

Science – Year 11

Michaelmas 1	<p><u>Hydrocarbons</u></p> <ul style="list-style-type: none">• Crude oil, hydrocarbons and alkanes• Fractional distillation and petrochemicals• Properties of hydrocarbons• Cracking and alkenes <p><u>Homeostasis</u></p> <ul style="list-style-type: none">• Homeostasis• The human nervous system• Human endocrine system• Control of blood glucose concentration• Hormones in human reproduction• Contraception• The use of hormones to treat infertility (HT)• Negative Feedback (HT) <p><u>Rate and Extent of Chemical Change</u></p> <ul style="list-style-type: none">• Rate of reaction• Factors which affect the rates of chemical reactions• Collision theory and activation energy• Catalysts• Reversible reactions and dynamic equilibrium• Energy changes and reversible reactions• The effect of changing conditions on equilibrium (HT)• The effect of changing concentration (HT)• The effect of temperature changes on equilibrium (HT)• The effect of pressure changes on equilibrium (HT)
Michaelmas 2	<p><u>Forces</u></p> <ul style="list-style-type: none">• Scalar and vector quantities• Contact and non-contact forces• Gravity• Resultant• Work done and energy changes• Forces and elasticity• Distance and displacement• Speed• Velocity• The distance-time relationship• Acceleration• Forces, Accelerations and Newton's Laws of Motion• Forces and braking• Momentum (HT) <p><u>Chemical Analysis</u></p> <ul style="list-style-type: none">• Pure substances• Formulations

	<ul style="list-style-type: none"> • Chromatography • Identification of common gases <p><u>Using Resources</u></p> <ul style="list-style-type: none"> • Using the Earth's resources and sustainable development • Potable water • Waste water treatment • Alternative methods of extracting metals (HT) • Life cycle assessment and recycling • Ways of reducing the use of resources <p><u>The Atmosphere</u></p> <ul style="list-style-type: none"> • The proportions of different gases in the atmosphere • The Earth's early atmosphere • How oxygen increased • How carbon dioxide decreased • Greenhouse gases • Human activities which contribute to increase in greenhouse gases in the atmosphere • Global climate change
Lent 1	<p><u>Magnetism and Electromagnetism</u></p> <ul style="list-style-type: none"> • Permanent and induced magnetism, magnetic forces and fields. • The motor effect • Fleming's Left Hand Rule (HT) • Electric Motors (HT) <p><u>Ecology</u></p> <ul style="list-style-type: none"> • Adaptations, interdependence and competition • Abiotic factors • Biotic factors • Adaptations • Organisation of an ecosystem • How materials are cycled • Biodiversity • Waste management • Land Use • Deforestation • Global Warming • Maintaining biodiversity
Lent 2	Exam Preparation and Revision

Trinity 1	Exam Preparation and Revision
Trinity 2	Exam Preparation and Revision