Yeast Investigation

Part 1:

1. Get a tray that holds materials for two pairs. Share the materials.
2. Carefully add the sugar water to the yeast in the “S” test tube. Stir with one stir stick, and place the test tube back into the cup.
3. Carefully add the plain water to the yeast in the “NS” test tube. Stir with the other stir stick, and place the test tube back into the cup.
4. Observe the test tubes for the next 10 minutes and record your observations.

A. Describe how each test tube looks at the beginning.
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B. What is the first change you notice?
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C. What is the next change? Draw what you see.
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D. Describe what you notice when the 10 minutes is almost up.
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Yeast Investigation (continued)

Part 2:

1. Notice that the test tray has three cups for sugar and three for no sugar.
2. Fill the “S” pipette from the “S” test tube. Deposit the sugar–yeast mixture into one of the cups on the “S” side of the test tray. Repeat twice to put yeast into the other two “S” cups.
3. Fill the “NS” pipette from the “NS” test tube. Deposit the yeast mixture into one of the cups on the “NS” side of the test tray. Repeat twice.
4. Squeeze 8 drops of BTB into each test-tray cup.
5. Observe any color changes; match to color key.

Color Key: Testing for Carbon Dioxide with BTB:

- Blue = no carbon dioxide
- Green = some carbon dioxide
- Yellow = lots of carbon dioxide

Describe your results.

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What evidence did you gather to help answer the question, What does eating have to do with producing CO₂?

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Draw and label your results.