This publication lists 40 places in the metropolitan Washington, D.C. area that could be visited on an environmental field trip. The sites are placed into five categories: (1) Air Monitoring; (2) Ecology and Nature Study; (3) Solid Waste Management; (4) Wastewater Treatment; and (5) Water Supply. Each entry includes name, address, and phone number of the site, along with a brief description of the facilities, hours of operation, acceptable group sizes, and admission fees. (MA)
ENVIRONMENTAL FIELD TRIPS — SOME PLACES TO VISIT IN MARYLAND, VIRGINIA AND THE DISTRICT OF COLUMBIA

Prepared by
the U. S. Environmental Protection Agency
Washington, D. C. 20460
Introduction

There are a lot of ways to learn about something, but one of the best is to go to the appropriate place and watch a concept or facility in operation. Reading, hearing and seeing in pictures is just not like touching, climbing on, looking at, smelling and doing.

Field trips are a limited resource to a class and are something to be used carefully to convey important concepts. Some of the concepts which we feel are important at the Environmental Protection Agency have to do with pollution control and resource management. Consequently, we feel it is important for students to learn that a wide range of corrective steps are at the heart of maintaining environmental quality. As consumption of goods and services increases, very often there is an increasing amount and percentage of resources which must be devoted to protecting the environment from the impact of human activities. Although enlightened consumer choices would do much to prevent pollution, knowledge of such choices is not freely available.

In scheduling trips to pollution control facilities, we would like to encourage teachers to stress that building and operating things such as waste water treatment facilities, smokestack emission devices, recycling stations, and many other items is the true pay-off of environmental education. Students are becoming well aware of environmental problems, but they have a much more limited understanding of what can and is being done to solve the problems.

Thank you for your interest and concern on environmental learning. We hope this list will be of assistance.

Rebecca W. Hanmer
Acting Director
Office of Federal Activities
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AIR MONITORING

Alexandria Health Department, Environmental Health, Air Pollution Division, 517 North Saint Asaph Street, Alexandria, Virginia 22314. Phone: (703) 750-6251.

Students visiting the Air Pollution Division get a chance to see air monitoring instrumentation and discuss local sources of pollution. Slides and pamphlets supplement the discussion. In addition, members of the Air Pollution Division frequently take the program to the schools. Hours: 9:00am - 5:00pm Monday through Friday; Saturday classes can be arranged. No admission fee. Groups of up to 40 are received.

District of Columbia Continuous Air Monitoring Program (CAMP), D.C. Government Department of Environmental Services, Bureau of Air and Water Quality Control, 427 New Jersey Avenue N.W., Washington, D.C. 20001. Phone: (202) 629-3673.

The CAMP's primary purpose is air pollution monitoring, but small groups are received frequently. Informal discussions cover air monitoring instrumentation, sources of D.C. air pollution, the city's most serious air pollution problems, types of air pollution in the area, health effects and effects on vegetation. Groups must call before visiting. Classes, which last approximately one hour, can be scheduled between 9:30am and 3:00pm. Admission is free, and groups of up to 20 are accommodated.

Fairfax County Health Department, Air Pollution Control Division, 4080 Chain Bridge Road, Fairfax, Virginia 22030. Phone: (703) 691-2541.

Tours, geared to all age groups, are conducted through a trailer housing air pollution monitoring equipment. A slide show and discussion of local air pollution sources round out the program. Teachers should call to arrange classes. Hours: 8:00am - 4:30pm Monday through Friday. Admission is free. Classes of 15 or less are recommended.
Maryland State Department of Health and Mental Hygiene, 
Bureau of Air Quality and Noise Control, The O'Connor 
Building, 201 West Preston Street, Baltimore, Maryland 
20201. Phone: (301) 383-2024.

The air monitoring program, nicknamed AIRMON, has 
laboratories that can accommodate groups in Suitland, 
Cheverly, Silver Spring and Bethesda. The program, 
geared to the technical background of the students, 
covers the computer system for gathering data and 
includes discussion of the air monitoring instru-
mentation in the trailers. Teachers should call 
John E. McQuade, head of the AIRMON system, to 
arrange classes. Hours: 8:30am - 4:30pm Monday 
through Friday. There is no admission fee. Groups 
of up to 30 are received.

