Inquiry Skills: Investigating the Processes of Life

Purpose: To observe the processes of life to determine if an object is biotic or abiotic.

Experimental Question: Which material will demonstrate the process of life when sugar and warm water are added - yeast, sand, both, or neither?

Research: What do we know about yeast?_____
_____.

What do we know about sand? _____
_____ .

Hypothesis:_____
_
_____.

Materials: 2 -16 oz. bottles Active dry yeast sand sugar Warm water
2 balloons funnel syringe

Procedure:

1. Use a funnel to add yeast to the bottle labeled "Y". Use the funnel to add sand to the bottle labeled "S".
2. Use the funnel to add sugar to each bottle.
3. Carefully add 100ml warm water to each bottle.
4. Quickly attach a balloon to the top of each water bottle. Swirl the bottle to mix the contents. Record your observations in the table.
5. Allow the bottles to rest for 5-7 minutes. DO NOT TOUCH THE BOTTLES DURING THIS TIME. While you wait, complete a google search about **YEAST**.
6. Record your observations after 7 minutes.
7. Complete the conclusion questions.
8. Submit this form to your teacher.

Observations: Describe what you **SEE** in the bottle.

	After adding water	**After 5-7 minutes**
Yeast Bottle		
Sand Bottle		

Conclusions: Write your responses using complete sentences.

1. Which material is biotic - yeast, sand, neither, or both? Explain your answer.
_____
_____.

2. What process of life can you infer took place in the bottle(s)

_____

_____.