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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 ChangeBiology - nonePhysics - All – maths skills and equations | **Key Words:**Conservation of massReactantProductThermal decompositionOxidationBalanced equationRelative formula massMole Avogadros constantReacting ratioLimiting reactantExcessConcentrationMol/dm3g/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 equationsn = c x v conversion of unitsn = V / 24 significant figures and standard form **Misconceptions in this topic**Conservation of mass MolesBalancing equations Volume conversion cm3 to dm3Relative atomic mass Limiting reactants and excessRelative 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 chemistDrug manufacturing Formula 1 technician – fuels and energy**Collins Revision guide relevant pages for this unit:**Higher – P102-104, P112-113, P131Foundation – P102, 111, 127 |
| **How will I be assessed?**End of topic assessment |