Virginia State Air Pollution Control Board, Region VII, 
7115 Leesburg Pike, Falls Church, Virginia 22034. Phone: 
(703) 534-0067.

Representatives from Region VII frequently visit 
schools at all levels to discuss air pollution control 
and air monitoring instrumentation in northern 
Virginia. Region VII does not receive student visits, 
but staff members take pamphlets and slides to 
schools. Hours: 8:00am - 5:00pm Monday through 
Friday. There are no restrictions on class size.
Environmental education tours are provided for school classes 4th grade and up. Environmental projects include composting and utilization of sewage sludge, recycling of animal wastes, and effects of air pollution on plants. The emphasis is on science in action in relation to numerous phases of agriculture. Teachers should make reservations as far in advance as possible. Hours: 8:00am - 4:30pm Monday through Friday. There is no admission fee, but classes must have a school bus of their own in order to travel to sites. The Visitor Unit can take up to 3 busloads of 40 students each.

Adjacent to Brookside Nature Center, the Gardens feature a large tropical greenhouse, outdoor gardens and a horticultural library. Teachers in grades K-4 lead their own students through the Gardens, but classes can be arranged for older groups. Teachers should make reservations about a month in advance. Admission is free. Classes of about 25 are recommended.
Brookside Nature Center, the Maryland National Capital Park and Planning Commission, 1400 Glenallen Avenue, Wheaton, Maryland 20902. Phone: (301) 946-9071.

The Brookside Nature Center has a nature trail; a weather station; a museum of natural history where students can learn about birds, animals and insects; and an aquatic study pond. Staff members give talks on ecology. Publications are available, and staff members show films if teachers make requests in advance. Classes are conducted from 9:00am - 5:00pm Tuesday through Friday. Teachers should make reservations at least 2 or 3 days in advance. (The Center is open to the public from 9:00am - 5:00pm Tuesday through Saturday and 1:00 - 5:00pm on Sunday. Movies are shown to the public at 11:00am, 1:00pm and 3:00pm on Saturday and at 2:00pm and 4:00pm on Sunday). Admission is free. Groups of up to 35 are received.

Cabin John Regional Park, Maryland National Capital Park and Planning Commission, 7400 Lux Court, Rockville, Maryland 20852. Phone: (301) 299-4555.

Primarily a recreation center, the Park has a self-guiding nature trail and an area featuring domestic animals (including sheep, goats, ponies, donkeys, calves, pigs and a variety of barnyard and water fowl). Reservations aren't necessary. Hours: 10:00am - sunset. Admission is free. There are no restrictions on group size.

Catoctin Mountain Park, National Park Service, U.S. Department of the Interior, Thurmont, Maryland 21788. Phone: (301) 824-2574.

Catoctin has a crafts demonstration, an environmental museum and self guiding nature trails. Pamphlets are available. The nature trail is open year-round 7 days a week from morning til dark. No reservation is necessary. The crafts demonstration and environmental museum are different: They are open one day a week in the spring and fall, and reservations must be made a couple weeks in advance. Admission is free. The museum and crafts demonstration can receive 210 students every 1 1/2 hours.
Clearwater Nature Center, The Maryland National Capital Park and Planning Commission, RFD 1, Box 325, Clinton, Maryland 20735. Phone: (301) 297-4575.

Clearwater offers interpretive trail hikes, arts and crafts projects, films and nature exhibits. Although the Center is open to the public, teachers should call to arrange programs for students. Hours vary with different programs. Admission is free. Class size varies with programs.

Fairfax County Park Authority, Division of Conservation, P.O. Box 236, Annandale, Virginia 22003. Phone: (703) 941-5000.

The Park Authority has set up several programs — Hidden Oaks, River Bend and Hidden Pond — aimed at elementary school students. The theme is the interrelationship between humans and their environment, and emphasis is placed on making clear what we must do to preserve the natural environment. The program includes staff visits to schools, showing of slides, and student visits to nature centers. In the future teachers may be required to attend in-service workshops before bringing classes. Teachers should make reservations — preference in scheduling is given to classes from northern Virginia. Hours: 9:00am - 5:00pm Tuesday through Saturday and 1:00 - 5:00pm on Sunday. Closed Mondays except holidays. Admission is free. Groups of up to 60 are received.

