Messy Science Chalk Rockets

Ingredients and Supplies

- vinegar
- cornstarch
- food coloring or washable watercolor paint
- baking soda
- mini containers with a lid like an M&M container or film canister
- safety goggles
- measuring spoons
- mixing spoons
- water bottle cap

Instructions

1. Find an outdoor space with plenty of room. Pour one tablespoon of vinegar into a film canister.
2. Add ½ tablespoon of cornstarch.
3. Add a drop or two of coloring. Stir with the handle of a spoon.
4. Fill the water bottle cap with baking soda.
5. Place the filled water bottle cap inside the film canister so that it floats on top of the vinegar. Be careful not to spill the baking soda into the vinegar yet.
6. Put on the safety goggles, and carefully snap the film canister cap onto the film canister.
7. Turn the film canister over so it’s resting on the cap, and move quickly away. Watch as your rocket pops and flies into the air, spraying chalk paint as it goes. Be sure you’re standing far enough back from the chalk rocket so that it doesn’t hit you. It may take a few moments for the rocket to launch, so don’t go near it, even if it doesn’t pop right away.

How it Works

When you turn the rocket over, the water bottle cap tips inside the canister and dumps the baking soda into the vinegar. Combining the two creates carbon dioxide. The gas builds pressure inside the container until the lid pops off, propelling the rocket through the air. How high the rocket goes depends on how much pressure was built up inside the canister.

* Tip: You can reuse the film canisters to make different colors or launch several rockets at the same time to make a rainbow of colorful chalk explosions in your driveway.

Thank you
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