

Growing Bacteria

Ages 5-10

Prepared by University of Rochester iGEM

Background

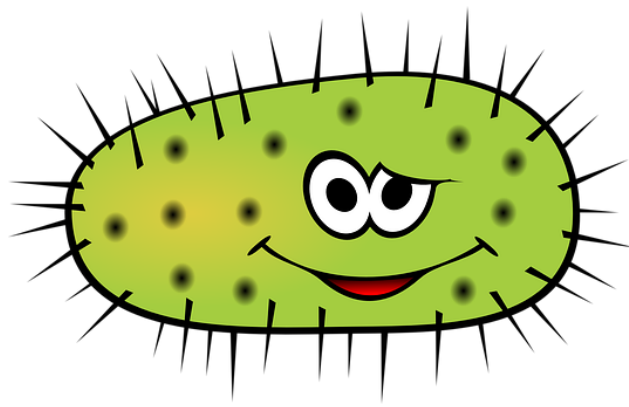
Have your parents ever told you to cover your nose when you sneeze so you don't spread germs? Or to wash your hands before you eat? Well, "germs" is a word we use for bacteria and viruses and bacteria. But bacteria and viruses are so small that we can't even see them without a microscope! In this experiment, we are going to use a special substance called **agar** to grow bacteria and see them with our own eyes!

Materials

1. 1 agar plate
2. 1 cotton swab

Experiment

1. Find a surface in our house that has germs. Some good places are door handles, toys, tables and cell phones!
2. Gently rub the cotton swab all over the surface. Here, we are collecting our sample of bacteria!
3. Gentle stroke the agar with the cotton swab.
4. Bacteria like to be warm so place your agar plate outside in the nice, warm summer weather!
5. Bacteria need some time grow. Check back in two days to see if you notice anything different on your agar plate!



How does this experiment work?

We can't see the germs on our hands, toys or phones because the bacteria and viruses are so tiny! In this experiment, we grew our bacteria so that we could see them! How did we do this? Well, just like you, bacteria need nutrients to grow! The agar plates contains special food for the bacteria so the bacteria can grow and multiple. Eventually, there are so many bacteria that you can see them without a microscope! Scientist frequently use bacteria to do experiments.

Have you ever wondered why medicine makes you feel better? Well certain medicines kill bacteria! Scientists can tell if a substance will kill bacteria by putting the medicine on the agar plate and seeing if the bacteria grow. If they don't grow, then the medicine killed them.

Should this be live or recorded?

Live would be fun

Amazon links to materials

1. [Agar and swabs](#)