

# **GERMS**

#### Bill Nye the Science Guy will make you all better - with the "Germs" episode

Don't panic, but germs are all around you. Germs are bacteria, viruses, protozoa, and fungi, very small one-celled organisms. Your skin keeps most of these organisms from ever getting into your body. If germs slip inside, your body has some powerful weapons to attack and destroy them. And not all germs are bad; there are good germs, too, like the ones that live in our stomach and intestines – our guts.

Your body's immune system protects you from getting sick. Special cells called neutrophils, macrophages, and lymphocytes kill germs. Proteins called antibodies attach themselves to germs, marking them. Then neutrophils, macrophages, and lymphocytes can do their duty and attack the marked germs. There's a whole army of different cells in your body fighting the war against germs.

So don't be illin' – just watch the "Germs" episode.

### **♀** THE BIG IDEA

- A germ is a very small living thing that can get inside your body and make you sick.
- Most germs don't make you sick, because your body fights them off.

## DID YOU KNOW THAT?

- A sneeze sends germs flying out your nose as fast as 160 kilometers (100 miles) an hour?
- Washing your hands kills or washed off 99% of the germs on them?
- At any one time, there are more than 100 different viruses that cause the common cold?

### **BOOKS OF SCIENCE!**

- "Viruses" by Howard and Margery Facklam Published by Twenty-First Century Books, 1994.
- "Cell Wars" by Dr. Fran Balkwill. Published by Carolrhoda Books, 1990. Watch for "Bill Nye The Science Guy's Big Tiny Germ Book".

https://www.billnye.com/the-science-guy