[redacted]

Observing Yeast-is it alive?

[redacted]

Procedure: We observed yeast in certain conditions to see if it was alive.

1. We put yeast with sugar water in a test tube and put regular sugar water in the other test tube. Then we tied balloons on the top of each test tube and saw what happened.
2. Then we put baking soda in a balloon, tied it to a test tube with vinegar in it, and then dumped in the baking soda.
3. Then we looked at yeast under a microscope.

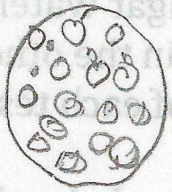
Observations:

1. These are our observations of the test tube with yeast and sugar water and the test tube with just sugar water for every 4 minutes.

Minutes	Sugar water	Yeast and sugar water
4	Nothing	Air bubbles rising
8	Nothing	More bubbles and standing up balloon
12	Nothing	Bigger yeast explosion and bigger balloon
16	Nothing	Huge yeast formation
20	Nothing	Hard stiff yeast formation
24	Nothing	Dying down

[redacted] dumped in the baking soda in the vinegar test tube, we observed that the vinegar rose quickly then went back down.

3. This is what yeast looks like under a microscope



good.

Conclusion: I can infer that the yeast is breathing and is alive because the yeast was eating the sugar water, got bubbles inside of it, and then blew up.

The reason we had an all sugar water test tube was to prove that it is the yeast and not the sugar water that was making the bubbles.

The similarities of the yeast filled test tube and the vinegar and baking soda filled test tube are they filled the balloon and they both had air bubbles. The differences are the yeast filled test tube didn't really die down, but the vinegar and baking soda filled test tube did. Also the balloon filled up much quicker with the vinegar and baking soda.

Good.

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Observing Yeast- Is It Alive?

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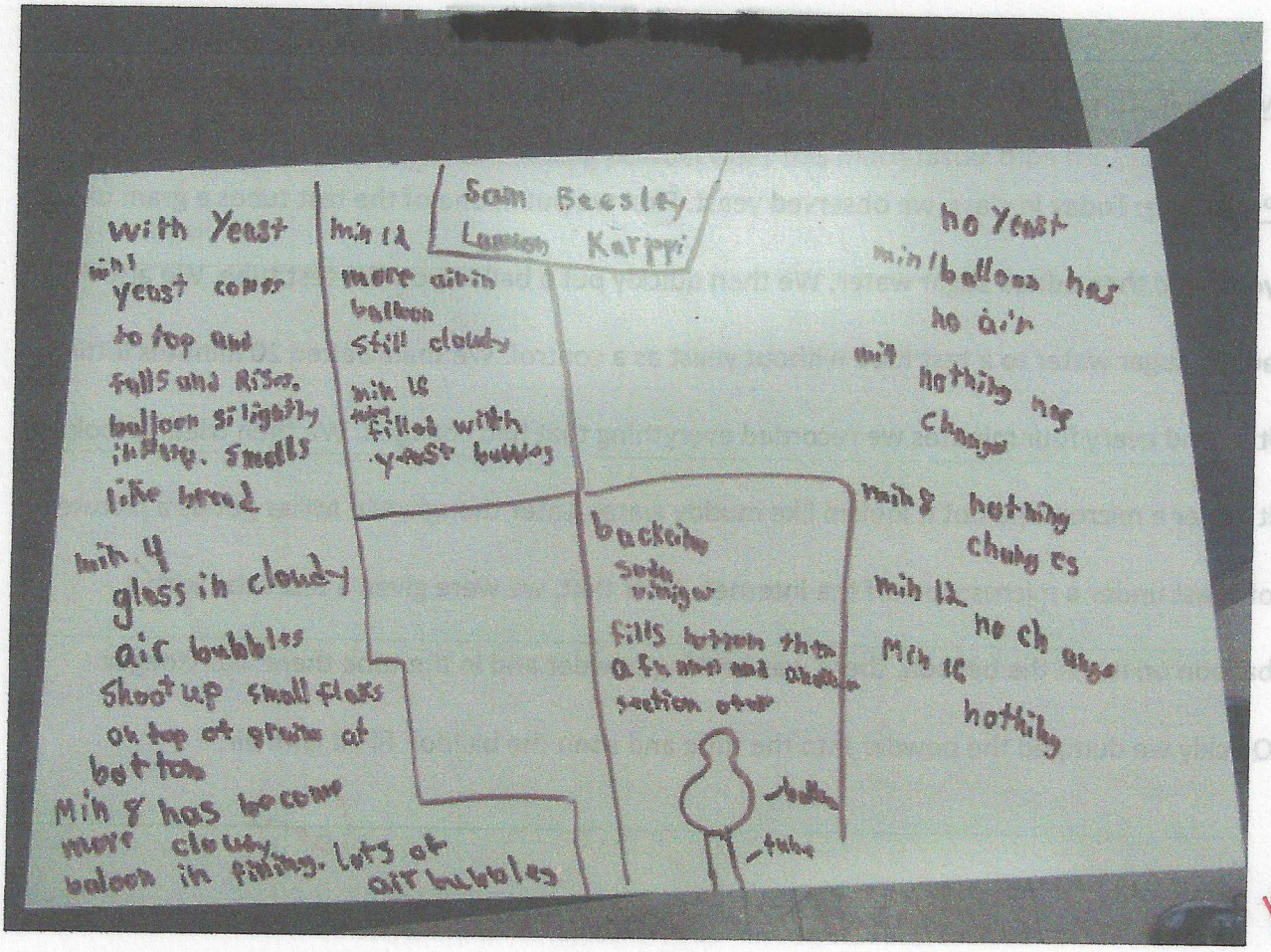
Materials: Three test tubes, three balloons, yeast, 5% sugar solution, vinegar, and baking soda.

