

Grade 7 Science **Heat and Yeast Lab**

Name: _____

Lab Partner #1: _____

Lab Partner #2: _____

Lab Partner #3: _____

Today, you are working with a living organism - Yeast. Your team's task is to measure the effect that temperature has on this living organism. You will observe differences of yeast at 3 different temperatures at 5 minute intervals and record observations.

Anyone not behaving respectfully, will be asked to sit out of this experiment due to safety reasons.

Materials

3	beakers
3	thermometers
3 tsp	sugar
3 tsp	bread yeast
~200mL	cold water
~200ml	warm water
~200mL	hot water
	Stopwatch/timer

Apparatus

Make a sketch of the setup and label it

Procedure

Put sugar in each of the beakers and then fill with different water temperatures. Stir with thermometers and then let settle. Add yeast without stirring and take temperatures and observations every 5 minutes. Be as descriptive as possible and answer questions in between times.

Hypothesis

What do you think will happen?

Observations (Data)

Time (minutes)	Beaker	Temp °C	Observations (What is happening?)
0	Beaker 1		
	Beaker 2		
	Beaker 3		
5	Beaker 1		
	Beaker 2		
	Beaker 3		
10	Beaker 1		
	Beaker 2		
	Beaker 3		
15	Beaker 1		
	Beaker 2		
	Beaker 3		

Time (minutes)	Beaker	Temp °C	Observations (What is happening?)
20	Beaker 1		
	Beaker 2		
	Beaker 3		
25	Beaker 1		
	Beaker 2		
	Beaker 3		

Analysis

1. Explain what happened to the yeast at the different temperatures.
2. Given that yeast is a living organism, why do you think this happened?
3. If you were to make bread and wanted the yeast to be the healthiest, what temperature would you use?

Conclusion and Error Analysis

1. How would you improve this experiment?
2. What did or could have added to errors in this experiment?