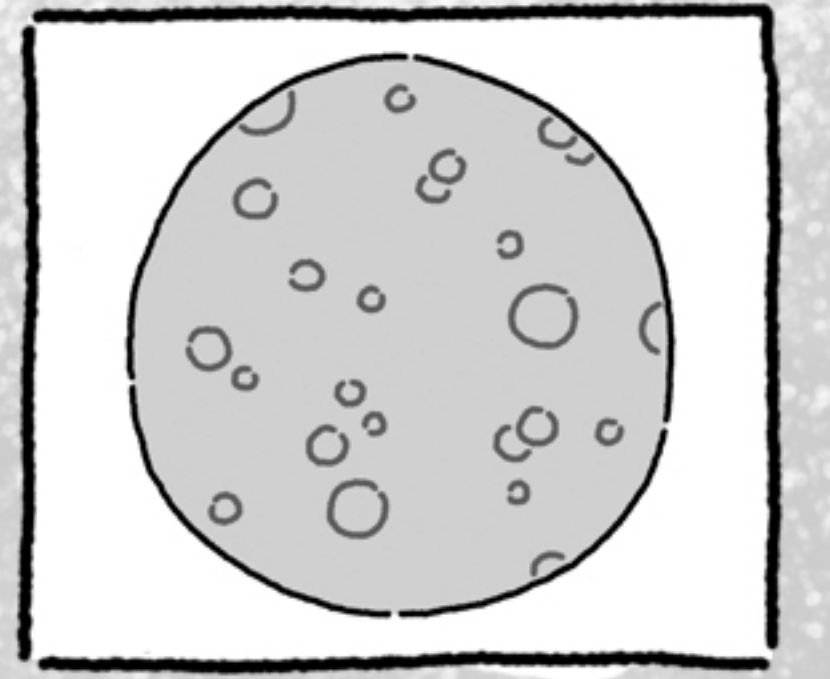


# A We Are Fungi Experiment: Blowing Up a Balloon with Yeast



Here's an experiment you can do to learn more about one of **FUNGI's** most popular organisms: **YEAST!**

Yeast is a single-celled organism meaning it is only one cell big! That is super **TINY!** Yeast is so tiny we have to use microscopes to be able to see one. And if you look with a microscope you can even see them move! That's because they are **ALIVE!**

Even though yeast are small, don't be fooled! They're also very strong! You may not be able to see them, but they do tons of really amazing things for us! Yeast's most popular trick is **FERMENTATION**, a process that:

- Makes bread **RISE**
- Makes blue cheese **BLUE**
- Makes **VINEGAR**
- Turns milk into **KEFIR**
- Turns grapes into **WINE**
- Turns tea into **KOMBUCHA**

Yeast can even inflate a balloon! Let's see how:

## YOU'LL NEED:

- 1 packet yeast (from the grocery store)
- Soda/Water Bottle: (12 or 16oz, cleaned out)
- 1 tsp of Sugar
- Warm Water (~110 F)
- 1 Small Balloon

## LET'S DO IT:

**1** Blow up the balloon a few times to stretch it out.



### Why warm water?

Yeast is alive, but in the packet they are dormant, which is like being asleep. We use warm water to wake them up!

