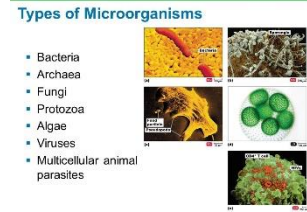


Bugs in Your Kitchen

60+ minutes



By now, you should know that microbes are **everywhere**. They exist in the air, the soil, water, on our bodies...the list goes on and on. Microbes are also found in our homes and you are going to prove it. This week, you will conduct an experiment to identify some microbes that are living in different parts of your kitchen. Don't worry- I'm not suggesting that your home is filthy. No matter how clean your house may appear, microbes are still present in great abundance and that may actually be a good thing (remember, many types of microbes are beneficial to humans)

Carefully read the instructions below to complete this lesson!

1. View this short video <https://www.youtube.com/watch?v=04sFxbqf6Sk>
2. **Read** the instructions on page 3 below(Kitchen Investigator) to complete your experiment. Your experiment will take about 1 week to complete. **Note: do not begin the experiment before completing Step 3 below!**
3. Before you conduct your experiment, make a **prediction** on which bag of bread will have the **least** microbes and record it. Also predict which bag will have the **most** microbes.
4. **Complete** your experiment. After 1 week, record your observations. The best way to do this is to take clear, close up pics with your phone, iPad, etc. If that is not possible, do your best and draw what you observe in each bag.

5. **Communicate** your results by answering the following questions,

a) Did your predictions match your observations? If not, explain why. Were there any possible sources of error in your experiment?

b) Why one bag of bread labelled **Control** and what was its purpose in the experiment.

6. After your experiment has been completed, please put all bags of bread in the trash. Do not eat the bread-it will have tiny bugs all over it.





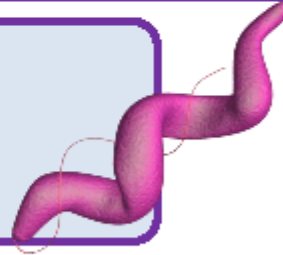
Kitchen Investigator

Where in the kitchen do most microbes live?

This is a cool experiment to find out where all the microbes are hiding in your kitchen. But remember, not all microbes are harmful, most of the microbes you will find are completely harmless to us. Have fun playing microbe detective!

Ingredients

- 4 Slices of Bread
- 4 Small sealable plastic bags (sandwich bags are fine)
- A Sprinkle of water
- A Magnifying Glass
- A Marker Pen
- A Notebook
- A Camera (optional)



Method



Take **1 slice of bread** and put into a plastic bag. Seal the bag and **label** as **control**.



Add a **sprinkling of water** to the rest of the **bread** slices. Be careful and try not to soak the bread.



Take **1 slice** of bread from **step 2** and carefully **rub** it across your **kitchen floor**; try not to break up the bread. Put it into a bag, seal it and **label** the bag **floor**.



Repeat step 3 but for different kitchen surfaces, e.g. a shelf in the fridge or the kitchen sink until all the bread is used. Each time **seal** the **bag** and **label** with the surface name.



Place all the bags in a **cupboard**, and leave them for at least **1 week**. Take notes/photos of any changes you see to the bread every day. **Never** open the bags.

