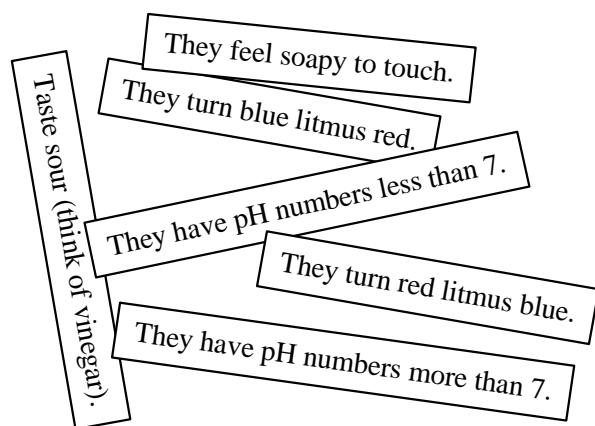


Acids, alkalis and indicators

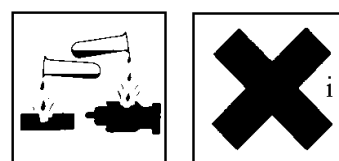
1. The sentences on the right are to do with acids and alkalis. Three describe acids, and the other three describe alkalis.

Make a table with the headings shown below, then copy the sentences into the correct columns. You will need four lines in your book.



2. Acids and alkalis often have one of these hazard symbols on the bottle.

Copy the symbols into your book. Find out what each one means. Write down what they mean next to the symbols in your book.



3. For each of these substances, write down whether they are:

strongly acidic, weakly acidic, neutral, weakly alkaline, or strongly alkaline.

- a) grapefruit juice, pH 3.0 c) beer, pH 5.0 e) sea water, pH 8.5
 b) blood, pH 7.4 d) rain, pH 6.2 f) saliva, pH 7.0
4. Universal indicator paper has the following range of colours:

colour	red	orange	yellow	green	blue	purple
pH	0 – 4	5	6	7	8 – 10	11 – 14

An experiment to find the pH of some substances gave these results:

substance	colour of universal indicator paper
orange juice	red
egg white	blue
oven cleaner	purple
milk	yellow

For **each** substance, write down the **name** of the substance, its **pH**, and what the pH **means**.

5. Copy the table below into your book. Complete your table to show the colour that each indicator turns (if it does) in acidic, neutral and alkaline solutions.

	blue litmus paper	red litmus paper	universal indicator
acidic			
neutral			
alkaline			

6. Write a brief description of an experiment you have done to find out whether different substances are acidic, neutral or alkaline. You can do a diagram to help your answer if you want to.