

## Title - *Changes with Acids & Bases*

By - Chris

Subject - Science

Grade Level - K-5

Need: 1/2 red cabbage water

knife lemon juice

2 large bowls baking soda

colander 2 clear glasses

various household objects: orange juice, apple juice, veggie soup broth, egg white, coke, cream of tartar, vinegar, tea...

1. Cut cabbage into small pieces. Place in a bowl and cover with two cups of very hot water. Let stand for 15 - 20 minutes or until the water turns purple.
- 2 Separate the purple water from the cabbage by pouring the mixture through a colander into another bowl. This will be the indicator.
- 3 Pour a small amount of the indicator into a glass. Add a few drops of lemon juice. Note the color change. This will be the acid.
- 4 Pour a small amount of the indicator into a second glass and add a pinch of baking soda. Note the color change. This will be the base.
- 5 Rinse out the glasses and experiment with the other items. Mix the acid and bases together and see what happens.

NOTE: Some items will not change the color of the indicator - they are neutral.

I use this with preschoolers to work on the concepts of color and the concept of change. With some creativity, this is easily adapted.

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