

How to use the textbook

- **What's the best way to use the textbook?**
 - Don't – it will only confuse you more
 - Just before exams, carefully read all chapters assigned for each lecture (list is in syllabus)
 - Carefully read the whole chapter assigned for each lecture, but do it **BEFORE** the lecture.
 - Skim the chapter before lectures (e.g. as part of the online quizzes)
 - After lecture, carefully read only the sections we covered, comparing the presentation in lecture to the textbook's presentation

Study Minute

How to use the textbook

• Optimally:

- Rewrite your notes *at least* once a week
- Incorporate useful tidbits you gleaned from the textbook.
- If you do it right, you should be able to study **ONLY** from those “processed” notes, and not have to read the book anymore!

Monday, Apr. 15, 2004


The Fossil Record + Fossil Dating
Question: how do biologists know how old fossils are?

Definition = fossil = preserved remnant or impression of organism that lived in the past
e.g. leaf or bone
e.g. footprint

2 ways to date a fossil (tell how old it is)

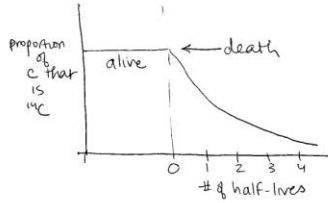
① relative dating = sequence in which fossils occur in rock strata

see p. 331



② absolute (radiometric) dating = uses known decay rates of radioactive atoms

see fig 17.8 on p. 331



^{14}C = 1 type of isotope of C

While alive: eats food, adding ^{14}C to tissues, in same amount as in atmosphere. Replaces ^{14}C as it decays

When it dies: no more food, but decay continues so amount of ^{14}C declines.
Decay rate = $\frac{1}{2}$ of ^{14}C every 5730 yr \rightarrow that's its half-life

Study Minute