

Invisible Extinguisher

A balloon is used to capture the carbon dioxide produced by a baking soda & vinegar reaction in a water bottle. Because carbon dioxide is denser than air, it can be carefully transferred to a container and then “poured” over a candle, acting as an invisible extinguisher.

Materials list:

- ~150mL (~½ cup) vinegar
- ~1-2 tablespoons baking soda
- Candle
- Balloon
- Bottle
- Measuring spoon
- Lighter
- Tall container (beaker, drinking cup)
- Funnel



Instructions:

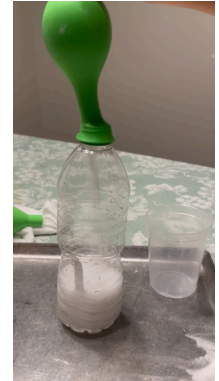
1. Measure ~½ cup of vinegar
2. Place funnel over empty bottle
3. Pour vinegar through funnel into empty bottle



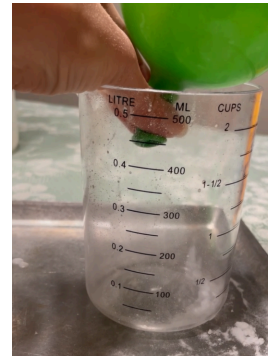
4. Place (rinsed) funnel into neck of balloon
5. Add ~1-2 tablespoons baking soda through funnel into balloon



6. Stretch end of balloon over the top of the bottle with vinegar (make sure there is a good seal, hold on with fingers if needed)
7. Lift the balloon so the baking soda falls down into the vinegar (Balloon will inflate with carbon dioxide (gas) as the baking soda reacts with the vinegar!)



8. Once inflated, twist the base of the balloon and carefully remove from the bottle without letting the balloon deflate
9. Move the opening of the balloon into an empty container & slowly let the balloon deflate, 'catching' the carbon dioxide in the container



10. Light a candle
11. Carefully "pour" the carbon dioxide close to the candle - extinguishing the flame with the invisible carbon dioxide

