

**GHS 2024-2025 TERM 1 SCHEME OF WORK  
CHEMISTRY-FORM 5**

Week	Unit Topic	Objectives	Assessment/Activities
1	<b>The Mole Concept</b>	<b>Correction of form 4 examination- paper 1 and 2</b>	
2		<ul style="list-style-type: none"> <li>• Define relative atomic mass, relative molecular mass and relative formula mass.</li> <li>• Recall abbreviations of relative masses and that they have no units.</li> <li>• Determine relative molecular mass</li> <li>• Calculate relative molecular or relative formula mass given atomic masses.</li> <li>• Define mole and molar mass</li> <li>• Distinguish between molar mass and relative masses.</li> </ul>	
3		<ul style="list-style-type: none"> <li>• Perform calculations to determine mass, number of moles and number of particles.</li> <li>• State Avogadro's law</li> <li>• Recall pressure and volume at STP and RTP</li> <li>• Perform calculations involving molar volumes [RTP And STP]</li> </ul>	
4		<ul style="list-style-type: none"> <li>• State the Law of Conservation of Matter</li> <li>• Determine mole ratios in molecular and ionic equation</li> <li>• Calculate masses and volumes using in ionic and molecular equations</li> <li>• Calculate percentage composition, by mass, of elements in compounds</li> </ul>	Exercise 1- Mole concept
5-6		<ul style="list-style-type: none"> <li>• Define the term standard solution</li> <li>• Define mass and molar concentration</li> <li>• Calculate mass and molar concentration</li> <li>• Describe step by step process of titration and apparatus needed</li> </ul>	<b>SBA Lab- Quantitative Analysis</b>

		<ul style="list-style-type: none"> <li>• Complete titration table</li> <li>• Perform calculations using volumetric analysis data (number of moles, mole ratio, concentration)</li> </ul>	
<b>7</b>		Revise Mole Concept	
<b>8</b>		Titration Labs	Mole Concept Exercise 2
<b>9</b>	<b>Energetics</b>	<ul style="list-style-type: none"> <li>• State two types of energy change reactions (Exothermic and endothermic)</li> <li>• Give examples of endothermic and exothermic reactions</li> <li>• Define enthalpy and enthalpy change (noting the symbol)</li> <li>• Distinguish between exothermic and endothermic reactions in terms of bond breaking, bond forming, temperature changes</li> <li>• Define activation energy</li> <li>• Draw an energy profile diagram to illustrate exothermic and endothermic reactions (include energy barrier)</li> <li>• Illustrate the action of a catalyst on energy profile diagram</li> </ul>	<b>SBA Lab- Quantitative Analysis</b>
<b>10</b>		<ul style="list-style-type: none"> <li>• State type of enthalpy changes</li> <li>• Explain experiments to determine heat of neutralisation and heat of solution</li> <li>• State assumptions made when heat of neutralisation and heat of solution are determined</li> <li>• Calculate energy changes from experiments or from experimental data- heat of solution and heat of neutralisation</li> </ul>	Exercise 3- Rates and energetics
<b>11</b>	<b>Revision</b>		

### Form 5 Lab topics

SBA Topic	Labs	Completed
Separation techniques	<ul style="list-style-type: none"> <li>Paper chromatography</li> <li>Filtration and crystallisation</li> </ul>	✓ ✓
Acids, bases and salts	<ul style="list-style-type: none"> <li>Salt and sugar crystals (PD)</li> <li>Salt preparation (PD)</li> </ul>	✓ ✓
redox reactions and electrolysis	<ul style="list-style-type: none"> <li>Classifying oxidizing and reducing agents (AI)</li> <li>Redox reactions</li> <li>Electrical conductivity</li> </ul>	✓
qualitative analysis	<ul style="list-style-type: none"> <li>Identification of common gases</li> <li>Qualitative Analysis of Halide Compounds</li> <li>Qualitative Analysis of X and Y (AI)</li> </ul>	✓ ✓ ✓
quantitative analysis	<ul style="list-style-type: none"> <li>Concentration of HCl (MM)</li> <li>Concentration of HNO<sub>3</sub> (ORR)</li> </ul>	
rates of reaction energetics	<ul style="list-style-type: none"> <li>Effect of temperature</li> <li>Disappearing Cross (ORR)</li> <li>Heat of solution (MM)</li> <li>Heat of Neutralisation</li> </ul>	✓ ✓
saturated and unsaturated hydrocarbons	<ul style="list-style-type: none"> <li>Distinguishing alkanes and alkenes</li> </ul>	
Extra	<ul style="list-style-type: none"> <li>Hard and soft water (PD/AI)</li> </ul>	