

**#15 – Types of fossils notes**

**#16 Relative Age Notes**

# Warm-up

Which evidence---a trace fossil, a petrified fossil, a tree ring, or an ice core would be most helpful to a historian studying how the Indians grew food at the Roanoke Colony (also known as the Lost Colony) of 1587?

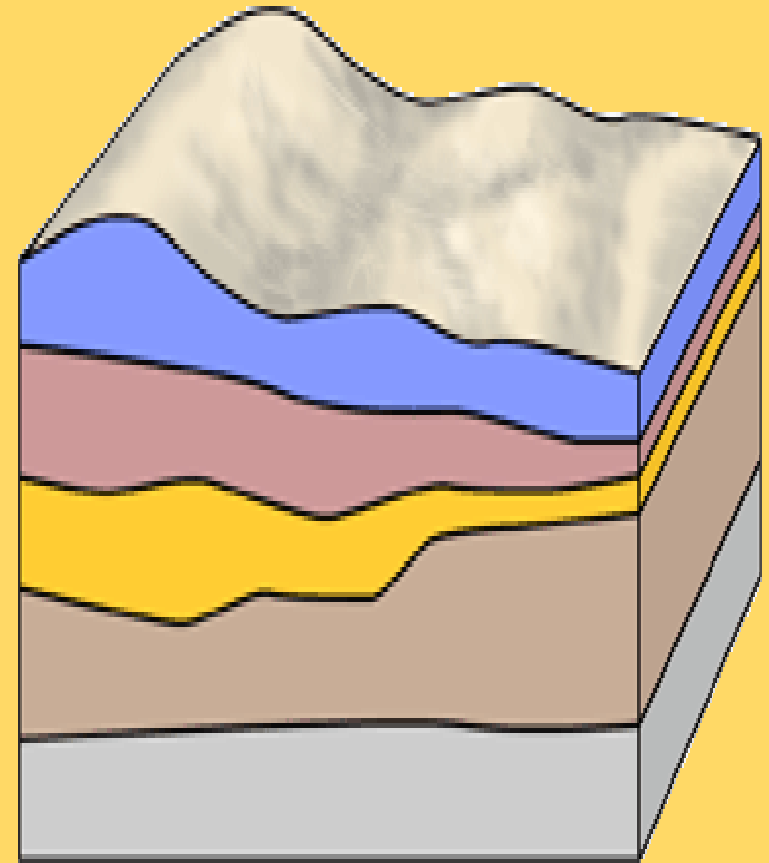
Explain in complete sentences



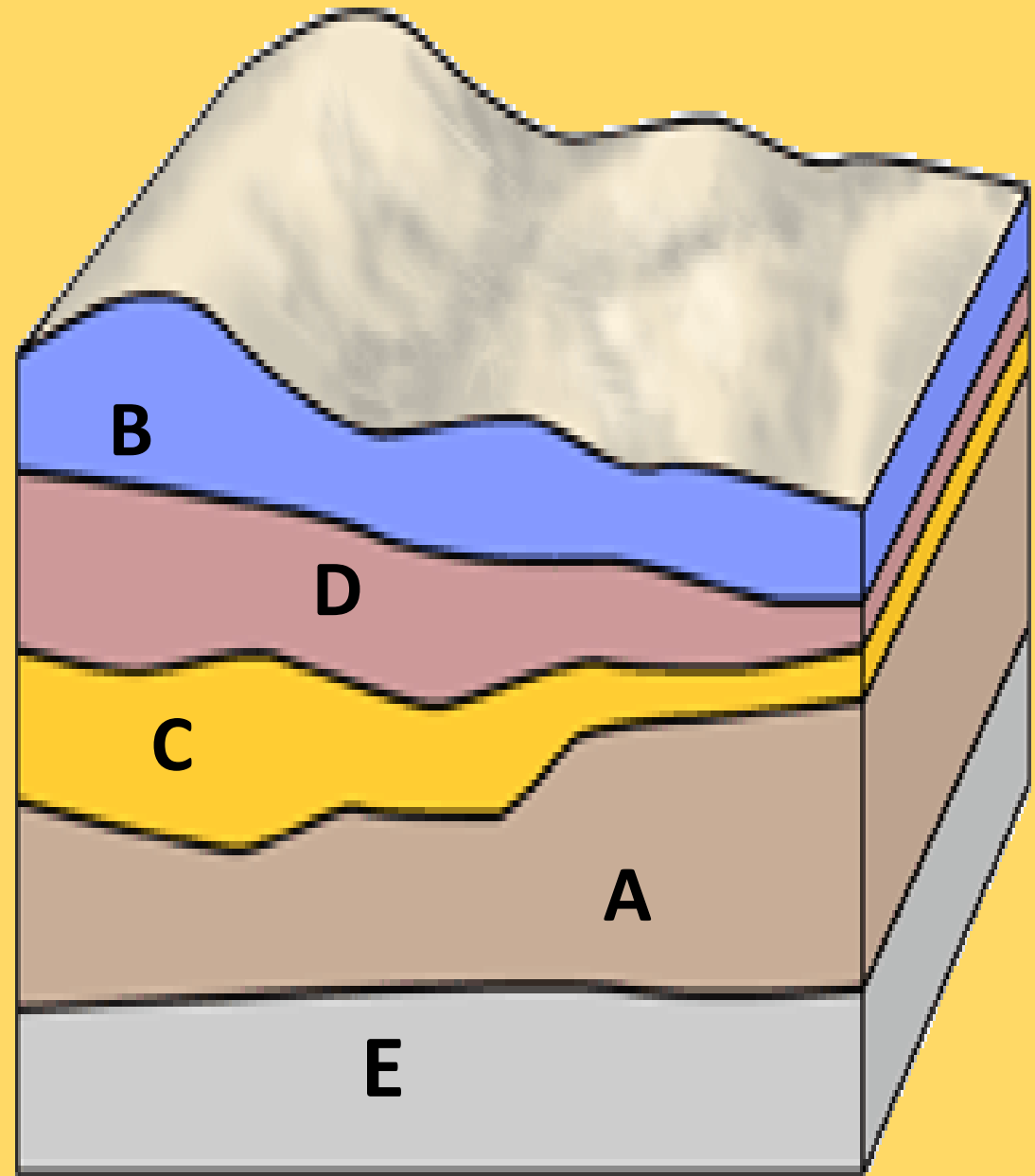
# \*Geologic column

The Geologic column is an arrangement of rock layers in which the older rocks are at the bottom.

