

Soil Chemistry Exit Card #1

Make Your Own Red Cabbage Juice pH Indicator

(Adult supervision and safety glasses advised)

Materials needed

- knife
- red cabbage
- cutting board
- large saucepan
- strainer
- large bowl or measuring cup
- small clear plastic cup

Procedure

1. Tear or chop the cabbage into small pieces and place in the saucepan.
2. Cover the cabbage with tap water.
3. Place the pan on the stove and bring the water to a boil.
4. Cook for 10 minutes and remove from the heat.
5. Place the strainer over the large bowl.
6. Carefully pour the cabbage and the water into the strainer collecting the cabbage juice in the bowl.
7. Allow the liquid to cool before using the juice as a pH indicator.
8. Fill one of the cups $\frac{1}{4}$ full with the juice.
9. Add a small amount of a household chemical and observe for a color change.
10. Refer to the pH scale below to determine whether the chemical is acidic, neutral, or basic.
11. Pour out the liquid and repeat steps 8 - 10 for additional chemicals.

Most household substances have a neutral pH. For an observable color change try baking soda, vinegar, juice, soda/soft drink, liquid soap, ammonia, and an antacid tablet for starters.

pH < 7 = Acid pH > 7 = Base

pH	2	4	6	8	10	12	14
Color							

Additional sites to be placed on back of card:

<http://www.soils4kids.org/home>

<https://student.societyforscience.org/topic/earth-sky>

<http://www.naturalinquirer.org/>