

ANSWERS

Geography AQA

Paper 2. Topic 3 – The Challenge of Resource Management

UK resources

Exam Booklet

3.2.3.1 Resource management

Key idea	Specification content
Food, water and energy are fundamental to human development.	The significance of food, water and energy to economic and social well-being. An overview of global inequalities in the supply and consumption of resources.

Key idea	Specification content
The changing demand and provision of resources in the UK create opportunities and challenges.	An overview of resources in relation to the UK. Food: - the growing demand for high-value food exports from low income countries and all-year demand for seasonal food and organic produce - larger carbon footprints due to the increasing number of 'food miles' travelled, and moves towards local sourcing of food - the trend towards agribusiness. Water: - the changing demand for water - water quality and pollution management - matching supply and demand – areas of deficit and surplus - the need for transfer to maintain supplies. Energy: - the changing energy mix – reliance on fossil fuels, growing significance of renewables - reduced domestic supplies of coal, gas and oil - economic and environmental issues associated with exploitation of energy sources.

EXAM PRACTISE QUESTIONS

1. Explain the social and economic importance of food as a resource. (4 marks) *Pg 96 in revision guide*

(K) nowledge (Social)	(U) nderstanding (Social)	(K) nowledge (Economic)	(U) nderstanding (Economic)

2. Explain the social and economic importance of water as a resource. (4 marks) *Pg 96 in revision guide*

(K) nowledge (Social)	(U) nderstanding (Social)	(K) nowledge (Economic)	(U) nderstanding (Economic)

3. Explain the social and economic importance of energy as a resource. (4 marks) *Pg 96 in revision guide*

(K) nowledge (Social)	(U) nderstanding (Social)	(K) nowledge (Economic)	(U) nderstanding (Economic)

4. Identify two reasons why the global supply of resources is uneven. (2 marks) *Pg 96 in revision guide*

(K) nowledge	(K) nowledge

5. Explain two ways the consumption of resources is affected by a country's wealth. (4 marks)
Pg 96 in revision guide

(K) nowledge	(U) nderstanding	(K) nowledge	(U) nderstanding

6. The types of food we eat is changing. Explain how two of these changes can have environmental impacts. (4 marks) Pg 97 in revision guide

(K) nowledge	(U) nderstanding	(K) nowledge	(U) nderstanding

7. Explain why the carbon footprint of food for the UK is growing. (2 marks) Pg 97 in revision guide

(K) nowledge	(K) nowledge

8. Identify two ways that consumers in the UK can reduce the carbon footprint of their food use. (2 marks) Pg 97 in revision guide

(K) nowledge	(K) nowledge

9. Define agribusiness. (1 mark) Pg 97 in revision guide

Description

10. Identify two ways that farming in the UK has become more industrialised and so grow more food. (2 marks) Pg 97 in revision guide

(K) nowledge	(K) nowledge

11. Describe the UK average annual rainfall. (2 marks) Pg 98 in revision guide

(D1) escribe	(D2) escribe

12. Explain why the demand for water in the UK is increasing. (4 marks) Pg 98 in revision guide

(K) nowledge	(U) nderstanding	(K) nowledge	(U) nderstanding

13. Explain the environmental and social impacts of water pollution in the UK. (4 marks) Pg 98 in revision guide

(K) nowledge (environmental)	(U) nderstanding	(K) nowledge (social)	(U) nderstanding

