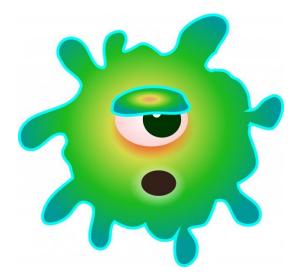
# All About Germs

#### **BY Esther and Zoe**

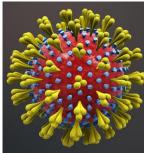


#### What are the types of germs?

The 4 major types of germs:



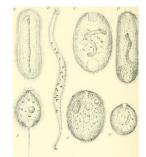
Viruses







#### Protozoa



### Facts About Viruses

- Viruses are even smaller than bacteria, they aren't even a full cell and they need to use another cell's structures to live.
- Viruses can't live without a host (living in a person, animal or a plant).
- They can only live outside a person, animal or a plant for a short time.

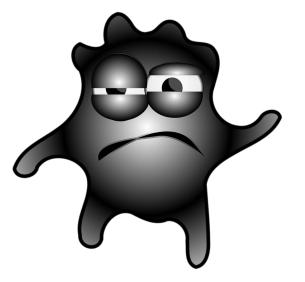
# **Do Viruses Need Antibiotics?**



\*\*Most of the time when kids are sick, they have a virus\*\*

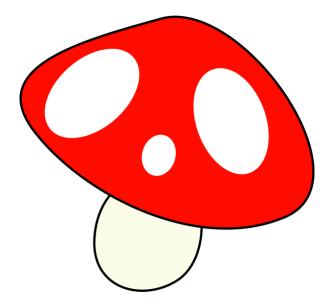
#### Facts About Protozoa

- Protozoa are bigger than bacteria.
- Protozoa are one celled like bacteria.
- Like viruses, they need a host to survive.



### Facts About Fungi

- Fungi can only live in a person that is sick or unhealthy.
- Fungi is not dangerous to a person that is not sick (healthy person).
- Fungi is not that scary/dangerous to most people.



# What do germs do?

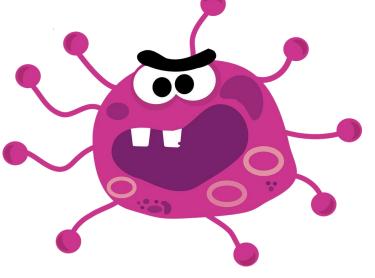
- Once germs get into our bodies, they snuggle in for a long stay the gobble up nutrients and energy and can produce toxins, which are proteins that act like poisons.
- Those toxins can cause symptoms of common infection, like fevers, sniffles, coughing, vomiting and diarrhea.



#### Facts about bacteria

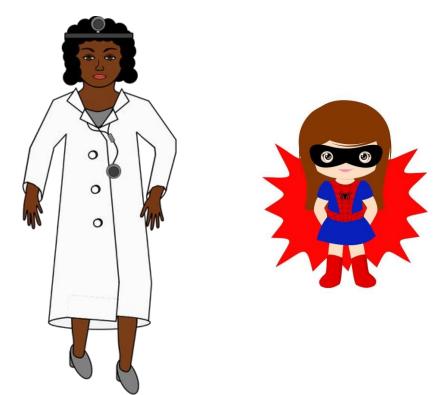
- Bacteria are tiny celled creatures that are living in your body.
- Some kinds of bacteria are bad, but some are good for your body.
- Bacteria help keep things in balance.
- Bad that bacteria can cause ear infections and sore throats (fever).





### How do doctors figure out what germs are doing?

- They take a closer look.
- By looking at samples of blood under a microscope and then the doctors send the samples to a laboratory for more tests, and then the doctors tell which germs are living in your body and how they are making you sick.



# The Experiment

- We wanted to see if different objects were covered in germs.
- We compared the amount of germs on a bunch of surfaces including cell phones, backpacks, desks, pencils, bathroom door handles, keyboards, clean hands, dirty hands, and sanitized hands compared to a control.



# Hypothesis: What we thought would happen!

• That germs will grow on the bread and we thought that the bread rubbed on the cell phone would have the most germs.



# The Experiment: Thing you need before you begin.

- Materials:
  - Bread
  - Ziplock Bags
  - Marker for labbelling
  - Gloves

#### Methods: What did we do?

• We put bread in a bag. The bread was rubbed on a bunch of different surfaces (experimental groups: backpack, pencils, clean hands, sanitized hands, bathroom door handles, dirty hands, desk, and keyboard) except for the control (we did nothing to one piece of bread).



### Results: What actually happened?

• The bread did do something. But only two grew mold over the 4 weeks. Keyboards and sanitize hands were the two that grew mold.



### Discussion

- Why did some not grow the mold?
  - Because of the PRESERVATIVES!!!!!!!!!!!
  - Preservatives are something that prevent the bread for going bad. It extends the "shelf life" and allows food to stay on a grocery store shelf for a long time.

