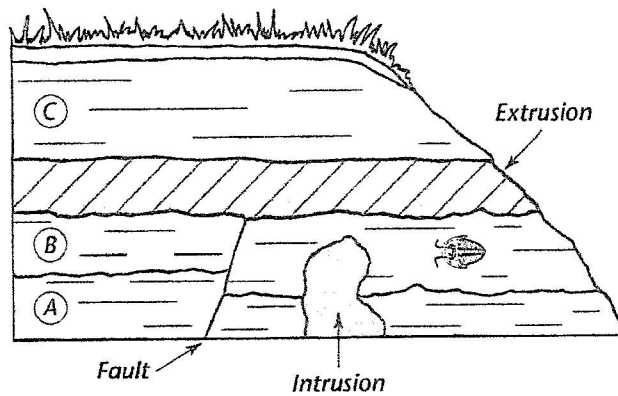


Review and Reinforce

# The Relative Age of Rocks

## Understanding Main Ideas

Look at the diagram below. Then answer the questions that follow on a separate sheet of paper.



1. What is the youngest rock layer? Explain.
2. Is the extrusion older or younger than rock layer B? Explain.
3. Is the fault older or younger than rock layer A? Explain.
4. How could a geologist use the fossil in rock layer B to date a rock layer in another location?

## Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

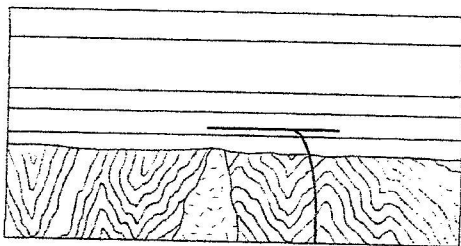
- |                             |  |
|-----------------------------|--|
| 5. ___ fault                | a. the number of years since a rock has formed                                   |
| 6. ___ extrusion            | b. a break in Earth's crust  |
| 7. ___ unconformity         | c. the way to determine relative ages of rocks                                   |
| 8. ___ relative age         | d. a hardened layer of magma beneath Earth's surface                             |
| 9. ___ law of superposition | e. the age of a rock compared with the age of other rocks                        |
| 10. ___ intrusion           | f. fossils used to help geologists match rock layers                             |
| 11. ___ absolute age        | g. the surface where new rock layers meet a much older rock surface beneath them |
| 12. ___ index fossils       | h. a hardened layer of lava on Earth's surface                                   |

# The Relative Age of Rocks

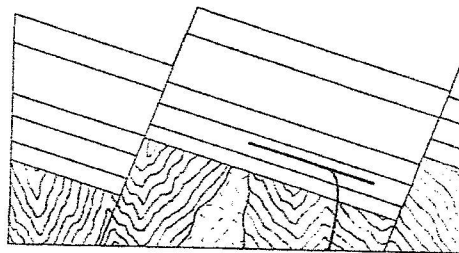
Read and look at the diagrams below. Then answer the questions that follow on a separate sheet of paper.

## The Grandest Canyon of All

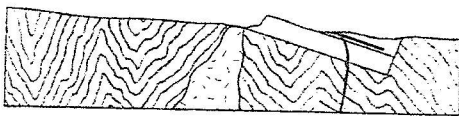
How did the Grand Canyon form? It formed through the processes that build up and wear down the surface of the Earth. The figures below show how this majestic landscape came to be.



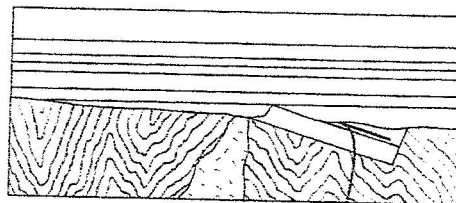
A Several sedimentary rock layers form over ancient rock.



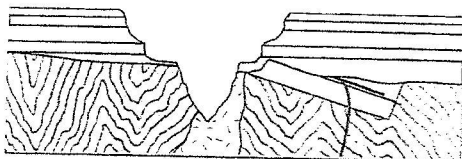
B Forces within Earth cause large faults, and layers of the sedimentary rock shift.



C Weathering and erosion wear down the whole area.



D More sedimentary rock layers form over the old, eroded surface.



E Finally, the Colorado River flows over the surface and cuts down through the layers of rock, forming the Grand Canyon.

1. How do sedimentary rock layers form?
2. What happened to the sedimentary rock layers that first formed over the ancient rock?
3. Where in this sequence of events is the formation of an unconformity?
4. How did the Grand Canyon itself form?
5. Which is older, the Grand Canyon or the rock layers now exposed on the canyon walls? Explain your reasoning.

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