



**Geography Revision
Paper 2**

Resource Management



PiXL Independence: Ranking Triangle

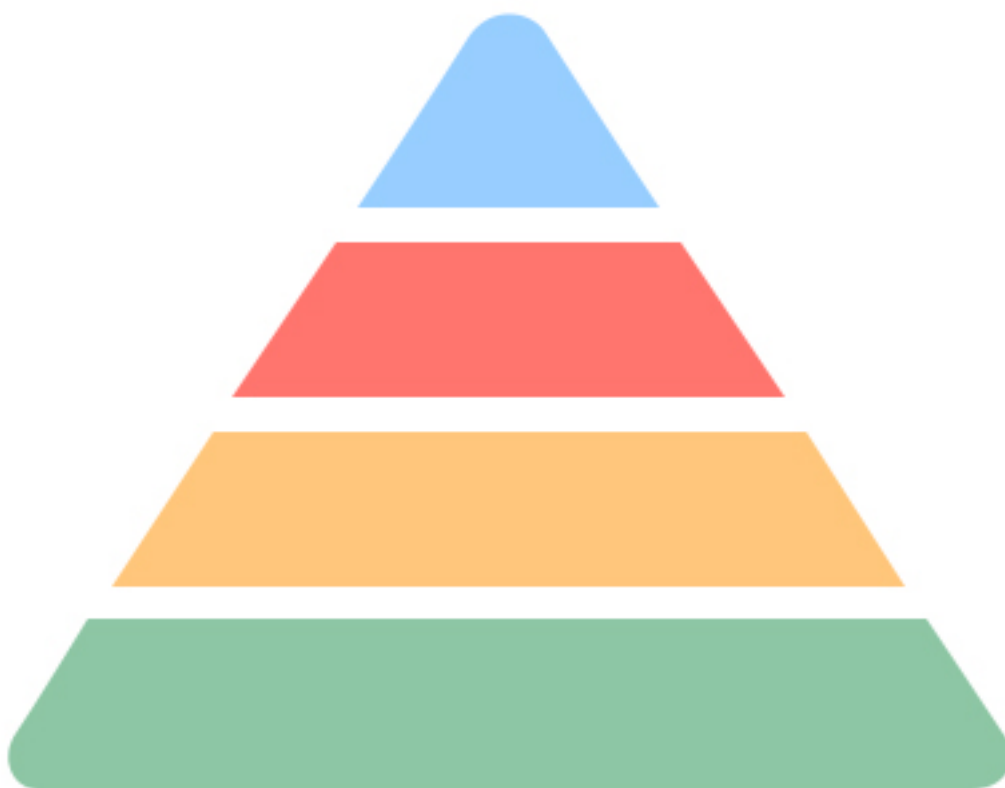
Name of Topic:

Strategies to increase energy supplies

Rank the strategies of increasing energy supplies.

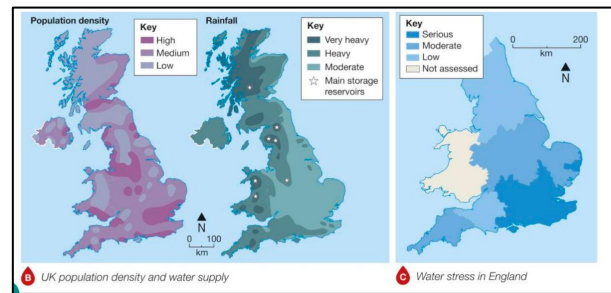
Justify your choices.

The most important strategy goes at the top and then the least important at the bottom.
Make sure you justify WHY you think it is the most/least important.



How far does the UK's water supply meet demand?

The main sources of water in the UK are rivers, reservoirs and groundwater aquifers. The UK currently receives enough rain to supply the demand, but rain doesn't always fall where it is most needed (map B).



The north and west of the UK has a water surplus where supply exceeds demand. There is high rainfall, lower evaporation rates and plenty of potential reservoir sites. These areas have a relatively low population density. The south and east of the country has a high water deficit where demand exceeds supply. This is the most densely populated part of the country and has the lowest amount of rainfall. Water stress (where demand exceeds supply) is experienced in more than half of England (map C). The south east of England ranks very low in the world in terms of water availability. The situation is worse in times of drought, such as in 2010-2012. How can water be saved?

