Stewards Academy

Science Department **ASSESSMENT FEEDBACK** Year 9 Combined Science (CHEMISTRY)

Attainment Band :	**C3 Chemical quantities and calculations (AQA)**
	Knowledge and Understanding
Yellow Plus/ Yellow	Explain the meaning of subscripts within a formula and multipliers before a formula in a balanced equation. Show how the relative formula masses of reactants are equal to the relative formula masses of products. Explain observed changes in mass in non-enclosed systems and explain the changes in terms of the particle model. Represent the range of a set of measurements about a mean as a measure of uncertainty. Calculate the mass of a given number of moles. Calculate the mass of a given reactant or product. Change the subject of a mathematical equation. Explain the effect of a limiting quantity of a reactant on the amount of products it is possible to obtain, using moles or grams. Relate concentration in mol/dm^3 to mass and volume.
Blue	Explain how to balance equations in terms of numbers of atoms on both sides of the equation. Calculate the sum of the relative formula masses of reactants and products. Explain why there appears to be a mass change when metal carbonates are heated or metals are heated in oxygen. Represent a distribution of results and make estimates of uncertainty. Calculate the number of moles in a given mass. Calculate the masses of reactants and products from balanced symbol equations. Balance an equation given the masses of reactants and products. Describe the reactant that is used up first in a reaction as the limiting reactant. Calculate the mass of solute in a solution.
Green	State the law of the conservation of mass. Be able to calculate a relative formula mass from the sum of the relative atomic masses. Explain that when there is a mass change in a reaction it may be because a gas is being given off. Describe that whenever a measurement is made there is always a degree of uncertainty about the result. Describe the measurement of amounts of substance in moles. Calculate the masses of substances in a balanced symbol equation. Convert masses in grams to amounts in moles. Recognise that when a reaction has stopped one of the reactants has been used up. Relate mass, volume and concentration.
White	Some elements of the above have been achieved

What you need to do to be a reflective learner.

Highlight 2 x LO that you feel you have achieved from the recent assessment and 2 x LO that you need to revisit and practice again for e.g. **Calculate the mass of a given reactant or product Q 4.4 (yellow box)**