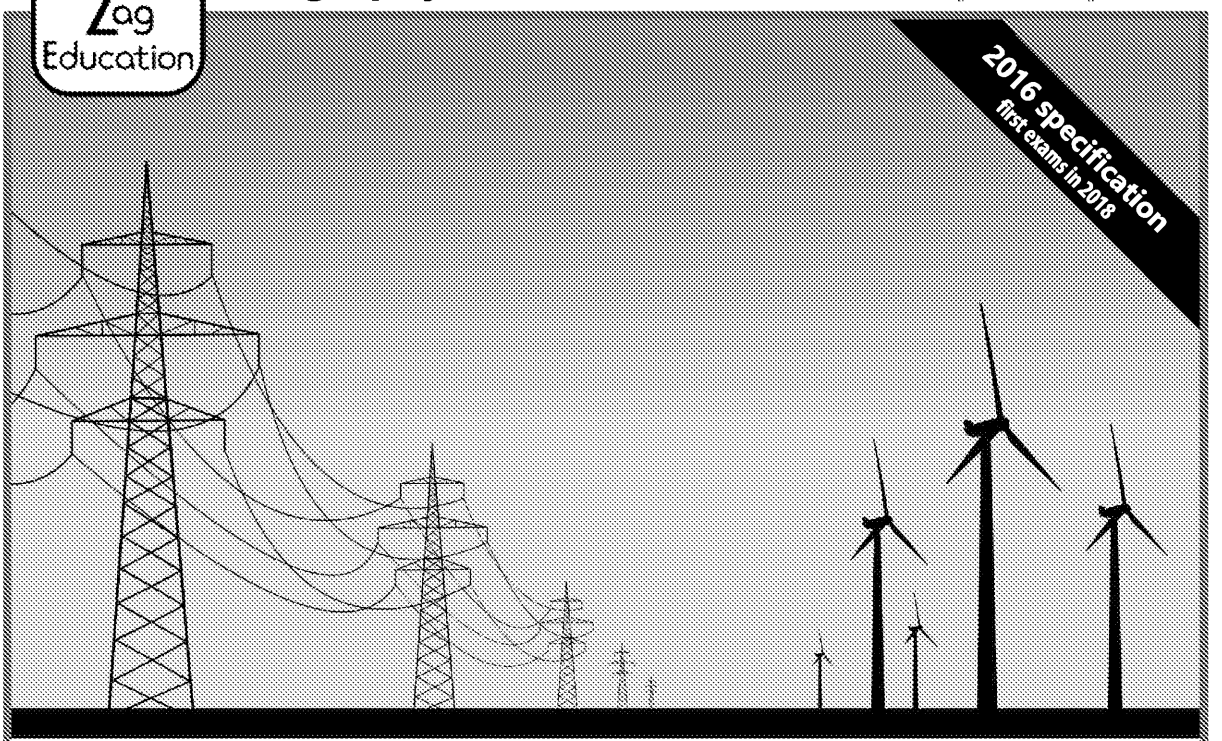
Zig Zag Education

Geography

GCSE (9–1) | AQA | 8035



Topic Tests for AQA Geography

The Challenge of Resource Management: Energy

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POD 6727

Contents

Teacher's Introduction

This resource contains four tests on the Unit 3.2.3 Section C: *The challenge of resource management (3.2.3.1 Resource management* and *3.2.3.4 Energy)* element of the AQA GCSE Geography specification. Every aspect of the spec is covered in this resource.

Remember!
Always check the exam board website for new information, including changes to the specification and sample assessment material.

These topic tests are designed to test the students' knowledge and enable the teacher to diagnose the students' strengths and weaknesses in certain areas. Each test covers a range of question types on one spec. point, and there is a wide variety of stimulus material. These tests are not intended to mimic exam papers.

Mark schemes for each topic test can be found at the back of this resource. For 'closed' questions, where only one answer is acceptable, a model answer has been provided. For 'open' and extended questions, level marking criteria and indicative content have been included.

When to Use This Resource
This resource can be used at the end of the unit when the students have revised or as a homework task to encourage confidence in a particular topic area. The students can also use the tests for revision later on, directly before the exam.

Each main test has approximately 40 marks and takes about 40 minutes. Where the specification asks for a case study, the tests have been kept generic so that the students may apply their own case study knowledge to the questions. Each test contains a main section, with a range of question types suitable for all levels, and an extension section, with questions designed to stretch high-ability students – this section has around 12 marks.

