

NORTH CAROLINA CHILD CARE HEALTH AND SAFETY BULLETIN

NORTH CAROLINA CHILD CARE HEALTH AND SAFETY RESOURCE CENTER

FEBRUARY/MARCH 2009

VOLUME 11, ISSUE 1

About The Resource Center

The NC Child Care Health and Safety Resource Center is a project of the Department of Maternal and Child Health, Gillings School of Global and Public Health, The University of North Carolina. Project Director: Jonathan Kotch. Funding for the Resource Center originates with the Maternal and Child Health Title V Block Grant of USDHHS's Health Resources and Services Administration/Maternal and Child Health Bureau, awarded to the University under a contract from the Division of Public Health, NCDHHS. The development, translating, printing, web posting and mailing of the *NC Child Care Health and Safety Bulletin* are supported by funding from the Child Care and Development Fund Block Grant of the Child Care Bureau, Administration on Children and Families, USDHHS, through a contract between the Division of Child Development, NCDHHS, and the Department of Maternal and Child Health, Gillings School of Global and Public Health, The University of North Carolina at Chapel Hill.

In This Issue

- 1 Eco-Healthy Child Care
- 2-3 Root Out Toxins –
Move Toward an
Eco-Healthy Child Care
Environment
- 4 Week of the Young
Child: April 19th-25th
- 5 Especially For Families:
Be *Eco-Healthy!*
- 6 Quality Comes from
the Heart
- 7 Go Green!
Be A Planet Protector
- 8 Ask The Resource Center

Eco-Healthy Child Care

A child care program's first priority is to create a safe and healthy setting for the children. One way to achieve this goal is to create an *eco-healthy* child care environment. *Eco-healthy* environments reduce or eliminate children's exposure to environmental toxins.

One of the most basic components of an *eco-healthy* environment is clean air. Whether polluted or clean, children have no choice but to breathe the air that surrounds them. Breathing polluted air can lead to reduced lung function, asthma, bronchitis, and some types of cancer. The negative effects of air pollution are more severe for children than for adults. Children breathe in more air per pound of body weight than adults. Their breathing zone is closer to the floor or ground, areas where toxins often collect. Because of this, children's exposure to air pollution is greater than the adults who are standing right next to them. The damage caused by air pollution is also greater for children because their bodies are more vulnerable when they are developing.

Some sources of air pollution are easy to eliminate. Providers can ban smoking anywhere near children and ask drivers not to let their cars idle. Idling cars release more pollutants than cars that are moving. Mold grows in areas that are damp and unventilated. By fixing plumbing leaks and increasing ventilation, mold is less likely to grow. Harsh cleaning products release toxic fumes; carpets and furniture often contain formaldehyde and toxic flame-retardants. Using "green" cleaning products, ventilating rooms, vacuuming frequently, and choosing products made from natural materials reduces exposure to these toxins.

As with air pollution, pesticides are more toxic to children than to adults. They pollute the air and contaminate floors, surfaces, objects, outdoor equipment and play yards. Children ingest pesticides when they touch contaminated objects and then put their hands in their mouths.



They absorb pesticides through their skin, and inhale them into their lungs. Integrated Pest Management (IPM) is a safe and effective method for controlling unwanted pests.

Some of the hard plastics used to make baby bottles and sippy cups contain Bisphenol A (BPA). Research suggests that BPA contributes to the risk for miscarriages, birth defects, and some cancers. Phthalates are chemicals that soften vinyl products such as teething rings, rubber ducks, and raincoats. They also "fix" scents in soaps, shampoos, and lotions. Exposure to phthalates increases the risk for asthma, preterm birth, and some cancers. BPA and phthalate free plastics, fragrance free cleaners and lotions, and products made from wood or cloth are safer alternatives.

Both lead and mercury are neurotoxins that can cause brain damage, even in very small doses. Mercury is found in batteries, some thermometers, fluorescent light bulbs, fumes from incinerators, and in large fish such as shark and swordfish. Flaking paint from buildings built before 1979, vinyl products, and soil close to roadways are sources of lead exposure. Child care programs should prevent children's exposure to these toxins.

As children experience the benefits of *eco-healthy* environments, they also learn how to create them, passing on the benefits for generations to come.

