

Chemistry 1 a Week Activity		Higher Answers	50 th Week
Name: Class:			
Magnesium displaces zinc from zinc sulfate solution. Complete the ionic equation for the reaction. You should include state symbols. $\text{Mg(s)} + \text{Zn}^{2+}(\text{aq}) \rightarrow \text{Mg}^{2+}(\text{aq}) + \text{Zn(s)}$			
Give the electronic configuration of a potassium ion . 2, 8, 8	Give the formula of a carbonate ion. CO₃²⁻		
13.3 cm ³ of 0.0500 mol/dm ³ citric acid solution was needed to neutralise 25.0 cm ³ of sodium hydroxide solution. The equation for the reaction is: $3\text{NaOH} + \text{C}_6\text{H}_8\text{O}_7 \rightarrow \text{C}_6\text{H}_5\text{O}_7\text{Na}_3 + 3\text{H}_2\text{O}$ Calculate the concentration of the sodium hydroxide solution in mol/dm ³ . Moles of citric acid = conc × volume Moles of citric acid = 0.0500 × 0.0133 Moles of citric acid = 6.65 × 10⁻⁴ Concentration of NaOH = Moles ÷ volume Concentration = 1.995 × 10⁻³ ÷ 0.025 Concentration = 0.0798 Concentration = 0.0798 mol/dm ³			
HCl is a strong acid. Why is HCl a strong acid? HCl fully dissociates/ ionises in solution. Each molecule forms 1 H ⁺ ion and 1 Cl ⁻ ion.	Why does increasing the temperature of a reaction increase the rate of reaction? - Increasing the temperature increases the average kinetic energy of each particle. - This increases the frequency of collisions between particles. - More particles have the minimum activation energy.		
Give the formula of a sulfate ion. SO₄²⁻	Give the formula of an ammonium ion. NH₄⁺		
Bromine water is added to hexane and to hexene. What would be observed when bromine water is added to hexane and to hexene? Hexane: <u>No reaction. The bromine water remains orange.</u> Hexene: <u>The orange bromine water is decolourised.</u> Do not accept goes clear.			