14. Define water transfer scheme. (1 mark) Pg 98 in revision guide

Description

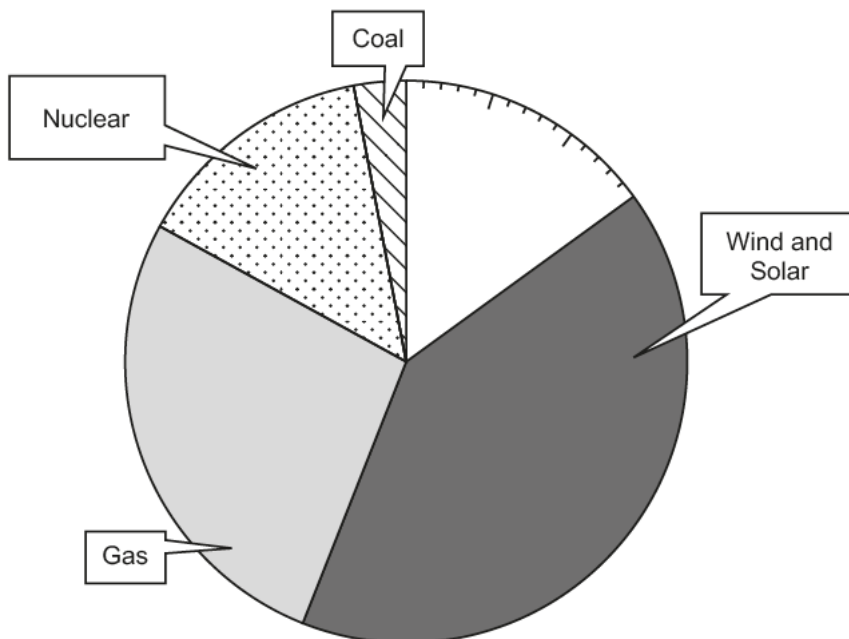
15. Explain the social and environmental problems of water transfer schemes in the UK. (4 marks)
Pg 98 in revision guide

(K) nowledge (social)	(U) nderstanding	(K) nowledge (environmental)	(U) nderstanding

16. Describe how the UK energy mix has changed from 1970-2021. (3 marks) Pg 99 in revision guide

(D1) escribe	(D2) escribe	(D3) escribe

Figure 1 – A pie chart showing electricity generation in the UK in 2020.



17. Using **Figure 1**, Complete the pie chart using the data below. (2 marks)

Type of energy	% of UK energy generation (2020)	Shading
Biofuel	9%	
Imported Fuel	6%	

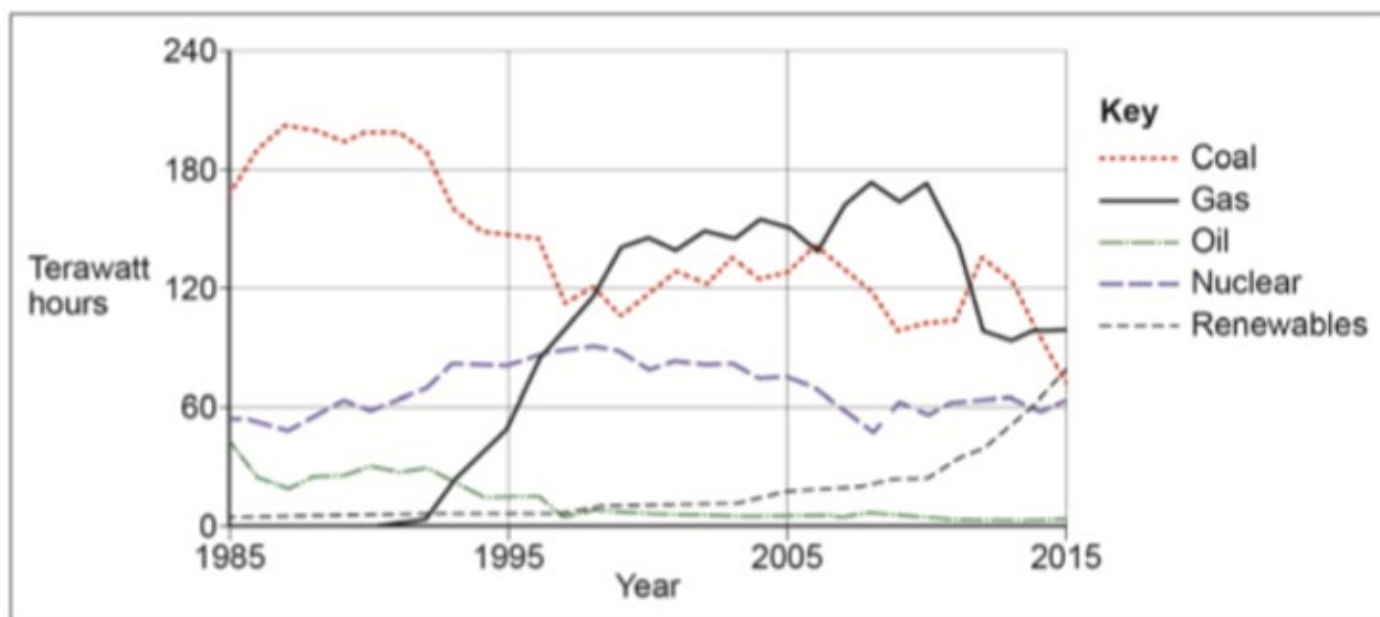
18. Explain why natural gas use in the UK has increased since 1970. (2 marks) Pg 98 in revision guide

