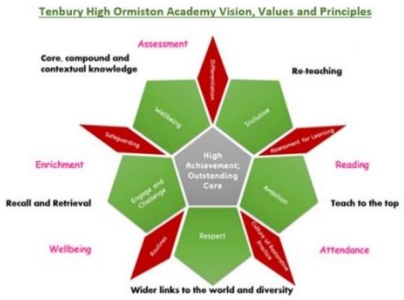
TENBURY HIGH
ORMISTON ACADEMY



Curriculum Overview for Chemistry
Year 11.2

Half Term 1: The rate and extent of chemical change **Substantive Knowledge:** ▪ Describe how changing temperature, concentration, pressure, surface area affects rate of reaction. ▪ Explain using collision theory the effects of changing conditions temperature, concentration, pressure, surface area on rate of reaction. ▪ Describe how catalysts impact rate of reaction. ▪ Link how catalysts impact rate of reaction to reaction profiles. ▪ Identify the symbol for reversible reactions. ▪ Link exothermic and endothermic reactions to reversible reactions. **Disciplinary Knowledge:** ▪ Calculate mean rate of reaction. ▪ Draw and interpret graphs showing the quantity of product formed or reactant used. ▪ HT – Draw tangents on graphs to calculate rate of reaction from a gradient ▪ HT- Predict changes on systems using le chateliers principle. ▪ HT – Predict the effect a change of concentration of a reactant or product, temperature or pressure has on equilibrium. ▪		Skim and Scan of source information Decoding terms Etymology of key terms Breaking down exam questions
		Chromatogram, Chromatography, Activation energy, Catalyst, Collision theory, Rate of reaction, Reversible reaction, concentrate, Effect of changing concentration on equilibrium, Effect of changing pressure on equilibrium, Effect of changing temperature on equilibrium. Effect of concentration on reaction rate, Effect of pressure on reaction rate, Effect of surface area on reaction rate, Effect of temperature on reaction rate, Equilibrium, Le Chatelier's Principle
		Baseline Recall questions to start every lesson Exam questions in homework End of unit assessment
		Revision Card preparation for every lesson Exam questions - application
Half Term 2: Organic Chemistry **Substantive Knowledge:** Describe how crude oil is formed Identify alkanes Identify the general formula for an alkane Describe fractional distillation. Describe the properties of hydrocarbons. Explain the properties of hydrocarbons. Describe cracking. Explain why we do cracking. Compare the reactivity of alkanes and alkenes. **Disciplinary Knowledge:** Identify alkenes and alkanes Draw the first 4 alkanes Identify the general formula for an alkene and alkanes		Skim and Scan of source information Decoding terms Etymology of key terms Breaking down exam questions
		Alkanes, Alkenes, catalytic cracking, combustion, complete combustion, crude oil, cracking, fractional distillation, condensing, homologous series, hydrocarbons,
		Baseline Recall questions to start every lesson Exam questions in homework End of unit assessment
		Revision Card preparation for every lesson Exam questions - application