7 Strong/weak acids and salts – Part 2

Name: _____ Class: _____ Date: _____

Vocabulary

Write each word three times.

English	**Write it 3 times** (English)		
salt			
dissociates			
strong acid			
weak acid			
excess			
filter			
evaporate			
crystallise			
precipitation			

Recall

From Part 1 you know acids form H^+ ions. Here we sort acids into **strong** and **weak**, and learn how to make a **salt** .

- "Strong/weak" is about how fully an acid splits into ions.
- A salt is what forms when an acid is neutralised.

Nothing here is hard – it just adds the methods.

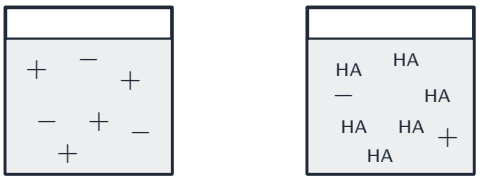
New ideas

Read these first, then do the Practice.

■ 1 Strong and weak acids

This is about how fully the acid **dissociates** (splits into ions) in water:

- a **strong acid** is **fully** dissociated (e.g. hydrochloric acid).
- a **weak acid** is only **partly** dissociated (e.g. ethanoic acid).



strong (all ions) weak (mostly HA)

("Strong/weak" is **not** the same as concentrated/dilute.)

■ 2 Making a soluble salt

React an acid with an **excess** of an insoluble base, metal or carbonate, then:

filter off the leftover solid → **evaporate** some water → **crystallise** .

■ 3 Making an insoluble salt

Make it by **precipitation** : mix two solutions that each carry one of the needed ions, and the insoluble salt forms as a solid. Then filter, wash and dry it.

Watch out: strong/weak is about how *fully* an acid splits into ions; **concentrated/dilute** is about how *much* acid is in the water – they are different ideas. A *soluble* salt is made with **excess** insoluble solid then filtering; an *insoluble* salt by **precipitation**.

Practice

Try these in order.

7.1 What is the difference between a *strong* and a *weak* acid? [2]

7.2 Is hydrochloric acid strong or weak? [1]

7.3 Does "strong" mean the same as "concentrated"? [1]

7.4 List the steps to make a soluble salt from an acid and an excess of an insoluble base. [3]

7.5 How is an insoluble salt made? [1]

7.6 Challenge. Lead nitrate solution is mixed with potassium iodide solution and a yellow solid forms. Name this method of making a salt, and state the two steps after mixing to obtain the dry solid. [3]