Cambridge Assessment International Education

Cambridge IGCSE™

GLOBAL PERSPECTIVES **0457/13**

Paper 1 Written Examination **October/November 2021**

INSERT **1 hour 15 minutes**

1308471156-I

INFORMATION

- This insert contains all the sources referred to in the questions.
- You may annotate this insert and use the blank spaces for planning. **Do not write your answers** on the insert.

DC (LK/FC) 205053/2
© UCLES 2021

[Turn over

Source 1

Producing energy has an impact on the environment. For example, burning fossil fuels such as coal creates emissions and power stations use large amounts of water to cool machinery and turn turbines.

It is estimated that between 2020 and 2035 global energy use will increase by 50 per cent. This means that if we continue to produce energy in the same way, there will be more pollution and the amount of water used to generate energy will increase by about 85 per cent.

In many parts of the world, access to water is a problem. Over 2 billion people live in countries that experience water shortages and about 900 million people have no regular supply of clean drinking water. Climate change is likely to make water shortages a more significant problem in the future.

Source 2: Producing energy

There are ways to produce energy that use less water and cause less pollution. For example, solar panels and wind turbines use much less water to produce electricity than coal or nuclear power stations.

Advantages of solar power
Can provide electricity to people who are not connected to a national supply
Does not produce noise or air pollution
Reduces dependency on fossil fuels
Reduces the cost of household bills if a house has a solar panel
Uses less water



Solar panels and wind turbines on a wind farm in the United States.

Disadvantages of solar power
Dependent on the weather
Pollution caused by the manufacture of panels
Expensive to store energy that is not used
Uses a lot of land
High initial cost for a household to install solar panels

Source 3: It is easy to use less energy in your home

I am Mr Kathedo, your representative on the local council's energy committee. I am here to tell you that you can all use less energy if you make a few small changes. Firstly, you can check how much energy you use with a 'smart meter'. These show how much gas and electricity you are using so you can measure it over different times and try to use less.

There are other things you can do to use less energy. I saw a science programme on television last week and Professor Kuman talked about some of these. For example, you can insulate your home so you do not have to use so much energy to keep your family warm. You can also buy more energy efficient appliances. The newest refrigerators and televisions use much less energy than older models.

You can even use a different way of producing energy. For example, put solar panels on your house. That would really save energy and would help with climate change too. Most people know that climate change is affected by energy use. If we use less energy we can make a difference.

Extract from a speech by a local politician

Source 4: A school debate about using less energy

Dhia

How can my family save energy when we have a large farm to manage? We need electricity to power the machines, keep the animals warm in the winter and harvest the crops. The tractors need fuel, and we need to keep our family warm, especially my grandparents who are nearly 80 years old.

To use less energy our whole lifestyle would have to change. It is not just my family's farm that would have to go but all of the electrical goods that we rely on. Do you want to live without computers and televisions?

I have heard that developing countries will use more and more energy in the future. There is no point in us giving up our lifestyles if other countries are just going to use more energy.

Arif

I disagree. It is important for future generations that we use less energy. We will run out of some energy sources soon and the energy we use causes pollution and affects the climate.

Did you see the programme on television last night about the environment? It showed photographs of pollution in our cities and the extreme weather in the world. It said that over 90 per cent of the world's population live in places where air pollution is above World Health Organization guidelines. Children's lives are at risk! About 300 million children live in places with very high air pollution. This is caused by industry and power stations.

Experts say that small changes in our use of energy will make a difference. We can turn out the lights when we leave a room, make sure our homes are properly insulated, and walk or ride a bicycle instead of driving short distances in a car. If we make these changes we will save the planet.

© UCLES 2021

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which itself is a department of the University of Cambridge.

© UCLES 2021