**2** Pour about 1-2 inches of warm water into the bottle.



**What's in the packet?**  
in one packet of yeast there are 140 billion yeast organisms!

**3** Pour in the packet of yeast and gently twirl the bottle a few times to mix.



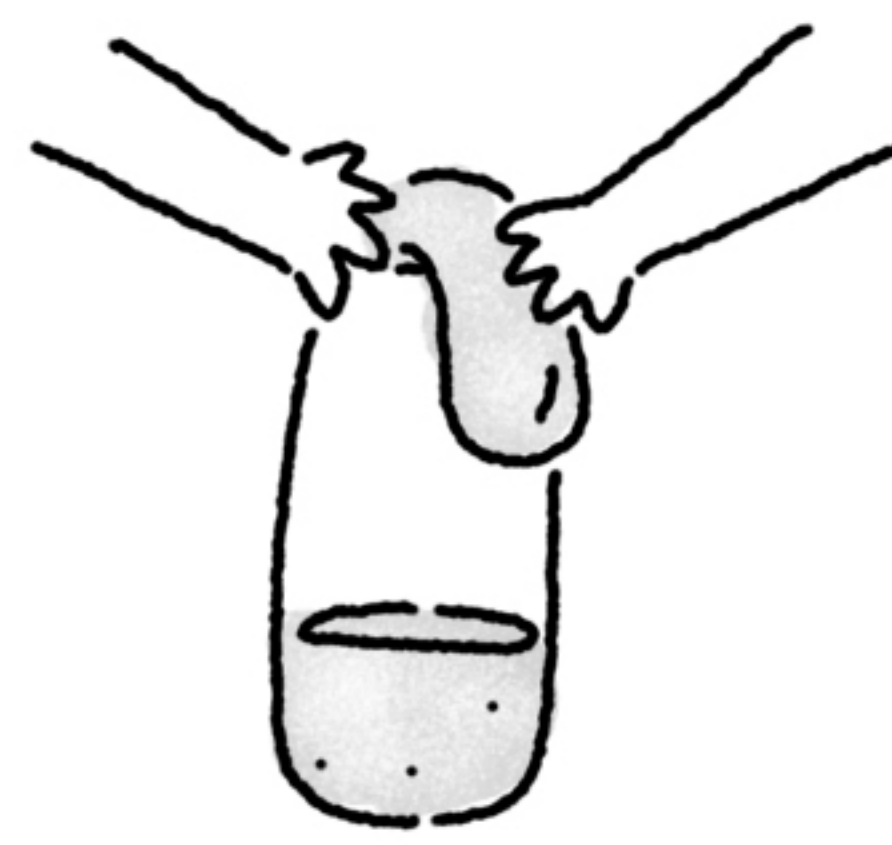
### Why sugar?

Just like you, yeast love to eat sugar. When we wake yeast up, we also have to give them some food to eat!

