

# AQA Chemistry

## GCSE Student Checklist

### C12 The Earth's resources

Name \_\_\_\_\_

Class \_\_\_\_\_

Date \_\_\_\_\_

Lesson	Aiming for 4		Aiming for 6		Aiming for 8
C12.1 Finite and renewable resources	I can list some human uses of the Earth's resources.	<input type="checkbox"/>	I can describe and classify a resource as finite or renewable when information is given.	<input type="checkbox"/>	I can understand data and interpret information using orders of magnitude to compare.
	I can give examples of a finite and a renewable resource.	<input type="checkbox"/>	I can explain the use of natural, sustainable, and finite resources.	<input type="checkbox"/>	I can explain the role of chemistry in improving agricultural and industrial processes.
	I can state an example of a natural product that is supplemented or replaced by agricultural or synthetic products.	<input type="checkbox"/>	I can interpret information from different formats including graphs, charts, tables, and prose.	<input type="checkbox"/>	I can draw conclusions consistent with information provided from graphs, charts, tables, and prose and evaluate the validity of the data.
C12.2 Water safe to drink	I can describe why potable water is important.	<input type="checkbox"/>	I can explain the method of obtaining potable water depends on the local conditions.	<input type="checkbox"/>	I can explain the difference between pure water and potable water.
	I can list the key processes to make drinking water.	<input type="checkbox"/>	I can explain reasons for filtration and sterilisation in water treatment.	<input type="checkbox"/>	I can justify the choice of potable water supply in a given scenario.
	I can safely distil salty water.	<input type="checkbox"/>	I can describe and explain in detail how to safely distil salty water.	<input type="checkbox"/>	I can explain in detail why desalination is not often used to generate safe clean drinking water and justify when it is used.
C12.3 Treating waste water	I can list what is removed from waste water before it can be released.	<input type="checkbox"/>	I can explain why waste water should be treated before it is released into the environment.	<input type="checkbox"/>	I can evaluate the ease of obtaining potable water from waste, ground, or salt water.
	I can state the main processes in sewage treatment.	<input type="checkbox"/>	I can describe the main processes in sewage treatment.	<input type="checkbox"/>	I can explain in detail how and why waste water is processed before it is released into the environment.
	I can state uses of sewage slurry.	<input type="checkbox"/>	I can explain the uses of sewage slurry.	<input type="checkbox"/>	I can evaluate the use of sewage slurry.

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C12.4 Extracting metals from ores		I can describe the processes of phytomining and bioleaching.	<input type="checkbox"/>	I can explain in detail how phytomining and bioleaching extract metals.	<input type="checkbox"/>
		I can write balanced symbol equations to explain metal extraction techniques.	<input type="checkbox"/>	I can write ionic equations to explain metal extraction techniques and identify the species being oxidised or reduced.	<input type="checkbox"/>
		I can explain the need for new ways of extracting metals (in particular copper).	<input type="checkbox"/>	I can evaluate biological methods of metal extraction.	<input type="checkbox"/>
C12.5 Life Cycle Assessments	I can state the different stages of an LCA in the correct order.	<input type="checkbox"/>	I can explain the importance of LCA and how it can be misused.	<input type="checkbox"/>	I can explain the limits of LCAs.
	I can carry out an LCA for shopping bags made from plastic or paper with support.	<input type="checkbox"/>	I can carry out LCAs for different products when data is supplied.	<input type="checkbox"/>	I can evaluate products in detail using LCAs.
C12.6 Reduce, reuse, and recycle	I can list some products that can be reused or recycled.	<input type="checkbox"/>	I can explain the importance of reusing and recycling products.	<input type="checkbox"/>	I can evaluate the environmental, economic, and social impacts of reusing and recycling products.
	I can describe how metal can be reused and recycled.	<input type="checkbox"/>	I can explain why some recycling can be difficult.	<input type="checkbox"/>	I can evaluate ways of reducing the use of limited resources.
	I can describe how glass can be reused and recycled.	<input type="checkbox"/>	I can evaluate ways of reducing the use of limited resources when information is given.	<input type="checkbox"/>	I can suggest ways of minimising the environmental impact of exploiting raw materials.