Prior Learning Lesson Number					Assessment/ Homework
		AQA Spec	Title	Content	
Original	WSFG				
1 and 2	1 and 2	4.3.1.1	Conservation of mass and balanced equations	<ul> <li>Explore ideas about the conservation of mass.</li> <li>Consider what the numbers in equations stand for.</li> <li>Write balanced symbol equations.</li> </ul>	
3	2	4.3.1.2	Relative formula mass	<ul> <li>Identify the relative atomic mass of an element</li> <li>Use relative atomic masses to calculate relative formula masses.</li> </ul>	
4	3	4.3.1.3	Mass changes when gases are in reactions	<ul> <li>Find out how mass can be gained or lost during a reaction</li> <li>Find the mass of carbon dioxide released per gram of copper carbonate decomposed</li> <li>Interpret data and graph skills practice</li> <li>Maths skills: change the subject of an equation</li> <li>Carry out multistep equations</li> </ul>	

## **LEARNING JOURNEY**

6	5	4.3.2.1	Moles	<ul> <li>Describe what is meant by the term moles.</li> <li>Avogadro's constant</li> <li>Calculate number of moles</li> <li>Calculate the mass of a given number of moles of a substance</li> </ul>	Assessment (15 marks)
7	6	4.3.2.2 Higher tier only	Amounts of substances in equations	<ul> <li>Predict the mass of reactant or product that will be produced from a given balanced equation</li> </ul>	
8	7	4.3.2.3 4.3.2.4 Higher tier only	Using moles to balance equations	<ul> <li>Convert masses in grams to amounts in moles</li> <li>Use moles to balances equations</li> </ul>	Assessment 2: Online Quiz
9	8	4.3.2.5 Higher tier only	Concentration of solutions	<ul> <li>Calculate the concentration of substances using mass of solute</li> <li>Re-arrange equation to calculate mass from the concentration</li> <li>Calculate concentration from moles</li> </ul>	
End of chapter test					
Where we will use these ideas again					

Prior Learning						
Lesson Number		AQA Spec	Title	Content	Assessment/ Homework	
Original	WSFG					
10 TRIPLE	9	4.3.4	Using concentration s of solutions (Titrations)	<ul> <li>Describe how to carry out titrations.</li> <li>Calculate concentrations in titrations in mol/dm³ and in g/dm³.</li> <li>Explain how the concentration of a solution in mol/dm³ is related to the mass of the mass of the solute and the volume of the solution.</li> </ul>		
11 TRIPLE	10	4.4.25	Required practical: Finding the reacting volumes of acid and alkali by titration	<ul> <li>Use an acid to neutralise a known volume of alkali.</li> <li>Use a burette to determine the volume of an acid needed.</li> <li>Use the results to determine the concentration of an alkali.</li> </ul>		
12 TRIPLE	11	4.3.3.1	Key concept: Percentage yield	<ul> <li>Calculate the percentage yield from the actual yield.</li> <li>Identify the balanced equation needed for calculating yields.</li> <li>Calculate theoretical product amounts from reactant amounts.</li> </ul>		

13 TRIPLE	12	4.3.3.2	Atom economy	<ul> <li>Identify the balanced equation of a reaction.</li> <li>Calculate the atom economy of a reaction to form a product.</li> <li>Explain why a particular reaction pathway is chosen.</li> </ul>	
14 TRIPLE	13	4.3.5	Amounts of substance in volumes of gases	<ul> <li>Explain that the same amount of any gas occupies the same volume at room temperature and pressure (rtp).</li> <li>Calculate the volume of a gas at rtp from its mass and relative formula mass.</li> <li>Calculate the volumes of gases from a balanced equation and a given volume of a reactant or product.</li> </ul>	
End of chapter test					
	Where we will use these ideas again				