# PART 2 NOTES

# RELATIVE DATING

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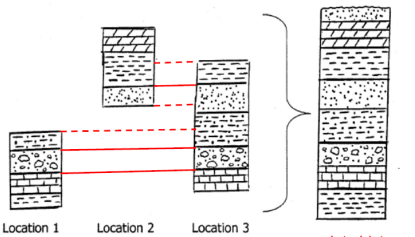
II. Relative Dating

A. Relative Age - the age of something compared to something else

B. The Geologic Column – an ideal sequence of rock layers created by combining data from all known rock sequences at various locations.




complete history (inferred)

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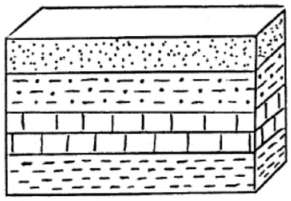
C. Principle of Superposition - In undisturbed sedimentary rock layers (strata), the oldest rock is at the bottom



youngest rock layer

oldest rock layer

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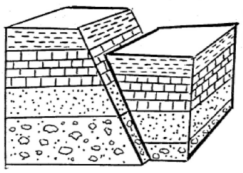
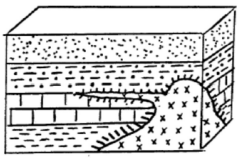
D. Disturbed Rock Layers and Relative Dating

1. 

A fault is younger than the rock layers it cuts across.

2. 

An igneous intrusion is younger than the rock layers it penetrates.

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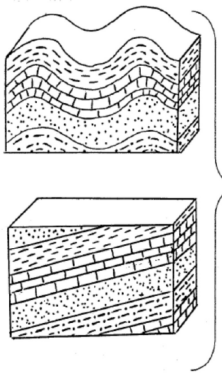
3.



The folding and tilting of rock layers are events that are younger than the rock layers they effect.

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Formation of an Unconformity:

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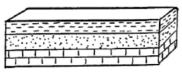
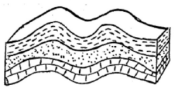
1.



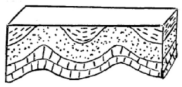
deposition – formation of horizontal rock layers

2.



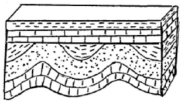
uplifting / folding

3.



erosion

4.



unconformity

subsidence – deposition – formation of horizontal rock layers

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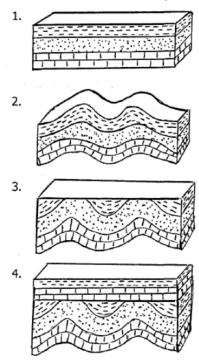
Formation of an Unconformity:

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Unconformity – a surface of erosion between rock layers that represents a missing gap in Earth's history.

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F. Index fossils – a fossil that is used to date the rock layers in which it is found.

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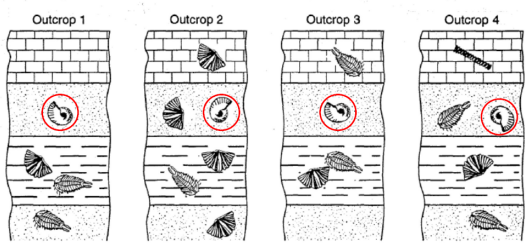
1. An organism that lived during a relatively short time span
2. An organism that has a wide distribution geographically (found everywhere)

Which of these is an index fossil?

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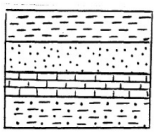
G. Determining Relative Age:

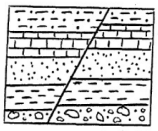
Identify both the oldest rock or event and the youngest rock or event:

1.



oldest ___siltstone___
youngest ___shale___

2.



oldest _conglomerate___
youngest ___fault___

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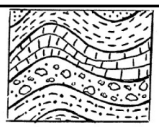
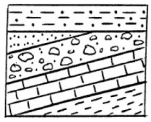
3.



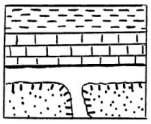
oldest ___shale___
youngest __folding___

4.



oldest ___shale___
youngest __siltstone___

5.



oldest ___sandstone___
youngest __shale___

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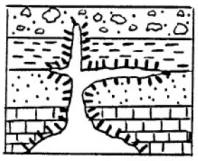
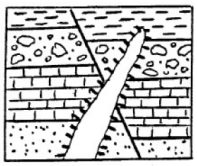
6. 

oldest limestone
youngest igneous intrusion

7. 

oldest sandstone
youngest igneous intrusion

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