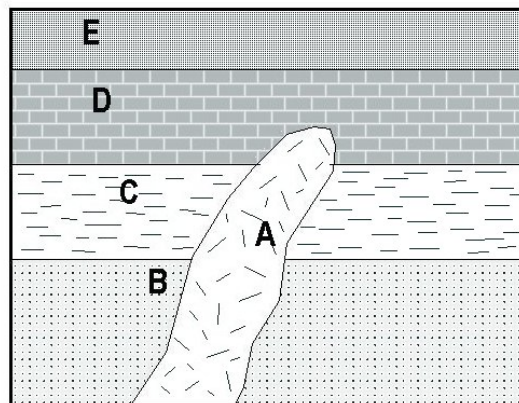


# Relative and Absolute Dating Quiz

- Which of the following would be considered a catastrophic event or process?
  - Asteroid collides with earth and causes worldwide change
  - Weathering breaks down a mountain over time
  - Compressional forces from plate tectonics cause folding in a sedimentary rock.
  - All of the above are catastrophic events.
- The Danish man who was the father of stratigraphy (rock layer relative dating) was
  - Isaac Newton
  - Nicolaus Steno
  - Charles Darwin
  - Baron George Cuvier
- Which of these describes the history of earth that we have evidence for?
  - Earth's history is very short and we have a lot of details about all the parts from formation until now
  - The History of Earth has some gaps in our understanding, and it's very long, with most of the events that we know of happening towards the end of the story
  - Earth's history is very long, but we have plenty of details from all parts of it
  - Earth's history is very long with a very regular pattern of events that occurred in a predictable pattern
- Which of the following accurately tells the theory we use to explain Earth's history?
  - Gradualism only shaped the earth
  - Catastrophism only shaped the earth
  - Neptunism shaped the earth
  - Both gradualism and catastrophism have shaped the earth at different points

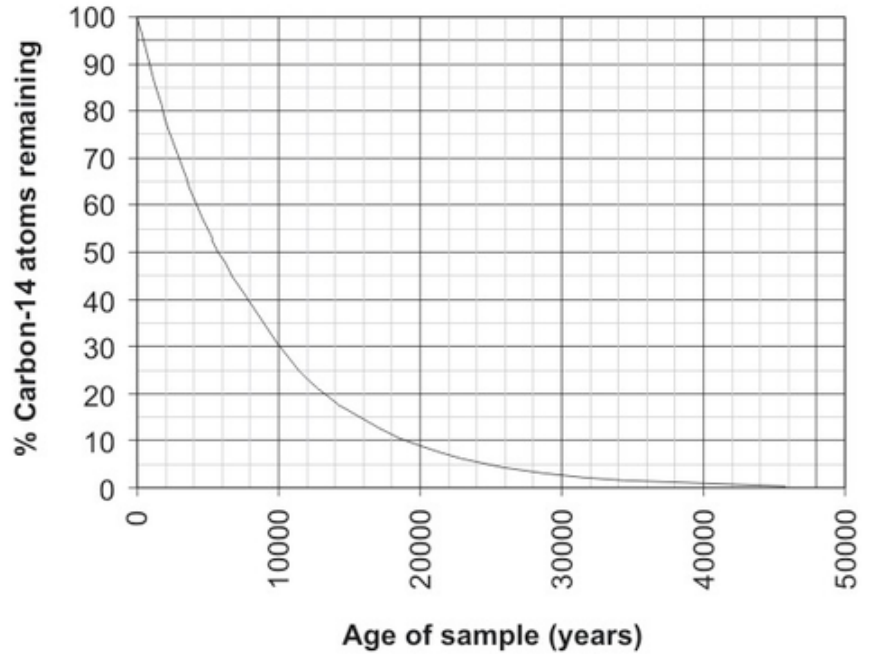
5. Choose the correct order of relative ages for the rock layers to the right, starting with the youngest, and finishing with the oldest layer.

- A, B, C, D, E
- E, D, C, B, A
- A, B, C, E, D
- E, A, D, C, B



- In the diagram above, which principle allows you to determine which rock layers are older than layer A?
  - Principle of Superposition
  - Principle of Faunal Succession
  - Principle of original horizontality
  - Principle of Cross-cutting
- In the diagram above, which principle allows you to determine whether layers E, D, C, or B is oldest?
  - Principle of Superposition
  - Principle of Faunal Succession
  - Principle of original horizontality
  - Principle of Cross-cutting

### Decay of Carbon-14



8. Using the diagram to the right, what is the approximate half-life of Carbon-14?

- a) 2,000 years
- b) 6,000 years
- c) 10,000 years
- d) 25,000 years

9. A scientist finds a fossil tusk from a mammoth and analyzes it to see how old it is. He finds that there is approximately 5% of its original Carbon-14 left. Using the diagram to the right, approximately how old is the object?

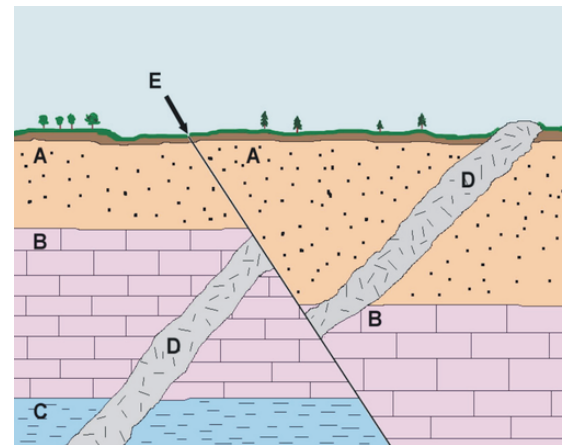
- a) 6,000 years old
- b) 14,000 years old
- c) 24,000 years old
- d) 60,000 years old

10. What percentage of Carbon-14 would be left in a sample that was approximately 12,000 years old?

- a) 25%
- b) 18%
- c) 18.5 %
- d) 99%

11. Which of the following correctly orders the events and rock layers from oldest to youngest?

- a) EBADC
- b) CDABE
- c) CBADE
- d) CBAED



12. The diagram below labels 6 events that have occurred in order to this geologic area. (Some of the rock layers have been grouped together, e.g. the rock layers in 1 and 5). Please tell the story of these 6 geologic events in order, ending with event 6 and what is occurring to the rocks in 5 today. You may want to number the events 1-6 in a list format (6 points).

