

Biodiversity Human Impact

GCSE Biology · Written to the shared content for AQA, Edexcel and OCR

Name _____ Class _____ Date _____

1. Worked example

Define biodiversity and explain why it is important. (3 marks)

Step 1 · Definition

Biodiversity is the variety of all the different species of organisms on Earth, or within an ecosystem.

Step 2 · Stability

A great biodiversity ensures the stability of ecosystems by reducing the dependence of one species on another for food, shelter and maintenance of the physical environment.

Step 3 · Humans

The future of the human species depends on maintaining good biodiversity.

Answer: Variety of species; stable ecosystems; human survival depends on it

Check: Many human activities are reducing biodiversity.

2. Now try one with the steps

A forest of 8000 km² lost 1200 km². Calculate the percentage lost. (2 marks)

Step 1 · Fraction

Step 2 · Percentage

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. What is biodiversity? [1]

2. Give two ways water can be polluted. [2]

3. Give two ways humans reduce the land available for other organisms. [2]

4. Name two greenhouse gases that contribute to global warming. [2]
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5. Give two programmes that help reduce the negative effects of humans on biodiversity. [2]
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6. Explain why high biodiversity makes an ecosystem more stable. [2]
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7. Give two biological consequences of global warming. [2]
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8. Explain why deforestation in tropical areas is carried out. [2]
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9. A wetland of 250 hectares was reduced to 175 hectares. Calculate the percentage decrease. [2]
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10. Explain why hedgerows increase biodiversity on farms. [2]
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11. Explain why the destruction of peat bogs increases carbon dioxide in the atmosphere. [2]
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12. Explain how a growing human population affects biodiversity. [2]
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13. Global CO₂ emissions rose from 25 to 37 billion tonnes per year. Calculate the percentage increase. [2]
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14. Evaluate captive breeding programmes way of protecting an endangered species.

[4]

4. Before you hand it in

"Global warming is caused by the hole in the ozone layer."

Global warming is caused mainly by rising CO₂ and methane trapping heat (enhanced greenhouse effect).

"Biodiversity means the number of individuals."

Biodiversity is the variety of SPECIES (and genetic variety), not the number of organisms.

Listing impacts without the effect on organisms

Link each impact to habitat loss, death of organisms or reduced biodiversity.