

C1 Topic 3 Quantitative Chemistry REVISION

Chemical Measurements, Conservation of Mass ...	
1. What is relative formula/molecular mass?	The atomic masses of all the elements added together, that are in a chemical formula/molecule
2. What does the law of conservation state regarding atoms?	That no atoms are lost or made during a chemical reaction
3. The mass of the products equals ...	The mass of the reactants
4. Why might some reactions appear to show a change in mass?	Because a gas is produced
5. What are the units for mass per given volume of solution?	g/dm ³
Skills	
6. Calculate the RFM of CaCO ₃	100
7. Calculate the RFM of LiOH	24
8. Calculate the RFM of Mg(OH) ₂	58
9. Calculate the RFM of H ₂ SO ₄	98
10. Calculate the RFM of C ₂ H ₆	30
11. Balance the equation: H ₂ + O ₂ → H ₂ O	2H ₂ + O ₂ → 2H ₂ O
12. Balance the equation: Na + Cl ₂ → NaCl	2Na + Cl ₂ → 2NaCl
13. Balance the equation: Mg + O ₂ → MgO	2Mg + O ₂ → 2MgO
14. Balance the equation: Li + F ₂ → LiF	2Li + F ₂ → 2LiF
15. Balance the equation: Al + O ₂ → Al ₂ O ₃	4Al + 3O ₂ → 2Al ₂ O ₃
Higher Tier	
16. What is a mole?	The relative formula mass of a substance, in grams
17. What is the unit for moles?	Mol
18. What does Avogadro's constant tell us?	The number of atoms, molecules or ions in a given substance
19. What is the equation used to calculate moles using grams and something else?	Moles = mass / molar mass
20. Why might we use an excess of one of the reactants in a reaction?	To ensure that the other reactant is used up
21. What is a reactant that is completely used up known as?	The limiting reactant
Higher Tier Skills	
22. Calculate the number of moles in 3g of CaCO ₃	0.030
23. Calculate the relative formula mass of 4g and 4 moles of something	16
24. Calculate the number of moles in 2.5g of LiOH	0.104
25. Calculate the mass of 5.8 moles of H ₂ SO ₄	568.4g
26. Calculate the mass of 4.2 moles of H ₂ O	75.6g