C4.3 Knowledge Quiz: Quantitative Chemistry

Explain what is shown by a chemical formula.	
Identify how many atoms of each element are present in Na_2CO_3.	
Define relative atomic mass.	
Describe where to find relative atomic mass of an element.	
State the symbol for relative atomic mass.	
Define relative formula mass.	
State the symbol for relative formula mass.	
Calculate the relative formula mass of Na_2CO_3.	
Explain why chemical equations have to be balanced.	
State the law of conservation of mass.	
State the equation used to calculate the percentage by mass of an element in a compound.	
Calculate the percentage by mass of sodium in Na_2CO_3.	
Define concentration.	
Convert 500 cm^3 to dm^3.	
State the equation that links concentration, mass and volume.	
State the unit of concentration.	
State the general equation for the reaction between an acid and an alkali.	
State the general equation for the reaction between an acid and a metal carbonate.	
State the general equation for the reaction between an acid and a metal.	
Name the type of salts made from hydrochloric acid.	

Name the type of salts made from sulfuric acid.	
Name the type of salts made from nitric acid.	
Name the ion produced by acids in aqueous solutions.	
Name the ion produced by alkalis in aqueous solutions.	
State the pH of a neutral solution.	
State the pH of an acidic solution.	
State the pH of an alkaline solution.	
Describe two ways to measure pH.	
Write the ionic equation that represents neutralisation.	

HT only

State the unit for moles.	
State how many particles there are in 1 mole of any substance.	
State the name given to this number.	
Describe the relationship between the relative formula mass and the mass in grams of a substance.	
State the equation that links number of moles, mass and relative formula mass.	
Calculate the number of moles in 88 g of carbon dioxide.	
Calculate the mass of 0.5 mol of carbon dioxide.	
Explain what is meant by the molar ratio in a chemical equation.	
Explain what is meant by the limiting reactant.	
Explain what it means if a reactant is in excess.	

Define a strong acid.	
Give an example of a strong acid.	
Define a weak acid.	
Give an example of a weak acid.	
Explain what pH is a measure of.	
Define a concentrated acid.	
Define a dilute acid	

Chemistry only

State the two units that concentration can be measured in.	
State the equation that links concentration, number of moles and volume.	

Explain the purpose of a titration.	
Name the piece of apparatus that should be used to measure a fixed volume.	
Name the piece of apparatus that should be used to measure a variable volume.	
Explain why phenolphthalein is used as an indicator in titration rather than universal indicator.	
Define the end point of a titration.	
Define a titre.	
Define concordant results.	

State the molar volume of a gas at rtp.	
Describe the conditions of rtp.	
State the equation that links volume of gas, number of moles and molar volume.	