

# CLEAN AND GREEN

According to the U.S. Environmental Protection Agency, only a fraction of registered chemicals have gone through complete testing for human health concerns. You can protect your health and the health of your family, pets and the environment by making your own cleaning products with simple, less-toxic ingredients. Many common household products, such as baking soda, lemon juice, vinegar and liquid dish soap, can make effective and inexpensive cleaners.

## Outcomes

Participants will learn how to make an all-purpose cleaner from simple ingredients and learn other ways to reduce the use of chemicals in their homes.

## Audience

Youth (ages 10+), adult

## Time

30 - 45 minutes

## Concepts

- There's a lot we don't know about the chemicals we use in and around our homes. Making your own cleaners from simple, less-toxic ingredients is one way to reduce the amount of hazardous chemicals in your home.
- Make sure to use a recipe from a trusted source and do not mix other cleaners and products together.
- Reduce the toxicity of the products you purchase by choosing the least hazardous product for the job, looking for environmentally friendly certifications on products you do buy, and being aware of resources to learn more about the products you buy.

## Supplies

- 12 oz. spray bottles (available from Hennepin County)
- White vinegar
- Water
- Liquid dish soap
- Labels printed with the recipe and clear packaging tape to secure label to the bottle (if not using Hennepin County bottles, which have the recipes pre-printed on the bottle)
- Liquid measuring cups and spoons
- Funnel
- Handout: Green Cleaning Recipes
- Lemon juice (*optional*)



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## Preparation

Set up stations with each ingredient for the all-purpose cleaner or set up a demonstration of how to make the cleaners.

If you are not using bottles pre-printed with the recipe, you may want to label the bottles ahead of time by using clear packaging tape to make the labels waterproof.

## Procedure

- Discuss the cleaning products that participants use around their homes. Discuss why they chose those products and ask them to think about how they define a clean home (it is a certain look, smell, etc.) Ask participants what they know about the ingredients in the cleaning products they use and if they are aware of any health or safety concerns.
- Provide each participant with a spray bottle and the recipe for the all-purpose cleaner.
- Have participants make cleaners:
  - Ingredients:
    - ¼ c. white vinegar
    - 1.5 tsps. liquid dish soap
  - Directions: In a 12 oz. spray bottle, use a funnel to add the vinegar and fill with water. Add the dish soap last. Add 2-5 drops of lemon juice as desired.
- Adults should supervise youth making cleaners.
- Participants may want to test the cleaner in the program space or compare its effectiveness with other cleaners.
- Hand out the Green Cleaning Recipes guide and discuss the cleaning properties of the basic cleaning ingredients and other homemade cleaning recipes.

## Discussion questions

- What did you learn that was new?
- Why should we care about the products we use?
- What are some reasons to make your own cleaners at home? (Healthier, less expensive, etc.)
- What other ways could you reduce the amount of toxic chemicals in your home? (See Additional activity ideas for suggestions).
- Will you or another family member use the cleaner at home?
- What did you learn that you want to share with someone else? Who will you share it with?
- What do you want to learn more about?

## Additional activity ideas

### Make additional cleaners

Refer to the Green Cleaning Recipes guide for additional products to make, such as tile cleaner or window cleaner.

### Discuss ways to reduce hazardous chemicals in your home

Ask participants to commit to taking one or more action. Some ideas include:

- Remove your shoes at the entrance to your home so you don't track chemicals from outside throughout your house.
- Use pump spray products instead of aerosols as aerosol mist is more easily inhaled.
- Avoid chemical air fresheners and candles.
- Avoid chemicals used in traditional dry cleaning.

- Buy fewer household hazardous products by avoiding specialty cleaners, using multipurpose cleaners and using single-ingredient products like vinegar or baking soda for cleaning.
- Use a fabric shower curtain instead of vinyl as vinyl releases chemical gases.
- Use mercury-free thermometers such as alcohol or digital ones. Take mercury thermometers to a hazardous waste collection site.
- Dispose of hazardous products properly.

### Tour the Hennepin County Drop-Off Facility in Brooklyn Park

This tour highlights the importance of reducing, reusing, recycling and preventing pollution. A household hazardous waste focused tour is also available. For ages 7 through adults. Visit [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation).

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## Resources

- Handout: Green Cleaning Recipes guide
- Household Hazardous Waste Learning Trunk  
This trunk will help explain the importance of proper use, storage, disposal and safety information of household hazardous products. Check out a learning trunk at [angela.ziobro@hennepin.us](mailto:angela.ziobro@hennepin.us) or visit [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation).
- Green Cleaning Learning Trunk  
This trunk helps explain the simplicity, safety and effectiveness of home-made cleaners. Check out a learning trunk at [angela.ziobro@hennepin.us](mailto:angela.ziobro@hennepin.us) or visit [www.hennepin.us/environmentaleducation](http://www.hennepin.us/environmentaleducation).