



SCHOOLS/COUNTY RECYCLING ACTION PARTNERSHIPSHIP

SCRAPBook

2009-2010

A RESOURCE GUIDE TO RECYCLING AND ENVIRONMENTAL EDUCATION IN FAIRFAX COUNTY SCHOOLS

Dear Fairfax County school administrators, teachers and students:

The Fairfax County Solid Waste Management Program has produced and distributed this SCRAPBook on an annual basis to provide teachers, administrators, and club sponsors with information on resources that are available in Fairfax County to support environmental education in our schools.

This year, we are pleased to provide this valuable resource in digital form. This provides us the added advantage of including “live” links that get you connected to the material and, in some cases, people with the click of a button. Web sites appearing in **blue** may be accessed by clicking the actual text. Likewise, e-mails can easily be sent to contact individuals whose names and/or e-mail addresses appear in **red and underlined** by clicking the red text.

We greatly appreciate the work you do in providing our young people with the best education available. We believe that the tools and resources we have available can assist in enhancing environmental education. We look forward to another successful year of working with students of all ages in exploring our local environment.

Sign Up for

SCRAPmail

SCHOOLS/COUNTY RECYCLING ACTION PARTNERSHIPSHIP

SCRAPmail is the newest feature in the Schools/County Recycling Action Partnership. This e-mail subscription allows interested teachers, students and school administrators to receive periodic news items, event announcements, updates and reviews on environmental education resources available to Fairfax County schools.

This e-mail feature is designed for the sole purpose of receiving e-mails related to environmental education and involvement in our local community. E-mails will come directly from the Fairfax County Solid Waste Management Program at SCRAPmail@fairfaxcounty.gov.

To subscribe to SCRAPmail, simply **click on the image to the right** and complete the subscription information on



the Fairfax County Solid Waste Management Program’s web site.

If you have any questions related to this new feature, please contact Ben Boxer at 703-324-5253, TTY 711 or by e-mail at benjamin.boxer@fairfaxcounty.gov.



September 2009

A Fairfax County, VA., publication.

To obtain this information in an alternative format, please contact the Fairfax County Solid Waste Management Program at 703-324-5230, TTY 711.



DPWES

Department of Public Works & Environmental Services



The Fairfax County Department of Public Works and Environmental Services is composed of five distinct business areas - three of which deal specifically with the management of our local environment.

The Solid Waste Management, Stormwater Management and Wastewater Management Programs each have the mission of enhancing the quality of life in Fairfax County through monitoring local environmental conditions; working to mitigate negative impacts on the environment; and educating the residents and business owners in Fairfax County as to the roles and responsibilities we all have in preserving our shared environment.

Each of these programs have presentations, speakers and printed materials that can serve to supplement environmental education for all students from K - 12th grade. To arrange a speaker or obtain materials, please contact the appropriate contact person listed below.

A sample of the topics covered by each of these programs during in-class presentations include:

Solid Waste Management Program

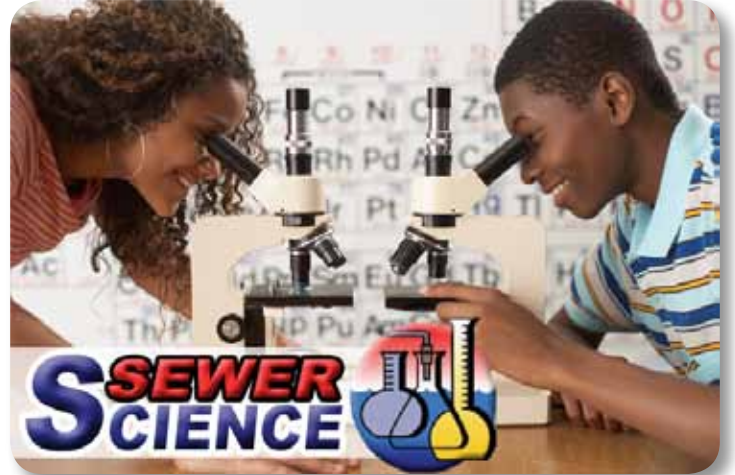
- Why is Waste Management Important?
- How Much Waste Do We Generate?
- The Role of Recycling
- Generating Energy from our Trash

Stormwater Management

- What is Stormwater Management?
- Measuring the Health of the Waterways
- Healthy Watersheds = Healthy Communities

Wastewater Management

- What is Wastewater?
- Wastewater Treatment Process
- Water Chemistry
- Pollution Control: What's so Important?