(K)nowledge	(U)nderstanding

19. Define fracking. (1 mark) Pg 99 and pg 117

Description

Figure 2 – A line graph showing sources used to generate electricity in the UK from 1985-2015.



20. Using **Figure 2**, Describe the pattern of fossil fuel use to generate electricity in the UK. (3 marks)

(D1)escribe	(D2)escribe	(D3)escribe

21. Explain two reasons why renewable energy sources are becoming a bigger part of the UK energy mix. (4 marks) *Pg 99 in revision guide*

(K) nowledge	(U) nderstanding	(K) nowledge	(U) nderstanding

22. Explain the economic and environmental issues of producing electricity in the UK. (4 marks)
Pg 99 in revision guide

(K) nowledge (economic)	(U) nderstanding	(K) nowledge (environmental)	(U) nderstanding

Question	“Trying to reduce the carbon footprint of food in the UK creates more opportunities than challenges.” To what extent do you agree with this statement? (6 marks)			
	A (application)	K (knowledge)	U (understanding)	U (understanding)
Paragraph 1	I strongly agree with this statement.	Buying food from local sources that is not transported far is a large opportunity.	This means that there are fewer food miles transporting food from farms to people’s homes...	...which means that there are fewer greenhouse gases released into the atmosphere, which slows the rate of climate change.
Paragraph 2 (Challenge – grade 6 +)	Although I don’t agree, you could argue against the statement that more challenges than opportunities are created.	Not buying food out of season creates challenges.	This means that people growing the food in other countries (often LICs or NEEs) sell less food around the world...	...which means that countries that rely on the profits for tax income are unable to pay for as many schools and hospitals.
Conclusion (Challenge – grade 8+)	In conclusion, despite there being economic challenges of trying to reduce the carbon footprint of food, the social and environmental opportunities of working to reduce climate change outweigh these problems.			

Question	Discuss the environmental and social impacts of water pollution in the UK. (6 marks)			
	A (application)	K (knowledge)	U (understanding)	U (understanding)
Paragraph 1	The environmental impacts of water pollution in the UK are more significant than the social ones.	Farming uses pesticides and fertilisers which release chemicals from farms into rivers.	This means that animals and plants die out...	...which means that ecosystems are destroyed.
Paragraph 2 (Challenge – grade 6 +)	The social impacts of water pollution in the UK are less significant than environmental ones.	Pollution can contaminate groundwater supplies of water that people rely on for drinking and sanitation.	This means that this source of water is contaminated...	...which means there is less freshwater available, increasing the risk of water insecurity.
Conclusion (Challenge – grade 8+)	In conclusion, despite there being some social impacts that would reduce current freshwater supplies, the environmental impacts far outweigh the social ones because if ecosystems are destroyed it will affect all plants, animals and also humans.			

Question	Assess the issues with producing electricity in the UK. (6 marks)			
	A (application)	K (knowledge)	U (understanding)	U (understanding)
Paragraph 1	The biggest issues with producing electricity in the UK are economic.	The UK does not produce enough energy to meet the demands of businesses and for domestic uses.	This means that the UK must buy energy from other countries to meet the demand...	...which means that the UK is relying on other countries and is at risk of prices rising steeply.
Paragraph 2 (Challenge – grade 6 +)	Although less important, there are environmental issues with producing electricity in the UK.	Fracking and other methods of getting fossil fuels for use in power stations can pollute groundwater stores.	This means that pollution can destroy animal habitats like rivers...	...which means that plants and animals will die, which could destroy entire ecosystems.
Conclusion (Challenge – grade 8+)	In conclusion, although there are environmental issues with producing electricity in the UK, these can be managed easily with strict laws that ban fracking for example. However, the economic problems will become worse and worse as we rely more on other countries for our energy until the UK starts to be self-sufficient.			