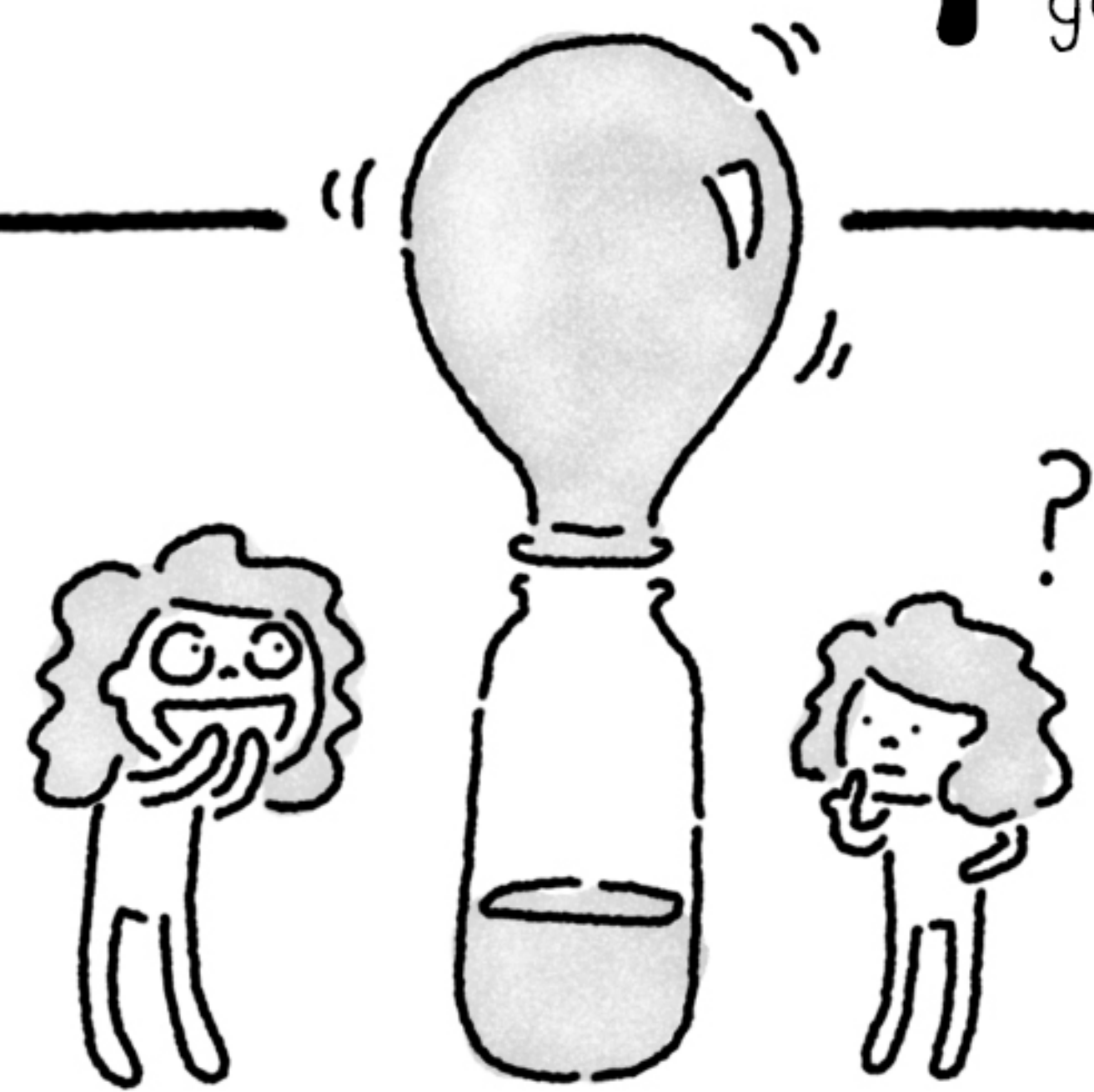
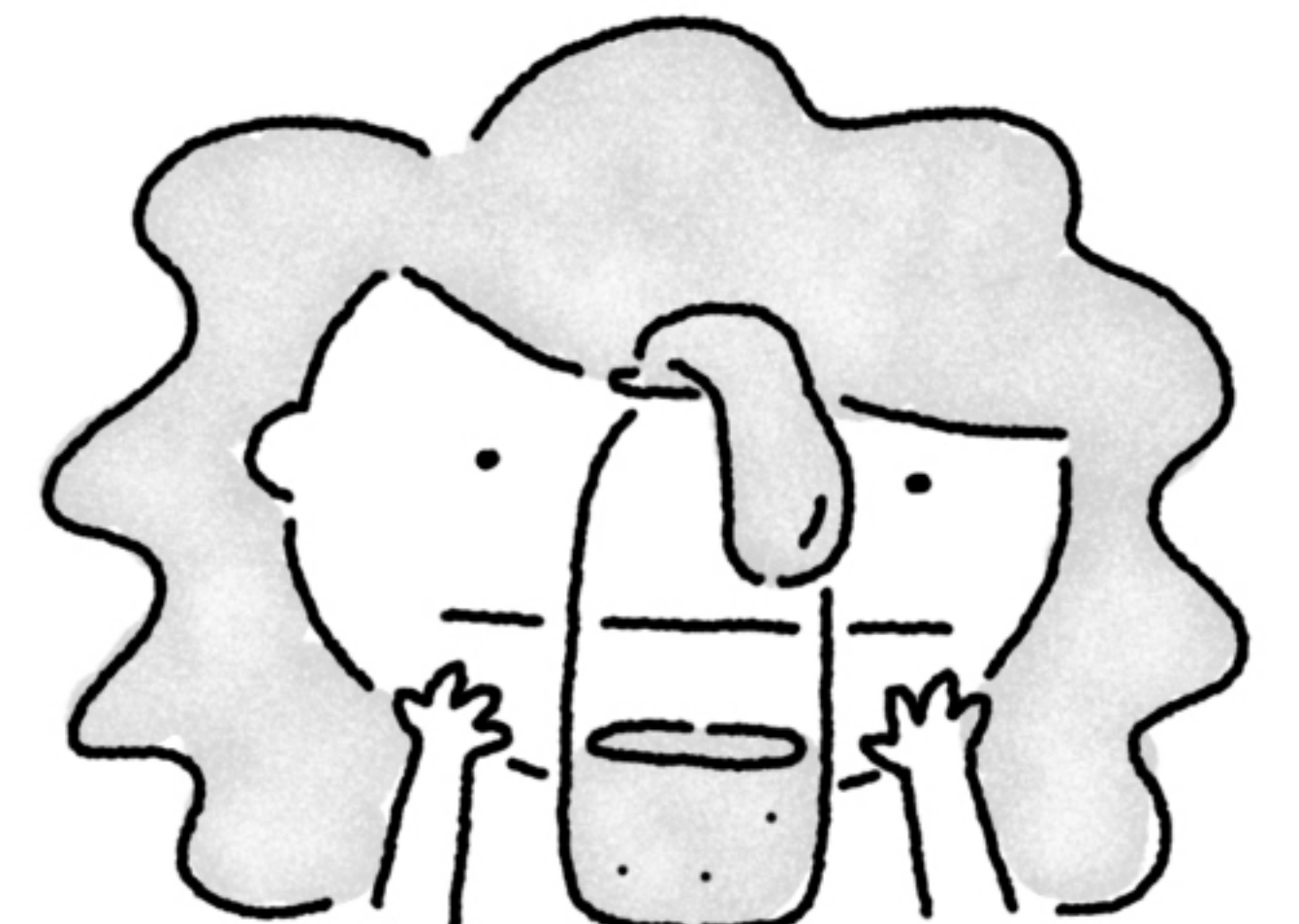
**4** Add in the sugar and gently mix it up again.