In addition, the **Sewer Science** program - a hands-on, week-long laboratory program designed to educate high school students about municipal wastewater - includes segments related to Stormwater and Solid Waste Management.

Together, employees from each program will work with teachers to tailor the program to meet scheduling constraints and the specific needs of their classes.

Sewer Science, which supports the Virginia Standards of Learning for biology and chemistry is taught by the science teacher with assistance and support from county staff. For more information, please contact Judy Fincham (listed below).

DPWES Contacts...

Solid Waste Management Program

Ben Boxer, 703-324-5253

Stormwater Management

Danielle Wynne, 703-324-5616

Wastewater Management

Judy Fincham, 703-550-9740, Ext. 423



CLEAN FAIRFAX COUNCIL

Providing Resources for Environmental Education and Litter Prevention/Clean-up & Recycling Initiatives

Clean Fairfax Council is a private, non-profit organization dedicated to keeping Fairfax County clean, green and healthy! We provide supplies (recycled plastic trash bags, gloves, safety vests and more) for successful community and school clean ups; resources for enhancing environmental education in businesses, schools and homes; and grant opportunities that allow students to work on creative solutions to litter and pollution problems in their own schools and communities.

Clean Fairfax Council also teams up with Fairfax County and Northern Virginia Community College to organize the premier family-oriented celebration of Earth Day and Arbor Day in Fairfax County (scheduled for Saturday, April 24, 2010)!

One of the most important aspects of our programming is the work we do in Fairfax Public Schools to help teachers educate students on the importance of a clean, green and healthy environment. We offer a variety of in-class presentations for all grade levels and are currently working to add more dynamic programming through SmartBoard and our web site.

For more information about Clean Fairfax Council, and our programs, please call the office at 703-324-5471, e-mail at cfc@cleanfairfax.org and visit our web site at:

www.cleanfairfax.org

You may e-mail us at cfc@cleanfairfax.org or by calling the Executive Director, Jennifer Cole at 703-324-5471.

| Title | Summary | Ages | Time |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------------|
| The Rotten Truth About Garbage (in VHS and DVD) | A broad based overview of the solid waste system including litter prevention, recycling, and composting with specifics about what is happening in Fairfax County. | All elementary grades | 45 minutes |
| Down the Drain (in VHS and DVD) | An overview of water pollution, waste, & contamination, and what children can do about it. It talks about the litter and recycling issues and how water is affected. | All elementary grades | 45 minutes |
| Environmental Jeopardy (Updated for 2010 & available electronically) | The class is divided into teams and answers questions about the environment, litter, and recycling. Win points and prizes! | Single class Grades 4-6 | 1 hour |
| Environmental Careers | Powerpoint presentation, discussion and question and answer session for students interested in pursuing environmental careers after school or college. | Middle School & High School Students | 1+ hour |
| Johnie Forte, Jr. Environmental Action Grant Program | Grant opportunity enabling students to develop creative solutions to litter and pollution problems in their school and communities. A grant of up to \$500 is possible to implement a proposed program. See page 4 for details. | All Grade Levels | |

JOHNNIE FORTE, JR. MEMORIAL

ENVIRONMENTAL ACTION GRANT PROGRAM

Johnie Forte, Jr. was a valued member of the Board of Directors of Clean Fairfax Council. He believed that litter prevention and recycling were extremely important to the quality of life in Fairfax County, Virginia. To honor his service, Fairfax County established the Johnie Forte, Jr. Memorial Litter/Recycling Grant Program.

The Clean Fairfax Council and the Fairfax County Department of Public Works and Environmental Services are offering several \$500.00 grants to Fairfax County Public Schools for environmental projects within their schools.

