

Read the exam style question carefully, then fill in each section below.

Question:

Read the information below.

World demand for copper was approximately 3 million tonnes in 2022. In total, across the world the total amount of copper estimated to be available to extract from the Earth is 870 million tonnes. At the moment, the majority of copper that we use is mined in quarries, and then extracted from ores. To extract copper from its ores, it is heated to a high temperature in a furnace. The furnace is heated using fossil fuels. When heated, the ore forms copper sulfide, CuS . The copper sulfide is then reacted with air to produce copper and sulfur dioxide.

Use the information above, and your own knowledge to justify the statement below:

"Copper should be recycled"

(6)

Section 1: At first glance

1. What **command words** are used in this question? Circle them clearly.
2. **Underline the key information** in the question above.
2. **How many marks** is this question worth?

Section 2: Thinking ahead

Read the question again.

What do you need to know in order to answer this question really well?

Can you split the question into two or more parts?

Are there any labelled diagrams that might help you to show your answer?

What are the key words that you should include in your answer?



Use this space to plan your answer.

Use this space to plan your answer.

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

Section 5: Check your answer

Great responses might include some of the following points:

- ☒ recycling conserves supplies of ores/natural resources
- ☒ copper will be available for longer if we recycle
- ☒ at present, copper ores will run out in about 35 years
- ☒ recycling conserves supplies of fossil fuels **or** energy
- ☒ less fuel used at a lower cost
- ☒ mining scars landscape or produces noise pollution
- ☒ mining destroys wildlife habitats
- ☒ when we recycle, there is less need to mine ores
- ☒ when we recycle, there is less need to burn fossil fuels
- ☒ recycling means there is less need to use landfill for waste
- ☒ burning fossil fuels produces carbon dioxide or greenhouse gases
- ☒ which cause global warming or climate change
- ☒ extraction of copper from ores produces sulfur dioxide
- ☒ sulfur dioxide causes acid rain
- ☒ acid rain can kill trees and fish

For 1-2 marks you might make a couple of points, but you won't link your ideas together. You might not be very clear in your answer.

For 3-4 marks you might have made a few more points from this list

For 5-6 marks you will have made a number of these points. You will have linked ideas together using words such as 'so', 'whereas' or 'however'. Your communication will be clear.