

## Color Reactions and Meteorology

### What are we doing?

- Watching a chemical reaction using colors.
- Demonstrating how rain is released from a cloud.



### Explain this to me please....

- If anyone has made a homemade volcano before....they know that when vinegar and baking soda mix....BOOM!
- The acetic acid in vinegar (what makes it so sour) reacts with the sodium bicarbonate in baking soda. This creates something known as carbonic acid...which is unstable. The explosion or fizzing you are seeing is when the carbon dioxide is releasing from the solution.
- The food coloring helps to not only give this reaction more of a colorful visual, but also demonstrates how different colors react when mixed together.
- In our weather experiment...the shaving cream is representing a dense rain cloud.
- As water drops (a.k.a food coloring) grow in the cloud they eventually have to fall to earth! Eventually the heaviness of the food coloring soaks through the shaving cream cloud and falls through. The heavier the cloud....the more rainfall!
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### Top Secret Ingredients (a.k.a supplies!)

#### Color Reaction Experiment:

- Food Coloring (variety of colors best)
- Baking Soda
- Pie tin, cookie sheet, cake pan....something to that effect.
- Vinegar
- Spray Bottle

#### Weather Experiment

- Shaving Cream
- Clear Cups
- Food Coloring (preferably blue to look like rain)