References:

- Etzel, Ruth. *Pediatric Environmental Health*, 2nd edition. American Academy of Pediatrics. 2003
- Oregon Environmental Council. *Eco-Healthy Child Care*. Retrieved Dec. 29, 2008 from www.oeonline.org/ourwork/kidshealth/ehcc/index_html/?searchterm=child%20care

Root Out Toxins - Move Toward an

Infancy and early childhood are critical periods in the delicate process of children's development. Contact with environmental toxins can interfere with this process. Sometimes it can even cause genetic damage. Bisphenol A (BPA) and phthalates are two chemicals that can be harmful to children's health and development.

Potential Health Effects of Exposure to BPA

Some children's products are made with plastics that contain BPA. In most canned foods, BPA is part of the lining on the inside of the can. It is also found in many hard plastic food containers. When containers are old, damaged, or heated, BPA can leach into the foods. When it gets into the body, BPA acts like the female hormone, estrogen. Hormones affect children's development. Exposure to BPA can change the way the brain and body develop. Girls might reach puberty early. They may be at greater risk of breast cancer or miscarriages later in life. Boys may be more likely to develop prostate cancer and have reduced sperm count as adults. Some research suggests that exposure to BPA is also linked with hyperactivity, aggression, and impaired learning. BPA may contribute to insulin resistance, diabetes, and obesity.

Sources of BPA

- Hard plastics
- Teething rings
- Car safety seats
- Food packaging
- Non-stick coated cookware
- Clothing treated with flame retardant
- Hard plastic toys
- Baby bottles
- Plastic wrap
- Food cans

Potential Health Effects of Exposure to Phthalates

Phthalates are used to make hard plastics soft and flexible. Soft plastic food containers often contain phthalates. When foods are heated in these containers, phthalates can leach into the foods. Soft plastic children's products may also contain phthalates. Children are exposed when they mouth pacifiers, teething rings, rattles, and other soft plastics containing phthalates. Phthalates are also used in scented products such as lotions, shampoos, soaps, and cosmetics. Phthalates can be absorbed through the skin when these products are used.

As with BPA, phthalates interfere with hormones. Phthalates block testosterone in boys. As adults, they may have lower sperm counts or damage to the DNA in their sperm. In girls, it can suppress ovulation and may contribute to the development of polycystic ovary syndrome. Phthalates may also cause thyroid problems, influencing cell growth and brain development. Exposure to phthalates may contribute to the development of lung problems before age two and to allergic asthma in childhood.

Sources of phthalates

- Soft plastic toys
- Food packaging
- Baby food
- Furniture upholstery
- Waterproof mattress covers
- Pacifiers
- Bottled water
- Mattresses
- Cosmetics

Alternatives to plastics made with BPA and phthalates

- Choose plastics that are labeled BPA-free or phthalate-free.
- Avoid vinyl raincoats and backpacks.
- Use alternatives to plastics, such as glass or stainless steel.
- Do not use plastic containers or plastic cling wrap in the microwave.
- Minimize the use of canned foods and drinks.
- Discard old scratched polycarbonate bottles.
- Use fragrance free lotions and cosmetics.
- Use safer plastics. The recycling codes for safer plastics are 1, 2, 4, and 5.
- Avoid plastics with the recycling numbers 3, 6, and 7.

Potential health effects of exposure to lead

Lead can damage the brain and the nervous system. Children exposed to lead may have headaches, hearing problems, delayed growth, and behavioral and learning problems. As with all toxins, children's bodies are more vulnerable to lead exposure because they are still developing.

Sources of lead

- Old paint chips
- Water pipes with lead solder
- Costume jewelry
- Old, imported, or handmade pottery
- Soil contaminated with lead based gasoline
- Batteries
- Art supplies
- Vinyl products

Protect children from exposure to lead. Maintain paint and keep it from flaking. Run water for 15-30 seconds before using for cooking or drinking. Do not cook with or drink from old pottery. Wipe feet before coming inside to remove lead dust. Do not allow children to play with metal jewelry and avoid vinyl products. Use toxin free art supplies approved by the Art & Creative Materials Institute, Inc. (AMCI)

Green Cleaning

Indoor air quality is affected by the number of toxins in the air. Many common cleaning products release chemicals into the air. These chemicals often irritate eyes and skin, can cause breathing problems and trigger asthma attacks. Aerosol sprays like carpet cleaners and air fresheners are other sources of indoor air pollution.