How to Use This Resource
The tests can be completed individually in class or even as a small group. However, they can also be completed as 40-minute homework tasks. The tests can be quickly marked by the student or the teacher, at home or in the classroom, as answers are provided.

At the end of the test the students can mark their own or each other's work using the answers provided. The teacher can make a note of their scores which enables a monitoring of progress.

The Benefits to the Student
The students can be confident they have been tested on every aspect of the specification. After completing a test, the student will know which areas they are strong in, and which require further work.

The students can use the tests when they have revised – this tests their initial level of knowledge. As they progress through the tests they can see how they have improved. Furthermore, they can use the tests as an additional revision aid by masking their answers and quizzing themselves.

Test 2 – Resources in the UK

1. Complete the table on food trends in the UK.

Key term	Explanation	How is t
High-value food		Increasin
	Food that can only be grown at a certain time of year in the UK	Increasin imported
Organic food	Food that is grown without the use of chemical pesticides and fertilisers	

2. Annotate the statement below to outline the key terms.

a)

b)

One way of the UK to eat me grown in lower **fo**

3. Using Figure 1, define 'agribusiness' and describe how it has change in the UK.

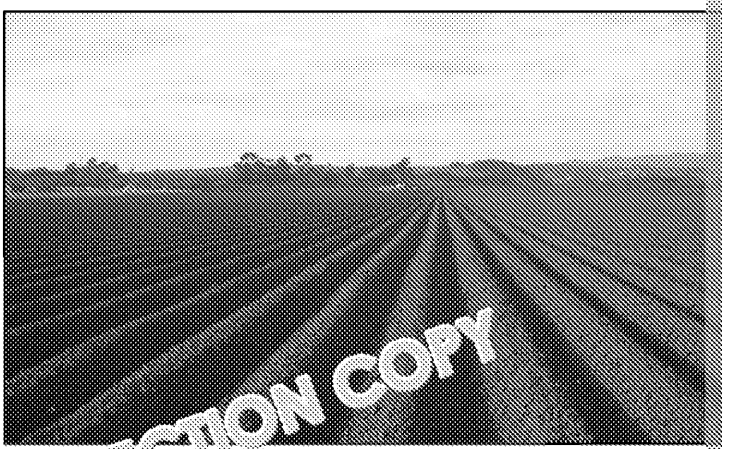

Figure 1 –

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4. Officials predict that the UK's demand for water will only increase i **three** reasons for this.

1. .....

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2. .....

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3. .....

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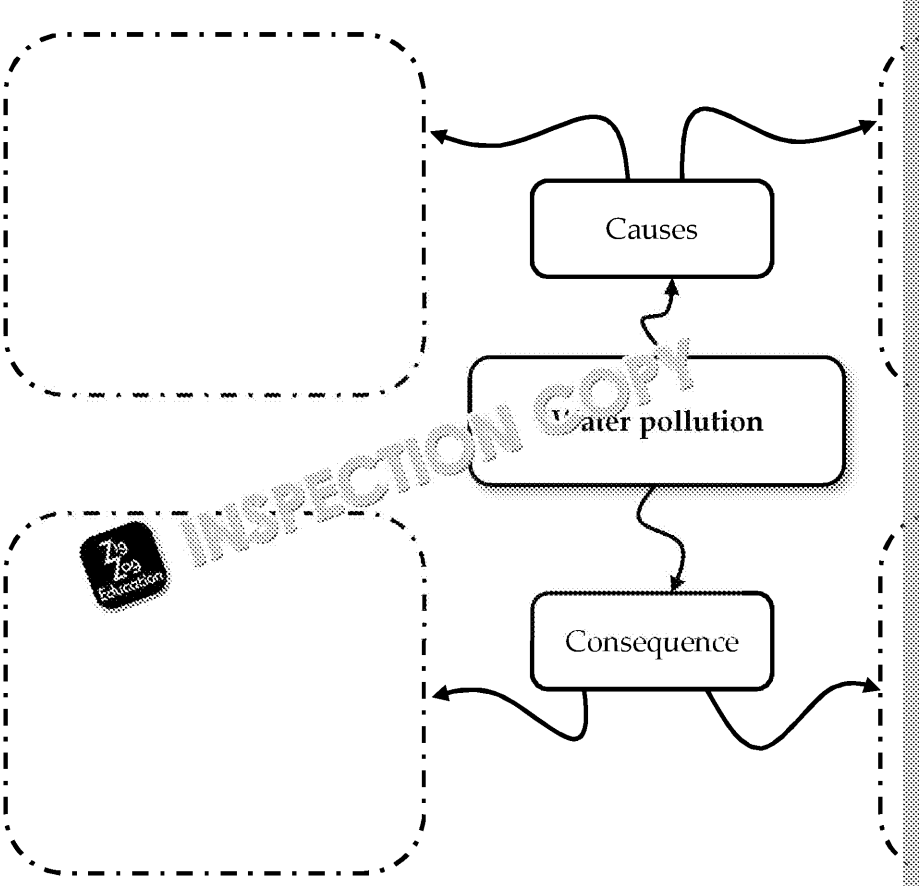
5. Complete the mind map on causes and consequences of water pollu



