.m. to 4 p.m. daily. Contact the Center at 717-772-1828 for additional information on the environmental education grants program.

The **Pennsylvania Environmental Education Grants Program** is described at www.depweb.state.pa.us/enved/cwp/view.asp?a=3&9=473483.

Scorecard is an environmental information service provided by The Environmental Defense Fund. Enter your zip code to find out what pollutants are released into your community—and who is responsible. www.scorecard.org

The **Sierra Club** is devoted to protection of the earth's ecosystem and natural environment. To find information on the latest environmental topics like pollution, call 415-977-5500 or explore their website at www.sierraclub.org. Click on search and enter the topic you want information on. The Sierra Club also has a list of activist guides, and picture books to read and help you better understand the importance of the environment.

The **Vermont Institute of Natural Science** educators help individuals and communities deepen their experience of nature, expand their understanding of ecological principles, and take responsible action to conserve our natural heritage. Reach them at 802-457-2779 or on the web at www.vinsweb.org.

Virtual Recycling provides tons of information about the whole process of recycling, from production of items, packaging, and distribution. This site is produced in Manitoba, Canada, and is used by students and teachers in the U.S. and United Kingdom, as well as Canada. It offers a chance for you to share what your school is doing with others. Includes links to other sites. Reach them at http://www.thegreenpages.ca/portal/mb/2001/05/virtual_recycling.html.

WasteWise is an EPA voluntary partnership program to reduce municipal solid waste. Since the program's inception in 1994, Waste Wise membership has grown to more than 900 businesses, government agencies, universities, hospitals, school systems and other organizations committed to cutting costs and conserving natural resources through solid waste reduction. Find out how your school system could become a partner at www.epa.gov/wastewise.

PRINT RESOURCES

Environmental Education—Teacher Resources Handbook

Edited by Richard J. Wilke

2455 Teller Road

Corwin Press, Inc.

Thousand Oaks, CA 91320-2218

800-818-7243

www.corwinpress.com

(This is a wonderful resource handbook, which could save you much research and running around. It has chapters on K-12 curriculum, curriculum integration, funding, children's trade books, special projects, curriculum material producers, reviews of educational materials and awards your class could be eligible for.)

The Environmental Education Collection: A Review of Resources for Education

North American Association for Environmental Education (NAAEE)

2000 P Street NW, Suite 540

Washington, DC 20036

Phone: (202) 419-0412 Fax: (202) 419-0415

(This organization reviews many of the currently available teaching guides in the environmental arena. Sharing the comments sent in by teachers who have used these materials is helpful before purchasing them yourself.)

There are many art/project books on the market. Review them carefully and be conscious of whether the items you use for the projects are being reused or recycled. For example, plastic containers covered with paint are being reused but cannot then be recycled.

