

Chemistry 1 a Week Activity		Higher	32 nd Week
Name:		Class: 	
H₂SO₄ is a strong acid. What makes H₂SO₄ a strong acid? 	A solution of NaOH has a concentration of 0.92 mol/dm³. What is this in g/dm³? 		
The formula of titanium(IV) oxide is TiO₂. Deduce the charge of the titanium ion in titanium(IV) oxide. 	Sodium reacts with chlorine to form sodium chloride. Give the electronic configurations of the ions formed. Na⁺ = ... Cl⁻ = ...		
Calculate the number of molecules in 0.11 g of carbon dioxide. Avogadro constant = 6.02×10^{23} 	Calculate the number of atoms in 0.11 g of carbon dioxide. Avogadro constant = 6.02×10^{23} 		
Magnesium burns in excess oxygen to form magnesium oxide. The balanced equation for this reaction is: $2\text{Mg} + \text{O}_2 \rightarrow 2\text{MgO}$ Starting with 1.35 g of magnesium, calculate the maximum mass of magnesium oxide that could be formed in this reaction. 			
Butane has the formula C₄H₁₀. Calculate the mass of carbon in 100 g of butane. Give your answer to three significant figures. 			
Large alkanes can be cracked into smaller alkanes and alkenes. Why are smaller alkanes in higher demand than larger alkanes? 			