

TOPIC 1. EARTH SYSTEMS & RESOURCES

BOOK NOTES - A) EARTH SCIENCE CONCEPTS

section titles
↓

Page 8 * Geologic Time Scale (pages 8, 83, 86)

pages covered

highlight bold terms

- Other Principles of Sustainability Come from the Social Sciences

There are 3 social science principles of sustainability

① **Full-cost pricing** - incorporates harmful environmental & health costs of producing & using goods & services into their market prices - allows people to make more informed choices

② **win-win solutions** - focus on solutions that will benefit the largest possible # of ppl & the environment
"I win - you win - Earth win"

③ **Responsibility to future generations** - accept responsibility to leave planet life-support systems in good conditions = sustainability

page 83 - How Does the Earth's life Change Over Time?

- Biological Evolution by Natural Selection Explains How Life Changes Over time

• **Fossils** = mineralized/petrified remnant of organisms
↳ these have "told" us most of what we know concerning Earth's long history

↳ fossils found in rock, mountaintops, glacial ice

↳ collection of all fossils = "fossil record" = uneven & incomplete (not all organisms form fossils; not all fossils have been found).

• **Biological Evolution** (evolution) = the process whereby the Earth's life changes ^{aka} over time through changes in the genes of populations of organisms in succeeding generations

all species evolved from a common ancestor