

Red cabbage indicator



Below is a table to fill in. Test several items around the house with red-cabbage indicator to see if they are neutral, acidic or alkaline.

Substance	Colour change

Red cabbage indicator

Now that you have established some of the colour changes of the red-cabbage indicator you are better placed to identify the many chemicals around the home as either acids or bases (alkalis). Using your indicator select one of the activities to conduct or questions to answer from the list of 1. to 3. below or pick one of your own to write approximately a page. Include pictures as evidence of your testing.

1. Is toothpaste a base or an acid? Why have chemists made toothpaste in this way?



2. Alka-Seltzer is a common brand of medication you can buy over the counter. Is it an acid or a base? Why have chemists made this medication in this way?



3. Shampoos and conditioners are very popular hair care products. Are they acidic, alkaline or neutral? Why have chemists developed these products in such a way? [Refer to the structure of hair.](#)



4. Apples quickly go brown when cut. Although they add taste to a fruit salad their appearance is not so appetising.

One simple trick to preventing this unsightly browning is to place some lemon juice on the surface of the apple.

Lemon juice is an acid. Provide evidence for this observation. Vinegar is also an acid.

How do we know vinegar is also an acid?

Can vinegar replace lemon juice in protecting the apple from browning? Conduct an investigation to answer this question.

i. Write a [hypothesis](#).

ii. Present your results in the form of an [investigation report](#).