This helps scientist find the relative age of the Earth.



label this diagram



# Relative Age/Dating

\***Relative Dating**: scientist use this to determine whether an event or object is older or younger than another event or object

\*Relative Dating is just an **ESTIMATE** of events...  
There is no absolute information

\*Example:

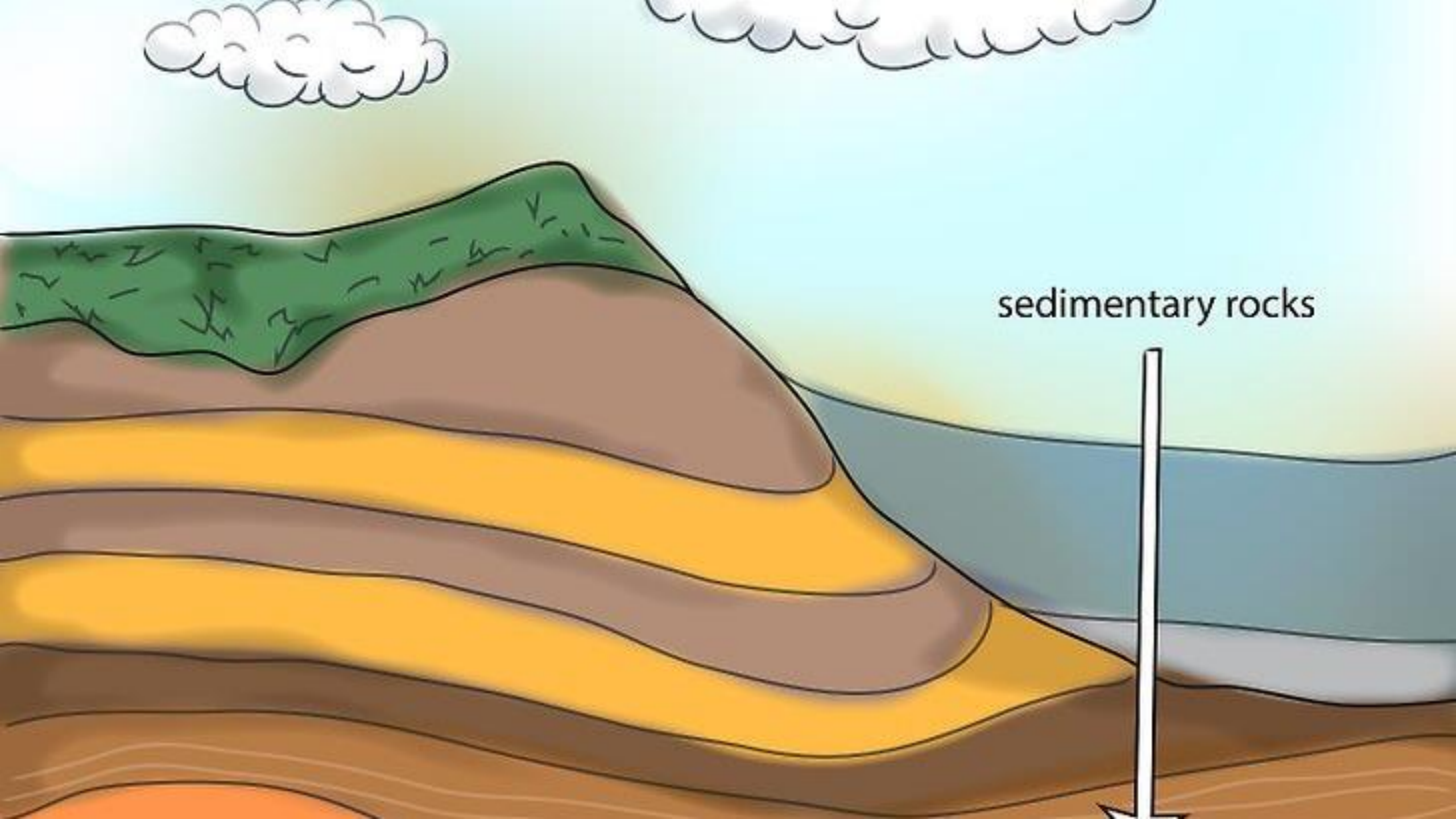
Layer \_\_\_\_\_ is older than layer \_\_\_\_\_

# \*Law of Superposition

-Younger rock lies above older rock in an undisturbed sequence. (*undisturbed sequence means in normal situations*)

-Each layer is older than the layer that rests above it.





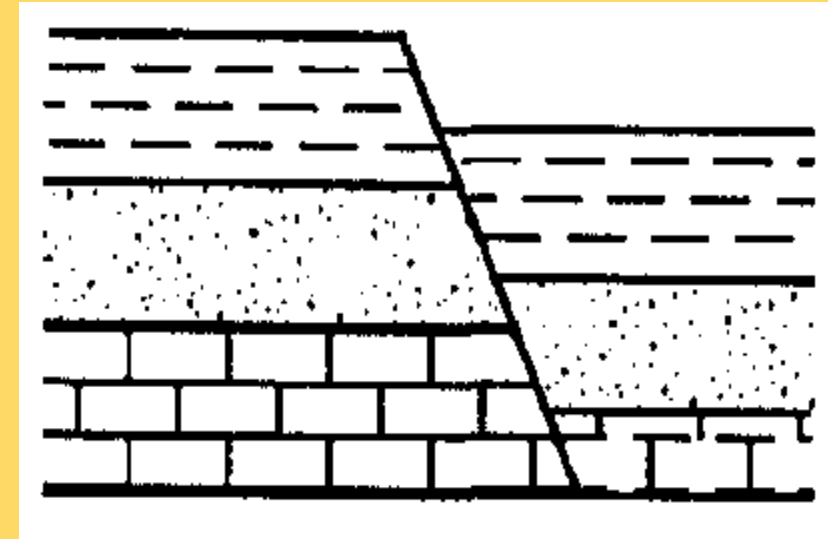
sedimentary rocks

So what about  
disturbed rock?



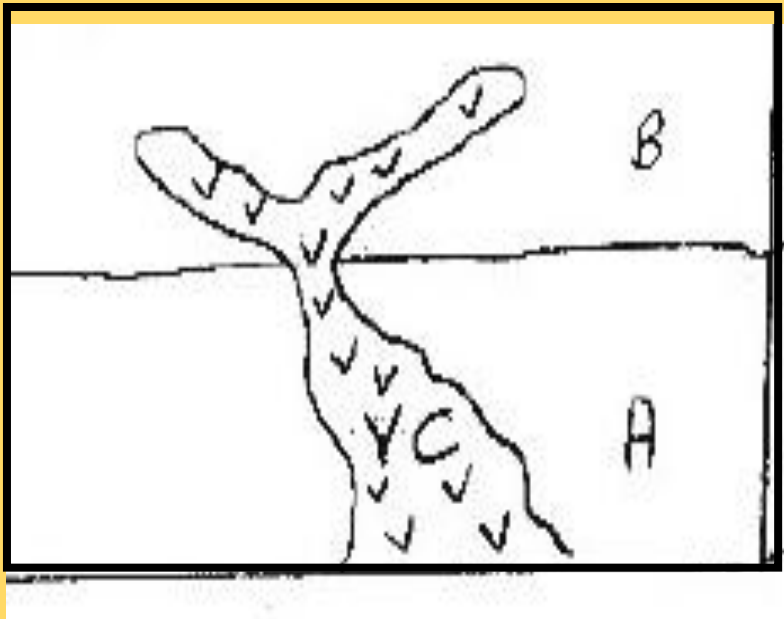
# \*Faults

break in the Earth's crust, where blocks of crust slide past one another

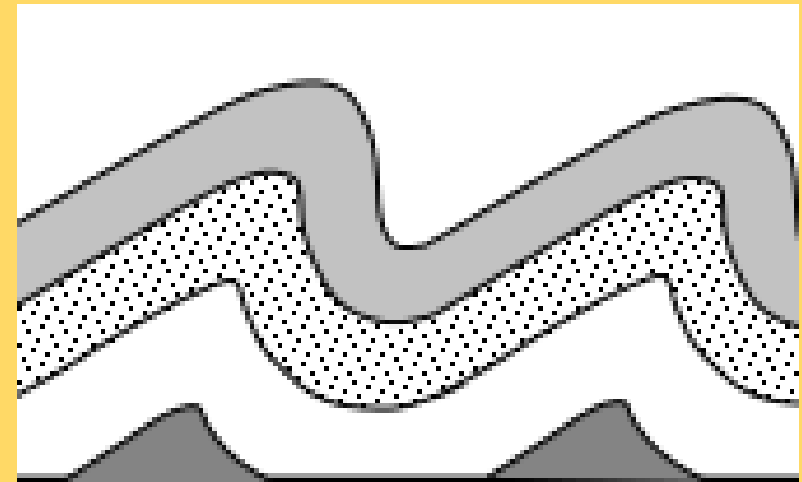


# \*Igneous Intrusion

Igneous rock (magma) from the Earth's interior that squeezes/burns its way into existing rock then cools and hardens



