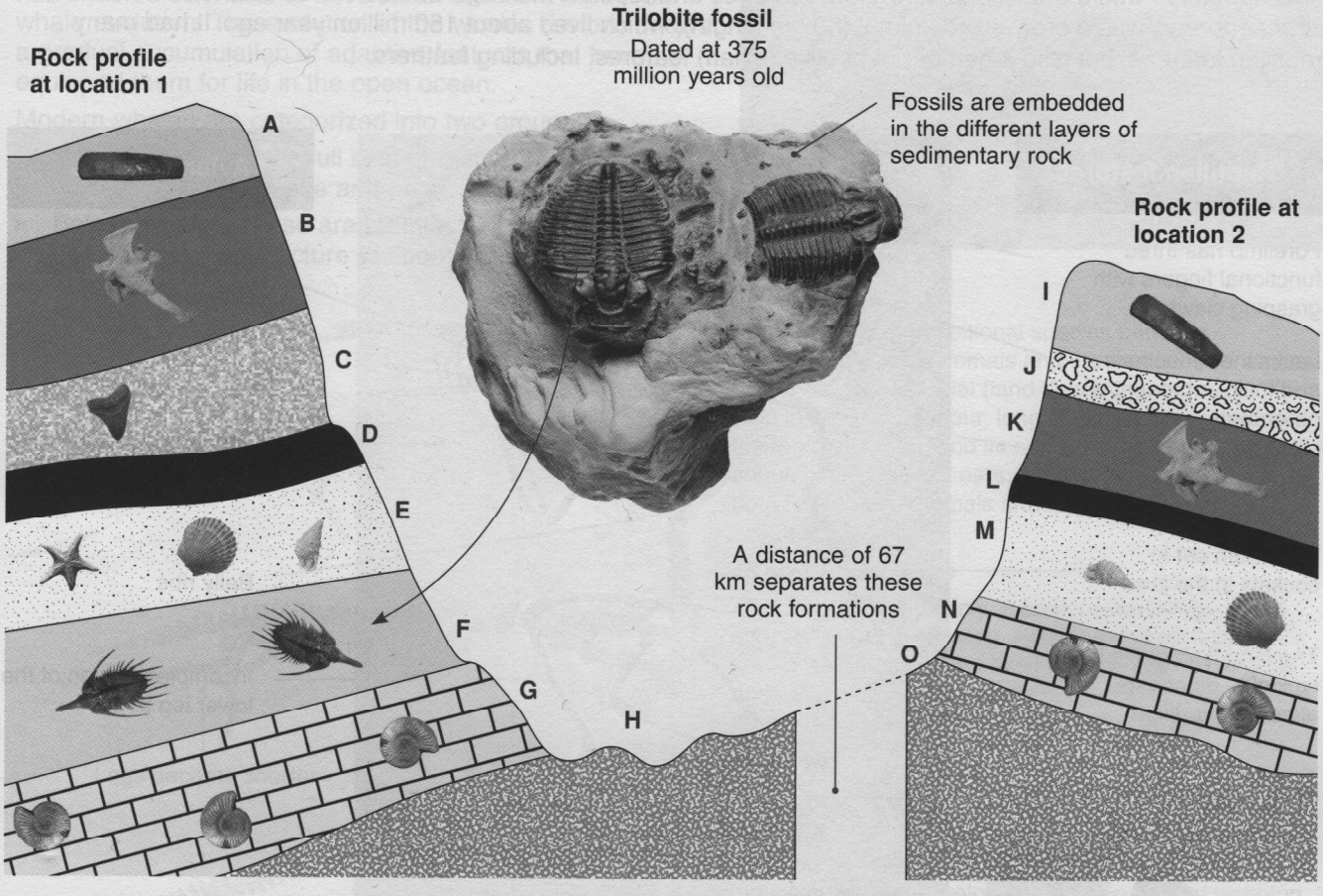
173 Interpreting the Fossil Record

Key Idea: Analyzing the fossils within rock strata allows scientists to order past events in a rock profile, from oldest to most recent.

The diagram below shows a hypothetical rock profile from two locations separated by a distance of 67 km. There are some differences between the rock layers at the two locations. Apart from layers D and L which are volcanic ash deposits, all other layers comprise sedimentary rock. Use the information on the diagram to answer the questions below.



1. Assuming there has been no geological activity to disturb the order of the rock layers, state in which rock layer (A-O) you would find:

   (a) The youngest rocks at Location 1: _____ (c) The youngest rocks at Location 2: _____

   (b) The oldest rocks at Location 1: _____ (d) The oldest rocks at Location 2: _____

2. (a) State which layer at location 1 is of the same age as layer M at location 2: _____

   (b) Explain the reason for your answer in 2 (a): _____

   _____

   _____

3. (a) State which layers present at location 1 are missing at location 2: _____

   (b) State which layers present at location 2 are missing at location 1: _____

4. The rocks in layer H and O are sedimentary rocks. Why are there no visible fossils in these layers?

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