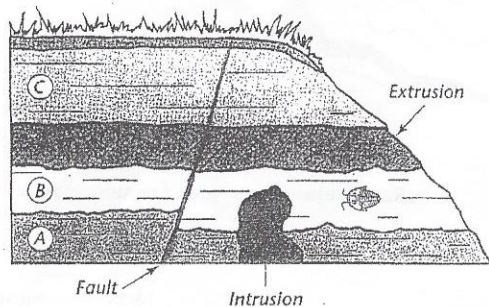


Finding the Relative Age of Rocks

◆ Understanding Main Ideas

Use the figure below to answer questions 1–4. Write your answers on ~~THIS~~ sheet of paper.



1. What is the youngest rock layer on the figure? Explain. *C on Top*
2. Is the extrusion older or younger than rock layer B? Explain. *Younger, closer to top*
3. Is the fault older or younger than rock layer A? Explain. *Younger, Breaks thru existing rock*
4. How could a geologist use the fossil in rock layer B to date a rock layer in another location? *The fossil can be used as an index fossil*

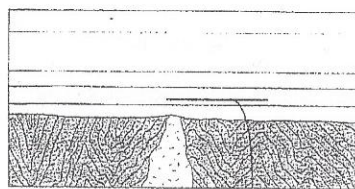
◆ Building Vocabulary

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

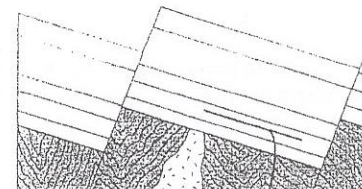
- | | | |
|--------------|-------------------------|--|
| <u> B </u> | 5. fault | a. the number of years since a rock formed |
| <u> h </u> | 6. extrusion | b. a break or crack along which rocks move |
| <u> G </u> | 7. unconformity | c. the way to determine relative ages of rocks |
| <u> E </u> | 8. relative age | d. a hardened layer of magma |
| <u> C </u> | 9. law of superposition | e. the age of a rock compared with the age of other rocks |
| <u> D </u> | 10. intrusion | f. fossils used to determine the relative ages of rock layers |
| <u> A </u> | 11. absolute age | g. a place where an eroded surface is in contact with a newer rock layer |
| <u> F </u> | 12. index fossil | h. a hardened layer of lava |

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 Earth. The figures below show how this majestic landscape came to be.



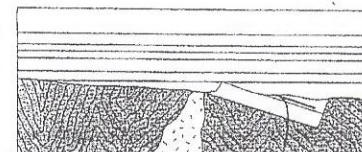
A Several sedimentary rock layers form over ancient rock.



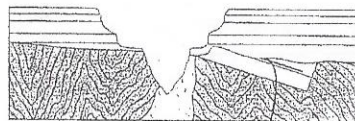
B Forces within Earth cause large faults, and layers of the sedimentary rock shift.



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.

Answer the following questions on ~~THIS~~ sheet of paper.

1. How do sedimentary rock layers form? *Deposits build up overtime*
2. What happened to the sedimentary rock layers that first formed over the ancient rock? *They shifted from internal force*
3. Where in this sequence of events is the formation of an unconformity? *D*
4. How did the Grand Canyon itself form? *Erosion*
5. Which is older, the Grand Canyon or the rock layers now exposed on the canyon walls? Explain your reasoning. *Rock layers were present before water cut through them.*