

MYSTERY POWDERS

Description: A team of two contestants will be asked to identify a mixture of common white household powders.

Number of Participants: 2

Approximate Time: 20 minutes

The Competition:

1. Three mixtures containing one to three powders will be placed in vials marked A, B and C. Mixtures **will** include powders **from this list only**: sugar, baking soda, flour, salt, corn starch, white sand. Mixtures will **ONLY** be selected from the items listed.
2. Mixture A will have **one** mystery powder; mixture B **will have two powders**, and mixture C will contain three mystery powders.
3. Students will be given twenty minutes to correctly identify as many powders as possible and provide evidence for **WHY** they identified each of the powders.
4. No tasting or touching of powders will be allowed!
5. Teams will be supplied with the following materials to aid in the identification of the powders: vinegar, water, a candle, aluminum foil, a clothespin, iodine solution, magnifying lens, and black paper. Safety precautions must be used.
6. Students must bring and wear their own splash-proof safety goggles. If a candle test is used, an adult must man this station at all times. Students will not be allowed to bring other materials for testing.
7. Participants will be asked to collect evidence and complete a chart describing the powders' reactions to the above materials **BEFORE** attending the tournament. This chart should be brought to the tournament with the participants. The chart and answer sheet will be collected at the end of the event.
8. The event site will be equipped with a fire extinguisher and blanket.

Scoring:

1. The team with the most accurate answer sheet and with greatest correct number of powders identified will be declared the winner.
2. In case of ties, the team with the fastest time will be given most favorable rank.