6. Suggest **one** way that water quality can be improved in the UK.

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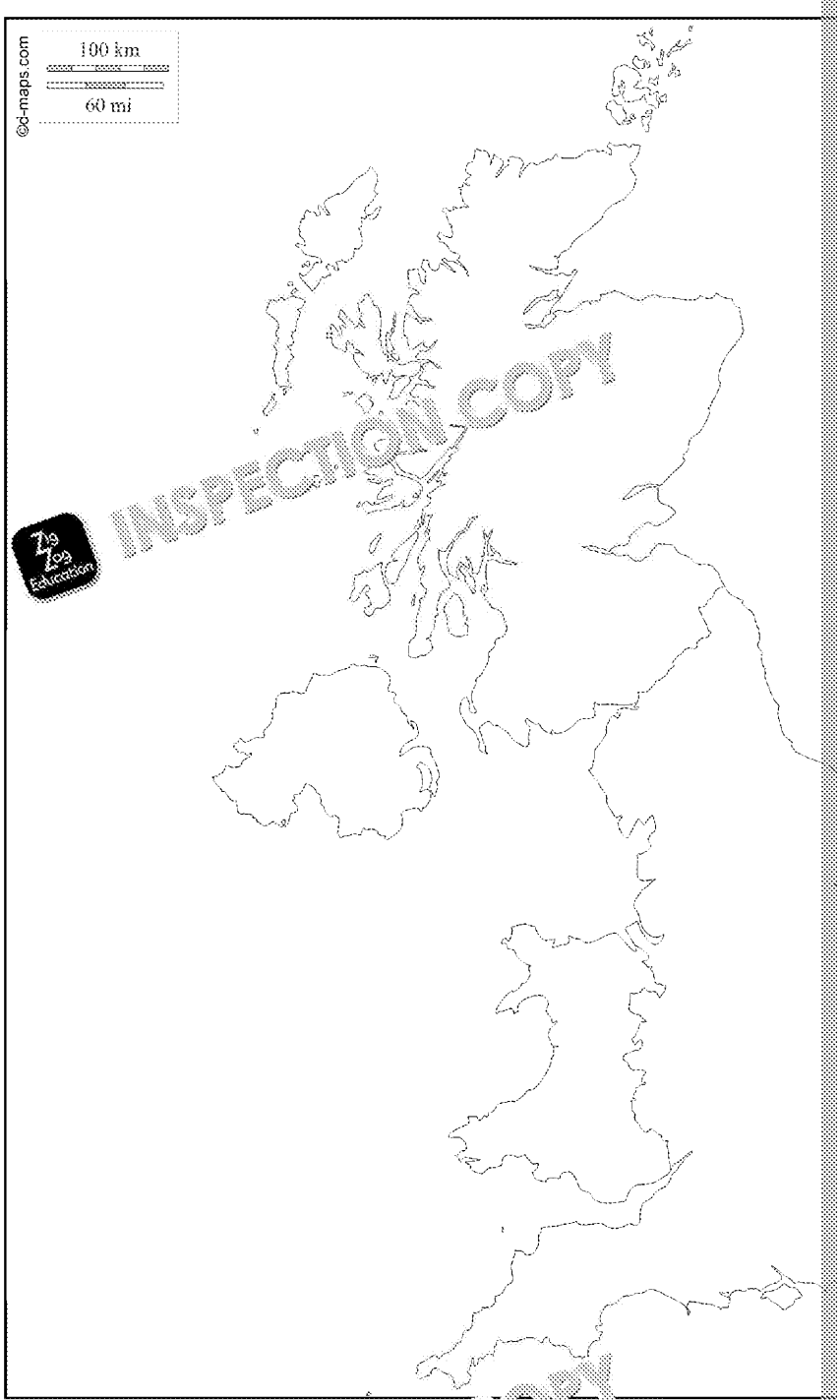
7a. On the map of the UK, shade the areas that experience water stress.



