

Worksheet 5.1

Acidity and alkalinity

1 Complete each of the following sentences using the correct ending from the list given below.

- a All acids are
- b When an acid is dissolved in water, it results in an excess of
- c When an alkali dissolves in water, it results in an excess of
- d When an acidic solution reacts with an alkaline solution,
- e The reaction between an acid and an alkali is called

Choose endings from:

- ◆ hydrogen ions, H^+ .
- ◆ hydroxide ions, OH^- .
- ◆ substances that contain hydrogen.
- ◆ neutralisation.
- ◆ H^+ and OH^- ions combine to form water.

2 a Give a definition for each of the following:

i an acid

.....
.....

ii a base

.....
.....

iii an alkali

.....
.....

iv a salt

.....
.....

b Complete the following sentences using the words below to fill in the gaps.

indigestion metallic antacids neutralisation salt

When acids and bases react, the reaction is called This can be summarised as
acid + base → + water.

Bases are compounds such as oxides or hydroxides. Bases such as
magnesium hydroxide are used in medicines to cure

Hydrogencarbonates or carbonates can also be used to react with acids to relieve their effects;
they are sometimes referred to as

3 Complete each of the following sentences using the correct ending from the list given below.

a Substances which change colour according to whether they are in acidic or alkaline solutions are

.....

b When a substance dissolves in water it forms a solution which may be

.....

c The pH scale is

.....

d When non-metal oxides dissolve in water their solutions are often

.....

e When metal oxides dissolve in water, their solutions are

.....

Choose endings from:

- ◆ acidic, neutral or alkaline.
- ◆ acidic, with a pH less than 7.
- ◆ called indicators.
- ◆ alkaline, with a pH greater than 7.
- ◆ used to show how acidic or alkaline a solution is.