\***Folding** – Occurs when rock layers bend and buckle from Earth's internal forces

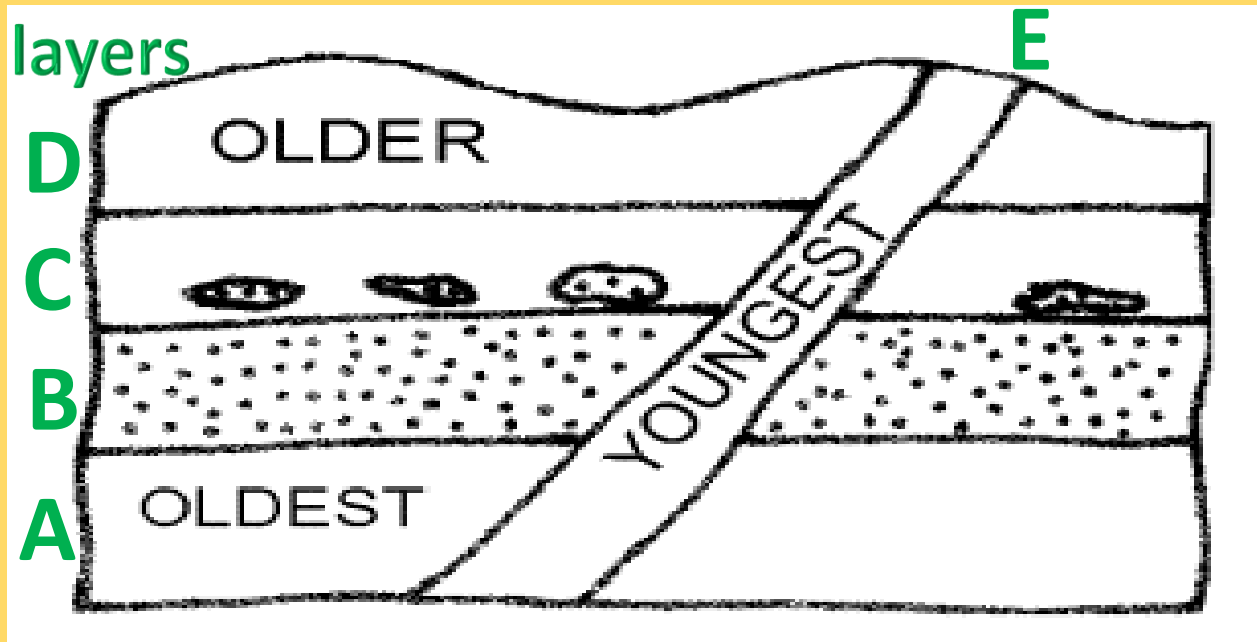


\***Tilting** -occurs when Earth's forces move rock layers until they become slanted.



# \*Cross cutting law

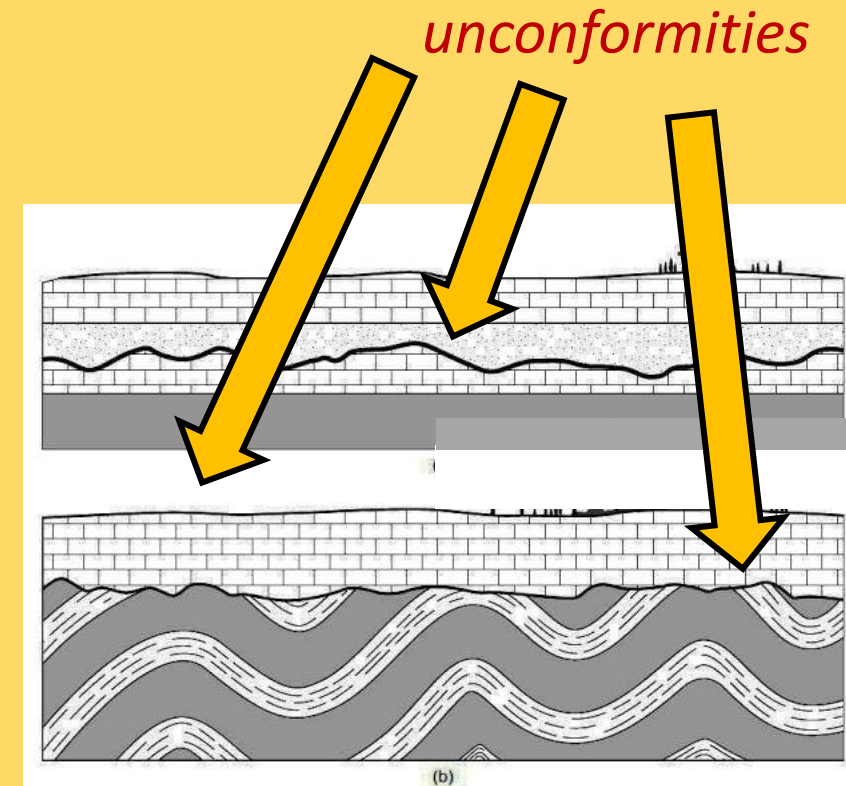
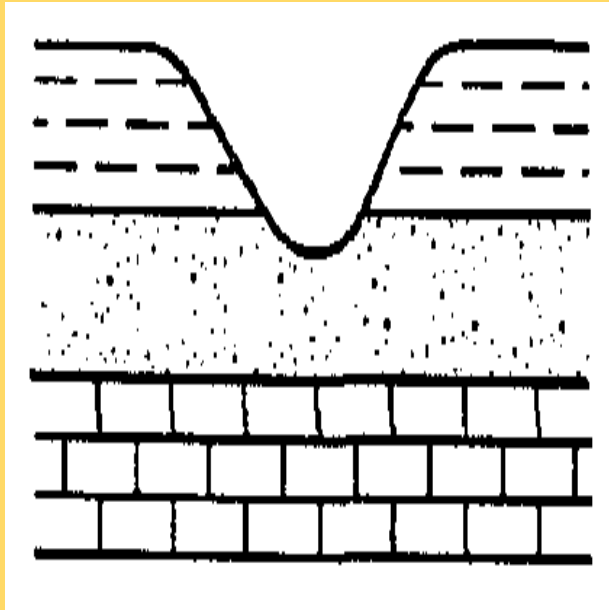
Faults or intrusions that cuts across a body of sediment or rock are younger than the already established sediment or rock that it cuts through.



