

Keep our Planet Green

Environmentally friendly cleaners and REDUCE RE-USE AND RECYCLE

Leader's guide

Developed for Oregon FCE
By Sandie Bolyard and Kerry Mauk

In preparation for this lesson:

- ◆ [Optional] Bring samples of safe cleaners; (i.e.) lemons, salt, baking soda, club soda, washing soda, white vinegar, hydrogen peroxide, Borax, Turtle wax, rubbing alcohol etc.
- ◆ Bring a comparative list of prices for commercial cleaners and “green” cleaners ingredients.
- ◆ Ask participants, How many cleaners do you have under your sink? Do you have any alternate cleaners you use?
- ◆ Read page 1&2 to the audience and uses of different eco-friendly cleaning agents everyone has in their homes.
- ◆ Involve the participants in discussion of uses they might have tried and share your experiences using these products.
- ◆ Use cloths to clean instead of paper towel, save the land- fills. If you must use paper towels, use the blue shop towels, they can be rinsed and reused repeatedly.

For generations our “foremothers” have been combining vinegar with other household supplies to clean all around the house. Store-bought cleaners are not always as environmentally safe as natural, organic compounds. Most homemade cleaning formulas can be made for a fraction of the cost of a commercial counterpart. A number of ordinary household substances are combined with vinegar, baking soda, salt, etc. to make the formulas you will find in your handouts for a safer environment and you.

If you are like most Americans, you spend up to 90% of your life indoors and more than half of that time is spent in your home. The overall health of a home is usually affected by not one, but many sources of pollutants and to save energy and make our homes energy-efficient we are sealing into our homes, many chemicals found in commercial cleaners.

Commercial cleaners, polishes and pesticides are significant sources of toxins in the home, be sure to dispose of them according to the directions on the labels. The chemicals in cleaners and polishes are often a mixture of complex, unnamed compounds. Some contain strong acids (drain cleaners) or bases (oven cleaners) **do not dispose of these together**. Some contain petroleum distillates known as “grease cutters”.

Some compounds in commercial cleaners such as chlorine bleach, ammonia, phosphates can be an irritant to your skin and lungs.

Avoid detergents with mercury, phosphates and heavy metals, such as arsenic and zinc. Fragrances may cause irritation and trigger allergic reactions

As well as not being good for **your** health these are not good for the health of your family, pets, septic system and our planet.

Drain cleaners are among the most dangerous household products. The best way to avoid the need for caustic drain cleaners is to **prevent** the clogs and buildups in the first place. Scrape dishes, use sink screen and don't pour cooking oil down the drain. Once a week pour a kettle of boiling water down the drain, if it does become clogged, use the baking soda and vinegar and hot water recipe in your handout or better yet, collect all your cooking oils and use it to make seed block for your feathered friends.

When making your own cleaners, **never combine chlorine bleach with ammonia since it creates a harmful, potentially deadly gas.**

When mixing vinegar with baking soda, it will make a white foam which is a normal chemical reaction, let foam subside before tightly closing in a spray bottle or other container.

Salt: From a kitchen spice and food preserver to cleaning house to helping soothe aches and pains, salt can tackle the toughest jobs and is a mild abrasive. Salt is a natural product and very inexpensive.

Vinegar: Vinegar is acidic, it dissolves scale, inhibits mold and cuts soap scum. Vinegar works well on alkaline substances and stains such as coffee, rust, tea and liquor. Vinegar can be a healer, a disinfectant, a preservative, and a condiment, it whitens and softens laundry. This is very amazing considering vinegar is a by-product of something gone bad (fermentation). When you learn all the wonderful things vinegar can do, you will wonder why you did not discover all its uses before.

Baking soda: Baking soda is alkaline and therefore works well on acidic substances such as proteins, grease and animal messes, it is slightly abrasive and can be used for scouring, it is also a natural deodorizer and grease cutter and has mild bleaching properties. Baking soda is environmentally safe, inexpensive and nontoxic, it's actually a food so it is safe to use around children and pets. Whether in the kitchen, the bathroom, the laundry room or the garage, you will be amazed at what baking soda can do. Baking soda will absorb odors, deodorize and create a mild abrasive.

Washing soda: Increases your detergents cleaning power, helps neutralize and eliminate odors, cuts grease, food stains, makeup, blood and grass stains and more.

