

C10 – Using Resources

Content	RAG
Recall that humans use the Earth’s resources to provide warmth, shelter, food and transport.	
Recall that natural resources, are supplemented by agriculture, provide food, timber, clothing and fuels.	
Recall that finite resources from the Earth, oceans and atmosphere are processed to provide energy and materials.	
State the definition of sustainable development.	
State examples of natural products that are supplemented or replaced by agricultural and synthetic products	
Distinguish between finite and renewable resources given appropriate information.	
Extract and interpret information about resources from charts, graphs and tables, and use orders of magnitude to evaluate the significance of data.	
Define potable water, state important features and describe how it is produced in the UK, with reasons for the steps	
Distinguish between potable water and pure water.	
Name sterilising agents used in the production of potable water.	
Describe the process of desalination and explain why it may be used in some countries.	
Describe the differences in treatment of ground water and salty water.	
Explain why sewage and agricultural waste water requires treatment before releasing into the environment	
Describe how sewage is treated.	
Comment on the relative ease of obtaining potable water from waste, ground and salt water.	
State why new ways of extracting copper are required. HT	
Outline the processes of phytomining and bioleaching, and recall that these process avoid traditional mining methods of digging, moving and disposing of large amounts of rock. HT	
Describe how the metal compounds from these processes can be processed to obtain the metal. HT	
Evaluate alternative biological methods of metal extraction, given appropriate information. HT	

Content	RAG
State what a life cycle assessment is, and the stages of a products life cycle that are assessed	
Recall that the use of water, resources, energy sources and production of some wastes can be fairly easily quantified.	
Recall that allocating numerical values to pollutant effects is less straightforward and requires value judgements, so LCA is not a purely objective process.	
Explain how selective or abbreviated LCAs can be misused.	
Carry out simple comparative LCAs for shopping bags made from plastic and paper.	
Describe the benefits of the reduction in use, reuse and recycling of materials by end users	
Recall that obtaining raw materials from the Earth by quarrying and mining causes environmental impacts, and manufacture of materials requires energy.	
Describe how glass and metals can be recycled and reused.	
Recall that the amount of separation required for recycling depends on the material and the properties required of the final product.	
Evaluate ways of reducing the use of limited resources, given appropriate information.	