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| **What will we be learning?**  **C3 – Quantitative Chemistry** | **Why this? Why now?**  Previous learning – Atomic structure, Bonding and Structure  **What other GCSE Science units does this unit relate to?**  Chemistry – Atomic Structure, Bonding and Structure, Chemical Changes, Energy Changes, Rate and Extent of Chemical Change  Biology - none  Physics - All – maths skills and equations | **Key Words:**  Conservation of mass  Reactant  Product  Thermal decomposition  Oxidation  Balanced equation  Relative formula mass  Mole  Avogadros constant  Reacting ratio  Limiting reactant  Excess  Concentration  Mol/dm3  g/dm3 |
| **What will we learn?**   * Chemical measurements, conservation of mass and the quantitative interpretation of chemical equations * Use of amount of substance in relation to masses of pure substances   **Useful equations/formulae/maths skills for this unit:**  n = m / Mr rearranging equations  n = c x v conversion of units  n = V / 24 significant figures and standard form  **Misconceptions in this topic**  Conservation of mass Moles  Balancing equations Volume conversion cm3 to dm3  Relative atomic mass Limiting reactants and excess  Relative formula mass | |
| **What opportunities are there for wider study?**  **If you are interested in this unit, what careers does it relate to?**  Industrial chemistry Research chemist Chemical engineer  Analytical chemistry Make-up chemist Materials chemist  Drug manufacturing Formula 1 technician – fuels and energy  **Collins Revision guide relevant pages for this unit:**  Higher – P102-104, P112-113, P131  Foundation – P102, 111, 127 | |
| **How will I be assessed?**  End of topic assessment | |