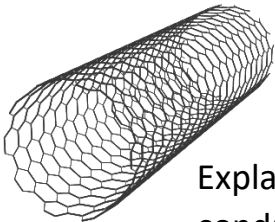


Chemistry 1 a Week Activity		Higher	43 rd Week
Name: Class:			
Draw a dot and cross diagram of a molecule of carbon dioxide. Show the outer electrons only.			
Describe the test to show that calcium carbonate contains carbonate ions. 	Describe a test for sulfate ions. 		
Give the electronic configuration of a calcium atom. 	Calculate the relative formula mass of calcium chloride, CaCl₂. 		
The equation below shows the reaction to produce sodium carbonate and calcium chloride. $2\text{NaCl} + \text{CaCO}_3 \rightarrow \text{Na}_2\text{CO}_3 + \text{CaCl}_2$ Calculate the maximum mass of sodium carbonate that could be formed by reacting 40 kg of calcium carbonate with an excess of sodium chloride solution. 			
 The figure shows a carbon nanotube. Explain why carbon nanotubes conduct electricity. 	Name the following compound. $ \begin{array}{ccccccc} & \text{H} & & \text{H} & & \text{H} & & \text{H} \\ & & & & & & & \\ \text{H} & - \text{C} & - & \text{C} & = & \text{C} & - & \text{C} & - \text{H} \\ & & & & & & & \\ & \text{H} & & & & & & \text{H} \end{array} $ 		