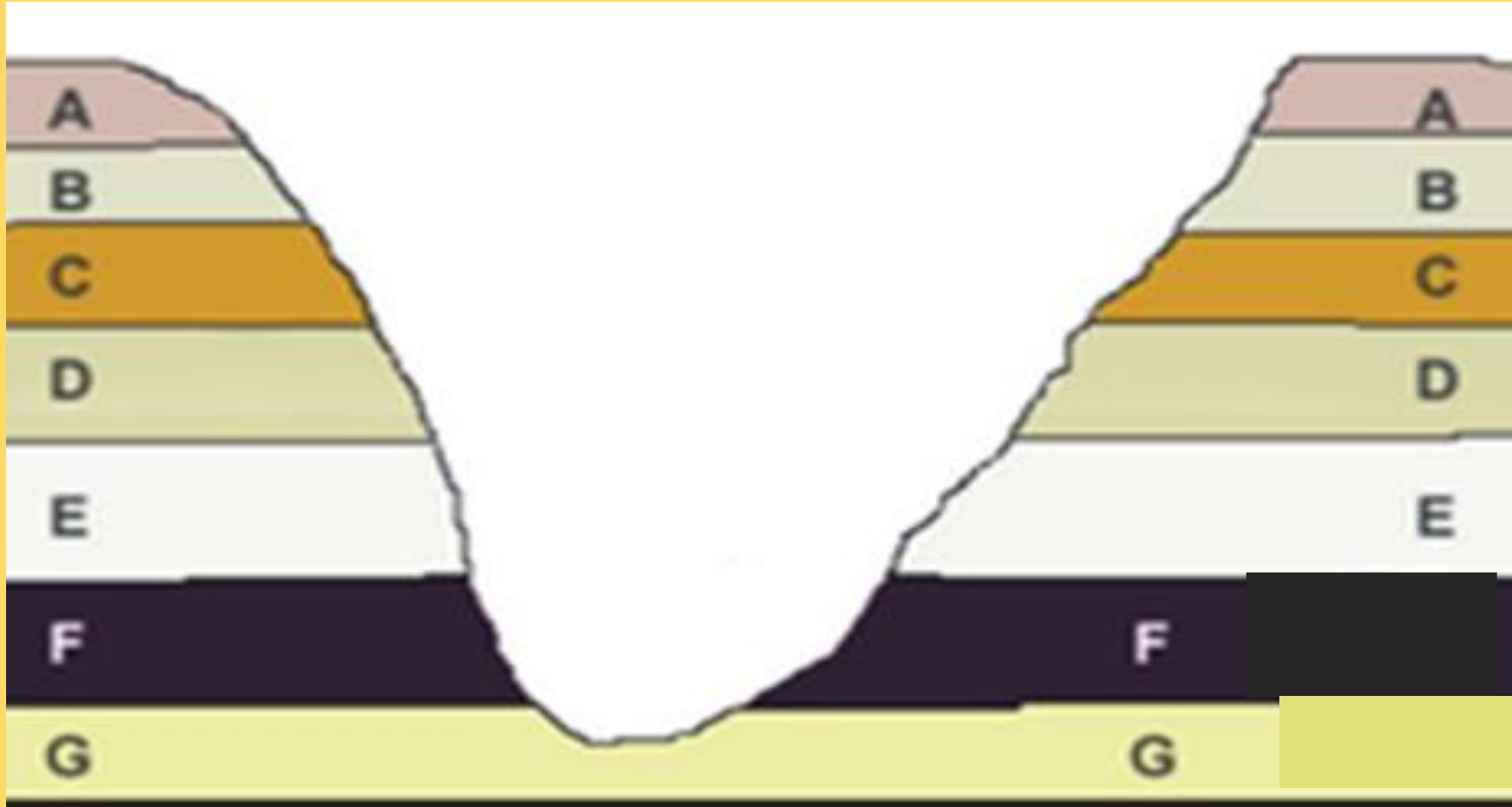
*\*\*\*Layers A,B,C, and D had to already have been there before the intrusion E could have burned its way through it\*\*\**

# \*Unconformities:

occur when rock layer(s) are lost because they erode away before a new layer of sediment forms over top of the existing layer(s).

