Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_

Period\_\_\_\_\_\_\_\_\_\_\_ Living Environment

**Lab #1: Is Yeast Alive? Continued....**

**Challenge Question:** Which one variable when changed will make the balloon circumference the largest?

**Variable you will change:**

**Hypothesis: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Materials:**

|  |  |
| --- | --- |
| • 100ml very warm water (105° F–115° F) | • 2 tablespoons sugar |
| • a rubber balloon | • a 16oz empty water bottle |
| • 2 tablespoons dry yeast |  |

**Procedure:**

**1.** Stretch out the balloon using your hands, and then lay it aside.

**2.** Add the yeast and the sugar to the cup of warm water and stir.

**3.** Once the yeast and sugar have dissolved, pour the mixture into the bottle.

**4.** Attach the balloon to the mouth of the bottle, and set both aside.

**5.** At each interval of time, record your observations in the chart below.

**Recording Observations:**

4 people

1 balloon circumference measurer

1 foam height measurer

1 time keeper

1 data collector and reporter

**Observations:** Part One

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table #** | **Baseline (Beginning)** | **2 minutes** | **5 minutes** | **10 minutes** |
|  | foam: \_\_\_\_\_\_\_\_\_\_\_Balloon circumference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | foam: \_\_\_\_\_\_\_\_\_\_\_Balloon circumference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | foam: \_\_\_\_\_\_\_\_\_\_\_Balloon circumference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | foam: \_\_\_\_\_\_\_\_\_\_\_Balloon circumference: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Review Questions:**

1. How did your final result compare to your final result from the first yeast experiment?

2. What can you conclude from this experiment about your hypothesis? Were you correct?

3. Can we conclude that yeast is alive? What are some other methods of observation or changes in this experiment we could set up to answer this question?