

# Science: Acids and Alkalis Knowledge Organiser

Year 7: TERM 2 Date : \_\_\_\_\_

What do the hazard symbols below mean?



Irritant



corrosive



toxic

## What is neutralisation?

chemical reaction in which an acid and a base react quantitatively with each other.

## What is the equation for neutralisation?

Acid + base  $\rightarrow$  salt + water

Use the equation for neutralisation to complete the equations below.

Hydrochloric acid + magnesium hydroxide  $\rightarrow$  magnesium chloride + water

2. Nitric acid + sodium hydroxide  $\rightarrow$  sodium nitrate + water

3. Sulphuric acid + magnesium hydroxide  $\rightarrow$  magnesium

Sulphate + water

4. Nitric acid + potassium hydroxide  $\rightarrow$  potassium nitrate + water

5. Sulphuric acid + calcium hydroxide  $\rightarrow$  calcium sulphate + water

6. Hydrofluoric acid + calcium hydroxide  $\rightarrow$  calcium fluoride + water

7. Ethanoic acid + sodium hydroxide  $\rightarrow$  sodium ethanoate + water

8. Ethanoic acid + magnesium hydroxide  $\rightarrow$  magnesium ethanoate + water

9. Propanoic acid + calcium hydroxide  $\rightarrow$  calcium propanoate + water



## What colour should universal indicator go in an acid?

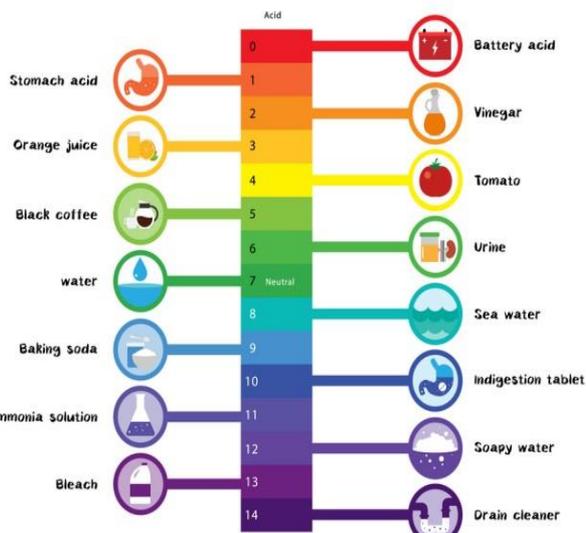
Red, for strong acids

## What colour should a neutral solution be?

Green

## How would you neutralise an alkali?

When an alkali is added to an acid the pH of the mixture rises, so you'd do this the other way round to neutralise an alkali.



## KEY WORDS: Alkali

a compound with particular chemical properties including turning litmus blue and neutralizing or effervescing with acids; typically, a caustic or corrosive substance of this kind such as lime or soda.

### Strong

fully ionized into cations and anions in solution; having (respectively) a very low or a very high Salt

any chemical compound formed from the reaction of an acid with a base, with all or part of the hydrogen of the acid replaced by a metal or other cation.

### Neutral

neither acid nor alkaline; having a pH of about 7.

## KEY WORDS: Acid

a molecule or other species which can donate a proton or accept an electron pair in reactions.

### Corrosive

tending to cause corrosion.

### Water

a colourless, transparent, odourless, liquid

### Weak

exerting only a small force