7b. Look at the areas you have shaded on the map. Give **one** physical reason and **one** human reason why these areas are experiencing water stress.

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8. Fill in the table to give **one** argument for and **one** argument against
in the UK.

For water transfer schemes in the UK	Against water t

9. Study Figure 2, which shows the trends in [illegible] consumption by f

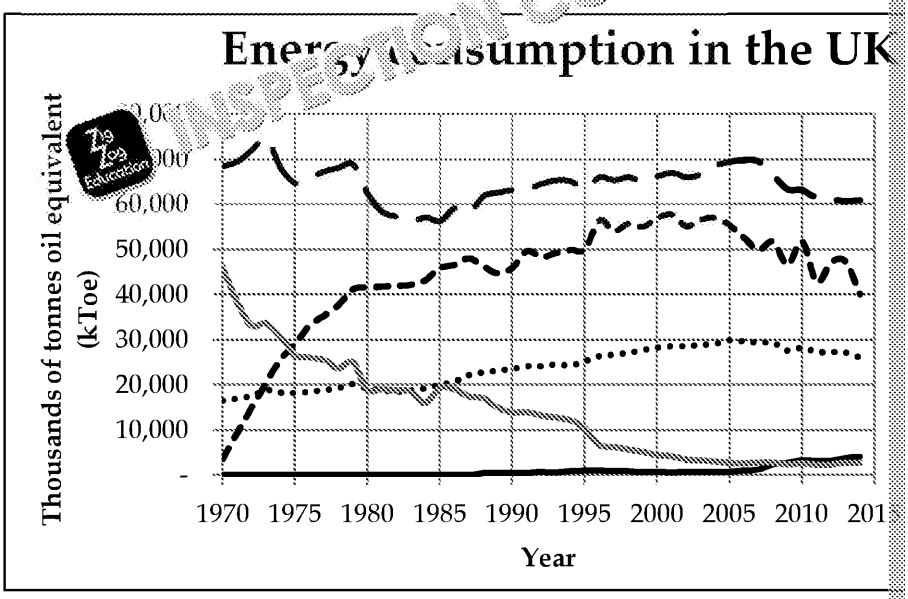

*Figure 2 – Line graph of UK energy consumption. *Electricit*

9a. Describe the UK's energy mix in 1970.

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9b. Desc[illegible]e UK's energy mix in 2014.

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9c. Explain the change in coal use since 1970.

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10. Give **two** reasons why the supply of fossil fuels produced in the UK

1. .....

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2. .....

.....

11. Complete the table to assess the potential issues of producing a certa
giving evidence to support your points.

Energy source: .....

	Positive	
Economic		
Environmental		

Extension Question

12. Assess the case for a water transfer scheme in the UK.

1. Copy and complete the table on food trends in the UK.

Key term	Explanation	How is t
High-value food		Increasin
	Food that can only be grown at a certain time of year in the UK	Increasin imported
Organic food	Food that is grown without the use of chemical pesticides and fertilisers	

2. Outline the two key ideas used in the statement below.

> O... to solve the problem of the UK's **carbon footprint** is to ... grown in the UK will have lower **food miles**.