**Eco-Healthy
Child Care**

Eco-Healthy Child Care Checklist

A child care checklist is available for programs to use as they work to become *eco-healthy*. It outlines the steps programs should follow to get the Eco-Healthy Child Care designation. www.oeconline.org/resources/publications/kitsandtipsarchive/2007/EHCCChecklist

Eco-Healthy Child Care Environment

Green cleaning products are non-toxic to both people and the environment. They can be used in place of common cleaning products to wash dirty surfaces. They do not sanitize or disinfect dirty surfaces.

Bleach solutions, sanitizers and disinfectants registered by the Environmental Protection Agency (EPA) are used to sanitize and disinfect. Green cleaning products can be purchased in many stores.

They can also be made at home. Follow these easy recipes.

GREEN CLEANING PRODUCTS YOU CAN MAKE		
Cleaner	Recipe	Directions
All Purpose Cleaner	<ul style="list-style-type: none"> • ¼ cup white vinegar • 3 ½ cups hot water • 20 drops of antibacterial essential oil (lemon, rose, or mint) • ¼ cup liquid dish soap • 2 teaspoons borax 	<ol style="list-style-type: none"> 1. Mix ingredients in 32 oz. spray bottle. 2. Add dish soap. 3. Use to wash surfaces. <p>~The vinegar smell will go away.</p>
Window Cleaner	<ul style="list-style-type: none"> • ¼ cup white vinegar • ½ teaspoon liquid soap or detergent • 2 cups water 	<ol style="list-style-type: none"> 1. Combine ingredients in spray bottle. 2. Shake to mix. 3. Use to clean windows and glass surfaces.
Mold and Mildew Cleaner	<ul style="list-style-type: none"> • One part vinegar • One part water 	<ol style="list-style-type: none"> 1. Mix vinegar and water in a spray bottle. 2. Spray on clean surface. 3. Wipe away mold and mildew. <p>~The vinegar smell will go away.</p>
Carpet Spot Remover	<ul style="list-style-type: none"> • Water • Enough baking soda, cornstarch, or borax to cover spot • Club soda 	<ol style="list-style-type: none"> 1. Blot spot immediately with water. 2. Sprinkle baking soda, cornstarch, or borax onto spot and let dry. 3. Rinse spot with club soda and vacuum.
Soft Scrubber	<ul style="list-style-type: none"> • ½ cup baking soda • Enough liquid soap to make a frosting-like thickness • 5-10 drops of antibacterial essential oil (eucalyptus, lemon, or peppermint) – optional 	<ol style="list-style-type: none"> 1. Put baking soda into bowl. 2. Slowly pour liquid soap into bowl while stirring continuously. 3. Add essential oil if you would like. 4. Put mixture on a sponge and wash surface. 5. Rinse.
Basin, Tub, and Tile Cleaner	<ul style="list-style-type: none"> • ¼ cup baking soda • ½ cup white vinegar 	<ol style="list-style-type: none"> 1. Combine baking soda and vinegar in bowl. 2. Use with soft cloth for cleaning.
Rust Remover	<ul style="list-style-type: none"> • Enough salt to cover the rusted area • 1 or 2 limes 	<ol style="list-style-type: none"> 1. Sprinkle salt over rust. 2. Squeeze lime juice over salt until covered. 3. Leave on for 2-3 hours. 4. Use lime rind to scrub. 5. Rinse and wipe away.
Wood Cleaner	<ul style="list-style-type: none"> • ¼ cup white vinegar • ¼ cup water • ½ teaspoon liquid soap • A few drops of olive oil 	<ol style="list-style-type: none"> 1. Combine all ingredients in bowl. 2. Soak sponge with mixture. 3. Squeeze out excess and wash surfaces. <p>~The vinegar smell will go away.</p>
Drain Cleaner	<ul style="list-style-type: none"> • Baking soda • 1 cup white vinegar • Boiling water 	<ol style="list-style-type: none"> 1. Sprinkle generous amount of baking soda in and around drain. 2. Pour vinegar in and around drain. 3. Flush drain clean with boiling water. 4. Repeat if needed.
<p>Green Ideas for Air Freshening:</p> <ul style="list-style-type: none"> • Open the windows or use a ventilation system. The stale indoor air will go out of the building and the fresh outdoor air will come in. • Leave out an open box of baking soda to freshen the air. • Cloves, cinnamon, or orange peel placed in hot water makes a powerful air freshener. 		

