High Tunstall College of Science Curriculum Intent

Subject: Trilogy Chemistry Year: 11

Thread 5—Organic chemistry and chemical detection

	Chemistry Thread 5—Organic Chemistry and Chemical detection	Progress		
Topic	**Key ideas**	**R**	**A**	**G**
Organic chemistry and chemical detection	I can describe the formation of crude oil and what it contains			
	I can explain what alkanes are			
	I can relate the properties of hydrocarbons to their chain length			
	I can explain how longer chain hydrocarbons are broken down by the process of cracking			
	I can explain the process of chromatography and explain the theory behind it			
	I can use chromatography to solve problems			

Lesson	Learning Focus	Assessment	Key Words
1	What are hydrocarbons and alkanes?	Exam questions	Alkanes, homologous series
2	How do we separate the fractions of crude oil?	Extended writing question about fractional distillation	Distillation, temperature gradient
3	What is cracking and why is it useful?	Explanation, related to industry, of the need for cracking of hydrocarbons	Cracking, catalyst, alkane, akene
4	What is chromatography?	Application if understanding to context	Chromatography, solvent, solute, affinity, Rf value
5	RPA Chromatography	Completion of RPA activity	Chromatography, solvent, solute, affinity, Rf value