



CANDIDATE
NAME

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0457/13

October/November 2021

You must answer on the question paper.

You will need: Insert (enclosed)

- Answer **all** questions.
- Use a black or dark blue pen.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.

- The total mark for this paper is 70.
- The number of marks for each question or part question is shown in brackets [].
- The insert contains all the sources referred to in the questions.

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[Turn over

Read the information in the insert and answer **all** questions.

1 Study Sources 1 and 2.

- (a)** According to Source 1, by how much is global energy use estimated to increase between 2020 and 2035?

.....
..... [1]

- (b)** Identify **two** advantages of solar power, from Source 2.

.....
.....
.....
..... [2]

- (c)** Which advantage of solar power do you think is most important? Explain why.

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.....
.....
.....
.....
..... [3]

(d) Explain **one** global advantage and **one** local disadvantage of solar power.

Global advantage:

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Local disadvantage:

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..... [6]

2 Study Source 3.

(a) 'It is easy to use less energy in your home.'

What are the strengths and weaknesses of the argument supporting this claim?

[6]

- (b)** 'Most people know that climate change is affected by energy use.'

How could you test this claim? You may consider the types of information, sources of evidence or methods you might use.

[8]

3 Study Source 4.

(a) Identify **one** fact from Dhia's statement. Explain why this is a fact.

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..... [2]

(b) Arif is arguing that we need to use less energy.

(i) Identify **one** prediction from Arif's statement.

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..... [1]

(ii) Explain how well this prediction supports Arif's argument.

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..... [2]

(c) Which argument is more convincing, Dhia's or Arif's?

Your answer should consider both arguments and you should support your point of view with their words.

You should also consider:

- the strength of their reasoning and evidence
- their use of language
- the different kinds of information used.

[15]

4 A government wants to take action to protect the environment.

The following actions are being considered:

- generate more electricity from solar and wind power
- encourage people to use less electricity in their home
- educate people about the causes of climate change.

Which **one** of these actions would you recommend to the government, and why?

In your answer, you should:

- state your recommendation
- give reasons and evidence to support your choice
- use the material in the sources and/or any of your own ideas
- consider different arguments and perspectives.

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