

RUB A DUB DUB, TIME TO SCRUB!

Sharing is great, but not when it comes to germs! It is very important to wash your hands properly to prevent the spread of germs and diseases. This simple action helps keep us all safe.

Germs are very tiny. You can only see them with a magnifying instrument called a **microscope**, but they are everywhere. Other names for germs are **microorganisms** or **microbes**. Some different types of germs are **bacteria**, **viruses**, **fungi**, and **protozoa**. A microbe that causes disease is called a **pathogen**. If pathogens get into our bodies, they can make us very sick.

Bacteria can be good for our bodies. They help us digest food, and some are used to make medicines and vaccines. They can also be dangerous and cause infections like strep throat.

Viruses cause diseases such as colds, flu, chicken pox, measles, and COVID-19. **Virology** is the study of viruses. A **virologist** is a scientist who studies viruses and viral diseases. Do you know how COVID-19 got its name? The *CO* in the name COVID-19 stands for *corona*, the *VI* for *virus* and *D* for *disease*. The number 19 refers to the year, 2019, in which the disease first appeared (Coronavirus disease 2019). COVID-19 is the name of the virus that causes the coronavirus disease.

Fungi are plant-like organisms that can cause infections like ringworm and athlete's foot.

Protozoa love moisture and can cause diseases that spread through contaminated water or by infected mosquitos

Microbiology is the branch of science that studies **microscopic** organisms. A scientist who studies these organisms is a **microbiologist**.

Ready for some good news? There is something very easy we all can do to help keep germs from getting into our bodies. Washing your hands well can wash germs away and help keep you and your family healthy. If there are germs on your hands and you touch your eyes, nose, or mouth, then the germs can get into your body and make you sick. It is very important to wash your hands:

- ✓ After you cough, sneeze, or blow your nose
- ✓ Before you eat
- ✓ Before and after visiting someone who is sick
- ✓ After playing outside
- ✓ After touching animals
- ✓ Before and after cooking
- ✓ After you use the bathroom

Here are a couple of activities to help you understand how germs are spread and how handwashing can help.

ACTIVITY #1 – How Germs Spread

Supplies:

- Small bowl
- Hand lotion
- Glitter
- Bucket or sink
- Small toys

Mix glitter and lotion in a small bowl. The glitter represents germs.

Put some of the “germy” lotion on your hands and rub them together.

After about one minute, shake hands with someone and then touch a few surfaces. This will give you an idea of how germs can spread.

Next, play with some small washable toys and see how they become covered with “germs”.

Wash your hands and toys in a bucket or sink full of warm soapy water when you are done.

ACTIVITY #2 – Did You Wash Your Hands?

Supplies:

- Washable paint
- Sink
- Hand towel
- Soap

Rub the paint all over your hands, and let it dry for a couple of minutes.

Rinse your hands for 5 seconds with water. Do your hands look clean?

Rub your hands under the running water for another 5 seconds. How do your hands look now?

Next, use some soap and water and wash them for 5 seconds. Are they clean yet?

Wash them for another 15 seconds using soap and water. How do they look?

If there is still paint on your hands, keep scrubbing until they are clean.

What did you observe?

Did rinsing only with water clean your hands well?

Did the soap help break up the paint and help remove it?

Did you notice little spots where germs can hide, like under your fingernails? Pay extra attention to scrub these areas well when you wash your hands. You can use a soft bristle nail brush to clean all up under those fingernails.

Especially now, when people are worried about the coronavirus that causes COVID 19, it is important to wash your hands often and very well to stay healthy and happy!

ADDITIONAL RESOURCES:

Guidelines from the Centers for Disease Control and Prevention (CDC) for handwashing to prevent disease:

<https://www.cdc.gov/handwashing/when-how-handwashing.html>

<https://www.livescience.com/coronavirus-kids-guide.html>

<https://www.youtube.com/watch?v=JD85FDlxqCs>

<https://www.youtube.com/watch?v=YBGsoimPXZg>

<https://www.youtube.com/watch?v=1X8p0vhsWRE>

Books available from the Washoe County Library System:

Germ: Fact and Fiction, Friends and Foes by Lesa Cline-Ransome

Bill Nye the Science Guy's Great Big Book of Tiny Germs by Bill Nye with additional writing by Kathleen W. Zoehfeld

Germ: Make Me Sick! by Melvin Berger

Microscopes and Telescopes by Rebecca Stefoff

Keep it Clean. Time to Wash Up by Cecilia Minden

Louis Pasteur and the Founding of Microbiology by Jane Ackerman

Good Hygiene by Alice B. McGinty

Books available on Overdrive about the importance of good hygiene and about germs:

<https://washoecounty.overdrive.com/library/kids/collection/1081300>