Making Salts

Cut out the cards and place them face down into a pile of acids and a pile of metals. Pick up one card from each pile at random and name the salt that would form in the reaction.
E.g. sodium and hydrochloric acid forms sodium chloride.

Hydrochloric acid **HCl** forms chlorides	Sulphuric Acid **H_2SO_4** forms sulphates	Phosphoric acid **H_3PO_4** forms phosphates
Citric acid **$C_3H_5O(COOH)_3$** forms citrates	Ethanoic acid **CH_3COOH** forms ethanoates	Nitric acid **HNO_3** forms nitrates

Sodium Na	Magnesium Mg	Iron Fe
Aluminium Al	Calcium Ca	Zinc Zn
Copper Cu	Gold Au	Titanium Ti

Mission Assignment: Outline the reactions of acids with metals

KS3-15-04

Acids & Metals

Compare the reactivity of different metals with acid.

Method

1. Pipette 3cm³ 0.1M hydrochloric acid into a test tube in a rack.
2. Drop a small piece of magnesium ribbon into the test-tube and cover with an inverted boiling tube.
3. Observe the reaction taking place. Once the reaction is complete, remove the boiling tube while keeping it inverted and place a lit splint over the end of the boiling tube. If there is a "squeaky pop" then hydrogen gas is present.
4. Repeat this process for other metals.
5. Rank the metals in order of reactivity. Justify your order.

Equipment

- 0.1M hydrochloric acid
- Pipette
- Metal samples: magnesium, iron, lead, zinc, aluminium
- Splint, candle, matches
- Test tubes & rack
- Boiling tube

Least reactive → Most reactive