References:

Oregon Environmental Council. Eco-Healthy Child Care. Retrieved on Jan 14, 2009 from www.oeonline.org/our-work/kidshealth/ehcc/index_html

Oregon Environmental Council. *The Price of Pollution, Cost Estimates of Environmentally-Related Disease in Oregon*. Retrieved on Jan 29, 2009 from www.oeonline.org/our-work/kidshealth/priceofpollution

Week of the Young Child April 19th-25th



The Week of the Young Child is an annual celebration sponsored by the National Association for the Education of Young Children (NAEYC). The theme for 2009 is "Bring Communities Together for Children – Children Bring Communities Together". The purpose of the Week of the Young Child is:

- to focus public attention on the needs of young children and their families.
- to recognize the early childhood programs and services that meet those needs.



Local community celebrations are organized by regional, state, and local NAEYC Affiliates. Early childhood programs and community organizations that provide services to young children and families are encouraged to join in the celebration.



Hold a **Family Writing Workshop**. Provide families with a kit they can use to create a book with their children. Share the books at group time. Keep them in the book corner to be enjoyed for the rest of the month.

Display children's artwork throughout the center.



Make a DVD slide show of the children in the program. Play the DVD in the hallway for families to enjoy.



Have a **special activity** every day of the week: Parent Appreciation Day, Teacher Appreciation Day, Beach Party Day, etc.

Ask the city for a **parade permit** and "parade" down the street. Invite families to join in with costumes, and wagon, tricycle, and stroller decorating.

Hold a **Children's Fair** with booths representing early childhood agencies and other service providers.



February is

National Children's Dental Health Month
February 22-28 National Child Passenger Safety Week

March is

National Nutrition Month
Save Your Vision Month
March 1-8 National Sleep Awareness Week
March 15-21 National Poison Prevention Week
March 2 NEA's Read Across America Day
March 25 Kick Butts Day – Campaign for Tobacco Free Kids

April is

National Child Abuse Prevention Month
National Humor Month
April 1-7 Medication Safety Week
April 6-12 National Public Health Week
April 20-26 TV Turnoff Week
April 25-May 2 National Infant Immunization Week
April 26-May 3 SAFE KIDS Week
April 7 World Health Day
April 22 Earth Day



Bulletin Board



February 13-16 ~ Great Backyard Bird Count Week

An annual four-day event, the Great Backyard Bird Count Week engages bird watchers of all ages. To create a real-time snapshot of where the birds are across the continent, birdwatchers count the birds in their area. Anyone can participate, from beginning bird watchers to experts. They can count birds for as little as 15 minutes on one day, or for as long as a person wants on each day of the event. www.birdsource.org/gbbc/kids/gbbc-is-for-kids offers ideas on how to include children in this event.



Like people, birds have favorite things to eat, too! Invite particular birds to the backyard by offering their favorite morsels. Put out sunflower or safflower seeds to attract chickadees, titmice, finches, cardinals, and grosbeaks. Whole corn or millet is the choice of sparrows, blackbirds, pigeons, and doves. Help children make suet feeders to attract a number of different birds such as woodpeckers, chickadees, bluebirds, mockingbirds, warblers, and nuthatches.

March 25 ~ Kick Butts Day



On Kick Butts Day youth take action against tobacco use and the marketing of tobacco use to teen-agers. Tobacco toxins also affect infants, children and adults through exposure to second-hand and third-hand smoke. Cigarette smoke exhaled into the air or emitted from a burning cigarette is second-hand smoke. It is toxic when inhaled. Gases and particles in the smoke land on surfaces such as hair, clothes, and carpets. Young children can touch those surfaces and ingest the particles when they put their contaminated hands in their mouths. These particles can also leach into the air and be inhaled as third-hand smoke. Call the **NC Quitline** for free expert help to quit smoking: 1-800-Quit-Now.



Be *Eco-Healthy!*

An *eco-healthy* home is one that has very few environmental hazards inside or out. Children are more vulnerable than adults to health hazards from pesticides, smoke and other environmental toxins. Their bodies are smaller and developing quickly and they play on or near the ground, a place where toxins are likely to collect. Like children, pregnant women are also vulnerable and should avoid pesticides and harsh chemicals used for cleaning and home maintenance.

Make lawns safe for children

- Avoid insecticides and weed killers.
- Use organic fertilizer.
- Mow high and water deeply, but infrequently.
- If neighbors use weed killers, keep children away from their grass for a few days.
- If a lawn care service is used, choose one that avoids using chemicals.