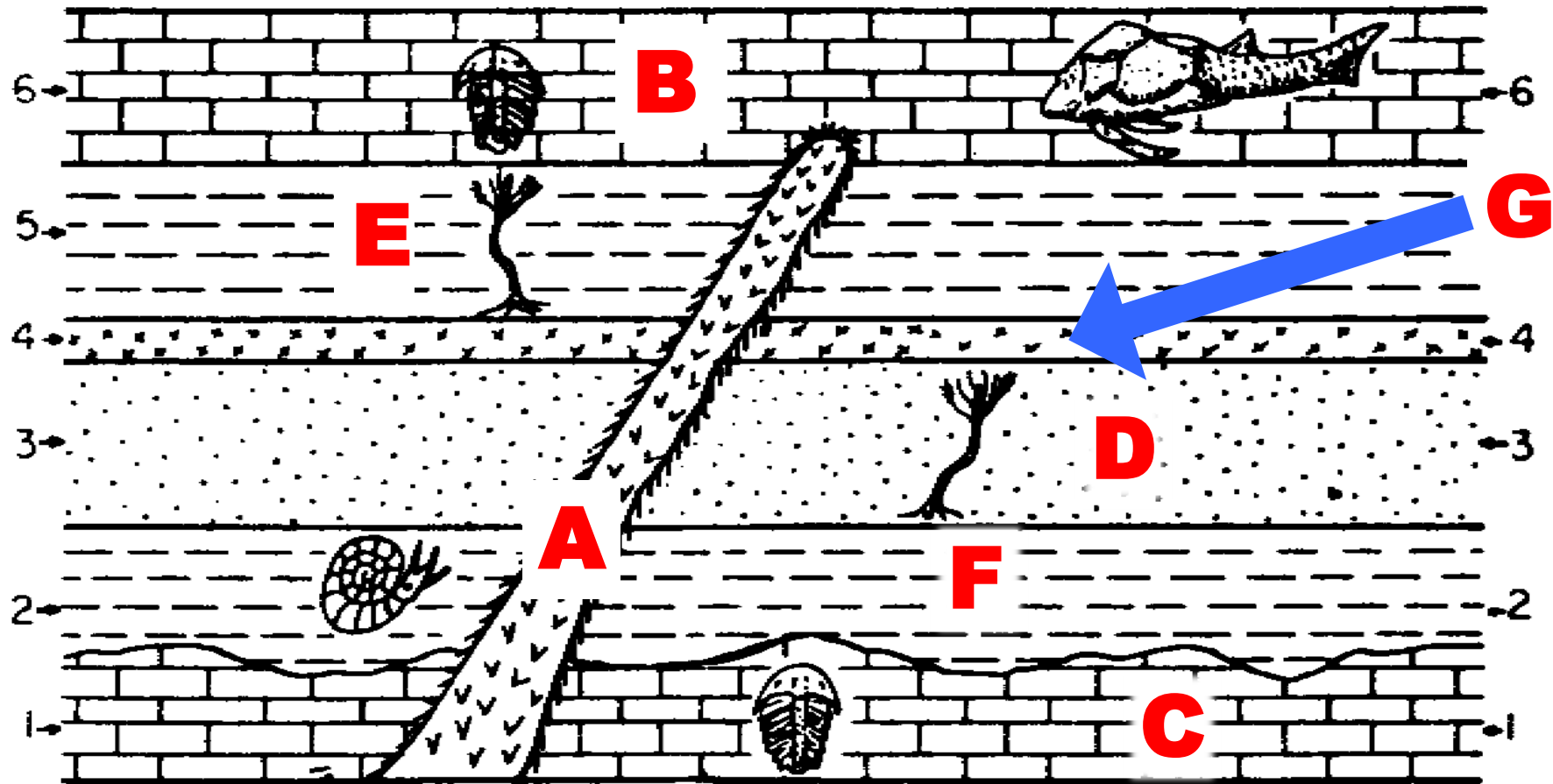


Layers can even be matched up across a valley



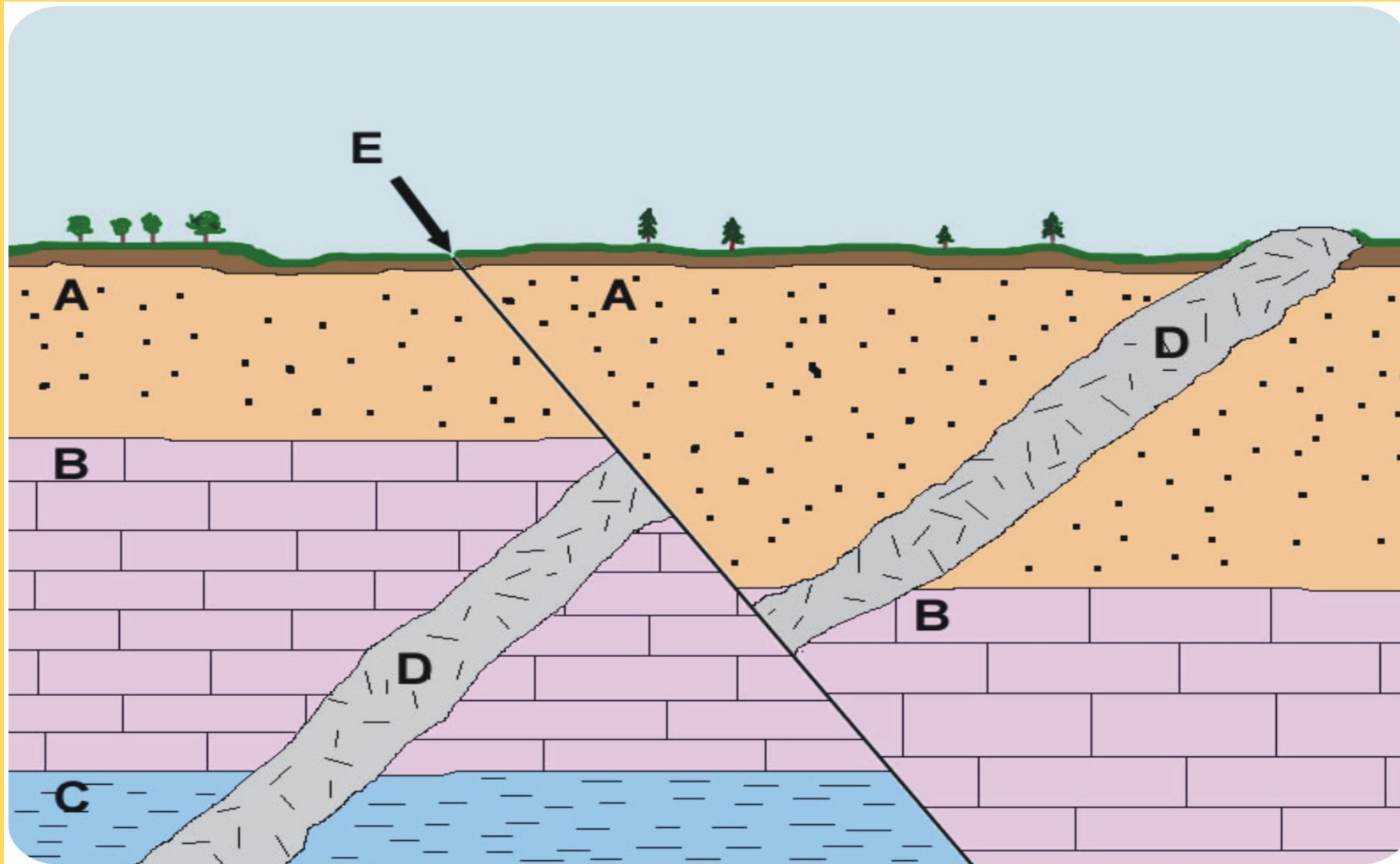
# List the layers from oldest to youngest

Between what 2 layers shows an unconformity? How do you know





# List the layers from oldest to youngest



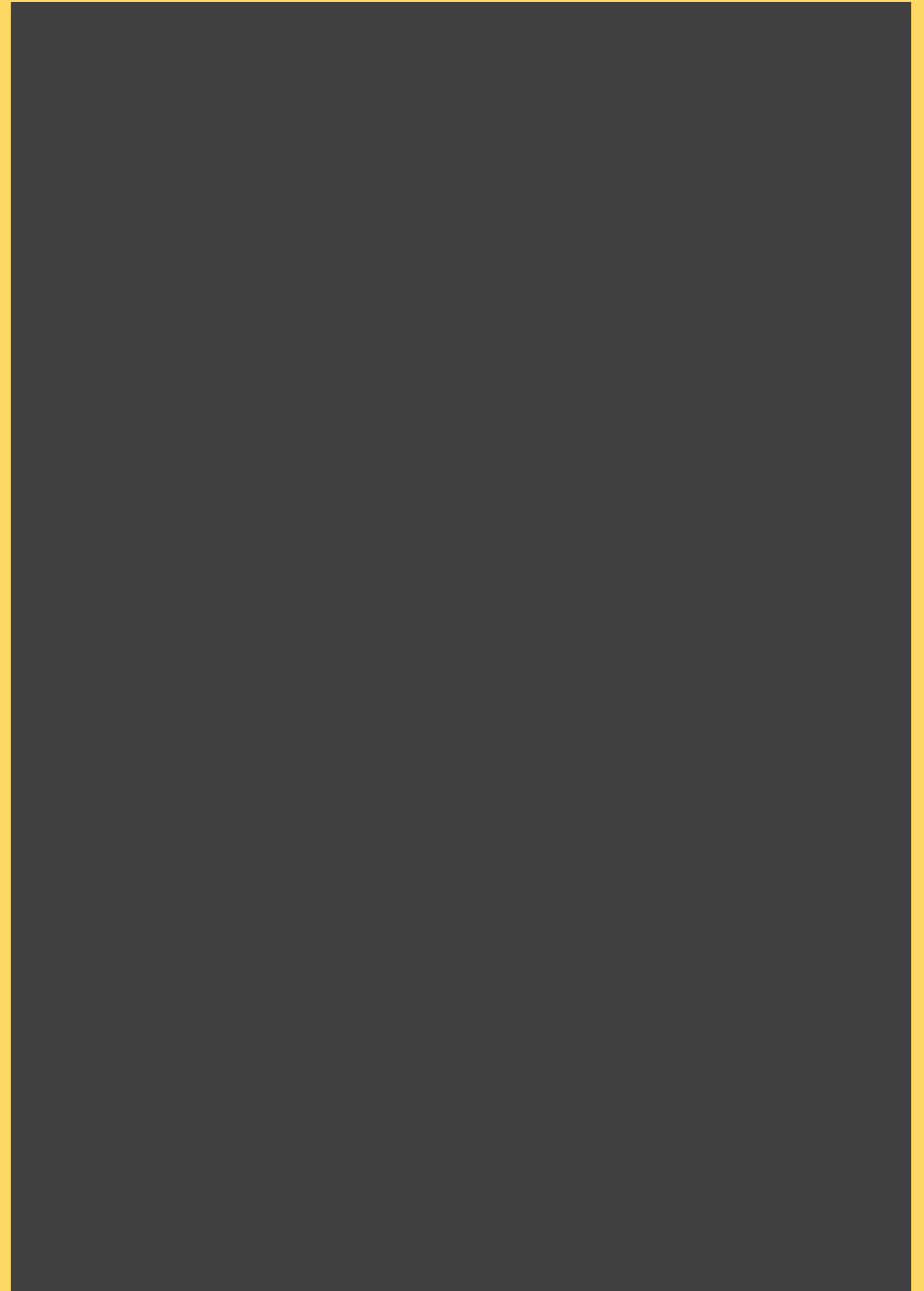
You must include the fault and intrusion in the order arrangement