Great Falls Park, Virginia, National Park Service, U.S. Department of the Interior, 9200 Old Dominion Drive, Great Falls, Virginia 22066. Phone: (703) 759-2915.

There is four miles of nature trail, including a historic canal and the remains of an old town. Teachers should make reservations for tours two or three weeks in advance. The park itself is open year round seven days a week; from 8:00am til dark; but special tours are offered only during the winter months (September through May) from 9:00am - 3:00pm. The park attempts to schedule tours on weekdays, but weekend tours can be arranged if necessary. Admission is 50¢ per car. For buses the fee is 10¢ per person, excluding the teacher and bus driver. Usually classes of up to 90 can be accommodated.
Lathrop E. Smith Outdoor Education Center, 5110 Meadowside Lane, Rockville, Maryland 20853. Phone: (301) 924-2626.

There are nature trails here, and students can study trees and ponds. Teachers must bring chaperones and lead classes themselves. Make reservations at least a week in advance. Hours: 9:00am - 5:00pm Monday through Friday. Admission is free. Classes of up to 150 students can be accommodated.


This 130-feet-long vessel, manned by area Sea Scouts, has programs for students at all levels. Elementary school students move through a series of stations including a water analysis and a water cycle exhibit, designed to increase their awareness and involvement in the environment. The Students Toward Environmental Participation (STEP) program gives high school students a chance to monitor an area in the Potomac River Basin. Environmental studies currently include marine biology, marshland community relationships and water quality analysis. College students on the graduate and undergraduate level supplement their regular classroom studies with projects in environmental education and ecology of the area. In addition, the vessel is open to the public for tours every Saturday and Sunday from 1:00 - 4:00pm. (During June - September the hours are Tuesday, Thursday, Saturday and Sunday from 1:00 - 5:00pm). Teachers must call before bringing classes. Admission is free. Groups of up to 35 are received.

Meadowside Nature Center, Maryland National Capital Park and Planning Commission, 5100 Meadowside Lane, Rockville, Maryland 20853. Phone: (301) 924-4141.

Geared to all age groups Meadowside has naturalist-led trail walks, conservation projects, environmental workshops, wildlife studies, lectures, arts and crafts projects, and a summer conservation club. There are interpretive exhibits, film showings, environmental study areas, animal exhibits and a weather station. Teachers should call in advance. Hours vary with different programs. No admission charge. Groups of up to 60 are received.

The Aquarium usually displays over 2,000 specimens (not including babies and tiny invertebrates) representing almost 350 species throughout the world. These specimens are in 67 aquariums, ranging from 20 to 2,500 gallons. Scheduled feeding of fish occur on Monday, Wednesday, Friday and weekends. Teaching aids are available to school groups. Teachers should call the Aquarium before bringing classes. Hours: 9:00am - 5:30pm seven days a week, closed on Christmas Day. Admission is free. Groups of up to 100 are received.

National Museum of History and Technology (Smithsonian Institution), Constitution Avenue Between 12th and 14th Streets N.W., Washington, D.C. 20560. Phone: (202) 381-4141 after September 15.

There are different exhibits from time to time. (Presently there is one on energy). Museum teachers provide tours for grades 4 - 12. Teachers should call a month in advance. Hours: 10:00am - 12:00 noon Monday through Friday. Admission is free. Classes are limited to 30 students.

National Museum of Natural History (Smithsonian Institution), Constitution Avenue & 10th Street N.W., Washington, D.C. 20560. Phone: (202) 381-6135.

The Museum has a general 90 minute ecology tour and occasional displays and exhibits that can be useful for environmental education. There is a Hall of North American Mammals where students learn about the relationships of animals to each other and to their environment. The program is for students in grades 4 and above. It is recommended that teachers make reservations a month in advance. Hours: 10:00am - 12:00 noon on weekdays. There is no admission fee. Classes can be as large as 60 students.
Northern Virginia Soil and Water Conservation District, 3945 Chain Bridge Road, Suite B, Fairfax, Virginia 22030. Phone: (703) 591-6660.