20 Mule Team Borax: Borax, or sodium borate, is a naturally occurring alkaline mineral. Borax will disinfect, deodorize and stop growth of mold, and when mixed with vinegar and other compounds can remove stains, also works as a water softener. Kills roaches and fleas

Lemon Juice: Lemons are acidic and can be used the same as vinegar to loosen scale, soap scum and as a de-greaser, plus they are inexpensive and leave a clean smell in your home.

Soaps: Simple Castile soap (made from olive oil) and vegetable bases soap (such as Murphy's Oil Soap) have neutral pH. And are easier on you and the environment.

Once you discover the versatility of salt, baking soda and vinegar, borax, washing soda and a few other household products, you can do away with all those expensive and sometimes toxic cleaners under your sink and the shelf life of these ingredients is forever

When using the environmentally friendly cleaners you get the added benefit of a clean smelling house instead of the chemical smell of commercial cleaners

Many studies have proven you do not need the expensive anti-bacterial sprays on the market, plain soap and water, borax or vinegar does the same thing and safer for the environment.

Antibacterial cleaners can promote growth of resistant bacteria.

Baking soda paste will clean most stains any where in the house, for tough stains you may have to add vinegar, just remember soda and vinegar will foam so make sure you wait for the foam to subside before putting mixture in closed container.

A spray bottle of ½ water and ½ vinegar is handy to have on hand for most cleaning jobs. Or just vinegar can be used anywhere in the house.

When a recipe asks you to make a paste, mix the dry ingredient with the wet ingredient to the consistency of toothpaste

Cleaning your home should not be a **hazmat** operation, with a little care, common sense, and a few basic ingredients, your home can be sparkly clean and healthy without breaking the bank.

Keep our Planet Green

Environmentally friendly cleaners

and

REDUCE RE-USE AND RECYCLE

Member's Handout

Developed for Oregon FCE
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KEEP OUR PLANET“GREEN”

Members Handout

Any time vinegar is used in a formula, use white vinegar unless otherwise specified.

Borax mixed with liquid will foam, let foam subside before sealing into spray bottle or airtight container.

Important note: When making your own cleaners, never combine chlorine bleach and ammonia, since it creates a harmful, potentially deadly gas.

Salt: Soothes aches and pains, mild abrasive.

Vinegar: Use as a preservative, inhibits mold, cuts grease and soap scum. Whitens and softens laundry. Disinfects

Baking soda: Mild abrasive, grease cutter, deodorizes, absorbs odors.

Borax: Disinfects, deodorize, stops growth of mold and a water softener.

Washing soda: neutralize odors, cuts grease and stains and increases detergents cleaning power.

Lemon juice: Use same as vinegar to loosen scale and soap scum and is a degreaser.

Soaps: Castile soap (made from olive oil) Murphy’s oil soap (made from vegetable oil)are safe soaps to use.

Laundry:

Wash: ½ cup Borax to each load, for large capacity or front loader use ¾ cup

Add ½ cup baking soda with detergent to freshen laundry and help laundry detergent work harder.

Grease stains: Cover stain with salt, wait for salt to absorb grease, gently brush away salt, repeat until spot is gone, launder as usual.

Ink: Rub salt onto a fresh ink stain on fabric, and soak overnight in milk, launder as usual.

Blood: Dampen area with water, rub in baking soda, follow with hydrogen peroxide, rub in with brush and launder as usual.

Softener and whitener: To whiten, add ½ cup vinegar to wash cycle. To soften, add ½ cup to final rinse.

Mildew: A mixture of salt, vinegar and water will remove most mildew from fabric. Use vinegar full strength for extensive mildew.

Basic stain treatment: A mixture of half water and half vinegar as a laundry pretreatment can do the trick on most common stains on clothing. Keep a spray bottle of this mixture in your laundry room. Spray mixture on stains before washing to give an extra boost or 1 part water and 3 parts peroxide.

Kitchen:

Fine China: ½ cup borax in a sink full of warm water, Designs on hand-painted china will not fade using this method, give china a second thorough rinse with clear water.

Cleaning Cookware: Borax is a gentle a cleaner for cookware. Sprinkle borax on pots and pans as you would a dry cleaner and rub with a damp cloth, rinse thoroughly. No need to worry about scratching borax is non abrasive.

Refrigerators: Borax is excellent for cleaning and deodorizing your refrigerator. Spilled food can be washed away with a sponge or soft cloth using a solution of 1 quart warm water and 1 tablespoon of borax. Rinse with cold water.