3. Using Figure 1, define 'agribusiness' and describe how it has change... in the UK.

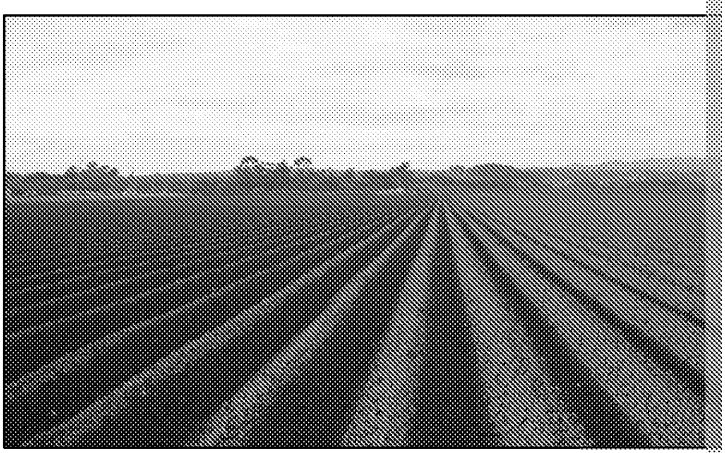
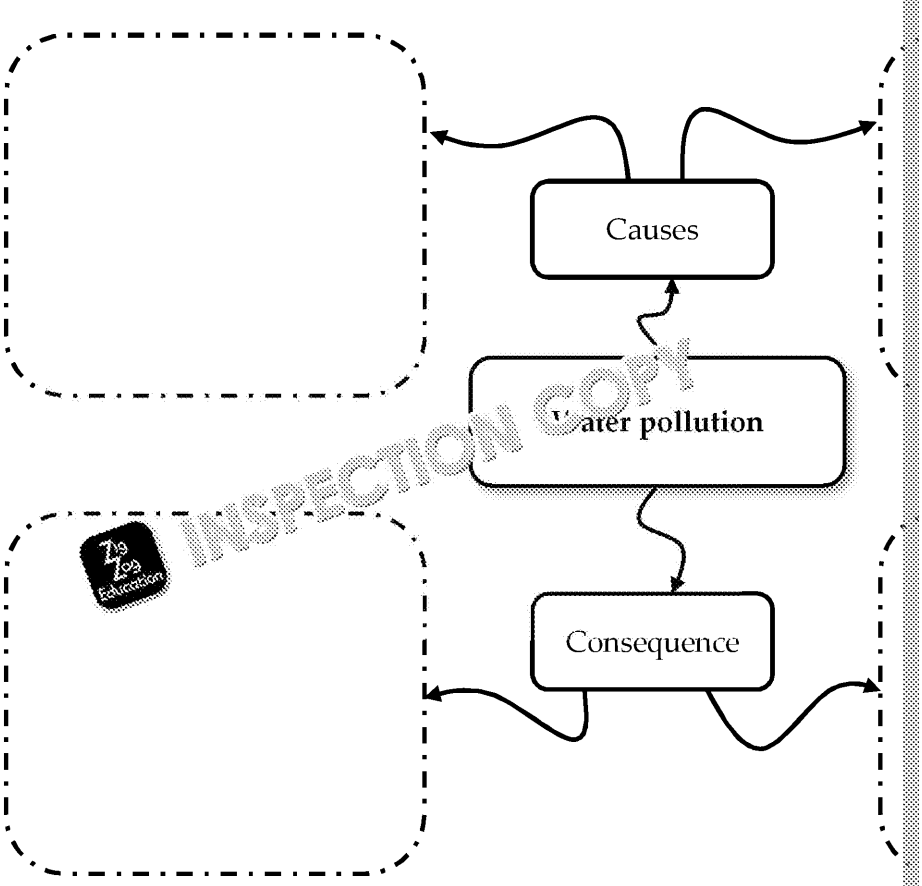


