

Notes #5: Fossils

I. How can scientists know what organisms were around long ago???

F O S S I L S

Fossils are used to determine:

1. The kinds of organisms that lived in the past
2. The behavior of the organisms
3. Ancient climates
4. Ancient geography

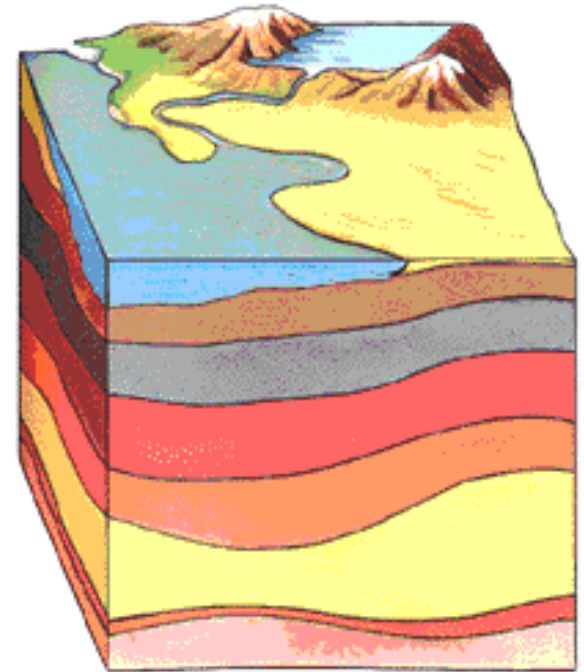


II. Where are fossils?

Most fossils are found in
sedimentary rock

This rock is mainly

found at the bottom of lakes,
streams, & oceans



III. How do we know how old a fossil is?

1. Relative Dating- uses layers of sediment
2. Radiometric dating- Uses isotopes



IV: What types of fossils have been found?

1. A trace fossil is the marking left by an animal and may include a footprint, trail, and/or a burrow.



2. Imprint fossil: A thin object, such as a leaf, that falls into sediment can leave an imprint when the sediment hardens into rock.



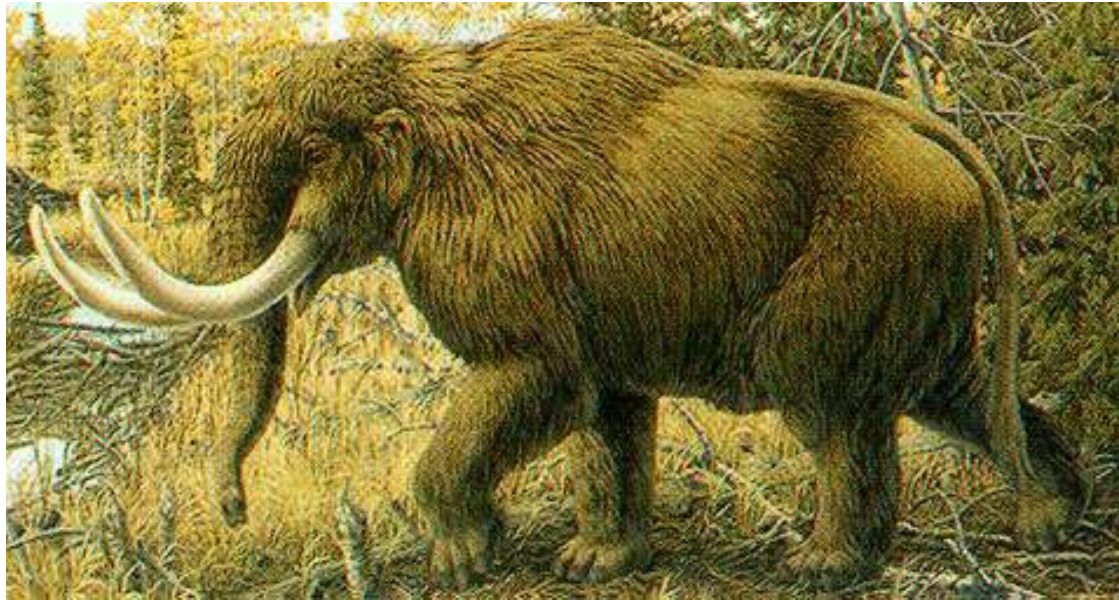
3. A mold forms when an organism is buried in sediment and then decays, leaving an empty space.



