

PLEASE DO NOT WRITE ON THIS QUIZ!

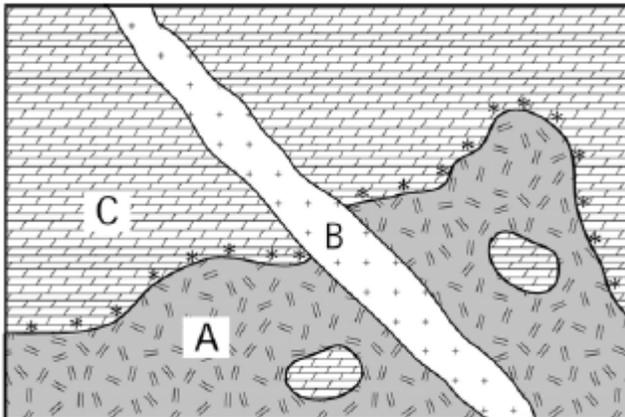
Relative Dating and Stratigraphic Principles Quiz

TEST NO A

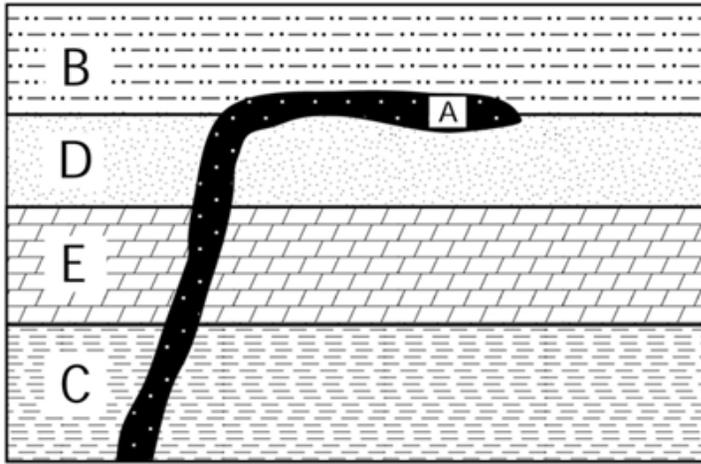
Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

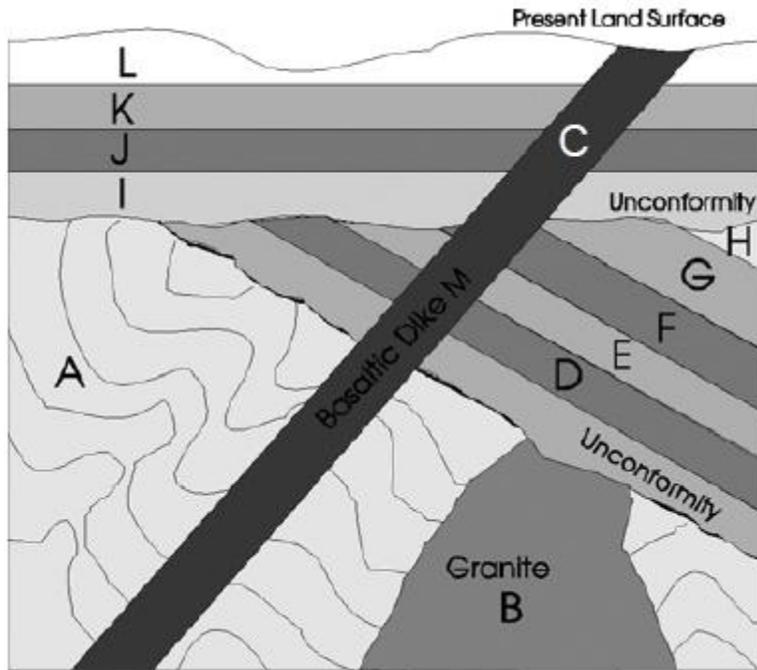
1. If we see a layer of sedimentary rock that has a fault cutting through it as well as a dike that cuts through both the bed and the fault, we can use the principle of cross-cutting relationships to infer:
 - a. the sedimentary rock layer formed first, then the dike, then the fault
 - b. the fault formed first, then the sedimentary rock layer, then the dike
 - c. the sedimentary rock layer formed first, then the fault, then the dike
 - d. no age sequence can be inferred from this information
 - e. the fault formed first, then the dike, then the sedimentary rock layer
2. A rock body that contains fragments of another rock body must be older than the fragments of the rock it contains describes the principle of -
 - a. original horizontality
 - b. fossil succession
 - c. inclusion
 - d. cross-cutting relationships
 - e. superposition



3. What is the correct sequence of events, from earliest to most recent?
 - a. C formed through sedimentation, A intruded upon C, B cut across both A and C.
 - b. C Formed through sedimentation, B cut across C, and A formed through the intrusion of magma.
 - c. layer A formed from inclusion, B cut across A, and C was formed by sedimentation.
 - d. All three rock layers formed at the same time.
 - e. B formed through sedimentation, followed by C, and A - also through sedimentation.
4. Which two stratigraphic principles are demonstrated in the geologic column shown above?
 - a. inclusion, and original horizontality
 - b. lateral continuity, and faunal succession
 - c. superposition, and cross-cutting relationships
 - d. original horizontality, and superposition
 - e. cross-cutting relationships, and inclusion



