

Oxford Revise | Geography | Answers

Chapter 35

All exemplar answers given are worth full marks.

1.1 C

1.2 Water scarcity is when an area is under severe water stress and water supplies fall below 1000 m³ per person.

1.3 Areas experiencing physical water scarcity are mostly found in a band around the world approximately 30 degrees north of the equator in Asia, Africa and North America. Large parts of Saudi Arabia, Pakistan, and China are examples of countries that experience significant physical water stress.

1.4 Seasonal produce is food that is grown locally in certain seasons of the year – such as strawberries in summer.

1.5 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> ● Sound, organised, and relevant throughout, using supporting evidence and examples ● Communicates good knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives) ● Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Explanations are partial ● Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *UK food miles have increased because the country is becoming less self-sufficient in farming. Around 50% of our food is now imported from overseas. It is also the case that there is now a greater demand for more exotic foods and seasonal foods that can only be grown overseas, such as strawberries and apples. Food is also sometimes produced more cheaply overseas which is attractive to supermarkets who want the lowest prices possible. All of these factors increase the distances travelled by foods consumed in the UK, so increase UK food miles.*

1.6 The environmental consequences of increased food miles is an increased carbon footprint. The transport, such as planes and lorries, required to import products results in the release of carbon emissions into the air.

1.7 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	<ul style="list-style-type: none"> ● Thorough, detailed, organised, and relevant throughout with supporting evidence and examples ● Communicates detailed, clear knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) ● Good use of geographical terms and vocabulary
2 (clear)	3–4	<ul style="list-style-type: none"> ● Sound throughout with some supporting evidence and examples ● Communicates some knowledge and understanding ● Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) ● Some use of geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Communicates using simple statements that are not developed ● Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Water quality is heavily managed in the UK. This is done via the Environment Agency through a combination of thorough monitoring and treatment and strict laws and regulations to prevent pollution incidents. Firstly there are strict regulations in place to reduce the amount of run-off from chemical fertilisers, cooling water from power stations, and sewage that enters the river systems in the UK. To enforce these regulations, water quality is constantly monitored around the UK and sanctions are in place for water authorities that do not meet certain standards.*

Cleaning also takes place to ensure water is clean. Water supplies are filtered to remove any sediment and chlorine is added to the water supply to purify it. Water use regulations are also introduced in times of potential water shortage – such as restricting recreational use of water sources in drier times. All of these strategies aim to ensure there is water availability but that it is also of a good quality.

1.8 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	<ul style="list-style-type: none"> ● Thorough, detailed, organised, and relevant throughout with supporting evidence and examples ● Communicates detailed, clear knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) ● Good use of geographical terms and vocabulary
2 (clear)	3–4	<ul style="list-style-type: none"> ● Sound throughout with some supporting evidence and examples ● Communicates some knowledge and understanding ● Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) ● Some use of geographical terms and vocabulary

Level	Marks	Description
1 (basic)	1–2	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Communicates using simple statements that are not developed ● Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *There is a definite link between the pattern of availability of food and water on a global scale. Water scarcity is evident in many of the world's poorest countries due to actual lack of water sources, not having enough money to exploit water sources, or both. Physical water scarcity is mainly found in countries that are located around 30 degrees north of the equator, such as in the north African countries Algeria and Libya, the Arabian Peninsula, and significant parts of India and China. Economic water scarcity is more widespread, affecting virtually all countries in Africa, South and Central America, and South East Asia. Availability of food follows a similar geographical pattern to water and can be measured through levels of undernourishment. The poorest countries in Africa and Asia see the highest rates of undernourishment. The very highest rates of undernourishment are found in African countries, such as Mozambique and Sudan, where over 35% of the population are undernourished.*

- 2.1** The UK's energy sources have changed significantly between 1990 and 2020. The amount of coal used has dropped dramatically, from around 70% in 1990 to 5% in 2020. There has been a shift towards using renewable sources. In 1990 there was no use of renewable sources but by 2020 it had risen to around 45%. Finally gas is now an important energy source; virtually unused in 1990, it now accounts for around 35% of the UK's energy sources.
- 2.2** One economic issue associated with exploiting renewable energy such as wind and solar power is the high initial cost of building of the required infrastructure. A second economic issue could be the loss of tourism revenue because less people will visit areas with wind farms.
- 2.3** One economic issue linked to exploiting nuclear power is that nuclear power plants are very expensive to build and decommission. One environmental issue is the potential risk of a leak of radioactive waste if it is not correctly stored.
- 2.4** This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> ● Sound, organised, and relevant throughout, using supporting evidence and examples ● Communicates good knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives) ● Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Explanations are partial ● Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Renewables are vital to the UK's changing energy mix because they provide a long-term solution to over-dependence on fossil fuels. Renewables will not run out and once established will be in place forever. They are also clean energy sources that contribute less to the production of greenhouse gases so help the UK to move towards its climate targets.*