Recap: Is the rock in this picture disturbed? If so, explain how.



How about now?





How about now?



Recap: Is the rock in this picture disturbed? If so, explain how.





**How about  
now?**

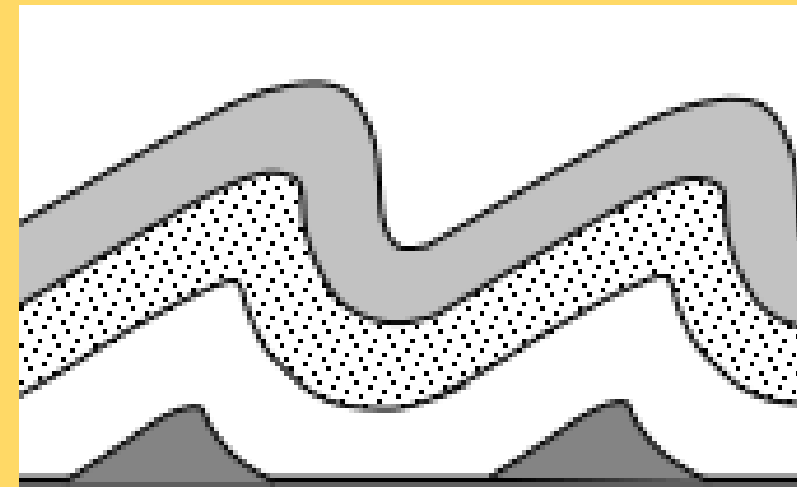
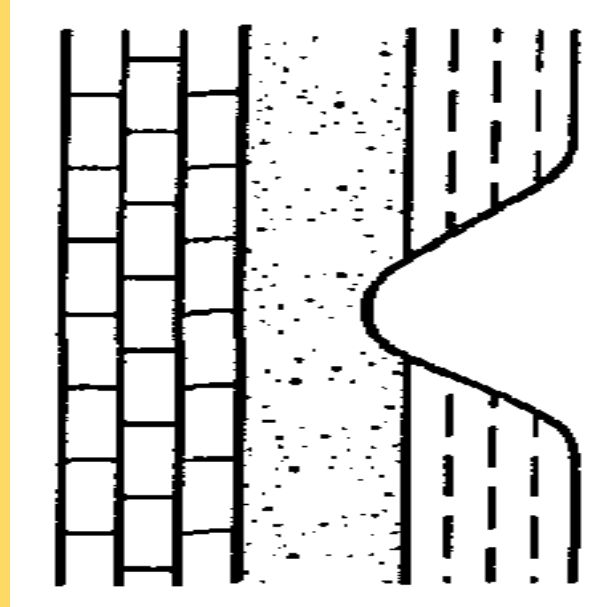
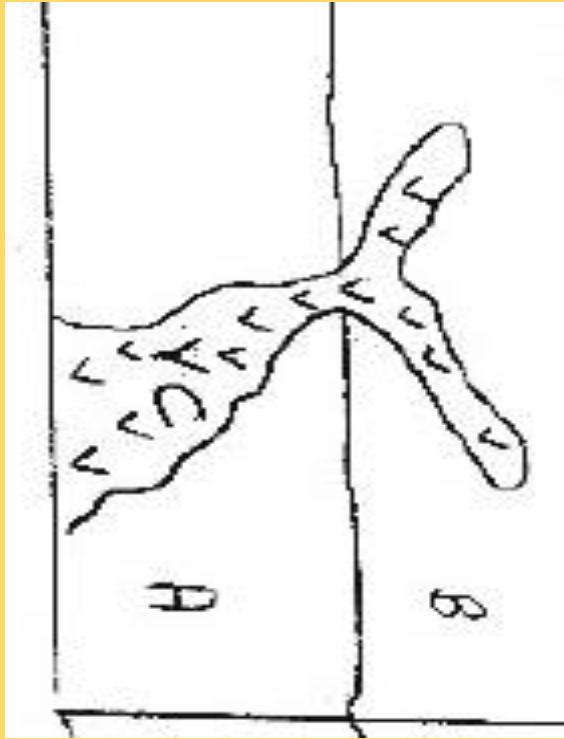
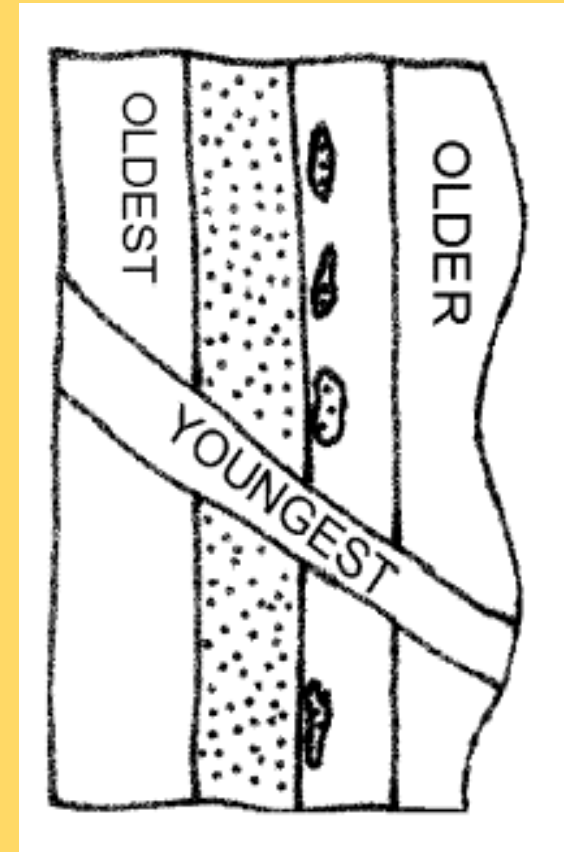