Copper bottom pots: Lemon dipped in salt will clean those as well as commercial cleaners. Alternate method: spray with vinegar, let sit until you see tarnish start to evaporate, (this will happen almost immediately), sprinkle with salt and scrub, rinse and dry.

Coffee and Tea stains: Remove stains in cups by rubbing with baking soda, add salt and a little water for stubborn stains.

Clogged drains: For greasy food clog, pour ½ cup salt and 1/2/cup baking soda into drain, flush with hot tap water.

Clog prevention: Periodically pour ½ cup baking soda and 1 cup vinegar into drains, it will foam your drain clean and help prevent clogs, when foam subsides, rinse with hot water.

Drain odors: Pour a solution of 1 cup salt and 2 cups hot water down drain to eliminate drain odors and break up greasy deposits.

Disposal: Pour ½ cup each salt, baking soda and dishwashing liquid into your disposal, turn on hot water, then run disposal for a few seconds to clean out debris and clear odors.

Stove Top: cleaning with vinegar water should be all you need to use, for stubborn stains, let sit a few minutes. This will make a clean and shiny stove- top.

*Several times a year, clean thoroughly and apply a coat of turtle wax and buff, this will make clean up easier.

Cooking:

Add a pinch of baking soda to water when soaking dried beans. It helps make them more digestible, also adding a dash when cooking them reduces the gaseous side effects.

To keep blocks of cheese from molding, soak a paper towel in vinegar and wrap around it, there will be no vinegar taste on cheese.

Bathroom:

Clogged drains and odors: Use same formulas as kitchen.

Showers and tubs: To loosen soap scum, scrub tubs and showers with vinegar or baking soda, Several times a year, apply a coat of Turtle wax to keep soap residue from sticking to shower walls, glass and tile.

Do not apply wax to floor of shower or tub, it will be too slick and create a slipping problem.

Shower, Tub and Tile: Porcelain enamel surfaces will sparkle when washed with a solution of borax and warm water. Sprinkle on a damp sponge or soft cloth and use as you would a powdered cleaner. This can even be used on fiberglass surfaces without scratching, rinse thoroughly.

Toilet Bowls: Pour 1 cup of vinegar in the toilet, brush around sides. Sprinkle ½ to 1 cup of borax into bowl, then swish with toilet brush. Let stand for 30 minutes or overnight.

Around the house:

Fireplace: An occasional handful of salt thrown into the fire will help loosen soot in your chimney, it also makes a cheery, bright yellow flame.

Does your fireplace or wood burning stove sometimes have a bad burning odor? To get rid of it, throw in a few lemon peels while burning.

Fire: Keep a box of baking soda within reach in the kitchen, Pour soda directly on flames to extinguish.

DO NOT use baking soda on fire in deep fat fryer, the fat may splatter.

DO NOT use baking soda on any fire involving combustibles, such as wood or paper.

Most kitchen fires can be extinguished with a lid placed over the pan.

Wood Furniture Cleaner: Mix ½ teaspoon of light olive oil and ¼ cup white vinegar.

Furniture polish: Combine 1- cup olive oil with ½ cup lemon juice into a spray bottle. Shake well then spray on a cloth and wipe onto wood furniture, polish with a fresh cloth. Or...

Wash with Murphy's oil soap or Castile soap and water, then polish with 1 teaspoon lemon oil or almond oil dissolved in 1 pint of baby oil.

Scratches; Combine an equal amount of vinegar and iodine, then apply mixture to a scratch in wood using an artists brush. If you need a deep color, add a little more iodine; for lighter color, add more vinegar.

Window cleaner: Mix 2-teaspoons of vinegar to 1 quart water, apply to window or mirror, squeegee off and dry with a soft cloth or newspaper. [Alternate] club soda alone does a good job

Harsh commercial window cleaners will destroy the seal on double pane windows.

Never spray any cleaner directly on windows, instead spray onto your cleaning cloth

Floors:

Wood floors: Remove water spots on wood floors with a sponge dampened in a baking soda solution, or... Add 1 cup of vinegar to 1 gallon of water and mop lightly (do not saturate) No need to rinse. This will keep floors shiny and remove any greasy buildup.

Stains: Use fine steel wool dipped in mineral spirits to scrub a stain on a wood floor. After scrubbing, wipe with vinegar on a sponge. Allow vinegar to penetrate, then repeat and rinse if necessary.