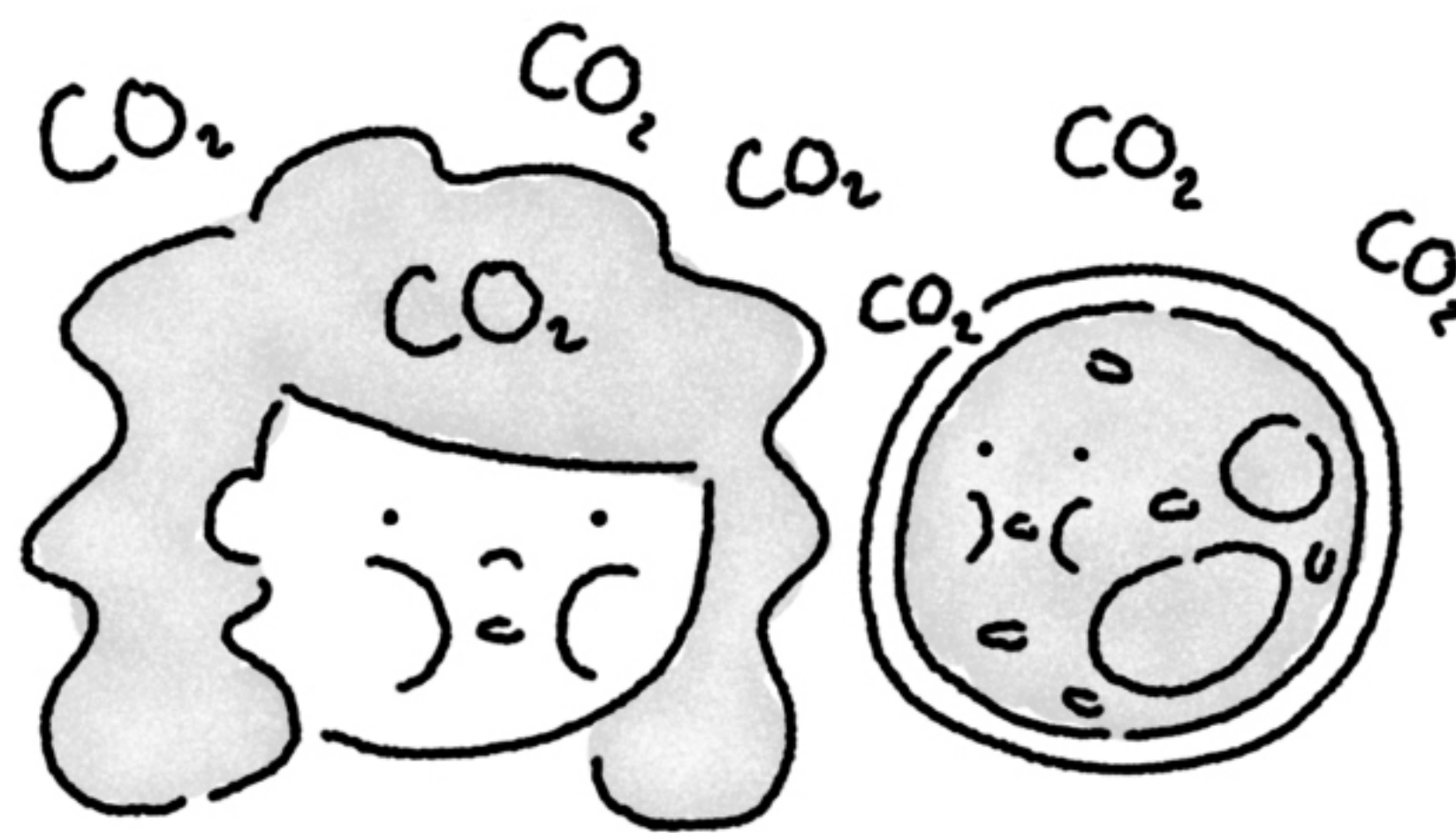
**5** Place the balloon over the bottle and set the bottle in a warm place.



