

# Rainbow Cabbage

## What you'll need:

- An adult to help
- A red cabbage cut into pieces (make sure you get an adult to cut the cabbage)
- Filter paper (a coffee filter is perfect)
- Things to test - lemon juice, baking soda, vinegar, washing powder, fizzy pop (cola)



## Making the indicator paper.

1. Cut the cabbage into pieces and add boiling water. Leave for 10 minutes.
2. Filter the liquid from the cabbage through a filter paper. It should be blueish-violet.
3. Soak a filter paper in this liquid and leave it to dry overnight.

## Testing Testing...

Use a straw or toothpick to put two droplets of each solution on to your ready made paper...what do you see? Can you match it to the colour chart?

The indicator will turn red in an acid, green in a base or stay dark purple if it's neutral (not an acid or a base)

## What's so special about cabbage?

Red cabbage releases pigment molecules called anthocyanins. These molecules change colour depending on the pH of the environment they are in.

## Approximate colours of the red cabbage indicator solution at different pH

pH	1	2-3	4-5	6	7	8	9	10-11	12
Colour									

### Common household acids are:

lemon juice, vinegar, cola, orange juice

### Common household bases are:

bleach, baking soda, soap, washing powder

As with all science experiments, make sure you have a responsible person supervise you at all times. And remember to have fun!