- Saving water can help manage water supplies, savings can be made by:
- The use of domestic water meters
- Increasing the use of recycled water
- More efficient use of domestic appliances
- Waste water (grey water) from people's homes can recycled and put to good use. It can be used to irrigate both food and non-food plants. The phosphorous and nitrogen in the water are an excellent source of nutrients.

Water transfer:

In 2006 the government proposed to establish a water transfer grid to transfer water from areas of water surplus to areas of water deficit. The enormous cost of such an engineering project has stopped it from happening. Water is only transferred via the Rivers Tyne, Derwent, Wear and Tees to as far south as Yorkshire.

There is a growing need to increase water transfer in order to meet demand (map D). But there is opposition to large-scale water transfer because of:

- The effect on land and wildlife-river habitats would need to be protected
- The high costs involved
- The greenhouse gases released in the process of pumping water long distances





PiXL Independence: Thinking Hard Model

Name of Topic: UK Water Supply & Demand

Take a section of the text and do the following:

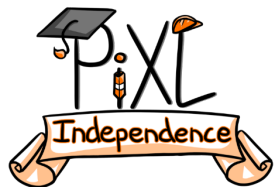
- 1) Prioritise: Underline the three most important sentences here. Rank 1-3, briefly explain number 1. Cross out the least important sentence

- 2) Reduce: Reduce the key information into 12 words

- 3) Transform: Transform this information into 4 pictures or images (no words allowed)

- 4) Categorise: Sort this information into three categories. Highlight and think of a suitable title for each category.

- 5) Extend: Write down three questions you'd like to ask an expert in this subject.



PiXL Independence: 'Boxing Up' Activity

Name of Topic: Global Distribution of Resources

Read the text and then put your thoughts in to different boxes so that you have 'boxed up' the text.