Figure 1 –

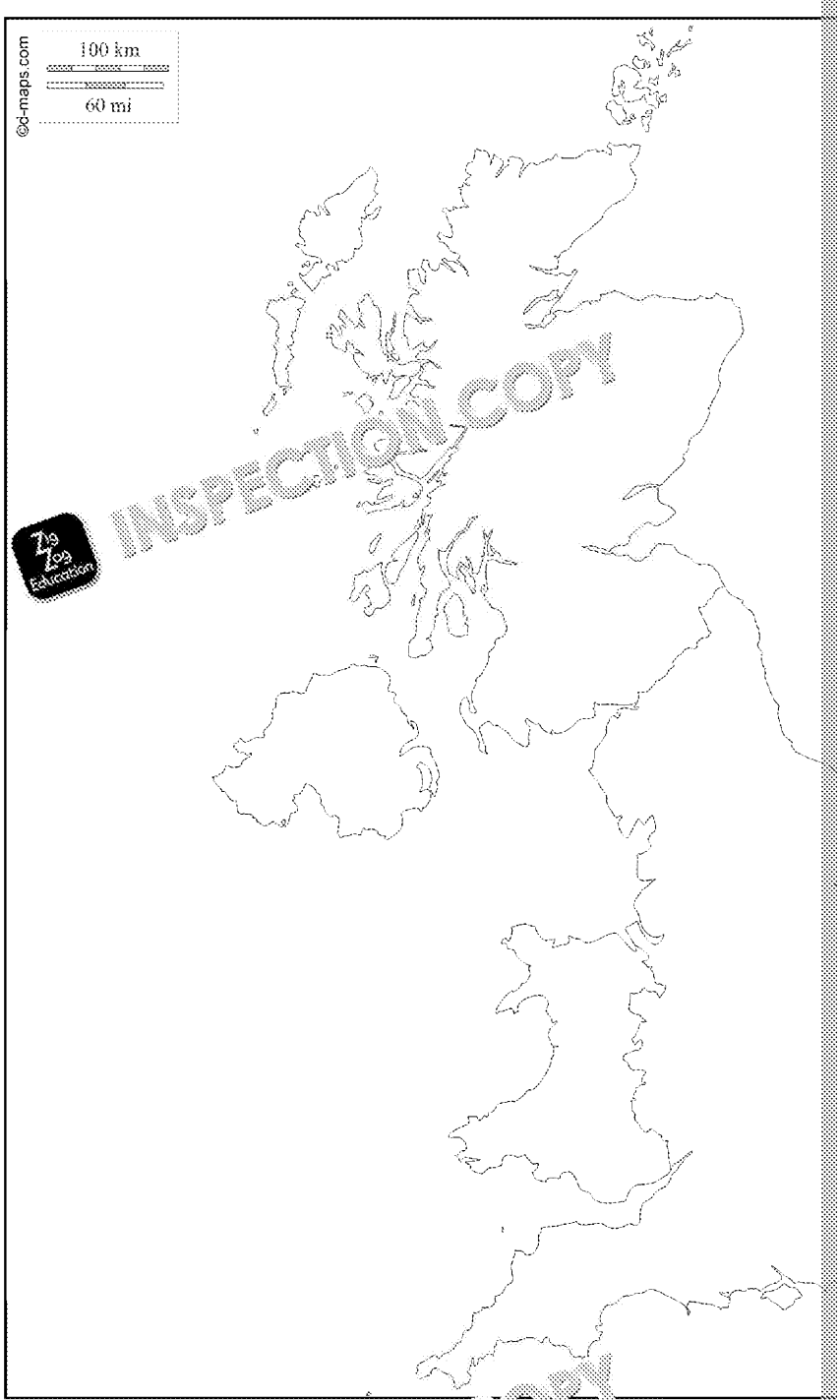
4. Officials predict that the UK's demand for water will only increase i... **three** reasons for this.

5. Copy and complete the mind map on causes and consequences of w



6. Suggest **one** way that water quality can be improved in the UK.

7a. On the map of the UK (on the insert sheet), shade the areas that expe



7b. Look at the areas you have [illegible] **one** physical reason and **on** areas are experienci[illegible] stress.

8. Cop[illegible] complete the table to give **one** argument for and **one** argu schem[illegible] in the UK.

For water transfer schemes in the UK	Against water t

9. Study Figure 2, which shows the trends in energy consumption by f

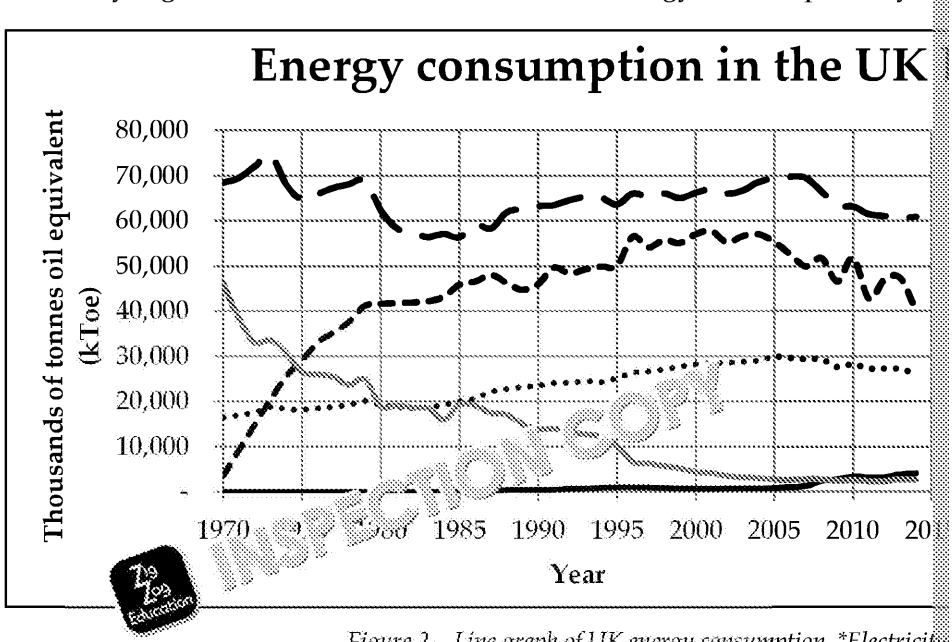


*Figure 2 – Line graph of UK energy consumption. *Electricit*

9a. Describe the UK's energy mix in 1970.

