

WHAT YOU NEED

Food:

- 100g red cabbage
- 100ml water
- 2 teaspoons lemon juice
- 2 teaspoons bicarbonate of soda

Equipment:

- food processor or blender
- small bowl
- sieve
- teaspoon
- 3 jam jars or large glasses

Acids & Alkalis



WHAT TO DO

- 1 Roughly cut up the cabbage and place in the food processor or blender. Add the water and blend everything together.
- 2 Strain the mixture into a small bowl. Keep the coloured juice and compost the mush.
- 3 Half fill the jam jars with water and number them 1 to 3.
- 4 Begin the experiment:

FOR JAR 1 - add 2 teaspoons of the cabbage juice and carefully mix until it turns purple.

FOR JAR 2 - add 2 teaspoons of the cabbage juice, mix together and then add 2 teaspoons of lemon juice and carefully stir until it turns pink. This is an acid.

FOR JAR 3 - add 2 teaspoons of the cabbage juice, mix together and then add 2 teaspoons of bicarbonate of soda and carefully stir until it turns blue. This is an alkali.

WHAT IS HAPPENING

The chemicals in red cabbage are a PH Indicator. This means they change colour when mixed with an acid or an alkali substance.

Lemon juice makes the mixture acidic, so it turns the liquid pink.

Bicarbonate of soda makes the mixture alkaline, so it turn the liquid blue.