Pohick Creek Watershed Project is an example of an urbanized watershed. Two of the eight proposed water impoundments are complete and can be studied to learn how they help in controlling floods. Also, there are field trips to show various soil and water conservation practices that help control erosion of soil and surface water runoff that causes flooding. Slide talks for classroom use can be arranged. From January 1 to April 1 the Northern Virginia Soil and Water Conservation District sponsors a conservation plant materials program, making available to schools and residents of Fairfax County a variety of plants that are useful for erosion control, wildlife habitat improvement, and noise pollution barriers. Arrangements should be made at least 2 weeks in advance. For further information call Mr. C.J. Koch or Mr. Puller A. Hughes.


Here the National Park Service has attempted to create a living history farm, giving visitors a chance to view cows, goats, sheep, horses, pigs, deer, etc., in a setting similar to that to be found in Maryland at the turn of the century. Pamphlets are available. Students should be of at least the first grade level, and teachers should call if they want to arrange a tour. Hours: 8:00am - 5:00pm seven days a week. Admission is free. Tours can be provided for classes of up to 50 students.


The class gets a chance to see the milling techniques of the 19th century, "the grinding of corn on the cobb into corn meal." The process includes the use of a water wheel for power. Teachers should make reservations a couple days in advance. Hours: 9:00 - 12:00am weekdays. No admission fee. Groups of up to 40 are recei
Potomac Overlook Regional Park Nature Center, 2845 Marcey Road, Arlington, Virginia 22207. Phone: (703) 528-5406.

The program at the Nature Center covers a wide variety of subjects: insect, stream and bird life; habitats (basic ecology); plants as producers; geology and soils; man and his environment; orienteering; wildlife management; weather; autumn in the trees; and appreciating Nature through literature. The Nature Center can develop other programs on request. Recommended grade levels vary with programs. Hours: 10:00am - 5:00pm Tuesday through Friday. In addition, the Nature Center is open to the public on Saturday (10:00am - 5:00pm) and Sunday (1:00 - 5:00pm). Movies are shown at 3:00 o'clock on Saturday and Sunday, and trail hikes are conducted on Sundays at 2:00pm. There is no admission fee. Groups should be no larger than 30 students.

Prince William Forest Park, National Park Service, Department of the Interior, Box 208, Triangle, Virginia 22172. Phone: (703) 221-7181.

Here the student has an opportunity to learn about man's effect on the environment. Beginning in the late 17th century, man's disregard for the environment in the area led to destruction of forests and farmland, and the silting of a local harbor. Most farming was discontinued by the beginning of the 20th century, and today the visitor can see the cleared fields returning to forest. In addition to seeing old farm sites, the visitor can walk through self-guiding trails. The Park harbors 89 known species of trees and shrubs, and resident animals include white-tailed deer, red and gray foxes, beaver, raccoon, opossum, flying squirrel, gray squirrel, skunk, and many more. There is a nature center which can be visited for a general orientation to the park. An orientation usually lasts about twenty minutes, and teachers should indicate if they want a movie or a talk by a naturalist. Teaching aids are available. No reservations are required for the use of nature trails, but for all ranger-led programs the teacher should call to request an application form. The Center is closed to the public on Monday and Tuesday during September-June, but school groups are received year-round, seven days a week, from 9:30am - 6:00pm. Classes of up to 30 are received.
Much of the program is pure natural history: animals, plants, geology and weather in the Washington, D.C. area. Astronomy classes are held in a planetarium — live programs under a projected sky. Ecology films are shown in an auditorium, and students hear a naturalist talk about animals and animal life.

Outside, there are three guided nature walks. Since the number of visitors varies with the seasons, teachers should make reservations as soon in advance as possible — three or four weeks anyway. Hours: 9:30am - 5:00pm Tuesday through Friday and noon til 5:00pm on Saturday and Sunday. (During the winter Saturday and Sunday hours are noon til 6:00pm). Closed on Monday. No admission fee. Capacity depends on facilities used by teachers: the limit on the nature walk is 35 students; at the planetarium it's 600; and in the auditorium it's 100.

Soil Conservation Service, U.S. Department of Agriculture, 4231 Hartwick Road, Room 522, College Park, Maryland 20740. Call Ernest Moody: (301) 344-4180.