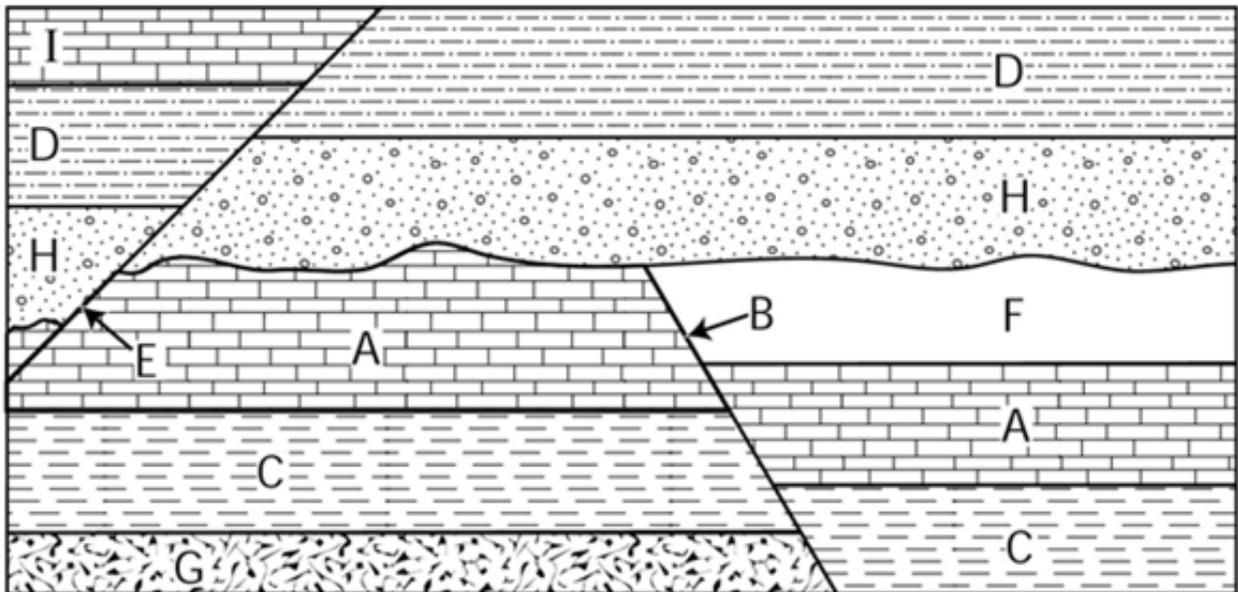
5. Which two stratigraphic principles can be used to determine the relative order of the formation of the rock layers shown in the geologic column above?
- a. cross-cutting relationships, and superposition
 - b. Superposition and original horizontality
 - c. inclusion, and cross-cutting relationships
 - d. original horizontality, and inclusion
 - e. faunal succession and cross-cutting relationships
6. Which of the following answer choices correctly describes the age (from youngest to oldest) of the strata in the diagram above?
- a. C, E, D, B, A
 - b. A, B, C, D, E
 - c. B, E, C, A, D
 - d. A, B, D, E, C
 - e. B, A, D, B, O, Y



7. Study the cross-section above. Which of the following choices represent the *oldest* rock layer?
 - a. A
 - b. B
 - c. C
 - d. D
 - e. E
8. Study the cross-section above. Which of the following choices represent the *most recent* rock layer?
 - a. L
 - b. K
 - c. A
 - d. C
 - e. B
9. Study the cross section above. Which of the following is the *most likely* cause of the both unconformity between layers A, B, and D, and the unevenness of the present land surface?
 - a. tilting
 - b. eruption
 - c. effects of heat and pressure
 - d. erosion
10. "A fault is always younger than the rock it cuts through" defines the:

| | |
|---|--|
| a. Principle of Cross-Cutting Relationships | d. Principle of Lateral Continuity |
| b. Principle of Fossil Succession | e. Principle of Original Horizontality |
| c. Principle of inclusion | |

11. If we see a sedimentary bed (rock layer) that has a dike cutting through it as well as a fault that cuts through both the bed and the dike, we can use the principle of cross-cutting relationships to infer:
- the bed formed first, then the dike, then the fault
 - the bed formed first, then the fault, then the dike
 - the fault formed first, then the bed, then the dike
 - no age sequence can be inferred from this information
 - the dike formed first, then the bed, then the fault
12. In stratigraphy, the principle of superposition states that:
- a sedimentary bed is younger than the bed above it and older than the bed below it
 - all sedimentary beds start off being horizontal
 - all sedimentary beds are separated by bedding planes
 - a sedimentary bed must be older than any feature that cuts through it or disrupts it
 - a sedimentary bed is older than the bed above it and younger than the bed below it
13. Relative dating is -
- Using radioactive isotopes to date rock layers
 - Determining the numerical age of a geological event
 - Going to the movies with your cousin
 - Determining the order or sequence in which geologic events took place



14. Which choice represents the oldest and most recent (respectively) features in the geologic column shown above?
- E and G
 - I and G
 - G and E
 - G and I
 - B and E
15. Consider rock layers C, A, F, and fault B in the diagram of the geologic column shown above. Which event occurred most recently?
- layer A formed through the process of sedimentation
 - Fault C cut through layers A, C, and B
 - Layer C formed through the process of intrusion.
 - Layer F was deposited on layer A
 - Fault B cut through layers F, A, and C

