SOUTH CAROLINA FAMILY AND COMMUNITY LEADERS

Affiliated with National Volunteer Outreach Network, Country Women's Council, U.S.A., Associated Country Women of the World and in partnership with Clemson University Cooperative Extension Service

SCFCL website: http://www.scfcl.com

Leader Training Guide

Homemade Household Cleaners

Objectives: To reduce the quantity of hazardous material in residential homes and our water supply. Many household cleaners contain unwanted ingredients that can persist in the environment and become problematic. Homemade cleaners can disinfectant areas and protect the health of families and the environment.

Lesson Overview/Introduction: Why go through the trouble of making your own household cleaner? Some store bought cleaning products may contain chemicals that are harmful to your family, pets, and the environment. Following simple recipes will ensure you maintain a healthy household, as well as protect the environment!

Lesson:

Just a few things to avoid:

Phthalates: Found in many products such as air fresheners, dish soap, lotion. These are known endocrine disruptors and can enter the body through the skin or inhalation.

Triclosan: Found in dishwashing liquid and antibacterial products. This can promote drug-resistant bacteria. The EPA is currently studying the endocrine disrupting ability of triclosan.

Quarternary Ammonium Compounds, or "Quats": Found in fabric softener liquids and sheets and cleaners labeled "antibacterial". These promote antibiotic resistant bacteria and can irritate skin, even causing dermatitis. Quats may also cause respiratory disorders.

2-Butoxyethanol: Found in window, kitchen, and multi-purpose cleaners. This is found within the category of glycol ethers, which may cause sore throats, narcosis, pulmonary edema, and liver and kidney damage!

Ammonia: Found in polishing products and glass cleaner. Ammonia is a strong irritant that affects people with asthma and other lung issues. Chronic exposure can cause the development of bronchitis and asthma.

Borax: Sodium tetraborate

What is it: A naturally occurring mineral

Uses: Use with laundry detergent; kitchen cleaner; deodorizer; insecticide

Advantages: Non-reactive; safely mixes with other cleaning products

What it does: Raises the pH of water, softening it; inhibits the metabolic process of organisms

Baking Soda: Sodium bicarbonate

What is it: A naturally occurring material

Uses: Natural deodorizer; leavening; fire extinguisher

Advantages: Non-toxic, multi-purpose, gentle yet abrasive

What it does: The mild alkalinity causes dirt and grit to dissolve easily in water

White Distilled Vinegar: Acetic Acid, water and other trace chemicals

What is it: The fermentation of ethanol by acetic acid bacteria

Uses: Remove stickers; deodorizer; window cleaner; fights mold and bacteria; fruit and vegetable wash

Advantages: Inexpensive; safe to ingest

What it does: The acidic properties dissolve mineral deposits from smooth surfaces; breaks down the wax coating to kill mold and bacteria

Orange Essential Oil: Orange peel oil

What is it: The cold compression of orange peels

Uses: Sedative, anti-inflammatory, antiseptic, antidepressant & more

Advantages:Only small amounts are needed

What it does: Promotoes secretions from glads to regulate hormones; inhibits microbial growth; relaxes abdominal muscles

Epsom Salt: Magnesium Sulphate

What is it: A naturally occurring mineral

Uses: Sooth muscles; hair volumizer; face wash; exfoliator; insecticide

Advantages: Inexpensive; found at most stores

What it does: Regulates enzymes in the body; helps with the absorption of nutrients; attracts and holds water molecules.

The following are the recipes for common household cleaners:

Powdered Laundry Detergent
This laundry detergent recipe is color-safe, non-toxic, and safe for cloth diapers.
4 lbs. Borax
4 lbs. baking soda
4 lbs. Epsom salt
3 bars of pure castile soap
2 gal container
Grate pure castile soap, or chop and place it in a high-speed blender to make a powder. Mix all ingredients thoroughly. Place powdered detergent in a 2-gallon container.
Use 1 tbsp. for small or delicate loads and 2 tbsp. for large loads.

*Tip: To treat bad stains add a 1/2-cup of hydrogen peroxide to this recipe, or make a paste mixture of hydrogen peroxide and baking soda to treat stains before washing.
Source: http://cleaningouttheclutter.com/2013/10/eco-friendly-all-natural-homemade-laundrydetergent/

All-Purpose Cleaner
To get the aromatic and disinfecting benefits of citrus without using essential oils, steeping citrus peels is an alternative.

Citrus peels
White vinegar
1 large Mason jar with a fitted lid
Strainer
Spray bottle

Fill a large mason jar halfway with citrus peels and pour vinegar over the peels until it fills the jar. Cover the jar with a lid, and allow it to sit in a dark place for two weeks. The longer you let it sit, the more the citrus will infuse into the vinegar. After two weeks, strain the solution and discard the peels. Pour the cleaner into a spray bottle.

Shower Cleaner
This cleaner works as a shower cleaner and/or a daily shower spray. It is not advised to use as a daily shower spray on tiled showers as the grout may break down over time.
1 cup vinegar
2 tbsp. castile soap
1 cup water
Spray bottle

Combine ingredients in spray bottle and gently shake. Spray solution on shower walls, let sit 5-10 minutes, and wipe with a wet clean cloth.
Source: http://www.liverenewed.com/2012/10/days-green-clean-vinegar-dishsoap-for-showercleaner-laundry-stain-remover.html

Toilet Cleaner

This deodorizing formula uses the antibacterial properties of tea tree oil to kill germs in your toilet bowl and on toilet surfaces.
½ cup baking soda
1 cup distilled white vinegar
½ teaspoon tea tree essential oil
Spray bottle

Combine vinegar and essential oil in a small spray bottle. Spray vinegar mixture inside bowl, and also on toilet seat, lid, and handle. Allow cleaner to sit for several minutes. Sprinkle baking soda inside toilet bowl and scrub inside of bowl with a toilet brush. Use a clean dry cloth to wipe vinegar solution off seat, lid, and handle.

*Tip: If the solution is too strong, or needs to be diluted, mix it with 1 cup of water.
Source: http://www.diynatural.com/homemade-toilet-cleaner/

Lesson Summary: Using environmentally friendly ingredients, homeowners will create their own cleaning products that will not persist in the environment or cause adverse health issues.

Suggested Activities:

As a class follow one of the suggested recipes and make you own cleaner.

Suggested Materials:
Citrus peels
White vinegar
1 large Mason jar with a fitted lid
Strainer

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Baking Soda

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Epsom Salt:

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