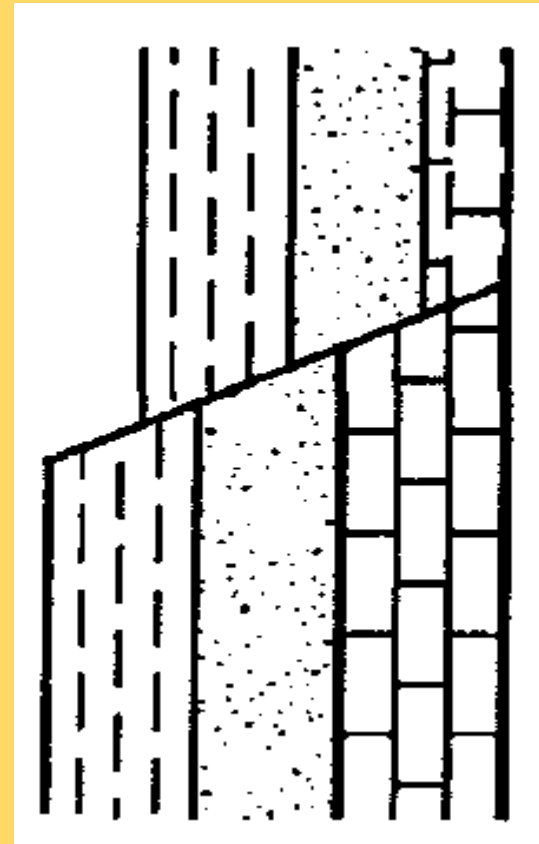
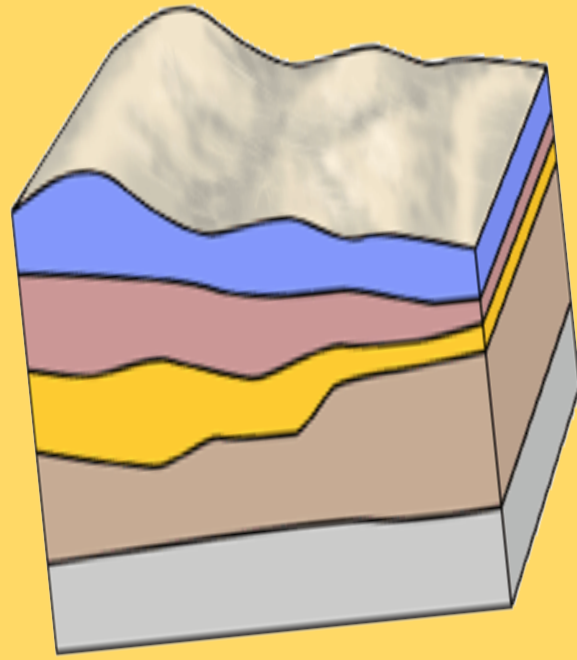
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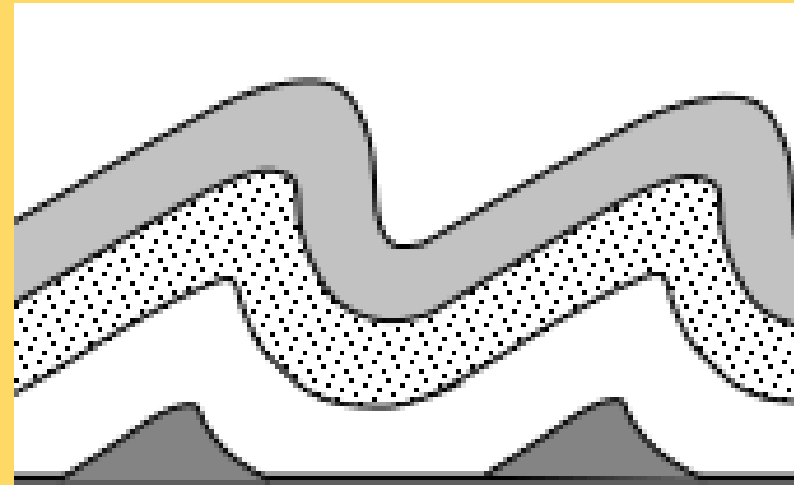
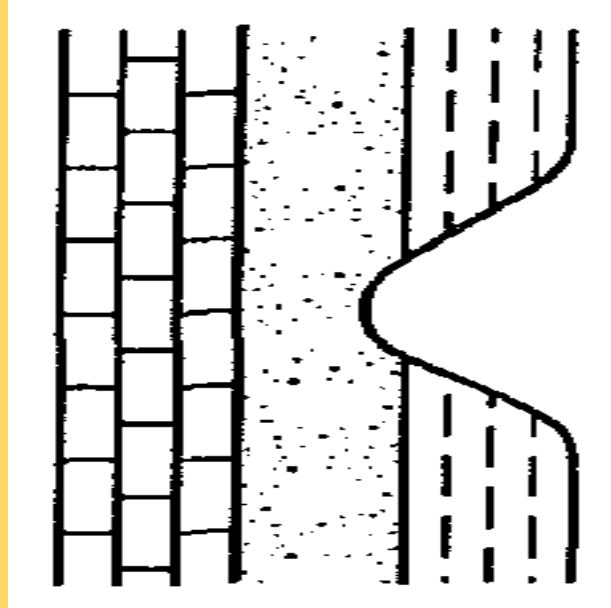
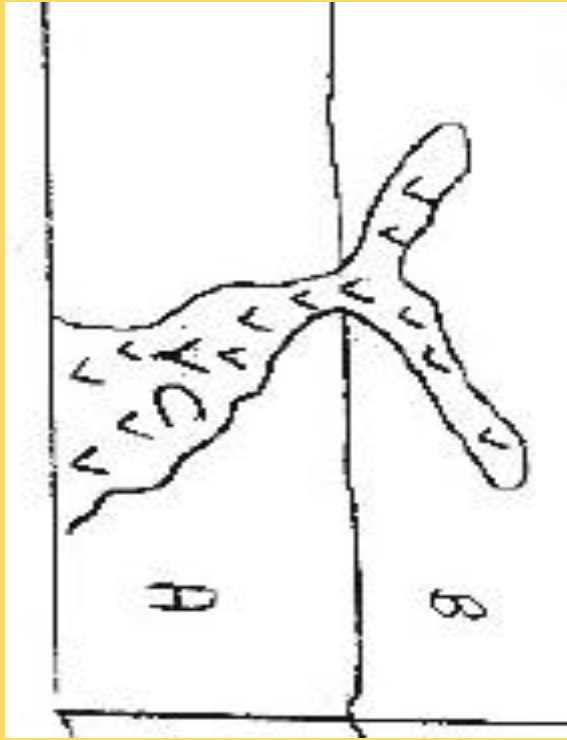
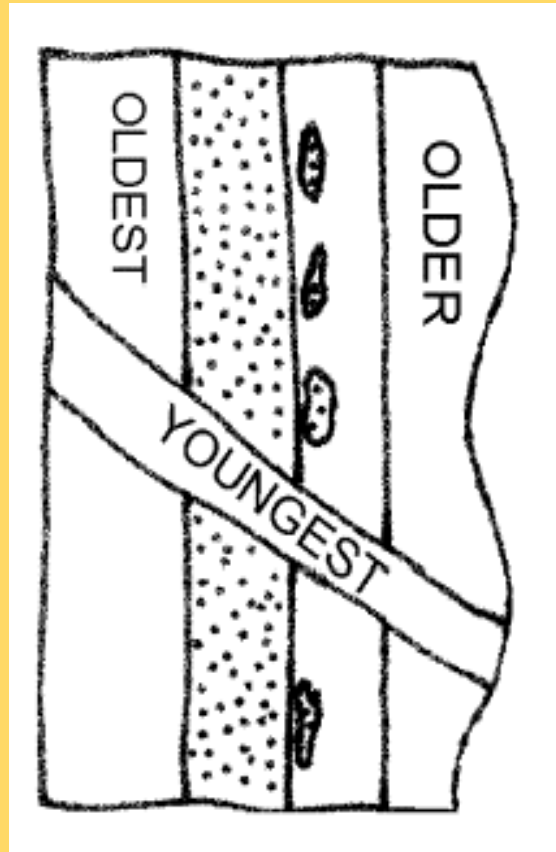
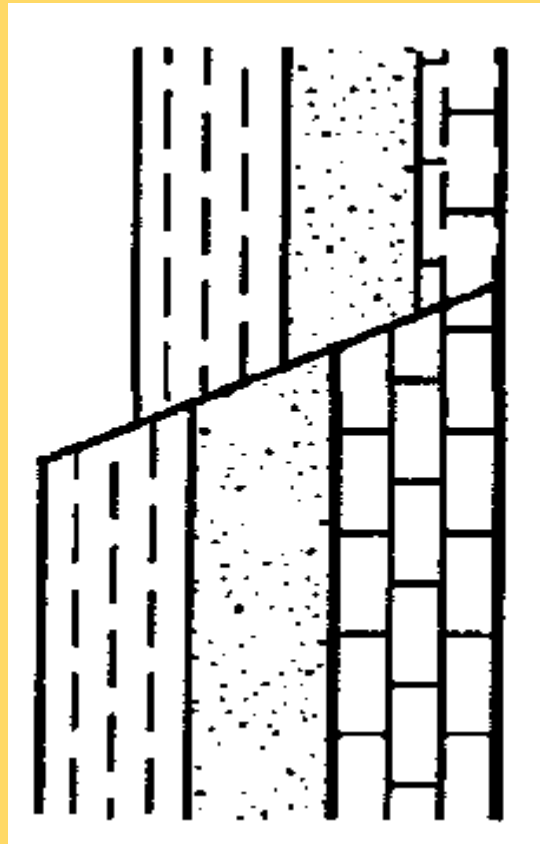
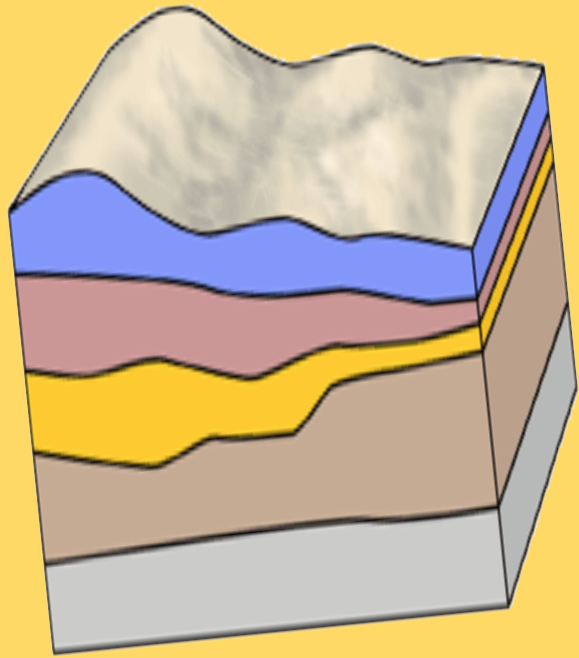
Last  
one...



