Base your answer to question 65 on the information below.

Zebra mussels have caused several major changes in the ecosystem in the Hudson River. Native to Eurasia, zebra mussels were accidentally imported to the Great Lakes in ships during the late 1980s and first appeared in the Hudson in 1990.

In regions of the Hudson north of West Point, zebra mussels have depleted the levels of dissolved oxygen to the point where many native organisms either die or move to other waters. In addition, large amounts of phytoplankton (small photosynthetic organisms) are consumed by the zebra mussels.

Before the introduction of zebra mussels, one typical food chain in this part of the Hudson was:

phytoplankton → freshwater clams → other consumers

65 Describe some long-term changes in the Hudson River ecosystem that could be caused by zebra mussels. In your answer be sure to:

- state *one* likely change in the population of each of *two* different species (other than the zebra mussels) found in the Hudson [2]
- identify *one* gas in this ecosystem and state how a change in its concentration due to the effects of zebra mussels would affect organisms other than the zebra mussels [1]
- state how the death of many of the native organisms could affect the rate of decay and how this would affect the amount of material being recycled [2]
- explain why the size of the zebra mussel population would decrease after an initial increase [1]

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