

WHO IS ANTI-EVOLUTION?

1. Who is anti-evolution?

- a. Anti-evolutionists tend to call themselves creationists or intelligent design theorists. They accept much of evolution, but they repeatedly attack evolution. They are usually fundamentalists who literally interpret parts of the Bible
- b. **NOT many Christian and Jewish denominations; variable among Muslims, etc.**
not United Methodist, Roman Catholic, Episcopal, Prebyterian, American Jewish Congress
- c. **NOT the overwhelming majority (99%) of scientists**

2. What is evolution?

The proportion of different genetic traits changing over time (generations).

3. Isn't evolution just a theory?

- a. **So is e.g., atomic theory, Copernican theory** (the earth goes around the sun), theory of gravity. Theory as used formally by scientists is NOT a guess, but rather a body of related ideas.
- b. **You can measure evolution** in nature, the lab, the farm. (see references and web links below).

4. Why not teach intelligent design "theory" in science classes alongside evolution?

a. **Creationism and intelligent design "theory" are NOT science.**

Their "theory" basically boils down to "Some traits are very complicated so God(s) must have made them by some process other than evolution." Reasons that this does not count as a scientific theory include:

- 1) it's not true (scientists have shown how evolution can lead to complex traits),
- 2) it doesn't describe the alternative process; if God did not create by the process of evolution, HOW did s/he create, by what process? "God did it" or "by a miracle" is not a SCIENTIFIC explanation
- 3) in the scientific literature there are no data papers of original research that test intelligent design "theory," and
- 4) it introduces the supernatural, whereas science (like many fields, e.g., engineering, automechanics, etc.) is the study of the natural.

Creationists use the term creation science, but in court their OWN witnesses say it is NOT science (Berra 1990).

Teaching creationism is "religious advocacy" according to federal courts (Matsumura 1995, p. 9) and thus violates the separation of church and state.

b. **Creationism / intelligent design "theory" is not supported by**

(1) scientific evidence from physics, geology, biology, astronomy

(2) many religious groups (see 1b above). Many religious people strongly oppose creation "science" and intelligent design "theory" being taught in science classes and strongly support evolution. They point out that a literal interpretation of the Bible is not supported by the Bible itself, e.g., the order of creation is different in Genesis chpt 1 vs 2; grasshoppers (fossil and still living) have 6 not 4 legs (Lev. 11:20); bats are not a kind of bird (Lev. 11:13-19; Deut. 14:11-18), some verses say men must not cut their sideburns and say when it is okay to beat your slaves...

c. To be fair, would every group's creation story be taught in science class? What about

American Indians' creation stories? In which case, when will there be time for science to be taught?

5. Why not just avoid teaching evolution?

- a. Evolution is a major and important part of biology and has been extremely well-tested and supported.
- b. Understanding evolution has important practical applications, e.g., medicine, agriculture, biotechnology, conservation
- c. What is taught in science classes should be based on scientific evidence NOT religious belief

6. Can school districts require that evolution be taught?

Can they prohibit creationism and intelligent design “theory” from being taught in science classes in public schools?

Yes. Yes.

Courts have ruled that: Requiring teaching of evolution does NOT violate freedom of religion. Prohibiting the teaching of creationism does NOT violate free speech.

Web Links:

<http://niu.edu/biology/about/faculty/bking/evoexercises.htm> Plain English responses to misunderstandings about evolution.

http://evolution.berkeley.edu/evolibrary/article/evo_01 Easy: evolution and misconceptions about it

<http://www.talkorigins.org/> Good for more details, specific topics; very complete; some images and photos.

<http://www.anselm.edu/homepage/jpitolch/resevol.html> Links to evolution and creation sites.

<http://vuletic.com/hume/cefec/index.html> We go through some common misconceptions about science, especially evolution. This site has more: “Defenders guide to science and creationism”

http://www.religioustolerance.org/ev_denom.htm Various religions' (not just Christian) views on evolution.

<http://ncse.com/voices> Statements from many religious, science and education groups that support and or have no problem with evolution (also can be found by googling “Voices for Evolution”)