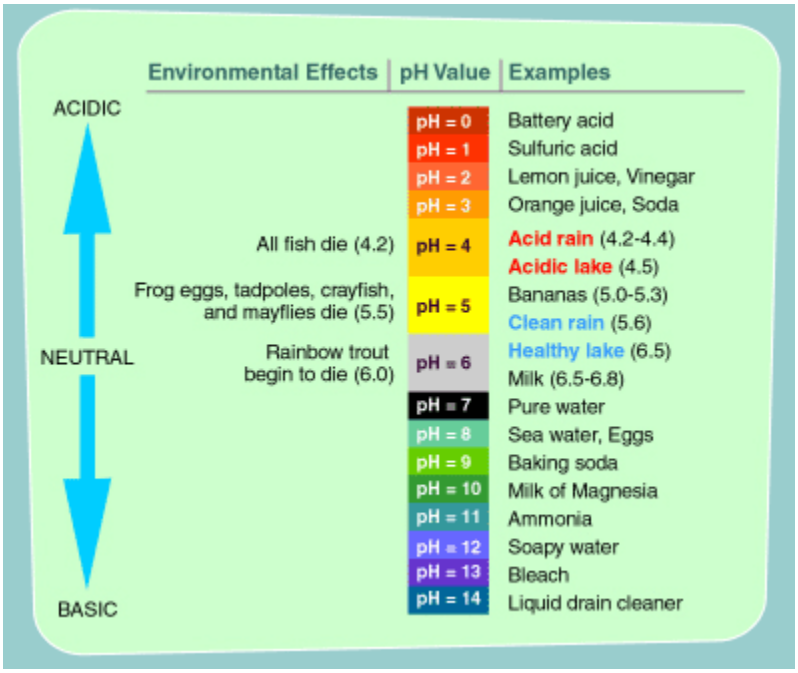
pH Scale

Scales are used in measurement. The pH scale indicates whether a substance is an acid or a base.

- A value of 7 is neutral
- A value less than 7 is acidic
- A value more than 7 is basic



Indicators

Acids and bases can be detected with an indicator. An indicator is a substance which changes colour in the presence of an acid or a base. It changes to one colour for an acid and a different colour for a base. There are many different indicators.

So, to test an **unknown substance** we put an indicator with it. When it changes colour we compare it with a colour chart specifically for that indicator to determine the pH value of the substance.

Examples of indicators are: litmus, universal, bromothymol blue, methyl orange

Questions

1. Apple juice has a pH of 4.3, is it an acid or a base?
2. Circle which of these foods are stronger acids than apple juice?

   Banana Lemon Orange Eggs
3. Which is more dangerous; a strong base or strong acid? Why?

4. Do you think shampoo would be acid, basic, or neutral? Why?

5. Are sour tasting substances acidic or basic?
6. Which feels chalky; acid or base?
7. Explain what an alkali is.

8. What causes acid rain?

9. Sydney gets most of its drinking water from rain. What do you think will happen to Sydney's water supply if the problem pollution is not addressed?

10. What affect will pollution have on the aquatic ecology?

Words

Aquatic – Water environments

Ecology – How well Animals are living in an environment

Addressed – Trying to fix something