9b. Describe the UK's energy mix in 2014.

9c. Explain the change in coal use since 1970.

10. Give **two** reasons why the supply of fossil fuels produced in the UK

11. Copy and complete the table to assess the potential issues of produc the UK, giving evidence to support your points.

Energy source: .....

	Positive	
Economic		
Environmental		

Extension Question

12. Assess the case for a wat[illegible] scheme in the UK.

Preview of Questions Ends Here

Answers

Test 1 – Access to food, water and energy

1. Natural resources are things provided by the physical environment [1] that hum

2. One mark per box. Acceptable content:

Energy resources	Food resources
Fossil fuels / coal / oil / natural gas	Seafood, e.g. fish
Solar/Sun	Animals, e.g. cows, sheep
Wind	Crops
Waves/tides	Fruit trees
Nuclear/uranium/plutonium	
Geothermal / heat of the earth	
Biomass	

3. One mark for each impact
Indicative content:
- Eco ne ble to earn a living, may require benefit/charity payments, n
syst verty
- Social migration (people might leave if they are hungry), poor health, don't a

4a. One mark for stating the general proportions, one mark for giving evidence.
The sector with the highest use of water is agriculture, using 70%. Next is indus
(22%) and lastly is domestic uses – only 8%.

4b. i) irrigation, drinking water for animals, washing animals, aquaculture
ii) washing and rinsing items, adding into products
iii) washing clothes, flushing the toilet, drinking

5. Manufacturing: We need energy in order to run machines and make goods for e
Health and education: Energy is needed for hospital equipment and lights so we
Transport: Energy allows us to move around – generating income via tourism a
workplaces/markets.
Heat: Energy allows us to heat our homes, meaning we can live in cold environm
Cooking: Energy is needed to cook food, meaning we can access more food than

6a. One mark for the general trend, one for a specific piece of evidence.
It is countries in Europe and North America that have the highest average calor
has over 3,500 kilocalories per person per day [1].

6b. One mark for the general trend, one mark for a specific piece of evidence.
All of the countries which consume the lowest amount of calories are in Africa [
1,999 kilocalories per person per day [1].

7a. Physical water scarcity is when there isn't enough water ilable in that area [
where there might be enough water but people ca rd o access it [1].

7b. Most of the places are in the tropic [ ] a ave arid climates [1], such as Saud

7c. Most are countries i b Saharan Africa or South East Asia [1], countries that a
Ethiopi

8a. 19,000 equivalent. Accept +/– 2,000.

8b. Iceland is a major producer of geothermal energy, and so its citizens can use mo
Additionally, Iceland's climate is very cold, and so people have to use a lot of en
food [1].

8c. Yes; HICs, such as Iceland and the USA, are at the top with over 3,000 kg oil equ
LICs are at the bottom with very low values of under 100 kg oil equivalent per p

Extension Questions

9a. HICs use much less water for agriculture – only 30% of their total water use cor
HICs use much more water for industry compared to LICs/NEEs – 59% compar
HICs use marginally more water for domestic use compared to LICs/NEEs – 11%

9b. The answer must look at food, industry and domestic uses.
Indicative content:
Agriculture –

- HICs have a much more efficient agricultural sector than LICs/NEEs [1].
- HICs import a lot of their food from LICs [1].
- LICs/NEEs are likely to have a lot more people living on subsistence farming

Industry –

- HICs have a much more dominant industrial sec
- HICs have been through industrialisatio

Domestic –

- People living in H a lot more water than those in LICs/NEEs – th
dail
- Hou ICs are much more likely to have access to water through pipelin

10a. The global population has risen steadily since 1950 [1], from around 2.5 billion

10b. People worry that the global population might be larger than the amount of nat
provide us with [1], and that we will run out of resources and conflict/disaster

Preview of Answers Ends Here