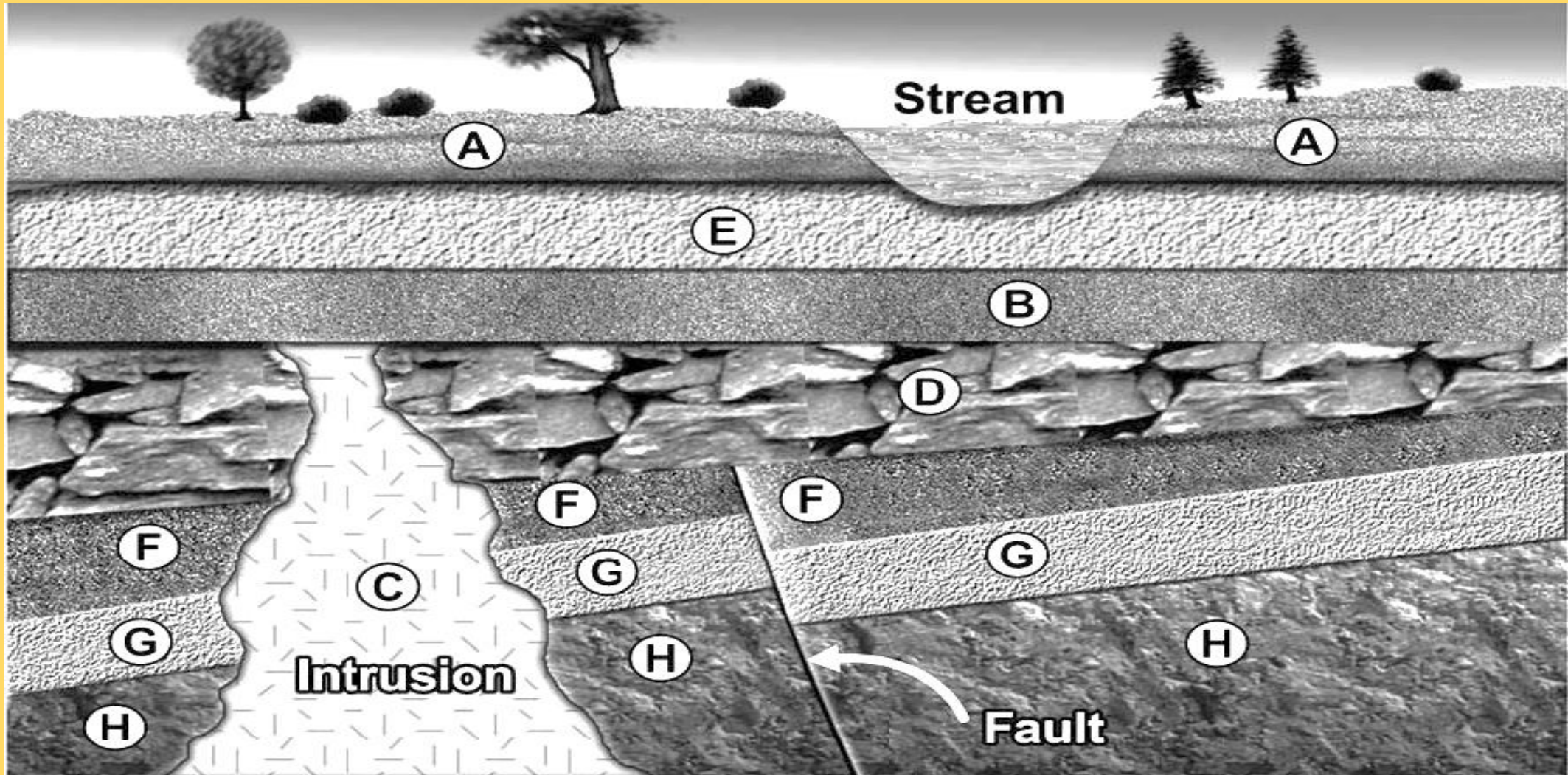
End... extras







Put the rock layers in order based off when they formed



Geologic  
Column

Law of  
Superposition

Relative  
Dating

Cross Cutting  
Law

Faults

Intrusions

Tilting and  
folding

unconformities

$Y \rightarrow 0$