Box 1 – 3 things I did not know

Box 2 – 3 things I understand better now

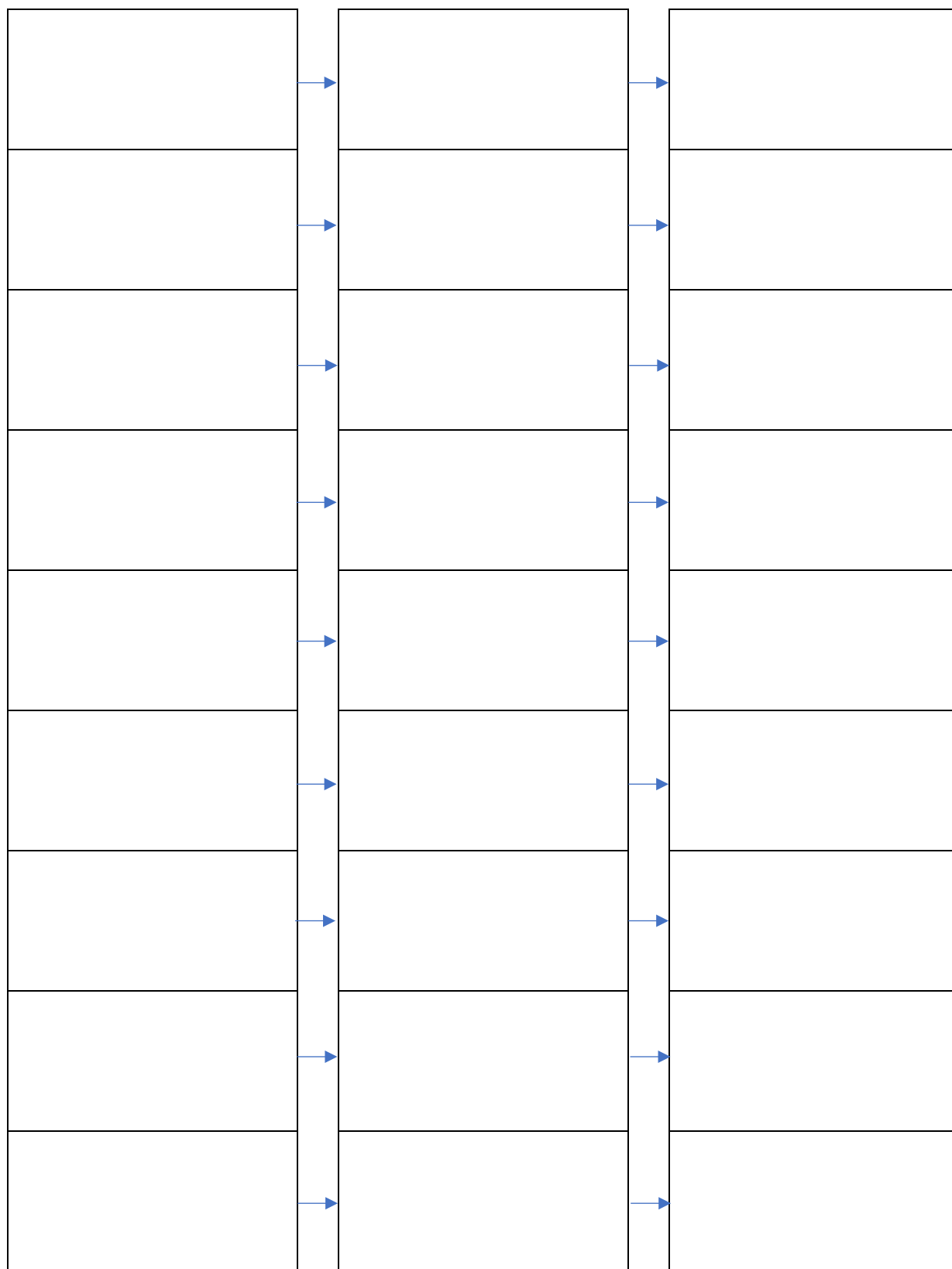
Box 3 – 3 things I already knew

Box 4 – 3 things I must remember



When you read any text, you should be asking it questions NOT just letting it wash over you. Read your text and pause and ask it questions e.g. 'what do you mean when you say '...''?

[illegible]





PiXL Independence: Quizzing

Name of Topic: Global Energy Supply & Demand

Read the text and come up with 20 questions to ask someone about the text.

	Question	Answer
1		
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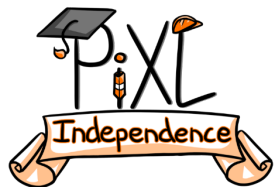
PiXL Independence: Transforming

Name of Topic: Chambamontera - An example of a local renewable energy scheme in an LIC to provide sustainable supplies of energy

Turn the material you have read into up to 6 pictures – one per paragraph or one per key piece of information. The pictures must represent the information so that they can act as a reminder of what the text said. Underneath each picture, explain your thinking.

1.	2.	3.

4.	5.	6.



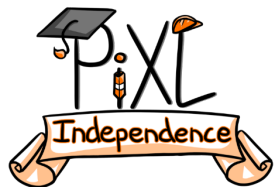
PiXL Independence: Quizzing

Name of Topic: Impacts of Energy Insecurity

Read the text and come up with 20 questions to ask someone about the text.

	Question	Answer
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PiXL Independence: Ranking Triangle

Name of Topic: Advantages of Gas – a Non-renewable Energy

Rank the advantages of gas energy – you will need to decide on what criteria to use.

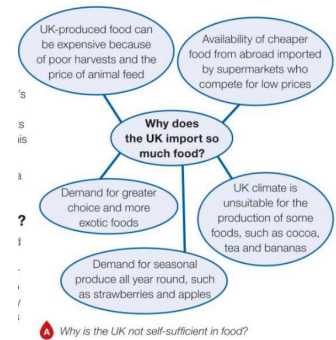
Justify your choices.

The most important type goes at the top and then the least important at the bottom. Make sure you justify WHY you think it is the most/least important.



How is the demand for food changing in the UK?