Procedure: Today in class, we observed yeast. First we put in one of the test tubes a gram of yeast and then added sugar water. We then quickly put a balloon on the test tube. We also added sugar water to a test tube without yeast as a control. We than waited 20 minutes letting it sit and every four minutes we recorded everything that had changed. We then tried to look at it under a microscope but it looked like muddy water. Later though, Mr. Miller got us a picture of yeast under a microscope off the internet. After that, we were given a test tube with a balloon on it. In the balloon, there was backing powder and in the tube there was vinegar. Quickly we dumped the powder into the tube and soon the balloon filled with air.

Good

[redacted]

Observations:



Nice

In the area with the observations of the balloon with no yeast, the following is what is says.

1 minute: the balloon has no air in it.

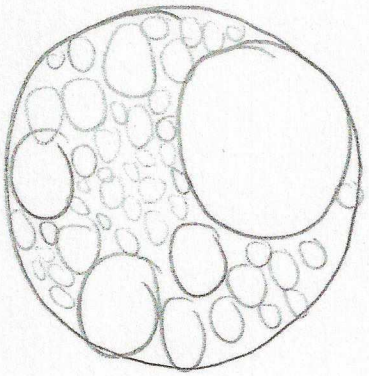
4 minutes: nothing has changed.

8 minutes: no change.

12 minutes: no change.

16 minutes: still no change.

yeast under a microscope



good.

In the area with the observations of the balloon with yeast, the following is what is says

1 minute: Yeast rises to the surface and then falls to the bottom of the glass.

4 minutes: The glass is cloudy air trapped at the bottom comes up more flakes fall down.

8 minutes: Air is rising rapidly and balloon is filling slowly glass is still cloudy.

12 minutes: The glass is still cloudy air is filling the balloon

16 minutes: Air going into the balloon has slowed down.

Conclusion:

Question:

1. What can you infer about yeast from your observations?
2. Why did you have one test tube with no yeast?
3. What are some similarities between the yeast filled test tube and the vinegar and baking soda test tube.

Answer:

1. I can infer that yeast is usually dormant but is awaken by surgery substances. Once it eats the sugar, it will expand and push the air upward. Since the yeast was so hard to see in the microscope, I deduced that it is a single cell organism.

2. We had a test tube with no yeast because we need a control in a science experiment.

3. A similarity between the yeast and sugar water and vinegar and baking powder is that each will take the powders (sugar or baking powder) and expand so that the air is pushed upward. The vinegar and baking powder does this much faster than the yeast and sugar.