

Chapter 3 Extra Credit

Recently, you used different acid and base indicators to test the pH of various substances. For this assignment, you will make your own acid/base indicator and then test various substances. There are 16 substances to choose from, please select only 8 to test.

You must take at least 2 pictures (during the preparation of the indicator and during the testing).

Materials:

1. Red cabbage
2. Metal grater or knife to chop the cabbage up
3. Pot filled with enough water to cover the grated or chopped cabbage
4. Strainer
5. 10 acid/base solutions
6. Coffee filter
7. Dropper



Safety:

Be careful watch your fingers when grating or chopping the cabbage.
Be careful when boiling the cabbage.

What must be handed in:

1. Procedure/ Observation section
2. Data Table
3. Questions
4. Strips of filter paper
5. Small sample of cabbage indicator solution
6. Pictures of you making/testing solutions

Name _____

Date _____

Period _____

Lumsden/Pittenger/Jurgrau

Procedure:	Observations in sentence form
1. Grate or chop the cabbage into small pieces and place them in the pot of water.	Describe a couple of properties of each ingredient.
2. Boil the mixture for 25-30 minutes.	What do you observe?
3. Pour the liquid into a glass or jar, pouring through a strainer to remove the cabbage. (You can save the cabbage. Mix it with a little vinegar and you can eat it on hot dogs, etc.)	What do you observe?
4. Let the liquid cool to room temperature.	What do you observe?
5. Add a few drops of the cabbage juice to the acid/base solutions, record your observations in the data chart below. Do not throw out your acid and bases, you will need to retest later.	Add data to data table
6. After all solutions have been tested, take a white coffee filter and soak it in the cabbage solution. Wring it out and let it dry. Once dry cut it into strips.	What do you observe?
7. Use these strips and retest your solutions. Bring in some of the strips.	Add data to data table

Data Table: select 8, describe your results thoroughly

Substance	Cabbage Solution Color	Strip Color
1. vinegar		
2. coffee		
3. tea		
4. lemon juice		
5. glass cleaner		
6. baking soda		
7. apple or orange juice		
8. disposable wipes		
9. Hand sanitizer		
10. Shampoo		
11. Conditioner		
12. Dish detergent		
13. Cologne/Perfume		
14. Deodorant		
15. Milk		
16. Body soap		

Picture1

Picture2