



WEEK 3:

GROSS-ODOGY

ARE YOU READY FOR SOME SMELLY, ICKY, GROSS FUN?

Have you ever encountered something that smelled, looked, felt or tasted gross? There is a good reason! We can have a negative reaction to gross things to help protect ourselves from things that may be bad to eat or touch. However, that doesn't mean they are all bad. There are many things we might consider gross-from mold and bugs to germs and scat, but they are all an important part of our world! Mold might smell and look gross and bugs, like flies, might give us that creepy crawly feeling, but both are important decomposers. Decomposers break down waste and dead things, and put those nutrients into the soil so that plants and other living things can survive and grow. Germs can make us feel sick, but there are kinds of good bacteria that help animals and humans digest food or even provide them with vitamins. Scat may smell stinky and look mushy or slimy, but it can help fertilize plants and can tell scientists about what animals might eat, their health and where they have been.

DAY 4:

GROWING MOLD

Have you ever seen mold on a piece of old or rotting food? Mold is a fungus that forms threads called hyphae ("high-fee") as they grow. When they reproduce, they produce special cells called spores. Mold spores travel through the air and when they land on something mold can feed on, spores release the mold hypha to grow. While mold likes a warm, damp environment, it will grow in colder places like your refrigerator as well. Seeing moldy, rotting food may be gross, but it also a sign that the food is not good for you to eat. Mold is important because it is a decomposer, which is an organism that breaks down and digest things so their nutrients can return to the soil. Some kinds of mold are also used to make cheese and medicine. Let's find out how well mold grows on and decomposes some common foods!

Before you start, you should have:

- One slice of bread
- One piece of cheese
- One piece of fruit
- One piece of processed packaged food like crackers, cereal or chips
- Four plastic zipper bags
- Water
- A place that is room-temperature and out of the sun
- Something to write or draw with.
- Paper or a journal

Get started:

1) Observe the bread, cheese, fruit and processed food. Write or draw your observations:

- What do they feel like?
- What do they smell like?
- What do they look like?
- Which do you think will grow the most mold? Why?
- Which do you think will grow the least mold? Why?

2) Sprinkle a few drops of water on each of the food items and seal them tightly in a zipper bag.

3) Place the bags of food items somewhere inside away from the sun and at room temperature.

4) Wait a full day and check on your food items. Do not take them out of the bag. Write or draw your observation for each piece of food:

- What does it look like?
- Do you notice any color change?
- Can you see anything growing on it?

5) Return the bags to the place you stored them.

6) Wait two days and check on your food items. Look for more changes in color and mold growth and record any changes in your journal.

7) Continue checking on the food items every two days for up to 10 days and write or draw your observations in your journal.

8) On the last day, make one last set of observations.

9) Throw away the bags of food or, with the help of an adult, you can compost the food. Be sure not to open the bags on your own.

10) Look at your observations each day and think about what happened:

- Which type of food grew the first mold?
- Which food had the most mold?
- Where there different colors or textures of mold?
- Did one food grow mold faster? Why do you think that is?
- Did any food not grow mold at all? Why do you think that is?
- Were your guesses from the first day correct?

11) Tell someone what you discovered!

Join Sam Noble Museum educators as they try the Growing Mold experiment!

https://www.youtube.com/watch?v=EAZ_d5QgXJs



Keep Exploring!

Collect four pieces of the food that grew mold the fastest. Put them in separate bags with a few drops of water. Place the bags in four different places: in the sun, in the refrigerator, in a dark cabinet, outside in a shady area. Label the bags with a permanent marker noting the location the bag will be stored. Check the bags each day for one week and compare what the food looks like. Which environment was the best for growing mold? Why do you think so?

What did you find?

What did you discover? Upload a photo or video and tag the Sam Noble Museum on Instagram or Facebook. You can also use the hashtags **#samnoblehome** and **#summerexplorers** to share!

More information on mold



<https://kids.britannica.com/kids/article/mold/442740>



<https://www.nationalgeographic.org/encyclopedia/decomposers/>