All Fairfax County Public Schools or recognized groups within the schools are invited to apply for a grant of up to \$500.00 each. More than one application per school may be submitted for consideration (each application will be considered individually). Projects must involve a sustainable litter prevention, litter control, waste reduction or recycling theme. Activities must be planned and implemented by students during the school year with a completion date no later than June 17, 2010. Each group must submit a report of their efforts by e-mail or on compact disc. Additionally, each group is welcome to present their project at the annual awards ceremony held during the Fairfax County Earth Day/Arbor Day Celebration to be held on April 24, 2010.

**Applications must be submitted by
4:30 p.m. on December 1, 2009.**

You may submit an application online through the Clean Fairfax Council's web site, or you may print out a PDF version of the application and submit it via fax or mail (select the appropriate link below).



**Johnie Forte, Jr. Environmental Action Grant
Access Your Online Application**

**Johnie Forte, Jr. Environmental Action Grant
Access Your Application in PDF Format**



Be creative! This can be an excellent opportunity to initiate sustainable programs and build awareness within your student body that can have a long-lasting effect on your school community. A small selection of past project ideas can be found on page five, but don't let your search for ideas stop there! The Internet offers a wealth of project ideas and outlines that may assist you in coming up with a creative and innovative project idea for your group.

Awards will be announced in January 2010, with dispersal of funds immediately following. For additional details regarding the Johnie Forte, Jr. Memorial Grant Program, or for project ideas and assistance, please contact Jennifer Cole, Executive Director, Clean Fairfax Council at 703-324-5471, TTY 711.

GREAT PROJECT IDEAS...


These projects can provide a fun & meaningful way for your students to learn about recycling & how to “Think Globally and Act Locally.” *Use these ideas as a jumping off point for creating a sustainable environmental grant proposal!*

Celebrate Earth Day Every Day: *Schedule a Year of Clean-ups!*


Whether it's in our yards, parks or on the roadside, there's no doubt about it, litter stinks! It can smell bad and it looks terrible. Schools have used the Johnie Forte Grant program to plan and carry out litter clean-up activities on their school campus. They've also purchased and placed trash cans made of recycled material and posted signs to fight littering on their school campus and in their community. This is a great opportunity for students to realize the impact that litter has on our community as well as promoting school spirit.



An Emphasis on Soil & Water Conservation

 Show students how land use affects our lakes & streams. The Northern Virginia Soil & Water Conservation District will train teachers to use Enviroscope, an interactive watershed model. Trained teachers are welcome to borrow the model for classroom demonstrations. Learn more at:

www.fairfaxcounty.gov/nvswcd/enviroscope.htm

 Get your students involved in monitoring the health of a stream near your school. The Northern Virginia Soil & Water Conservation District trains volunteers to assess ecological conditions in streams based on the absence or presence of aquatic insects. Go online to: www.fairfaxcounty.gov/nvswcd/monitoring.htm or call 703-324-1425, TTY 711 for more details.

A Pledge to Change!

Help Students Develop Green Habits

Reduce, Reuse, Recycle. The words are catchy and the actions can have a significant impact on our local environment, but the biggest challenge associated with “the 3 Rs” is that they relate to daily habits - and they can be hard to develop. Johnie Forte, Jr. Grant funds can assist classes and clubs to create green habits among the students involved.

For example, grant funds can be used to purchase water bottles and students can keep track of how many plastic bottles they have “saved” by using their specially designed water bottle. The same might be said for reusable shopping bags.

There are a variety of products that we use on a daily basis that have “green” alternatives and an unlimited number of creative activities that can help students think about these alternatives and make slight changes to their daily routines to have a significant impact on our environment.



Other Ideas that have been used in the past include:

- *Building Butterfly Gardens*
- *Building Outdoor Classrooms*
- *School wide Recycling Contests, Art Shows, and Promotions*
- *Initiating School Eco-Clubs*
- *Reduce, Reuse, Recycle Field Day Activities*
- *Local Stream Clean-up*

The possibilities for creative, sustainable and effective activities are limitless!