Ceramic Tile: Mop with a mixture of 1 cup vinegar and 1 gallon of warm water to make ceramic tile sparkle.

Linoleum and vinyl: Scrub floor with a mixture of 1 cup vinegar and 1 gallon water, if floor needs a polish after this, use club soda.

No wax floor: Clean with ½ cup baking soda in a bucket of warm water, mop and rinse.

Carpets:

Most commercial carpet shampoos have harsh chemicals that are not good for you or your environment, they can make your carpet rough.

Most carpets can be shampooed using only vinegar, spray onto carpet and use plain water to clean and suck up the vinegar, it will leave your carpet feeling softer and smells clean.

Red Wine: Immediately blot up moisture then sprinkle area with salt. Let sit 15 minutes. The salt should absorb the wine from carpet (turning pink in the process), then clean the entire area with a mixture of 1/3rd cup vinegar and 2/3rd cup of water.

Grease: Remove grease spots with a mixture of 1 part salt and 4 parts rubbing alcohol, rub hard in the same direction as nap, then rinse with water.

Deodorize Carpets: Sprinkle baking soda on the carpet, then vacuum.

Floor and Wall Cleaner: Fill a bucket with about 1- gallon of warm water. Add 1/3 cup of borax, 1 tsp. of dishwashing liquid and 1 Tablespoon of ammonia.

Remove urine odors from mattress: Dampen the soiled areas with water. Sprinkle borax over the areas. Rub the borax over the areas, working into mattress well. Let dry, vacuum or brush off any remaining borax powder.

Garage and Workshop:

Floor: Mix equal parts baking soda and cornstarch to sprinkle on spills, let dry, then sweep or vacuum. For tough stains, sprinkle on baking soda, let stand then scrub with a wet brush.

Windshields: Avoid frosted car windows on a cold morning by rubbing them in the evening with a sponge dipped in a saltwater solution of 2 tablespoons salt to 2 cups water.

Or...Spray the night before with vinegar/ water solution.

Apply a thin layer of the multi purpose cleaner formula to windshield to make bug removal easier.

This can be left on windshield to keep bugs from sticking.

Outdoors:

Weeds: Boil 1 quart of water, add 2 tablespoons salt and 5 tablespoons vinegar, while still hot, carefully pour mixture directly onto weeds between cracks on sidewalks and driveways.

Flowerpots: Spray flower pots with 50/50 mixture of vinegar and water to clean and disinfect them, rinse with clear water.

Pets:

If you have had a flea infestation in your home, sprinkle carpet or rugs with salt to help kill flea eggs, let stand a few hours, then vacuum, repeat every 6 weeks.

Put salt in your vacuum bag to help kill any flea eggs that you may have vacuumed.

If your dog comes home with a swollen nose from a bee sting, make him feel better by bathing the affected area with vinegar. Or a baking soda/water paste.

If your pet has a run in with a skunk, minimize the odor by rinsing his coat with undiluted vinegar, be sure to **keep vinegar from pet's eyes** during this process. Some skunk odor may remain, but it will be kept under control as it gradually wears off.

Another alternative; wash the pet in a bath containing 1 quart of 3% hydrogen peroxide, ¼ cup baking soda, and 1 teaspoon of liquid dish soap. Rinse well, and dry. **Keep away from pets eyes.**

Pet Accidents: To clean up after a pet's accident, scrub the area with club soda, and let dry. Then sprinkle with baking soda and let stand. Vacuum.

Alternate method; Let spot dry, then apply undiluted vinegar. The vinegar will help control odor and keep your pet from visiting the area again.

BASIC CLEANING FORMULAS

Pretreatment Stain Remover

½ cup ammonia

½ cup white vinegar

¼ cup baking soda

2 tablespoons liquid soap

2 quarts water

Mix all ingredients in a spray bottle. Spray this Formula onto the stain, and let sit for a few minutes. Launder as usual.

Carpet Freshener

1 tsp. baking soda

1 tsp. cinnamon

1 tsp. ground cloves

1 cup crushed, dried herbs

(rosemary, lavender) etc.

Combine ingredients, and sprinkle over carpet, allow to sit for a few minutes, then vacuum.

Multipurpose Home Cleaner

2 teaspoons vinegar
1 teaspoon borax
½ teaspoon baking soda
¼ teaspoon liquid dish soap
2 cups hot water

Prepare mixture and store it in a clean spray bottle. This mixture eliminates the need for expensive commercial cleaners. Use the cleaner on any surface in the kitchen, it is especially good for cleaning ovens and stove-tops. For hard stains on cook-top, let sit for 15 min. For oven, let sit overnight.