Limit pesticide use

- Practice Integrated Pest Management (IPM) to prevent and control pest damage. It is cost-effective, uses little or no pesticides, is environmentally sound, and is safe for human health.
- Put food and trash in closed containers to reduce pests.
- Choose alternatives or use low toxicity baits and traps. Place them safely away from children and pets.
- If pesticides are used, follow directions carefully.
- Use non-toxic head lice treatments.
- Follow safety precautions when using insect repellants containing DEET. Use the lowest concentration and amount needed to be effective.

Practice safe cleaning and home maintenance

- Use low VOC (Volatile Organic Compound) paint.
- Keep area well ventilated when painting or renovating.
- Choose renovation products (like carpets, paints, or wood products) which do not discharge pollutants.
- Use non-toxic cleaning products.
- Air out items from the dry cleaner before bringing them into the home, or ask for "wet-cleaning".

Eat wisely

- Increase organic food in the family's diet.
- Wash and/or peel non-organic produce to reduce exposure to pesticide residues.
- Provide a healthy, well-balanced diet. It boosts the body's immune system and resistance to disease.

Breathe easier

- Do not smoke or allow others to smoke in the home or car.
- Check the home's ventilation, making sure indoor pollutants do not build up inside the home.
- Eliminate mold or mildew problems.
- Eliminate asthma triggers such as carpets, heavy drapes, and pet dander, if someone in the household has asthma.

Avoid exposure to lead

- Wipe feet or remove shoes before coming into the house.
- Wash hands before meals and wash bottles, pacifiers and toys often.
- Homes built before 1978 should be inspected for chipping lead paint. Follow recommendations on how to stabilize the paint as soon as chipping occurs.
- Test children between the ages of 6 months and 6 years for lead exposure.
- Use a water filter or run water for 30 seconds before using it for drinking or cooking.

Limit mercury exposure

- Use non-mercury thermometers.
- Dispose of mercury-containing products and other toxic products at the county hazardous waste site.
- Follow the US Food and Drug Administration's guidelines for eating fish, found on: www.cfsan.fda.gov/seafood1.html.

Avoid vinyl products

- Dispose of children's toys and vinyl products that contain lead and cadmium.
- Replace infant soft plastic vinyl chew toys with non-vinyl alternatives.
- Replace vinyl mini-blinds manufactured before 1996. They may contain lead.
- Avoid plastics with the letter "V" or numbers 3, 5 or 6 on them. They contain toxins that have a negative effect on human health, especially children's health.

Keep safe radon levels

- Test the home for radon. Home test kits are available.
- If the radon level is 4 pCi/L or higher, treat the home for radon reduction. Contact the local county extension service for guidance.

References:

Schuler K. *10 Things Parents Can Do to Protect Children from Environmental Threats*. Retrieved Dec. 16, 2008 from www.healthobservatory.org/library.cfm?RefID=37396

American Academy of Pediatrics Committee on Environmental Health. *Follow Safety Precautions When Using DEET on Children*. Retrieved January 6, 2009 from www.aap.org/family/wmv-jun03.htm.

♥ Quality Comes from the Heart ♥

Eco-Healthy Child Care (EHCC) is a program developed in Oregon and launched in 2005. It is designed to "educate and empower child care providers to reduce environmental toxins in their child care facilities while encouraging parents to choose *eco-healthy*." Since then it has gone national. North Carolina is one of seven pilot states chosen to receive focused training, workshops, and outreach through lead child care resource and referral agencies (CCR&Rs).



Norma Bell
Director of Little Teddies Day Care

Norma Bell, Director of *Little Teddies Day Care* in Chapel Hill, operates one of several child care programs in North Carolina with the *eco-healthy* designation. Her program is in the basement of a

church. Sunlight shines in through two large windows and the walls are adorned with colorful pictures. Staff members are warm and nurturing and the children smile as they greet their playmates and settle into their daily routine.

Norma believes in doing what is best for the children. She became interested in *eco-healthy* child care after receiving a packet of information about it in the mail. She was concerned about the quality of *Little Teddies'* indoor air. The floor, a concrete slab resting directly on the ground, was covered with a wall-to-wall carpet. When it rained, the concrete slab absorbed moisture from the ground and the rug absorbed moisture from the slab. The rug developed a dank, musty smell from all the moisture.

