

Mystery Fire Extinguisher



- Parents, guardians, and care givers: prepare the Mystery Solution and set up this experiment. Scroll down to see the ingredients of the mystery solution. Kids, don't look!
-

The Experiment!

- Place a candle in a glass or glass jar and pour a small amount of baking soda and water into the glass container
- Have an adult light the candle with a lighter
- Add the mystery colored liquid prepared by your parents to the water; be careful not to spill any on the flame.
- Observe what happens and record your observations.
- This is a “discrepant event” Discrepant events” are counterintuitive, surprising, or unexpected science events
- What did you observe and what is the discrepant event?

Based on your observations, formulate a hypothesis that provides possible explanations of the discrepant event. What is your hypothesis?

Solution

Mystery Solution

Mix common household vinegar with food coloring of your choice.

When the vinegar solution combines with the baking soda and water it creates carbon dioxide which takes the place of the oxygen which extinguishes the candle.