**4. An amber-
preserved fossil
is when an entire
organism was
quickly trapped
in tree sap that
hardened**



5. Frozen Fossils: An entire organism was quickly trapped in ice.



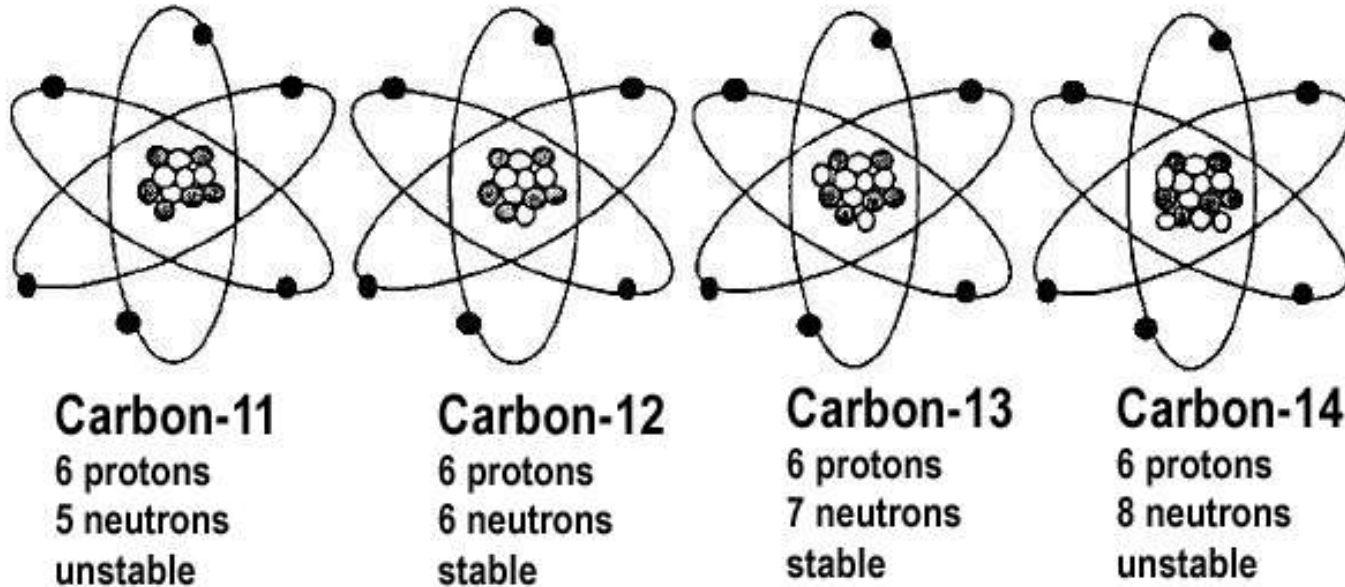
Example – a mammoth trapped in glacial ice

SUMMARY

What are the types of fossils and how do we know how old they are?

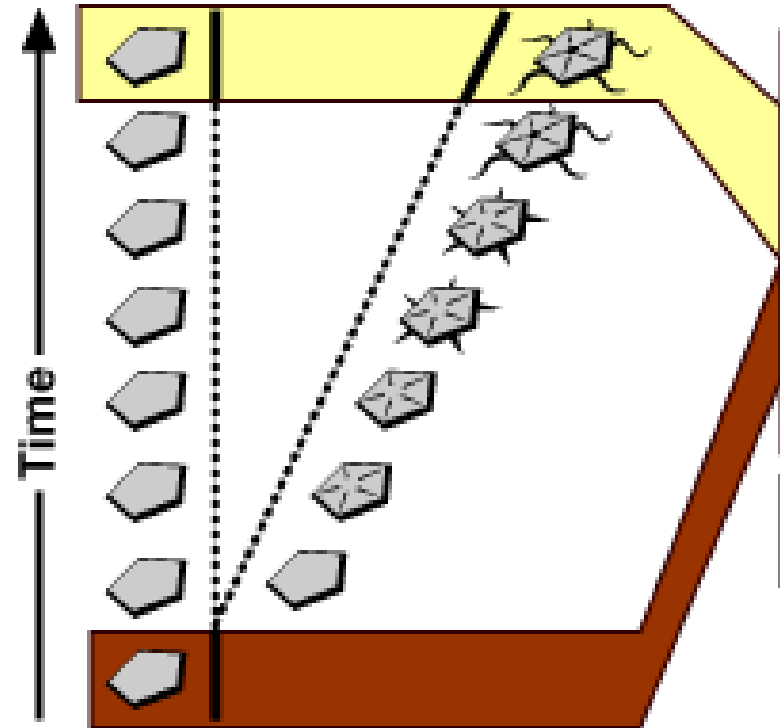
12. Radiometric dating

uses radioactive isotopes and their half life decay rate to get an exact age.



4. Gradualism

Organisms evolve in a process of slow and constant change



5. Punctuated Equilibrium

There were short bursts
of quick evolution

