

Science, Technology, Engineering, and Mathematics

# **How Do Germs Spread?**

Do you get told to wash your hands after playing outside or using the bathroom, even when there isn't any dirt on them? Try this experiment to see why you should wash your hands, even it they look clean!

### **What You Need**

- Hand lotion
- Sink or large bucket
- Soap
- A helper

- Glitter
- Paper towels
- Water



## What To Do

- 1. Put a drop of lotion on your hands and rub them together to spread the lotion out evenly.
- 2. With hands over a sink or large bucket, have your helper put a pinch of glitter in the palm on one of your hands.
- 3. With your hands still over the sink, make a fist with the hand that has glitter on it, then spread your fingers out. What do you see?
- 4. Now press the palms of your hands together and pull them apart. What do you notice about your hands?

#### What To Do cont.

- 5. Touch your helper's hand. Now do you see anything on it?
- 6. Get a paper towel and use it to wipe your hands clean of all glitter. Is it working?
- 7. After using the paper towel, try using soap and water to wash your hands. Did the glitter come off?

## What's Happening?

After getting the glitter on your hands, you should have noticed it spreading very easily to anything your touched, even your helper's hand. When you tried to use a paper towel to remove the glitter, some of the glitter probably came off, but most of it stayed on your hands. But when you used soap and water to wash your hands, the glitter came off pretty easily. The glitter is acting the same way that germs on your hands act - there are a lot of them, they spread around easily, and it can be tough to get them off. The difference is that germs are so small you can't see them without a microscope, so you have to know when you may have come into contact with germs and wash your hands often.

If you accidently touched your mouth, nose, or eyes while doing this experiment, you may have found glitter getting left behind near these areas. Germs travel the same way and can easily enter your body if you touch your face with dirty hands, which can make you sick. That's why it's important to wash your hands before you eat. It is also important to wash your hands after touching something that might have germs, such as when you use the bathroom or play outside. If you don't, the germs can easily spread to more places and to other people and cause sickness.

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