During a period of prolonged rain, the facility flooded. The floodwaters were removed but the odor in the carpet became worse as mildew or other fungi grew in the damp carpet. Norma tried to solve the problem by using two dehumidifiers, one for each room. Although she emptied "buckets" of water from the dehumidifiers each morning, the odor did not go away. She was afraid spores from fungi growing in the wet carpet might pollute the indoor air. Polluted air irritates the lungs and, for people with asthma, it can trigger an attack. Two of the children in Norma's program have asthma. Norma wanted to improve air quality for all the children, but especially those with asthma. Becoming *eco-healthy* seemed like a good place to start.

The first step was to replace the carpet. Norma was advised that a new carpet would eventually develop the same problems, becoming damp and musty when it rained.

Needing a different solution, she decided on laminate flooring. Laminate flooring is typically installed over a thick layer of waterproof fabric that keeps moisture away from the floor. Mold and mildew cannot grow without moisture.

Norma's second hurdle was to find a way to pay for the new floor. She leased the space from a church and decided to ask them to help. Once they understood the problem, they agreed to help with the expenses. The program closed for a few days while the old rug was replaced with laminate flooring. Problem solved! The new floor is easy to keep clean, but the best part is that the children with asthma have not had an attack since it was installed.



Little Teddies Day Care

Learn more about becoming an Eco-Healthy Child Care program!

Francesca Busee, the NC statewide contact person for the EHCC project, on behalf of the NC CCR&R Council, can be reached at fbusse@childcareresourcesinc.org or 704-376-6697 ext.113.

Programs can also contact their regional CCR&R lead agency:

http://ncchildcare.dhhs.state.nc.us/providers/pv_providercontacts.asp.

For more information on EHCC, go to: www.oeconline.org/our-work/kidshealth/ehcc

To be designated as an *eco-healthy* child care facility, Norma had two more simple changes to make. She had to switch to using non-toxic products for pest management and for cleaning the facility. Norma believes the effort is definitely worth it. She says, "When you follow your heart, you will do what is best for the children."

Go Green! Be a Planet Protector

Young children are fascinated with the natural world. Wind blowing through branches, clouds passing overhead or ants marching in a straight line – each experience can hold children’s attention for endless minutes. Children’s explorations of nature create opportunities for instilling respect for the world that they share with all forms of life. Engage young children in *green* activities that encourage protection of the environment and respect for its resources.

Encourage wonder

in infants and toddlers. Point out what they see each day. “Look! A blue bird! Do you see how it flies from its nest to the ground? Why is it doing that?”



Math and Re-cycling

a game for preschool and school-age children. Children learn to pick up and sort trash, and give nature room to breathe!

- **Preparation:** Make a game board by pasting wild life and nature scenes on poster board. Laminate. Find tiny novelty food containers or laminated pictures to use as game pieces. Use small pails for garbage cans – one per player.
- **How to play:** Give each child 10-15 game pieces. Have the children take turns dumping all their food containers on the game board. Each one rolls a die to determine how many pieces of trash they can collect and put in their garbage can. The game ends when all the trash is cleaned up and the wild life has its world back.

- **Extend the activity:** Add re-cycling bins made from shoeboxes labeled: bottles, boxes, tin cans, etc. Encourage children to count items as they put them in the bins. Graph the amount of “recyclables” in each bin.

Can this be reused? Encourage families to join in the re-cycle and re-use effort. Send home a list of items that can be transformed through art activities and science projects: newspapers, empty cereal boxes, clean water or soda bottles, and scraps of fabric. Ask them to bring items from the list into the classroom for the children to use. Have the children display creations made from reused items from home.

Young children are at the ideal stage of development to learn basic skills that will influence and shape habits, such as skills in caring for planet Earth!



We do not inherit the earth from our ancestors; we borrow it from our children.

~Native American Proverb~

Tips for Protecting the Environment

Whenever electricity is used, greenhouse gases are emitted into the air. Turn off the lights, television, and computer when not in use. It makes a difference!

Leave the lights off during the day. Natural sunlight is generally good enough.

Setting thermostats 2 degrees higher in summer and 2 degrees lower in winter greatly reduces the amount of energy used. Install ceiling fans. They help circulate hot air in winter and cool air in summer.

Trees absorb carbon dioxide, a greenhouse gas, from the air. Plant a tree and reduce greenhouse gases.



Plant drought-tolerant native plants. Once established, these plants need less water and are often suitable for habitats and animals. For a list of drought-tolerant native plants, go to the NC Botanical Garden’s website: <http://ncbg.unc.edu/pages/96/>.

