

APOLLO

Climate change SL

Biology

First assessment 2025

4 questions | questions

30. What results from global warming?

- A. An increase in absorption of solar radiation decreases poleward shift of temperate species.
 - B. Release of carbon dioxide from the deep ocean causes decreased rates of decomposition.
 - C. Release of methane from melting permafrost causes a decrease in absorption of solar radiation.
 - D. Loss of snow and ice causes an increase in absorption of solar radiation.
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Section B

Answer **one** question. One additional mark is available for the construction of your answer. Answers must be written within the answer boxes provided.

7. Carbon is an essential element for life on Earth and must be distributed and recycled within ecosystems.
- (a) Outline the chemical properties of carbon that allow it to form diverse compounds. [4]
 - (b) Describe the processes involved in the transfer of carbon in an ecosystem. [4]
 - (c) Explain the impact of anthropogenic activity on climate change. [7]



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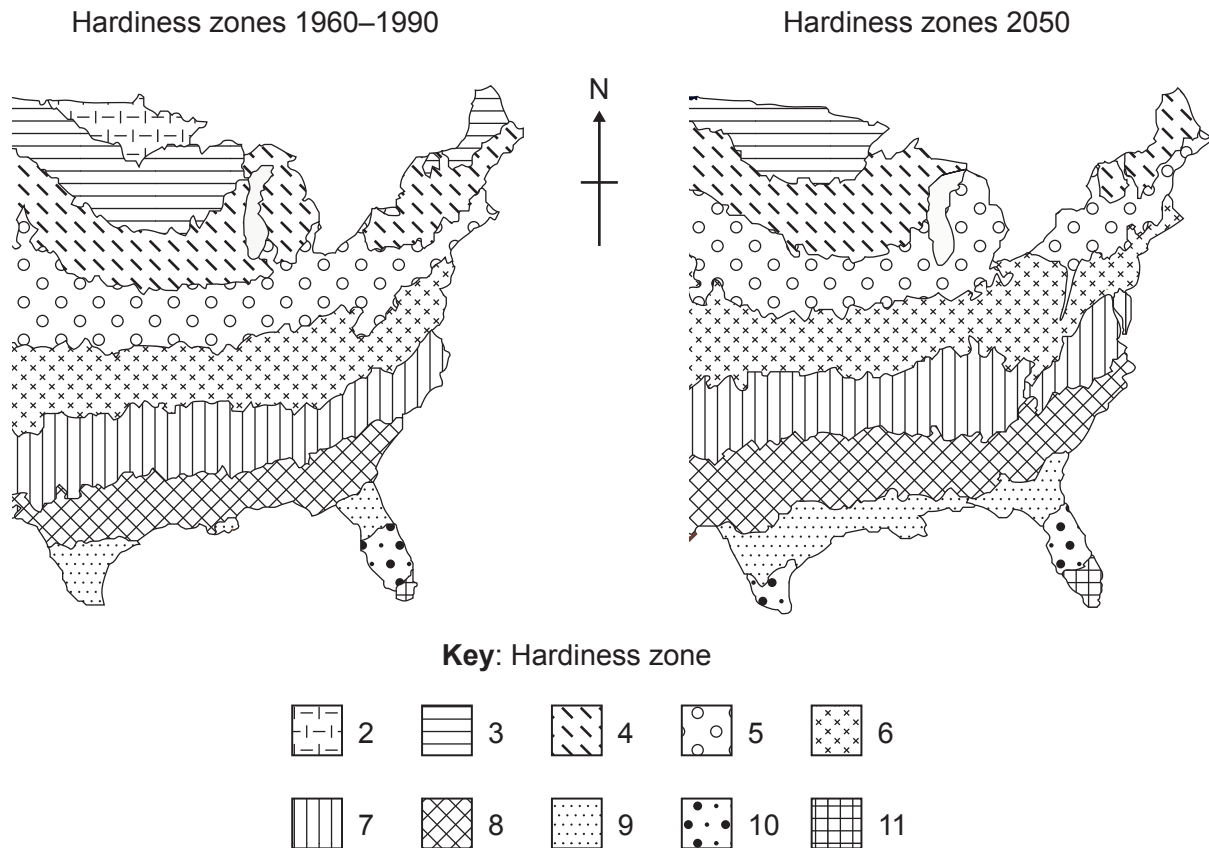
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30. The data shows how the hardiness zones in part of North America are predicted to change over the next 25 years. A hardiness zone is an area that has a certain average annual minimum temperature, a factor relevant to the survival of many plants. The lower the number, the more cold-resistant the plants must be.



What is a likely consequence of this change for tree species?

- A. Tree species will spread northwards as climate changes.
- B. Tree species that are not cold-resistant will decline.
- C. There will be no change in the distribution of the tree species.
- D. Tree species that currently live in the north will outcompete other tree species.

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- 29.** Which of the following may contribute to a positive feedback cycle in global warming?
- A. The release of methane from thawing ice caps
 - B. The uptake of carbon dioxide by a reforested area
 - C. Higher temperatures increasing photosynthesis rates
 - D. The accumulation of peat in swamps