Tours, conducted in various locations around the city, are available to show urban environmental problems and conservation practices in Washington, D.C. Subjects include (1) causes and effects of urban erosion, examples of soil instability, soil slippage and surface drainage problems; (2) conservation practices used in the city for erosion control and diversion of excess water; and (3) examples of school site conservation projects done by students. Two weeks advance notice should be allowed. Contact Mr. Moody for more details.


Using nature trails the National Park Service attempts to communicate with grade school students on the need for environmental awareness. Pamphlets are available. Teachers should call a couple days in advance. Hours: 9:00am - 4:00pm Monday through Friday. Admission is free. Tours can be provided for classes of up to 60 students.
Turkey Run Farm, National Park Service, U.S. Department of the Interior, George Washington Memorial Parkway, McLean, Virginia 22101. Phone: (703) 691-2541.

The visitor can see the operation of a colonial-era subsistence farm and compare the ecological effects with present day practices. Tours are provided. Teachers should make reservations three weeks in advance. Hours: 10:00am - 4:30pm Wednesday through Sunday. Admission is free. Classes are limited to groups of 30.

U.S. Environmental Protection Agency Visitor Center, First Floor of the West Tower, Waterside Mall, 401 M Street S.W., Washington, D.C. 20460. Phone: (202) 755-0713.

The Visitor Center offers programs on what EPA is doing to protect and restore the environment, as well as on what individuals and groups can do. Exhibits describe the causes and growth of pollution; the problems confronting us; and the technology available for pollution control. Tours are available for student and adult groups on request, and special programs featuring speakers and films are developed to meet particular interests of groups. Free publications, posters, bumper stickers and decals are provided. Groups should call to make reservations. Hours: 9:00am - 4:00pm Monday through Friday. Admission is free. Groups of up to 60 are received.

The National Arboretum, established by Congress in 1927, conducts research on trees and shrubs. Plants are arranged in different combinations throughout the 415-acre site. Special seasonal observations can be made, and a list of blooming dates for various groups of plants is available upon request. Among the special features are the azalea gardens which bloom in late April and May; fall foliage trips in October and November; and hollies, pine cones and dwarf conifers in December. The Fern Valley trail has examples of most of the ferns and many wildflowers and shrubs native to the eastern United States. Guided tours for school classes 5th grades and up are provided, but the Arboretum requests that groups be accompanied by adults. Arrangements should be made 3 weeks in advance of proposed visiting date.

Hours: 8:00am - 4:30pm Monday through Friday. Admission is free.

United States Botanic Garden, Conservatory Building, Maryland Avenue & 1st Street S.W., Washington, D.C. 20024.

Phone: (202) 225-8333.

The U.S. Botanic Garden collects, cultivates and grows the various vegetable production of this and other countries for exhibition and study. A permanent collection of plants from tropical, subtropical and temperate climates is on display, as well as orchids and other flowering plants in season. In addition there are six scheduled shows annually: the Azalea Show, the Easter Show, the Ikebana Show, the Chrysanthemum Show, the Christmas Greens Show and the Poinsettia Show. Students should not be at less than the second grade level. Teachers should make reservations about a week in advance. Tours are provided at 10:00am, 11:00am, 1:00pm and 2:00pm Monday through Friday. (The Conservatory is open to the public seven days a week from 9:00am - 6:00pm except Christmas and New Years Day). Admission is free. Tours are provided for as many as 50 people at a time.
SOLID WASTE MANAGEMENT

Montgomery County Division of Solid Waste Management, Department of Environmental Protection, 6110 Executive Boulevard, Rockville, Maryland 20852. Phone: (301) 279-1852.

Montgomery County has landfill and incineration facilities where students can see the mammoth problem of waste disposal. Since sites will be changing, teachers should contact the above office to arrange field trips, find locations and ascertain what the students will see. Hours: 9:00am - 4:00pm Monday through Friday. Teachers should arrange visits a month in advance. Admission is free. Classes should be no larger than 15 or 20 students.

Montgomery Iron and Metal Company, 15000 Southlawn Lane, Rockville, Maryland 20850. Phone: (301) 424-3000.

Groups can see scrap iron crushed, and paper and nonferrous metals sorted and reclaimed for recycling. Classes should know principles behind electromagnets before going. The company requires a high ratio of adults to children, since glass and sharp objects are all around. Teachers should make reservations two or three weeks before bringing classes. Hours: 8:00am - 4:30pm Monday through Friday. Admission is free. Tours are provided for groups of thirty or less.

