

**ST. MARY'S COLLEGE**

**FORM 5 - CHEMISTRY**

**Course Outline**

**Term 1**

<b>Section</b>	<b>Specific Objective</b>	<b>Explanatory Notes</b>	<b>Textbook Reference</b>
Organic Chemistry	Sources of hydrocarbon compounds	Identify natural sources of hydrocarbons Uses of petroleum fractions Describe cracking of fractions	Chapter 16
	Introduction	Illustrate bonding in carbon and carbon compounds Write formulae of organic compounds Characteristics of homologous series Write general and molecular formulae of homologous series Deduce the homologous series of compounds Draw and name structures Define structural isomerism Write and name structural isomers	Chapter 16
	Reactions of carbon compounds	Describe the reactions of alkanes and alkenes Relate reactions of alkanes and alkenes to their structures Distinguish between alkanes and alkenes Uses of hydrocarbons Identify alcohols, acids and esters Properties of alcohols, acids and esters Describe reactions of ethanol Describe fermentation Describe reactions of ethanoic acid Describe hydrolysis of esters Compare soapy and soapless detergents	Chapters 17 - 19
Organic Chemistry	Polymers	Define polymers Distinguish between addition and condensation polymerization - Uses of polymers	Chapter 20

**Term 2**

<b>Section/Unit</b>	<b>Topic</b>	<b>Modules</b>	<b>Textbook Reference</b>
Inorganic Chemistry	Characteristics of metals	Describe the physical and chemical properties of metals Describe the reactions of metallic oxides, hydroxides, nitrates and carbonates	Chapter 21
Inorganic Chemistry	Reactivity and extraction of metals	Discuss the reactivity of metals Deduce the order of reactivity of metals Describe the extraction of aluminium and iron	Chapter 22
Inorganic Chemistry	Uses of metals Metals and Living Systems	Explain why metal alloys are used Relate properties of metals to their uses Investigate metal corrosion Explain the importance of metals on living systems Discuss the harmful effects of metals	Chapter 23
Inorganic Chemistry	Non-Metals	Describe physical and chemical properties of non-metals Describe laboratory preparation of gases Explain the uses of gases List the uses of non-metals and their compounds Discuss the harmful effects of non-metals	Chapters 24 - 26
Inorganic Chemistry	Non-metals	Relate the properties of water in living systems Discuss the solvent properties of water Describe water treatment	Chapter 27
Inorganic Chemistry	Green Chemistry	Define Green Chemistry Outline the principles of Green Chemistry	Chapter 26
Inorganic Chemistry	Qualitative Analysis	Identify cations Identify anions Identify gases	Chapter 25