Silver Tarnish Remover

Boil water and ½ teaspoon salt with 1 to 2 teaspoons baking soda

Place tarnished silverware in a pan with boiled mixture and a piece of aluminum foil. Simmer for 2 to 3 minutes, Rinse the silverware well, then use a soft cloth to buff dry.

Grease Cutter Cleaner:

¼ cup baking soda
½ cup vinegar
1 cup ammonia
½ cup vinegar
1 gallon water

Use this solution to cut grease buildup on stoves, back-splashes, or glossy enamel surfaces.

Wear rubber gloves and use in a well-ventilated area.

This also works well as a soap scum cleaner.

Carpet freshener variations:

Mix 1 small box baking soda with your favorite potpourri oil, using just a few drops, and sprinkle on, leave on carpet 10 to 20 minutes, then vacuum.

OR

1 cup baking soda, 1 cup cornstarch and 15 drops essential oil fragrance. Leave on carpet 10 to 20 minutes, then vacuum.

Store in airtight container

Basic Wall Cleaner

1 cup ammonia
1 cup baking soda
1 gallon water

Mix thoroughly, then apply with a sponge. Wear rubber gloves to protect your hands from the ammonia, scrub marks gently. Rinsing is unnecessary.

Use this to clean walls or other painted surfaces.

Basic Bathroom Cleaner

1 box [16 oz] baking soda
4 tablespoons dish liquid
1 cup warm water
Mix well and store in a sealed container

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Recycling

National recycle day 11/15

This is the only planet we have so let's protect it from ourselves, we need to reduce, re-use and recycle everything we bring into our homes.

Most recycling centers except; metal, glass, plastic, tin, steel, aluminum, paper, cardboard, chipboard & construction materials.

Let's all help to reduce air and water pollution, reduce greenhouse gases. reduce our landfill waste, conserve National resources such as forests and oceans.

Check your local recycling centers, some areas have curbside pickup, recycling is easier than you think. Recycling centers can give you a list of what they will accept.

A key to living sustainably is being diligent about developing good recycling habits.

Avoid throwing recyclables in the trash, Recycling is easier than you think, no need to separate your recycle items **except glass**.

Empty and rinse all glass and plastic bottles and containers, wipe any food residue from pizza boxes. Flatten cardboard boxes, cereal boxes etc.

Buy products in paper or chipboard packaging whenever possible, paper can be recycled up to seven times.

Plastic bottles can be made into new bottles and if mixed with wood waste can be made into new building materials [decking materials, park benches, clothing, etc]

If **everyone** recycled 1 plastic bottle they would make 54 million t-shirts or 6.5 million fleece jackets.

Some manufacturers are finally getting on board by changing the way they package their products [ie; chipboard packaging instead of plastic shrink wrap or plastic rings].

Glass is easier and more economical and benefits the environment when making new products by using 95% old glass and 5% raw material.

Recycling glass saves valuable resources such as silica and soda ash.

Since glass products can be refilled up to 25 times before they need to be crushed and made into new bottles it eliminates the need to harvest raw materials.

A lot of tv dinner manufacturers are using plant based fibers for their bowls which eliminates the use of 3 million pounds of plastic a year.

1,000 tons of recycled glass can create 8 jobs

Before you throw anything away, stop and think if there is anyway you can reuse that container.

Dangers of mixing household chemical cleaners

These can cause coughing, breathing problems, burning and watery eyes, shortness of breath.

Bleach and vinegar= chlorine gas [chlorine gas and water combined makes hydrochloric acid]

Bleach and ammonia = chloramine. [shortness of breath, highly toxic]

Bleach and rubbing alcohol = chloroform [highly toxic]

Peroxide and vinegar = peracetic/ peroxyacetic acid [highly corrosive]

Resources

recycling partnership.org

recycle rebuild.org

gpi.org/glass recycling

metabolic.r/glass/recycling

metal recycling

keep America beautiful

plastic free bottles

how life unfolds.com

Keeping your family safe from household chemicals

My 2008 lesson on Living in a” Green” House has more cleaning recipes and tips, find it on FCE web site.

What shade of green are you [for lots of helpful tips] available on FCE web site.

43 Hearth Fire booklet

