



AQA GCSE Combined Science: Trilogy

Topic Checklists

5.10 Using Resources

5.10.1 Using the Earth's Resources and Obtaining Potable Water

Topic	Success Criteria	Progress		
Using the Earth's Resources and Sustainable Development	I can give some ways that humans use the Earth's resources.			
	I can give a definition for the term 'sustainable development'.			
	I can state examples of natural products that are supplemented or replaced by agricultural and synthetic products.			
	I can distinguish between finite and renewable resources, given appropriate information.			
	I can extract and interpret information about resources from charts, graphs and tables.			
	I can use orders of magnitude to evaluate the significance of data.			
Potable Water	I can give a definition for the term 'potable water'.			
	I can describe the processes by which most potable water is produced in the UK.			
	I can name some sterilising agents used for potable water.			
	I can describe how salty water or sea water can be used to produce potable water.			
	I can explain the difference between potable water and pure water.			
	I can describe the differences in treatment of ground water and salty water.			
	I can give reasons for the steps used to produce potable water.			
	I can describe the methods used to analyse and purify water samples from different sources, including pH, dissolved solids and distillation (required practical activity 13).			
Waste Water Treatment	I can explain why waste water needs to be treated before being released into the environment.			
	I can describe the processes involved in sewage treatment.			
	I can comment on the relative ease of obtaining potable water from waste, ground and salt water.			



Topic	Success Criteria	Progress		
Alternative Methods of Extracting Metals (HT Only)	I can explain why new methods of extracting metals need to be found.			
	I can describe how phytomining can be used to obtain metal compounds.			
	I can describe how bioleaching can be used to obtain metal compounds.			
	I can describe how metal compounds are processed to obtain the metal.			
	I can evaluate alternative biological methods of metal extraction, given appropriate information.			

5.10.2 Life Cycle Assessment and Recycling

Topic	Success Criteria	Progress		
Life Cycle Assessment	I can describe the stages that are assessed in life cycle assessments (LCAs).			
	I can explain why LCA is not a purely objective process.			
	I can explain the problems with selective or abbreviated LCAs.			
	I can carry out simple comparative LCAs for shopping bags made from plastic and paper.			
	I can interpret LCAs of materials or products, given appropriate information.			
Ways of Reducing the Use of Resources	I can describe the benefits of the reduction in use, reuse and recycling of materials.			
	I can describe how different materials can be reused or recycled.			
	I can evaluate ways of reducing the use of limited resources, given appropriate information.			