FOR TEACHERS...

Classroom Resources and First-Hand Experiences to Support Environmental Education



Available Reading Materials

Countless books have been written for a wide range of audiences on the topic of recycling. Here are some selected titles of books that are available locally:

Available from the Fairfax County Public Schools Libraries:

- **What Happens at a Recycling Center?**, by Kathleen Pohl. 2007.
- **Complete Trash: The Best Way to Get Rid of Practically Everything Around the House**, by Norman Crampton. 1989.
- **Trees to Paper**, by Ines Snyder. 2003.
- **How on Earth do we Recycle Glass?**, by Joanna Randolph. 1992.
- **How on Earth do we Recycle Metal?**, by Rudy Kouhoupt. 1992.
- **The Story of Paper**, by Ying Chang. 2003.
- **Papermaking for Kids: Simple Steps to Handcrafted Paper**, by Beth Wilkinson. 1997.

Available from the Fairfax County Public Library:

- **Recycling**, by Eleanor J. Hall. 2005.
- **Earth Day -- Hooray**, by Stuart J. Murphy. 2004.
- **Recycled Craft Box: Sock Puppets, Cardboard Castles, Bottle Bugs & 37 More Earth-Friendly Projects & Activities You Can Create**, by Laura C. Martin. 2003.
- **Earth-friendly Crafts for Kids: 50 Awesome Things to Make with Recycled Stuff**, by Heather Smith. 2002.

Available from the Solid Waste Management Program (call 703-324-5230, TTY 711)

- **Follow the Litter**
- **Let's Stop Litter**
- **Help A Can When You Can**
- **Who Causes Litter**
- **Where's My Science Report**
- **KidzZone Recycling Activity Page**

and many more!



Field Trip Opportunities

Solid Waste Management Facilities

I-66 Transfer Station (Fairfax, VA): please contact David Menefee at 703-631-1179, Dial "0".

I-95 Landfill Complex (Lorton, VA): please contact Chris Meoli at 703-690-3696.

Students visiting these locations will learn of the management of trash and recyclables in Fairfax County. They will also see and learn about Fairfax County's two closed landfill sites, landfill gas collection/use, and mulching.

Wastewater Treatment Facility

Noman M. Cole, Jr. Pollution Control Plant (Lorton, VA): please contact Laurel Shultzaberger at 703-550-9740, ext. 399 or via e-mail at lshult@fairfaxcounty.gov.

Students will have an opportunity to learn first-hand about the physical, biological, and chemical processes for the removal of pollutants harmful to the environment, along with catching a first-hand look at the tools used in this process.



Educational Films (DVD Format)

The following video presentations are available to check-out from the Fairfax County Department of Public Works and Environmental Services. Also, be sure to see video resources available from the Clean Fairfax Council on page 3.

- **Fred Levine's Where the Garbage Goes** (30 min.) - A general presentation of how trash is managed. This video addresses landfilling, recycling and composting. Some of the processes introduced are not specifically utilized in Fairfax County. (Call 703-324-5288, TTY 711)
- **Pop-Up Trash in Fairfax County** (13 min.) - The management of all trash and recyclables in Fairfax County. The film discusses recycling, trash collection and management, energy-from-waste, hazardous waste collection, mulching and landfill gas capture and utilization in energy production. (Call 703-324-5288, TTY 711)
- **Making Paper from the Mill to the Classroom** (15 min.) - This video parallels an in-class papermaking activity with the actual process of making paper inside a papermill. (Call 703-324-5288, TTY 711)
- **What's in your Water?** (6 min.) - Fairfax County Stormwater Management. Learn about the human impact on the health of our community's local waterways. (Call 703-324-5616, TTY 711)
- **Quality of Water = Quality of Life** (7 min.) - Fairfax County Wastewater Management. When water goes down the drain, where does it go? This video shows the complete process of wastewater treatment in Fairfax County. (Call 703-550-9740 ext. 423, TTY 711)



Web Resources

The Internet is full of resources that can prove valuable in enhancing environmental education. Below is a selection of web sites that have received excellent reviews from county staff (due to county policy, non-county web sites are not live links).