2.5 This question is level-marked:

Level	Marks	Description
3 (detailed)	7–9	<ul style="list-style-type: none"> ● Thorough, detailed, organised, and relevant throughout with supporting evidence and examples ● Communicates detailed, clear knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) ● Good use of geographical terms and vocabulary
2 (clear)	4–6	<ul style="list-style-type: none"> ● Sound throughout with some supporting evidence and examples ● Communicates some knowledge and understanding ● Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) ● Some use of geographical terms and vocabulary
1 (basic)	1–3	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Communicates using simple statements that are not developed ● Little or no use of geographical terms and vocabulary
	0	No relevant content

3-marks: SPaG (spelling, punctuation, grammar, and specialist terminology)

Marks	Description
3	<ul style="list-style-type: none"> ● Accurate spelling and punctuation ● Rules of grammar followed ● Effective control of meaning ● Uses wide range of specialist terms
2	<ul style="list-style-type: none"> ● Generally accurate spelling and punctuation ● Most rules of grammar followed ● General control of meaning ● Uses good range of specialist terms
1	<ul style="list-style-type: none"> ● Reasonably accurate spelling and punctuation ● Some rules of grammar followed – errors do not hinder meaning ● Some control of meaning ● Limited use of specialist terms
0	<ul style="list-style-type: none"> ● Writes nothing ● Does not relate to question ● Basic grasp of spelling, punctuation, and grammar prevents clear meaning

Example answer: *Energy security means having a safe and affordable supply of energy that meets demand. At present the UK cannot say that it is energy secure because due to coal running out and supplies of oil and gas reserves being rapidly exhausted it is no longer self-sufficient in energy. In 2018 it had to import 36% of its energy and this is thought to be approaching 50% now.*

To meet energy demands in the future there are various options open to the UK, some of which involve investing and exploiting quite controversial new energy sources. An example of this is shale gas. Shale gas is a form of natural gas trapped underground in shale rocks that can be released by fracturing the rock using high-pressure liquid and gas in a process known as fracking. The UK has deposits of shale gas. Fracking is controversial because it can pollute underground water sources and has been linked to increasing the risk of earthquakes.

A second way to increase energy security would be to increase the amount of energy produced by renewable sources. This amount is currently around 40%. The biggest contributor by far to this figure is wind power. Energy security could be improved with more investment in the required infrastructure for wind power, such as off-shore wind farms. A final supply of energy that could be exploited is nuclear power, which at present provides around 16% of UK energy but may be able to contribute more in the future. Despite being a low carbon energy source, nuclear power is controversial due to risk of radioactive leaks and high costs.

In conclusion, it is clear that to become more energy secure the UK needs to reduce its reliance on both fossil fuels in general and importing energy sources. To do this, investment is needed in a range of different sources of energy.

3.1 Glasgow is likely to have a water surplus.

3.2 London is likely to have a water deficit.

3.3 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> ● Sound, organised, and relevant throughout, using supporting evidence and examples ● Communicates good knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives) ● Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Explanations are partial ● Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: Water transfer is the movement of water from areas where there is a water surplus to areas where there is a water deficit. This is necessary in the UK because there is an imbalance of supply and demand. Water supply is highest in areas of heavy rainfall, such as areas in the north and west and, in particular, north west Scotland. These are also the areas with the lowest populations densities. Water supply is lowest in areas where there is less rainfall and population density is highest, such as the south east and London. This means that water needs to be transferred from the northern and western areas of the UK to the Midlands, south east and London areas where the demand is highest.

3.4 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> ● Sound, organised, and relevant throughout, using supporting evidence and examples ● Communicates good knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives) ● Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Explanations are partial ● Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Locally sourced food reduces carbon emissions because it reduces the need for transport and food miles. When people buy food directly from local farmers at farm shops or farmers markets, or through pick-your-own schemes, that food has not been on a long journey and so has less food miles and so contributes less to greenhouse gases. Buying locally also reduces the amount of food that has to be imported, further reducing the amount of transport required and the resulting carbon footprint.*

3.5 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> ● Sound, organised, and relevant throughout, using supporting evidence and examples ● Communicates good knowledge and understanding ● Communicates using developed statements and ideas (e.g. uses connectives) ● Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> ● Basic throughout with limited supporting evidence and/or examples ● Communicates limited knowledge and understanding ● Explanations are partial ● Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *There is significant inequality in global consumption of energy. HICs use far more energy than LICs for a number of reasons. They use energy in factories and industrial developments and use much more energy domestically as increasing wealth means that people use increasing amounts of energy on appliances in their homes, such as lights, dishwashers and washing machines. LICs use far less energy in homes, as people do not have the wealth to purchase these appliances and luxuries. In some cases, communities in LICs still rely on fuel wood to heat and cook. There is growing demand for energy in NEEs as economic and industrial development rapidly takes place, standards of living improve and industrial development occurs.*