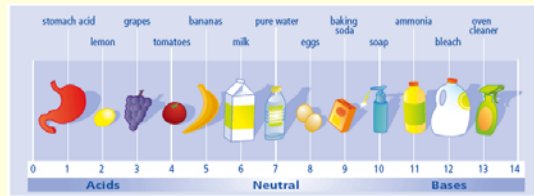


Acids and Bases



Acids are substances that release positively charged hydrogen ions in water.

The more acidic the chemical is, the more hydrogen ions are released.

Bases are the opposite to acids.

When bases are dissolved in water, they remove hydrogen ions from the water.



When you have the same amount of acid and base in a solution, the base will neutralize the acid.

You come across acids and bases every day.



Acids

Acids are substances that release positively charged hydrogen ions in water.

Often have a sour taste.

Examples:

- lemons
- batteries
- vinegar
- soda (pop)
- oranges

Bases

When bases are dissolved in water, they remove hydrogen ions from the water.

Often have a bitter taste and feel slippery.

Examples:

- ammonia
- soaps
- chalk
- antacid tablets

To measure how acidic or basic a solution is, we can use the pH scale.



strong acid

neutral

strong base

Indicators are chemicals which change color in acid or base solutions.

Universal Indicator Paper will change color like above.

Litmus paper will turn either blue or red.

Distilled water has a pH value of 7.

This means it is neutral.

It is not acid or base.

Acids have a pH value below 7.

Bases have a pH value above 7.



0

strong acid

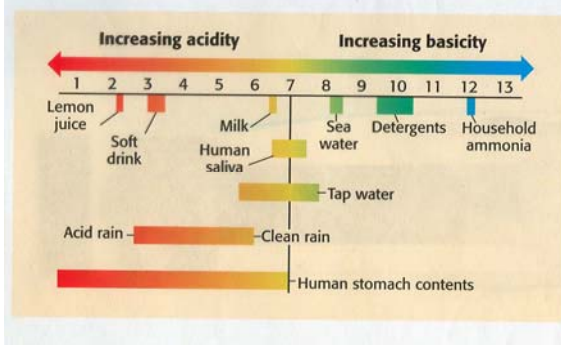
7

neutral

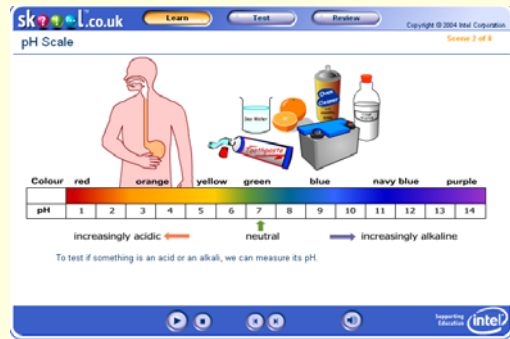
14

strong base

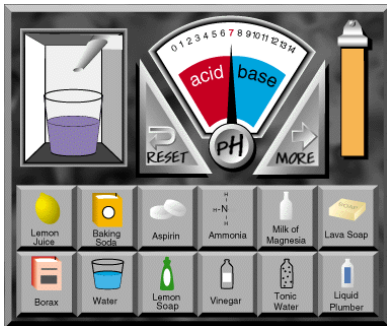
pH Scale



Click on the picture below to go to a website to learn more and practise what you have learned.



Visit the link below and click on ANY part of the panel to explore pH.



<http://www.miamisci.org/ph/phpanel.html>

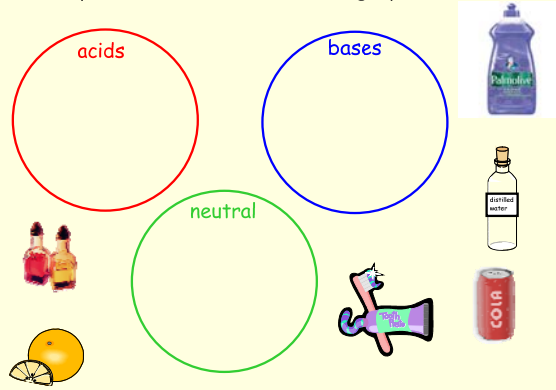
What are the correct words missing from the gaps?
Use the eraser on the gap to see if you are right.

When they are dissolved in water, acids hydrogen ions. Alkalines remove hydrogen ions. Alkalines acids.

To measure how acidic or alkaline a solution is, we use the scale.

Acids have a pH 7 and alkalines have a pH 7.
Distilled water is pH7, which is what we call .

Put the pictures into the correct category.



Match the household material to the colour pH indicator would be if dropped into it.