By 2037 the population of the UK is expected to rise to 73 million (from 64 million in 2015). This will increase the future demand for food. Despite the UK's efficient and productive farming sector the UK is not self-sufficient for food supplies. In fact the UK imports about 40% of the total food consumed and this proportion is increasing. Diagram A shows reasons why the UK imports such a high proportion of food.



have high levels of chemicals.

D Distances travelled by UK imported food

What is the impact of importing food?

Map D shows the distances travelled by foods imported to the UK-known as food miles. Transporting food by air is very expensive. Importing food also adds to our carbon footprint- the emission of carbon dioxide into the atmosphere. This comes from producing the energy for commercial cultivation, and from transport by planes and lorries.

How is the UK responding to the challenges?

There is a concern that the UK's dependency on foreign food imports and the need for greater food security. This has led to a growing interest in sourcing food locally to reduce carbon emissions. People are being encouraged to eat seasonal foods produced in the UK.

There are two major recent trends in UK farming:

- **Agribusiness-** intensive farming aimed at maximising the amount of food produced. Farms are run as commercial businesses. They have high levels of investment, and use modern technology and chemicals.
- **Organic produce-** grown without the use of chemicals. Organic food has become increasingly popular, although higher labour costs often make it more expensive. Organic food production is often associated with buying local produce and producing seasonal foods.

Lynford House Farm – an agribusiness

Lynford House Farm in East Anglia is a large arable farm of 570 hectares. As an agribusiness it has high inputs of chemicals, machinery and other investments.

- ◆ The flat, fertile land is intensively farmed to maximise productivity and profitability.
- ◆ The main crops are wheat, sugar beet and potatoes which are well suited to the fertile soils and a warm, sunny climate.
- ◆ Chemicals are widely used as pesticides and fertilisers.
- ◆ Machinery costs are high but make the farm efficient. It only employs a small number of workers.
- ◆ The farm has invested in a 54-million litre reservoir to tackle frequent water shortages in this dry area.

Riverford Organic Farms

Riverford Organic Farms began as an organic food and dairy farm in rural Devon. It supplied local people with fresh boxes of food delivered weekly. The company now delivers boxes of vegetables around the UK from its regional farms in Devon, Yorkshire, Peterborough and Hampshire. These farms help Riverford to:

- ◆ reduce food miles
- ◆ support local farmers
- ◆ provide local employment
- ◆ build a strong link between grower and consumer.

Importing high-value foods: vegetables from Kenya

The growing of vegetables such as mangetout is Kenya's biggest source of income (photo **B**). The cost of air freight to keep produce fresh is very high. UK customers are prepared to pay higher prices for vegetables when they are not in season in the UK.

Kenyan farmers only earn a fraction of the price of the vegetables in a UK supermarket (table **C**). Two-thirds are casual labourers with no job security or benefits and are paid very little.

Stage	Price per tonne (£)	% of final price
Producer	630	12
Exporter	290	6
Packaging	280	5
Air freight/handling	1040	20
Importer	620	12
Supermarket	2500	45
Total price	5360	100

C Price breakdown for one tonne of Kenyan mangetout

Maths skills

Draw a pie graph to show the breakdown of the price of imported mangetout.



B Vegetables produced in Kenya



PiXL Independence: Thinking Hard Model

Name of Topic: UK Food Supply & Demand

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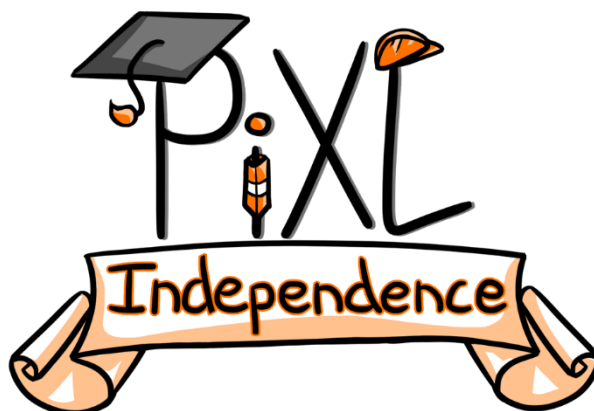
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