Acids:

To measure pH, there are many things, which can be used. Firstly, there is a universal indicator. This is made of dye but is not very accurate. Green means neutral, Red and orange acid, blue and purple alkali. Secondly, there is a pH meter which is technological so doesn't give colors but rather readings. Thirdly, there is litmus paper. Litmus is red in acidic and blue in alkali. Purple gives neutral. Lastly, there is phenolphthalein, which is pink in alkali and colorless in acidic solutions.

When acids react with metals, they produce salt and hydrogen (above hydrogen in the Reactivity series). Sulfuric acid produces sulfates and nitric acid nitrates.

To test for hydrogen, we would need a boiling tube, thistle funnel, sulfuric acid, zinc, beaker with water. To test for hydrogen, place a lighted splint at the mouth of the test tube and a squeaky pop will be given of.

When acids react with metal oxides, salt and water is produced. E 52

Bases are substances that combine with hyd

Reacting metal hydroxide a da covourd produce water and salt like oxides. Bases are alkaline because the whitain hydroxide ons

Reacting a metal carbonate with acid gives CO2+H2O+Salt. Every time, this happens; CO3 2- + 2H+ = CO2 + H20. Because carbonate ions are reacting with hydrogen ions, they are bases.

The Bronsted-Lowry theory states that an acid is a proton donor and a base is a proton acceptor. The hydroxonium ion is very important. We right this ion as H+ (aq). HCl is an acid because it is giving a proton (hydrogen ion) to H20.

Acids in solution are acidic because of the presence of hydroxonium ion.

Hydrogen chloride and hydrochloric acid have the formula HCl. When hydrogen chloride dissolves in water, it reacts with the hydroxonium ion and chloride ion.