

Absolute dating rock layers – quiz

Test your knowledge of absolute dating methods for the layers of rock in a cliff. Absolute dating methods give rocks an actual date or a date range in numbers of years. The method you choose will depend on the material present in each rock. We've numbered the rock layers 1–6. Layer 1 is the oldest.

If you are not sure about which method to choose, use the interactive [Absolute dating methods](#) to find handy clues about each of the methods.

Quiz

Layer 1: Mudstone – sediments laid down in deep water. Fossils include the belemnite *Belemnopsis aucklandica*.

Which dating method is best for rocks with fossils in them?

- Radiocarbon dating
- Fission track dating
- Optically stimulated luminescence (OSL)
- Fossil correlation



Layer 2: Mudstone – sediments laid down in deep water. Fossils include *Astraea* (circular-saw shell).

Which dating method is best for rocks with fossils in them?

- Radiocarbon dating
- Fission track dating
- Optically stimulated luminescence (OSL)
- Fossil correlation



Layer 3: A thin layer of tephra – a rock made of the ash from a volcanic eruption.

Which dating method is best for volcanic ash containing crystals of zircon?

- Radiocarbon dating
- Fission track dating
- Optically stimulated luminescence (OSL)
- Fossil correlation



Layer 4: Mudstone – sediments laid down in deep water. Fossils include oysters and a large scallop.

Which dating method is best for rocks with fossils in them?

- Radiocarbon dating
- Fission track dating
- Optically stimulated luminescence (OSL)
- Fossil correlation



Layer 5: Loess – a rock made from very fine wind-blown dust. Contains feldspar crystals.

Which dating method is best for rocks with feldspar crystals buried in dust?

- Radiocarbon dating
- Fission track dating
- Optically stimulated luminescence (OSL)
- Fossil correlation



Layer 6: The remains of old dunes formed from wind-blown sand. Pieces of wood were found near the bottom of this young layer.

Which dating method is best for organic material?

- Radiocarbon dating
- Fission track dating
- Optically stimulated luminescence (OSL)
- Fossil correlation

