**Chemistry Unit C1: Structures, Trends, Chemical Reactions, Quantitative Chemistry and Analysis**

**C1.7 Quantitative chemistry**

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| **Content - CCEA Double Award Chemistry 1 – Fort Hill Integrated College** | Got it | Nearly | Haven’t a clue |
| **C1.7 Quantitative chemistry** | | | |
| **Formula mass** |  |  |  |
| Can you recall that the relative atomic mass (Ar) of an atom is the mass of the atom compared with that of the carbon-12 isotope, which has a mass of exactly 12, and demonstrate knowledge and understanding that Ar is a weighted mean of the mass numbers; |  |  |  |
| Can you calculate the relative formula mass (Mr) (relative molecular mass) of a compound and the percentage of an element, by mass, in a compound; |  |  |  |
| **The mole** |  |  |  |
| Can you demonstrate knowledge and understanding that chemical amounts are measured in moles and that the mass of one mole of a substance in grams is numerically equal to the relative formula mass; |  |  |  |
| Can you convert the given mass of a substance to the amount of the substance in moles (and vice versa) by using the relative atomic or formula mass; |  |  |  |
| **Can you** **calculate the reacting masses of reactants or products, given a balanced symbol equation and using moles and simple ratio, including examples where there is a limiting reactant;** |  |  |  |
| **Percentage yield** |  |  |  |
| **Can you** **calculate the theoretical yield and the percentage yield of a chemical reaction given the actual yield;** |  |  |  |
| **Can you** **recognise possible reasons why the percentage yield of a product is less than 100%, including loss of product in separation from the reaction mixture, as a result of side reactions or because the reaction is reversible and may not go to completion.** |  |  |  |