Adventures of Stormy the Raindrop (Stormwater Management): www.fairfaxcounty.gov/dpwes/stormwater/stormy/

The Aluminum Association: www.aluminum.org

Association of Postconsumer Plastic Recyclers - Kids' Recycling Zone: www.kidsrecyclingzone.com

Call 2 Recycle - Rechargeable Battery Recycling: www.call2recycle.org/

Container Recycling Institute: www.container-recycling.org/kids.htm

Environmental Protection Agency - Environmental Kid's Club: www.epa.gov/kids

Fairfax County Recycling Resources: www.fairfaxcounty.gov/dpwes/recycling/students.htm

Free EPA Resources (lesson plans, activities, etc.): www.epa.gov/osw/education/teach_curric.htm

National Institute of Environmental Health Sciences: www.kids.niehs.nih.gov/recycle.htm

Project Learning Tree: www.plt.org

Scholastic Recycling Resources for Teachers: <http://teacher.scholastic.com/lessonplans/recycling>

VA Naturally: www.vanaturally.com/vanaturally/k12ed/homepage.html



Grant Opportunities

The following grants have been established for the purpose of supporting school recycling and litter programs and projects. Please visit the web sites for details and application information.

- **The Johnnie Forte, Jr. Memorial Litter/Recycling Grant** - offered by Clean Fairfax Council, and the Fairfax County Department of Public Works and Environmental Services (see page 4).
- **Virginia Department of Environmental Quality - Grants and Funding Opportunities:** Virginia DEQ maintains several grant opportunities on their web site at www.vanaturally.com/vanaturally/grants.html

GET INVOLVED...

Need Service Hours? Volunteer!

Virginia Waterways Cleanup and the Potomac River Watershed Cleanup

These annual events provide students with a great opportunity to be active in the region's Potomac River clean-up effort as well as accumulating service hours.

- **Virginia Waterways Cleanup - Fall 2009**

The Virginia Waterways Cleanup is part of the International Coastal Cleanup effort. *Events are hosted annually from September 1 through October 31.* Each year, volunteers across Virginia from the mountains to the oceans gather along the shorelines of rivers, lakes, ponds and bays to pick up trash.

To learn more, and to find a cleanup site near you, please go to www.signuptocleanup.org.

- **Potomac River Watershed Cleanup - April 10, 2010**

For the past 21 years, the Alice Ferguson Foundation has orchestrated the largest regional Potomac River Cleanup effort around. Last year, thousands of students, families, and community volunteers in DC, Maryland, Pennsylvania, Virginia and West Virginia participated in removing nearly 300 tons of trash from the Potomac River.

To learn more, go online to www.fergusonfoundation.org.

RECYCLE in Your Community

The Fairfax County Solid Waste Management Program hosts several recycling events each year that are geared to recycling materials commonly found in our county's waste stream. By participating at these events, students can have a significant impact in reducing waste and they'll get a real good look at how much material we can divert from our county's waste management process.



Recycling Roadshows are remote recycling events at which county residents may recycle a wide variety of materials. Residents may recycle rechargeable batteries, compact fluorescent light bulbs and even shred and recycle personal documents!



These monthly events are hosted at Fairfax County facilities for residents to recycle televisions, computers and peripheral electronic devices such as speakers, printers, scanners, etc.

There is no cost to participate at any of these events. For specific event dates, locations and materials accepted, please go online to: www.fairfaxcounty.gov/recycling.

Celebrate Earth Day/Arbor Day! - April 24, 2010

Earth Day celebrates the earth and our responsibility for it. It's also a time to highlight recycling and litter prevention. The Fairfax County Earth Day/Arbor Day Celebration will be held on Saturday, April 24, 2010 at the Northern Virginia Community College Annandale Campus from 11 a.m. to 4 p.m.

This family-friendly event features a variety of FREE games, activities and experiences from a variety of organizations throughout the region concerned with protecting and preserving our local environment. For more information on this event, please contact the Clean Fairfax Council by e-mail at cfc@cleanfairfax.org.