Ask children to help maintain a clean environment with “old-fashioned” cleaning products such as vinegar, baking soda, and lemon.

Websites for kids!

Environmental Kids Club
www.epa.gov/kids/index.htm

Kids’ Planet
www.kidsplanet.org



Children’s Books on Ecology and Environment

Baby Birds
by Helen Frost 1999

Earthways: Simple Environmental Activities for Young Children
by Carol Petrash 1992

From Seed to Plant
by Gail Gibbons 1993

I Can Save the Earth!: One Little Monster Learns to Reduce, Reuse, and Recycle
by Alison Inches 2008

Why Should I Recycle?
by Jen Green 2005

= Infant/Toddler = Preschool – School-age

References:

Jones, Guy W., Moomaw, Sally. *Lessons from Turtle Island*. St. Paul: Redleaf Press 2002.
North Carolina Office of School Readiness, Outdoor Learning Environments. *It’s Easy Being Green*. Retrieved January 12, 2009 from www.osr.nc.gov/_pdf/It'sEasyBeingGreenEnvironmentalSustainabilityTipSheet.pdf



Ask the Resource Center



Q: I am confused about the process required for sanitizing or disinfecting surfaces and toys. In the past I washed the area or item with soapy water and then sprayed it with a solution made with bleach and water. At a conference I heard that rinsing should be a step in the process. Is this true? If it is, why is it necessary and when should the rinsing be done?

A: Like handwashing, cleaning is a more complex process than it sounds like it should be. Cleaning is done to remove dirt and debris, some of which may contain germs. The process of proper cleaning includes washing with water and soap or detergent and then rinsing. Scrubbing with water and soap or detergent loosens the particles of dirt. Rinsing with water removes soap or detergent and dirt from the surface. If left on the surface they can prevent sanitizers or disinfectants from working. Cleaning alone will not remove all bacteria, viruses, fungi and mold. Sanitizing or disinfecting is done to kill germs and decrease the spread of infectious diseases.



When you are sanitizing or disinfecting, the steps to follow are:

1. Wash with soap or detergent and water.
2. Rinse with water.
3. Apply sanitizer or disinfectant according to instructions.
4. Air dry for 2 minutes if a bleach solution is used. Follow the directions on the product if using an alternative to bleach solution.

Some cleaning products are environmentally friendly and *eco-healthy*. Environmental rating groups certify cleaners that are "green" to be better for the environment. They are for cleaning only.

Products designed to sanitize kill 99.9% of the germs listed on the product label. Products designed to disinfect kill nearly 100% of the germs listed on the product label. Bleach and water solutions can be used to sanitize or disinfect, depending on the strength of the solution. Other products can also be used. They must be registered by the Environmental Protection Agency (EPA). Look for the EPA registration number on sanitizing or disinfecting products. If the product is not registered with the EPA it can only be used for cleaning.

References:

- California Childcare Health Program. *Sanitize Safely and Effectively: Bleach and Alternatives in Child Care Programs*. Retrieved on Jan. 26, 2009 from www.ucsfchildcarehealth.org/pdfs/healthandsafety/SanitizeSafely_En1008.pdf
- North Carolina Sanitation of Child Care Centers. Retrieved on Jan. 26, 2009 from http://nrckids.org/STATES/NC/nc_2800.pdf

8 • HEALTH AND SAFETY BULLETIN • FEBRUARY / MARCH 2009

NC Child Care Health & Safety Resource Center
1100 Wake Forest Road, Suite 100
Raleigh, NC 27604



HEALTH BULLETIN

EDITOR: Vol. 11 Issue 1
Jacqueline Quirk

CONTRIBUTORS:
Lucretia Dickson, Jeannie Reardon,
Suzanne Todd

DOWNLOAD:
You may download a copy of this publication from our website at:
www.healthychildcarenc.org

REPRINTING:
Articles may be reprinted without permission if credit is given to the bulletin and the material is not reproduced for commercial purposes. This publication is produced by the North Carolina Child Care Health and Safety Resource Center and distributed to licensed child care facilities, CCR&R agencies, DCD child care licensing consultants, and child care health consultants throughout North Carolina. 10,000 copies of this document were printed at a cost of \$.46 per copy



We'd like to hear
from you...



Call us at 1-800-367-2229 to share your comments and request articles or information.

Nonprofit Org
US Postage
PAID
Chapel Hill, NC
Permit No. 177

POSTMASTER: Please deliver as soon as possible – time dated material enclosed