

# High Tunstall College of Science Curriculum Intent

Subject: Chemistry Year: 11

## Thread 6—The Earth and Atmosphere



	Chemistry Thread 6—The Earth and Atmosphere	Progress		
Topic	Key ideas	R	A	G
The Earth and Atmosphere	I can recall how the atmosphere has evolved over time			
	I can explain the greenhouse effect, and how humans have increased atmospheric pollutants			
	I can explain how we obtain potable water, and how waste water is treated			
	I can carry out practical work to purify water (HT)			
	I can explain alternative methods to extract metals from their ores, and how to reduce the use of the Earth's resources			
	I can explain how we can evaluate the environmental impact of different products and industries			

Lesson	Learning Focus	Assessment	Key Words
1	How has the Earth's atmosphere evolved?	Completion of extended writing regarding the evolution of the atmosphere	Evolved, Earth, carbon dioxide, oxygen
2	What is global warming and how does this impact climate change?	Completion of extended writing and 6 mark question looking at climate change	Global warming, greenhouse gas, climate change. Methane, carbon dioxide
3	What are atmospheric pollutants?	Cause and effect summary	Particulates, sulphur dioxide, nitrogen oxides
4	How can we clean water?	Completion of flow diagram to show how potable water is obtained	Potable
5	RPA—Water	Completion of RPA	Distillation, filtration, evaporation
6	How can we extract metals from low grade ores, and how can reduce the use of the Earth's resources?	Comparison of traditional and modern methods used to extract metals	Phytomining, bioleaching
7	What are LCA?	Completion of LCA to compare resources	Life cycle assessment