

# 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