Release the Grease!

In this activity you can test whether water or laundry detergent is better at cleaning a colorful greasy substance like lipstick. Next time, you won't be stuck when you need to unstick lipstick!

Materials

White index card
Lipstick
Masking tape
Pen
2 Small disposable cups (3 oz.)
Measuring spoons
Water
Liquid dishwashing detergent
2 Cotton swabs

SAFETY: Be sure to follow Milli's Safety Tips and do this activity with an adult! Do not drink any of the water samples in this activity.

Procedure

1. Place the white index card flat on the work surface.
2. Use the lipstick to make two separate circles of color on the index card that are about the size of a quarter.
3. Use masking tape and a pen to label one cup "water" and the other cup "detergent".
4. Place about 1 tablespoon of water in the cup labeled "water", and about 1 tablespoon of dishwashing detergent in the cup labeled "detergent".
5. Dip one end of a cotton swab in the water and lay that end on top of one of the lipstick circles.
6. Dip one end of the other cotton swab in the laundry detergent and lay that end on the other lipstick circle.
7. Without lifting either end into the air or pressing down hard, hold one swab by the dry end and move it in a circular motion about 20 times over the lipstick circle. Move the other swab in the same way over the other lipstick circle.
8. Look closely at the way both liquids have moved with the lipstick and observe the water and detergent-dipped ends of the cotton swabs. Write down any differences between the water and the detergent washes in the "What did you observe?" Table.
9. Thoroughly clean the work area and wash your hands. Dispose of the solutions down the drain, and place the swabs and rinsed cups in the trash.

Where's the Chemistry?

Lipstick is a greasy substance. Water alone does not mix well with grease and cannot wash it away. Detergent can mix with the lipstick and can also mix with the water. This allows the water and detergent together to wash the lipstick away.

Remember how soap helps water to mix with other things the next time you are washing your hands.

What did you observe?

Washing with Water

_____

_____

_____

Washing with Detergent

_____

_____

_____

The American Chemical Society develops materials for elementary school age children to spark their interest in science and teach developmentally appropriate chemistry concepts. The *Activities for Children* collection includes hands-on activities, articles, puzzles, and games on topics related to children's everyday experiences.

The collection can be used to supplement the science curriculum, celebrate National Chemistry Week, develop Chemists Celebrate Earth Day events, invite children to give science a try at a large event, or to explore just for fun at home.

Find more activities, articles, puzzles and games at www.acs.org/kids.

Safety Tips

This activity is intended for elementary school children under the direct supervision of an adult. The American Chemical Society cannot be responsible for any accidents or injuries that may result from conducting the activities without proper supervision, from not specifically following directions, or from ignoring the cautions contained in the text.

Always:

- Work with an adult.
- Read and follow all directions for the activity.
- Read all warning labels on all materials being used.
- Wear eye protection.
- Follow safety warnings or precautions, such as wearing gloves or tying back long hair.
- Use all materials carefully, following the directions given.
- Be sure to clean up and dispose of materials properly when you are finished with an activity.
- Wash your hands well after every activity.

Never eat or drink while conducting an experiment, and be careful to keep all of the materials used away from your mouth, nose, and eyes!

Never experiment on your own!

For more detailed information on safety go to www.acs.org/education and click on "Safety Guidelines".