

Relative vs. Absolute Dating

Relative Dating

- Tells **which event or object is older or younger** compared to others.
- Does **not** give an exact age.
- Uses clues such as **rock layers (law of superposition)**, **fossils**, **faults**, and **cross-cutting relationships**.
- Example: *Layer A is older than Layer B.*

Absolute Dating

- Tells the **exact age** (or a very close estimate) of an object or event.
- Often measured in **years**.
- Uses methods such as **radiometric dating**, **tree rings**, or **ice cores**.
- Example: *This rock is 65 million years old.*

Part A: Identify the Type of Dating

1. A fossil is found in a rock layer below another fossil, so scientists conclude it is older.
☐ Relative Dating ☐ Absolute Dating
2. A volcanic rock is dated using potassium-argon and found to be 2.1 billion years old.
☐ Relative Dating ☐ Absolute Dating
3. Scientists determine a fault occurred after layers were formed because it cuts through them.
☐ Relative Dating ☐ Absolute Dating
4. A piece of charcoal from an ancient fire pit is dated to be 1,200 years old using carbon-14.
☐ Relative Dating ☐ Absolute Dating
5. A trilobite fossil is found in a lower rock layer than a dinosaur fossil.
☐ Relative Dating ☐ Absolute Dating
6. Tree rings are counted to determine that a tree is 85 years old.
☐ Relative Dating ☐ Absolute Dating
7. Scientists say Rock Layer X is younger than Rock Layer Y because it is on top.
☐ Relative Dating ☐ Absolute Dating
8. An igneous intrusion is determined to be younger than the sedimentary rock it cuts through.
☐ Relative Dating ☐ Absolute Dating
9. Ice cores show that a layer of ice formed approximately 10,000 years ago.
☐ Relative Dating ☐ Absolute Dating
10. An index fossil is used to compare the ages of rock layers in different locations.
☐ Relative Dating ☐ Absolute Dating