TEACH EVOLUTION SCIENCE, USING ENSIWEB

http://www.indiana.edu/~ensiweb

A Guided Tour

A. What's ENSI?

The NSF funded a series of summer institutes for Biology teachers, 1989 - 1994. This was followed by a series of SENSIs (satellite ENSIs), versions of the ENSI sessions, taught by specially trained ENSI teachers in their local areas, altogether reaching more than 800 teachers across the country.

The mission of ENSI was to empower biology teachers with insights, understanding, and materials to effectively and accurately teach evolution, and to teach the nature of science as a necessary part of this, all to serve as an effective vehicle to increase science literacy and address popular misconceptions about the nature of science and evolution.

ENSIweb was created as a working repository for the many excellent lessons, resources, philosophy and information generated by the ENSI/SENSI program, to be available to science teachers everywhere.

B. Overview of the Site: See the **ENSIWEB SITE MAP** (overpage)

C. The Heart of ENSIweb: Its many lessons (more than 50 so far, and growing)

The Nature of Science

Realm and Limits (natural phenomena, natural illusions the necessary uncertainty of science)
Basic Processes (hypothesis-building and testing; criteria for the best answers; inferences are ok)
Social Context
- Bias (gender, racial, socio-economic, cultural, religious, political, etc.)
- Collaboration (team efforts, publication and critiques of research)
- Attitudes and Assumptions

Evolution

Geological/Paleontological Patterns (including time-lines, dating, fossils)
Human Evolution Patterns
Classification & Relationships (cladistics, phylogeny.)
Adaptations, Contrivances & Imperfections
Variation & Natural Selection
Speciation
Macroevolution & Extinction

The Origin of Life (properly considered as a completely separate issue from evolution)

D. Other Resources:

Home Page: New additions to the site (lessons, etc.), books, articles, events, announcements, television, teacher training opportunities, resources. Usually updated monthly. Try the Search function... Scroll down through earlier announcements to get the flavor of recently added materials.

Teaching Unit Plans: Ideas and suggested strategies for context and sequence of lessons (be sure to look this section over very carefully, including its many on-site links).

Papers and Articles: A growing collection of articles providing a useful resource for teachers.

Resources: Books and Useful Web Links, annotated.

Talk to Us: Webmaster's offer to facilitate needs of teachers dealing with the topics of ENSI;
Provide high quality hard copy of selected items;
Respond to requests for information and/or suggestions for dealing with special problems

E. Other Topics and Courses (Besides Biology and Life Sciences) Where ENSI Lessons Would be Helpful:

1. **Any science class**, where the **nature of science** is to be properly explored.
2. **Earth Science, physcal science**, where **geological age dating and fossil studies** are explored.