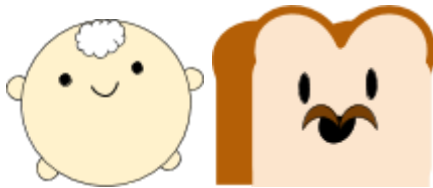


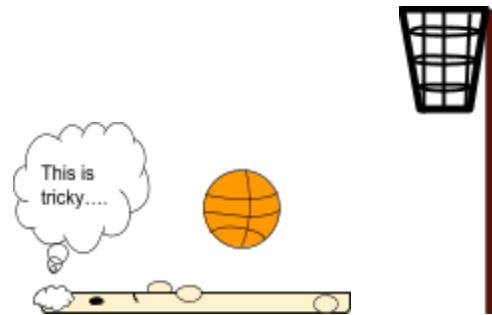
BAKERY



Once upon a time, Mr. Bread and Miss Crepe were best buddies. They hung out in the same display case at the same bakery and they enjoyed loafing around together and making crepe paper artwork.



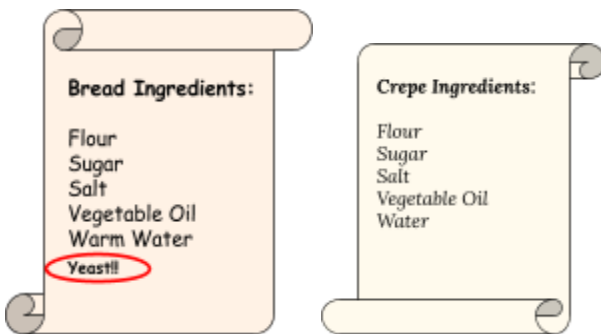
One day, Mr. Bread and Miss Crepe decided to play a game of basketball because they had heard some kids in the bakery talking about it but Miss Crepe soon realized that this game was not a very good fit for her...



This got Miss Crepe and Mr. Bread thinking...: They knew that they shared almost all of the same ingredients in their recipe, but for some reason, Mr. Bread was much taller & fluffier than Miss Crepe, and the friends wanted to figure out why that is?



So they both dug into their respective family trees and each came up with a list of all the ingredients they are made up of...



It's the yeast! It's the yeast! There must be something special about the yeast! I wonder if there's a way we could find out more about how the yeast is able to help Mr. Bread grow nice and tall. But alas, we are only a pair of baked goods stuck in a display case, so even if we wanted to conduct a scientific experiment it would be quite a difficult endeavor...



(Meet *Senorita Yeast!*)

I wonder if there is a way we could conduct a science experiment to help show the reason why Mr. Bread is able to get so much taller than Miss Crepe with the help of *Senorita Yeast*...



❖ What You Will Need...

- ❑ **Mixing Bowl** filled with a cup full of **Warm Water**
- ❑ (Table)**Spoon**
- ❑ 2 Tablespoons of **Sugar**
- ❑ **Plastic (Water) Bottle**
- ❑ (Party) **Balloon**
- ❑ Packet of **Dry Active Yeast**



❖ What To Do...

1. Mix yeast and sugar into warm water until they have all dissolved.
2. Pour mixture into plastic bottle.
3. Carefully stretch balloon over the bottle opening and make sure there are no gaps where air can escape.
4. Leave the bottle alone for 1 hour and then check on the result...!
5. What do you think will happen if you leave the bottle alone overnight? (Try it and see!)

❖ What's Happening?

Yeast is actually a tiny, *living* microorganism that needs to eat and breathe just like other living things. One of yeast's favorite foods is **sugar** and when we mix yeast and sugar into warm water, the yeast go into "activation mode" and begin to "eat" the sugar and undergo cellular respiration - (the cellular process which converts sugar into energy yeast needs to survive.) A handy byproduct of the cellular respiration process is carbon dioxide (CO₂) gas, and those extra gas bubbles produced by yeast is what allows bread dough to rise and therefore result in breads that are beautifully tall and fluffy!

❖ Fun Facts about Senorita Yeast:

- ~Yeast cells divide every 90 minutes which means one cell can divide to become 50,000 cells in less than a day!
- ~Part of Senorita Yeast's Latin name directly translates as "sugar fungus" because she loves to eat sugars so much!
- ~Senorita Yeast's favorite food is yeasted coffee cake. (Delicioso!!)

