Prior Learning	Finite and renewable resources (C7 and C9); Distillation (C1 and C7); Analysis and purity of compounds (C8); metal extraction (C4)			
Lesson Number	**AQA Spec**	**Title**	**Content**	**Assessment/ Homework**
1	4.10.1.1	Key concept: Using the Earth's resources and sustainable development	• Give examples of natural products replaced by synthetics. • Give examples of products replaced by agricultural products. • Distinguish between finite and renewable resources.	
2.	4.10.1.2	Potable water	• Distinguish between potable water and pure water. • Describe the differences in treatment of ground water and salty water. • Explain what is needed to provide potable water for all.	
3		Required practical: Analysis and purification of water samples from different sources, including pH, dissolved solids and distillation	• Describe how safety is managed, apparatus is used and accurate measurements are made. • Recognise when sampling techniques need to be used and made representative. • Carry out a procedure to produce potable water from salt solution. • Evaluate methods and suggest possible improvements and further investigations.	Assessment: Exampro 15 marks H and F versions
4	4.10.1.3	Waste water treatment	• Explain how waste water is treated. • Describe how sewage is treated. • Compare the ease of treating waste, ground and salt water.	
5 HIGHER TIER ONLY	4.10.1.4	Alternative methods of metal extraction	• Describe the process of phytomining. • Describe the process of bioleaching. • Evaluate alternative biological methods of metal extraction.	

6	4.10.2.1	Life cycle assessment and recycling	• Describe the components of a life cycle assessment (LCA). • Interpret LCAs of materials or products from information. • Carry out a simple comparative LCA for shopping bags.	
7	4.10.2.2	Ways of reducing the use of resources	• Describe ways of recycling and reusing materials. • Explain why recycling, reusing and reducing are needed. • Evaluate ways of reducing the use of limited resources.	Assessment: 25-mark quiz Self-assessed
8		Maths skills: Translate information between graphical and numerical form	• Represent information from pie charts numerically. • Represent information from graphs numerically. • Represent numeric information graphically.	Can be incorporated in previous lessons
End of Unit test 3 versions: H, F, TRIPLE				
Where we will use these ideas again	• Last Chemistry unit			