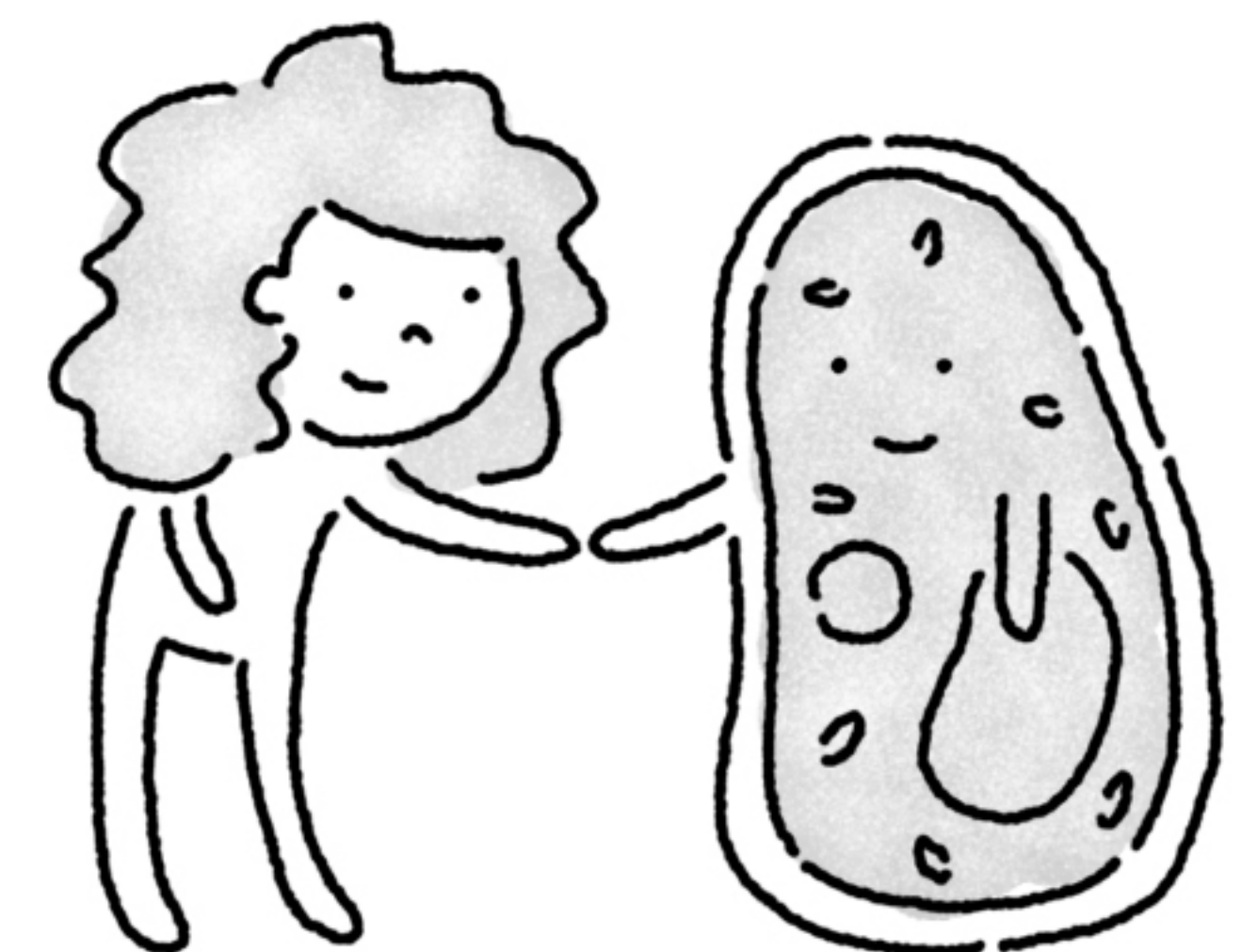
**6** Now watch and wait! In about 15 minutes your balloon should inflate!



**AWESOME!** But hold on... why did the balloon blow up?



Just like us, yeast have to breathe! They don't breathe like we do, but they breathe out the same thing we do, which is **CARBON DIOXIDE!**



We may be more similar to yeast than we thought! This is the same process that makes bread rise, too! Mmm... let's bake bread next!