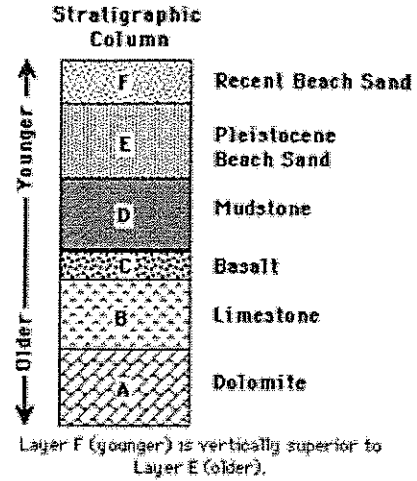


## RELATIVE TIME

### The Law of Superposition

In any undisturbed sequence of strata, the oldest layer is at the bottom of the sequence, and the youngest layer is at the top of the sequence.

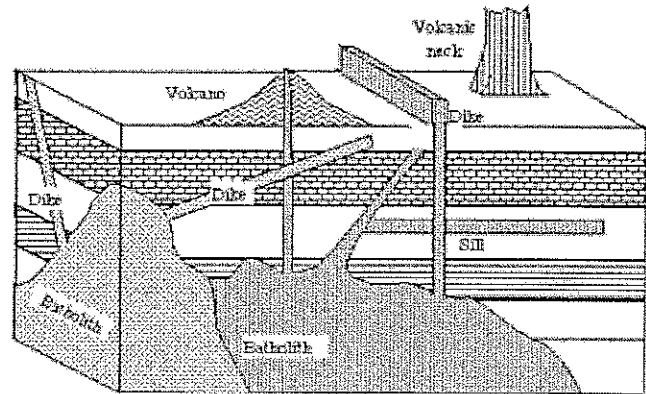


### The Cross-Cutting Law

Any feature that *cuts across* a body of sediment or rock is younger than the body of sediment or rock that it cuts across.

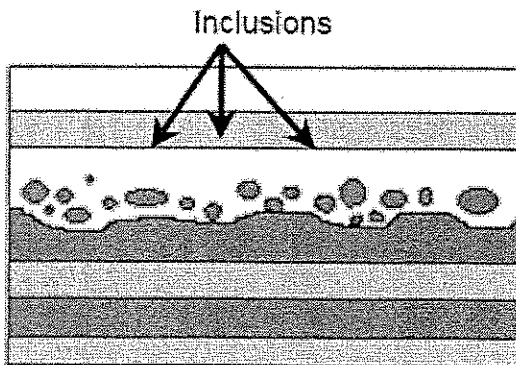
NOTE:

- A fracture is a crack in rock.
- A fault is a fracture along which movement has occurred.

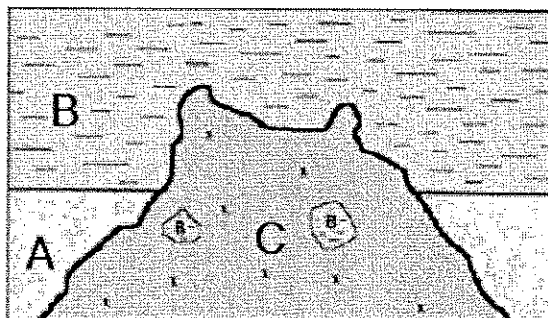


### The Law of Inclusions

If one rock body contains fragments of another rock body it must be younger than the fragments of rock it contains. OR... The inclusions are older than the rocks which contain them.



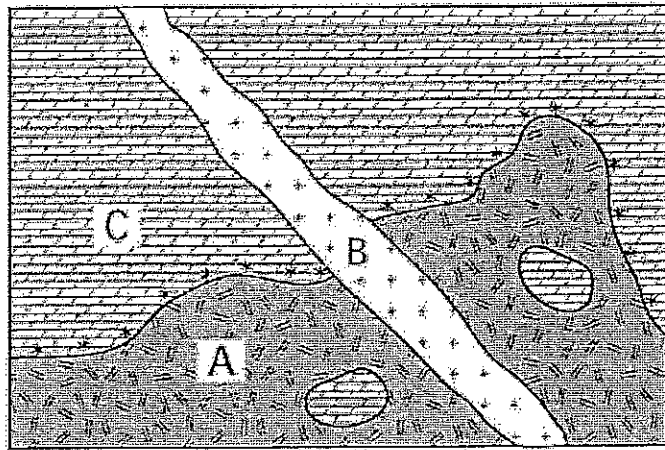
Inclusions of B are older than C.



# Telling Relative Time

Use the laws of superposition, inclusions and cross-cutting relationships to determine the relative ages of the following cross-sections. Determine the OLDEST bed FIRST.

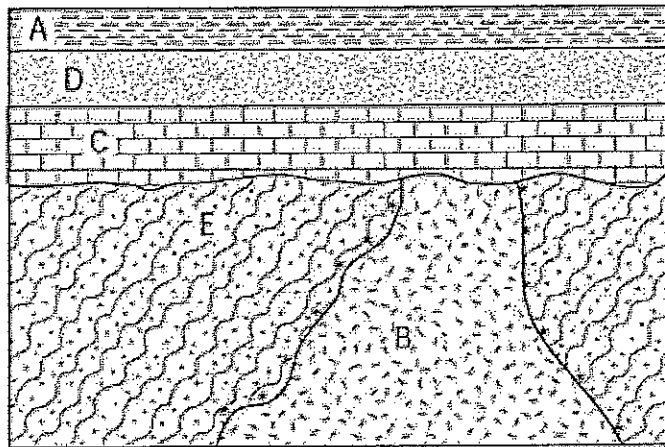
1



Youngest \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Oldest \_\_\_\_\_

Stratigraphic Principle: \_\_\_\_\_

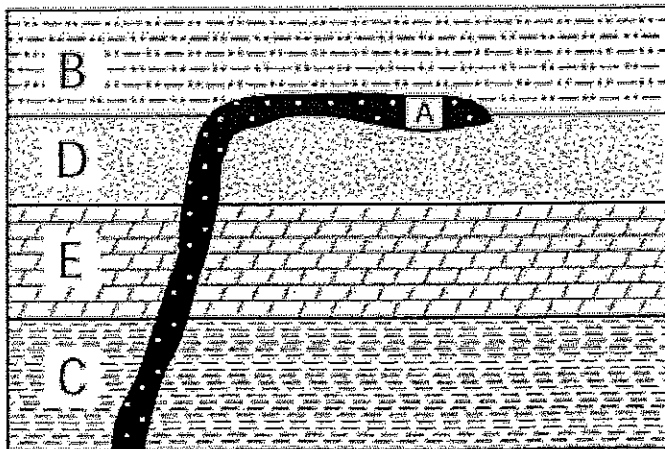
2



Youngest \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Oldest \_\_\_\_\_

Stratigraphic Principle: \_\_\_\_\_

3



Youngest \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Oldest \_\_\_\_\_

Stratigraphic Principle: \_\_\_\_\_