



# REACTIONS OF ACIDS 2

**PART A** Complete the following word equations for reactions.

- 1) zinc + sulfuric acid → .....
- 2) nitric acid + calcium carbonate → .....
- 3) potassium hydroxide + sulfuric acid → .....
- 4) nitric acid + calcium oxide → .....
- 5) nitric acid + ammonia → .....
- 6) ..... → calcium nitrate + hydrogen
- 7) ..... → lead sulfate + water
- 8) ..... → zinc sulfate + water + carbon dioxide
- 9) ..... → ammonium phosphate
- 10) calcium carbonate + ..... → calcium chloride + .....
- 11) tin oxide + ..... → tin chloride + .....
- 12) calcium hydroxide + ..... → ..... + calcium nitrate
- 13) citric acid + potassium hydroxide → .....
- 14) ..... + citric acid → magnesium citrate + hydrogen
- 15) phosphoric acid + ..... → potassium phosphate + water

**PART B** Write ionic equations for reactions 3, 12 and 13.

- 3) .....
- 12) .....
- 13) .....

**PART C** Complete the table to show whether each of the reactions involves the transfer of protons or electrons (give the number of the equations)

transfer of protons (acid-base)	transfer of electrons (redox)

**PART D** Write a balanced equation for each of the following reactions.

- 3) .....
- 4) .....
- 5) .....

Area	Strength	To develop	Area	Strength	To develop	Area	Strength	To develop
Done with care and thoroughness			Word equations for acid reactions			Write formulae		
Good SPG			Write ionic equations for acid-alkali			Write balanced equations		
Can identify salts formed from acids			Electron v proton transfer					