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

Lab Partner\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Lab: Starch and Glucose Indicators**

*Vocabulary*

**Indicator**: *chemical used to detect the presence of a substance such as glucose and starch by a major*

*color change.*

**Glucose***: sugar (C6H12O6)*

**Starch***: carbohydrate*

*Procedure*

1. Label 6 test tubes
   1. *Glucose & Benedict's (1 BG)*
   2. *Glucose & Lugol's (2 GL)*
   3. *Starch & Benedict's (3 SB)*
   4. *Starch & Lugol's (4 SL)*
   5. *Water & Benedict's (5 WB)*
   6. *Water & Lugol's (6 WL)*
2. Observe and record all 6 test tubes initial color (starting color of solution).
3. In test tubes 1,2 & 3 add 2 squirts of Benedict's solution and place in a beaker with boiling water for 2 minutes. *Observe and record color change.*
4. In test tubes 4,5 & 6 add 2 squirts of Lugol's solution. *Observe and record color change.*

***Data Table***

Record the observations and results for each test in the table below.

* *Identify the color of the substance*
* *Was it positive (+) or negative (-)?*
  + *Positive= Major Color Change*
  + *Negative= Little/ No Color Change*

|  |  |  |  |
| --- | --- | --- | --- |
|  | Initial Observation | After Adding Benedict's Solution | After Adding Lugol's  Solution |
| Substance A  (Water with  Glucose) |  | #1 | #2 |
| Substance B  (Water with  Starch) |  | #3 | #4 |
| Substance C  (Water) |  | #5 | #6 |

*Conclusion*

1. What color did glucose turn when Benedict's was added with heat?

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1. What color did starch turn when Lugol's was added?

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1. Why did we have a test tube only with water?

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