

Chemistry 1 a Week Activity Foundation Answers		12 th Week
Name: Class:		
Describe a test to show the presence of water. Test: <u>Add anhydrous copper sulfate.</u> Result: <u>the anhydrous copper sulfate will change from white to blue in the presence of water.</u>	Draw the display structure of ethanol. $\begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{H}-\text{C}-\text{C}-\text{O}-\text{H} \\ \quad \\ \text{H} \quad \text{H} \end{array}$	
Iron is extracted from an ore called haematite. The main chemical in this ore is iron oxide, which has the formula Fe ₂ O ₃ . Calculate the percentage by mass of iron (Fe) in a pure sample of iron oxide (Fe ₂ O ₃). Show your working. (Relative atomic masses (Ar): Fe = 56, O = 16) Mr of Fe₂O₃ = (2 × 56) + (3 × 16) Mr Fe₂O₃ = 112 + 48 Mr Fe₂O₃ = 160 Percentage by mass = (112 ÷ 160) × 100 Percentage by mass = 0.7 × 100 Percentage by mass = 70%		
Give the formula of octane. C ₈ H ₁₈	Give the general formula for an alkene C _n H _{2n}	
Define the following terms. 1. An atom: Is the smallest particle of an element that is neutral. 2. An ion: Is an electrically charged atom or particle. 3. An ionic bond: A strong electrostatic force of attraction between oppositely charged ions.		
Give the formula of an ammonium ion. NH ₄ ⁺	Give the formula for a molecule of ammonia . NH ₃	
A solution has a concentration of 50 g/dm ³ . What is its concentration in g/cm ³ ? To convert from g/dm ³ to g/cm ³ , you divide by 1000. 50 ÷ 1000 = 0.05 g/cm ³	Identify the element that is period 4 and group 3 of the periodic table. Gallium or Ga	