



What's Growing on Your Bread?

(Suggested Ages: 5+)

Gather

- 4-6 slices of bread
- Kitchen tongs
- Ziploc bags
- Permanent marker
- Testable surface options: kitchen sink, remote controls, door knobs, floors, your hands (before and after washing), shoes, etc.



Let's Experiment!

1. Remember, microbes like bacteria and yeast are everywhere, especially your hands! Try your best not to touch the bread slices with your fingers in the following steps.
2. Decide which surfaces you will test and label your bags with the marker. One of these bags needs to contain a piece of bread that doesn't touch anything, label this bag "Untouched".
3. USING TONGS, remove a slice of bread from its container and place it directly into the bag labeled "Untouched". Close it up.
4. USING TONGS, remove another slice of bread and wipe it along your first testable surface. Then, place it carefully into the labeled Ziploc and close it up.
5. Repeat for your remaining slices of bread.
6. Leave your bags in an area that isn't too cold and check each day for patches of growth. DO NOT OPEN THE BAGS AT ANY POINT. When done, throw closed bags away.

How Does it Work?

Microbes are single-celled creatures that live on all types of surfaces and can even be in the air. You have all sorts of them ON and IN your body, too! We often think that "germs" are all bad and need to be cleaned away, but actually many of them are really good for us - they are one of the ways our bodies fight against harmful microbes! All living things need to eat, so giving them a nice meal of carbohydrates in bread is an easy way for them to live and reproduce new cells very quickly. Check out our [Scorpy Comic](#) exploration of living things and try this additional [experiment!](#)

Take it Further!

For more information and to play some interactive online games, visit following:

<https://www.amnh.org/explore/ology/microbiology>
<https://www.youtube.com/watch?v=JZjzQhFG6Ec>