

Watch Acids and Bases Produce Colors!

Show your child how to create a concoction of simple household ingredients that changes colors as acids and bases are added! This magic mixture is called a "pH indicator," a chemical compound that is added to a solution in order to visually determine its acidity or basicity. While many items (such as cabbage juice) have this ability, this mixture of turmeric and rubbing alcohol possesses the unique trait of being able to change BACK to its original color. Science has never been this fun!

What You Need:

- Bowl
- $\frac{1}{4}$ cup water
- $\frac{1}{4}$ cup vinegar
- $\frac{1}{2}$ teaspoon turmeric
- $\frac{1}{2}$ cup rubbing alcohol
- 1 teaspoon baking soda
- Clear drinking glass

What You Do:

1. Have your child combine the turmeric and rubbing alcohol in the bowl.
2. Combine the baking soda and water in the glass.
3. Help your child to pour a sufficient amount of the turmeric/alcohol combination into the glass to effect a color change. Ask her to observe the reaction. What color was produced?
4. Have your child pour the vinegar into the glass.

What's Going On? Adding the pH indicator to the basic solution should have turned it red. Adding an acid (vinegar) made it foam and revert to its original yellow color.

