# Patterns of Change – Rubiqs Grader-Ready Student Submission

## Experiment Plan

|  |  |
| --- | --- |
| Substance 1 | Hydrogen peroxide |
| Substance 2 | Yeast |
| Amount of Substance 1 | 3 tablespoons of hydrogen peroxide |
| Amount of Substance 2 | 1 teaspoon of dry yeast |

## Describe the Substances Before Mixing

|  |  |  |
| --- | --- | --- |
| Property | Substance 1 (Hydrogen peroxide) | Substance 2 (Yeast) |
| Color | Clear liquid | Brown powder |
| Smell | No strong smell | Slightly yeasty |
| Temperature | Room temperature | Room temperature |

## Steps for the Experiment

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| Step 1: Pour 3 tablespoons of hydrogen peroxide into a clear plastic cup. |
| Step 2: Add 1 teaspoon of dry yeast into the cup with the hydrogen peroxide. |
| Step 3: Observe what happens for 3–5 minutes. |
| Step 4: Record the changes I see in a table. |

## Expected Changes When Substances Are Mixed

|  |  |
| --- | --- |
| Property | Expected Change |
| Color | Might stay the same |
| Smell | Might smell stronger or different |
| Temperature | Might get warmer |
| Gas/Bubbles | I expect a lot of bubbles to form |
| Light | No light expected |
| Sound | Might hear fizzing |
| Fire/Explosion | No fire or explosion |
| Precipitate | No solid forming expected |

## Observed Results After Mixing

|  |  |
| --- | --- |
| Property | What Happened |
| Color | Stayed mostly clear |
| Smell | Smelled stronger, kind of like bread |
| Temperature | Got warmer to the touch |
| Gas/Bubbles | Lots of bubbles and foam formed quickly |
| Light | No light |
| Sound | Heard fizzing |
| Fire/Explosion | No fire or explosion |
| Precipitate | No solid formed |

## Conclusion: Did a Chemical Reaction Occur?

Yes, I think a chemical reaction happened. First, I saw a lot of bubbles and foam form, which shows that a gas was created. Second, the container got warmer, which means energy was released as heat. These are signs that a chemical change took place.