Solid Waste Reduction Center Number I, Department of Environmental Services, District of Columbia Government, 3200 Benning Road N.E., Washington, D.C. 20002. Phone: (202) 629-5295.

Visitors are usually surprised to see the large volume of solid waste that is processed. The tour begins at the receiving and storage area and moves along to incineration and the disposal of non-burnable leftover materials. Teachers must arrange field trips in advance. Hours: 10:00am - 3:00pm Tuesday through Friday. There is no admission fee. Teachers should notify the Center of the size of their classes.
WASTE WATER TREATMENT

Blue Plains, Bureau of Waste Water Treatment, D.C. Department of Environmental Services, 5000 Overlook Avenue S.W., Washington, D.C. 20032. Phone: (202) 629-8537.

High school groups learn about primary and secondary waste water treatment. No one under 16 is admitted. Teachers must schedule tours in advance. Tours lasting 1 - 1 1/2 hours are given on Wednesday and Thursday beginning at 11:00am. Admission is free. Groups of up to 20 are received.

Piscataway Waste Water Treatment Plant, Accokeek, Maryland. Contact the Washington Suburban Sanitary Commission, Public Information Center, 4017 Hamilton Street, Hyattsville, Maryland 20781. Phone: (301) 277-7700, ext. 489 or 589.

The student learns about primary and secondary treatment of sewage that is necessary before waste water can be returned to streams and rivers. Pamphlets describing the plant can be obtained before or during tours. Teachers should make arrangements two weeks in advance of field trips. Students must be 5th grade or above. Hours: 10:00am - 3:00pm Monday through Friday. Admission is free, and the Commission frequently arranges transportation for public school systems. One tour guide is provided for each 40 students.
WATER SUPPLY

Patuxent River Water Filtration Plant, Laurel, Maryland. Contact the Washington Suburban Sanitary Commission, Public Information Center, 4017 Hamilton Street, Hyattsville, Maryland 20781. Phone: (301) 277-7700, ext 489 or 589.

The student can learn about pre-chlorination, coagulation, settling, filtration, corrosion control and dechlorination — steps necessary for supplying water to customers' homes. Pamphlets describing the plants can be obtained before or during tours. Teachers should make arrangements two weeks in advance of field trips. Students must be 5th grade level or above. Hours: 10:00am - 3:00pm Monday through Friday. Admission is free, and the Commission frequently arranges transportation for public school students. One tour guide is provided for each 40 students.

Potomac River Water Filtration Plant, Potomac, Maryland. Contact the Washington Suburban Sanitary Commission, Public Information Center, 4017 Hamilton Street, Hyattsville, Maryland 20781. Phone: (301) 277-7700, ext 489 or 589.

Students learn about pre-chlorination, coagulation, settling, filtration, corrosion control and dechlorination of water to be sent to customers' homes. Pamphlets describing the plants can be obtained before or during tours. Teachers should make arrangements two weeks in advance of field trips. Students must be 5th grade level or above. Hours: 10:00am - 3:00pm Monday through Friday. Admission is free, and the Commission frequently arranges transportation for public school students. One tour guide is provided for each 40 students.

Rockville Treatment Plant, City of Rockville, 10930 Sandy-Landing Road, Potomac, Maryland 20854. Phone: (301) 424-8000 ext. 242.

Guided tours highlight water filtration, purification techniques and laboratory testing for impurities. Pamphlets are available for elementary school students. Teachers should call two weeks in advance. Hours: 8:00am - 4:30pm Monday through Friday. Admission is free. Classes are divided into groups of no more than 30 students.
Washington Aqueduct, District of Columbia Water System,
Phone: (202) 282-2701.

Students learn about the chlorination, coagulation,
sedimentation and filtration of water from the
Potomac River for supplying water to the District
of Columbia. They also get a chance to see the
collection and sampling of water supplies. Teaching
aids are available to school groups. Teachers
should call to arrange visits. Hours: 7:00am -
3:30pm Monday through Friday. Admission is free.
Classes of up to 35 can be accommodated.

Prepared by Jeff Meêtre (A-104)
U.S. Environmental Protection Agency
Office of Federal Activities
401 M Street S.W.
Washington, D.C. 20460