



# National Center for Science Education

Defending the Teaching of Evolution in the Public Schools

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## 12 Tips for Testifying at School Board Meetings

by *Eugenie C Scott*

**1. Show up, stand up, and speak up.** Elected school board officials respond to numbers, so try to get as many people as possible to attend the meeting—the school board must not think that opponents of evolution are the only voices in the community. Scatter yourself throughout the audience and applaud those on your side.

**2. Plan ahead.** There is usually little time available for testifying. Avoid redundancy and ensure that all of your essential points are made by deciding which group members will discuss which topics.

**3. Be civil.** You want to persuade, not bludgeon. Be friendly advisors, not hostile critics. Avoid personal attacks on the opposition.

**4. Say why you care.** Parents want their children to have the best possible education; teachers, as professionals, want to teach accepted state-of-the-art science; professors want their future students to be appropriately educated; scientists want to see their disciplines correctly presented; employers want to have scientifically literate employees; and so forth. If you have travelled from outside the community to speak at the meeting, briefly justify your presence.

**5. Define the controversy correctly.** It is not about whether or not God exists; it is not about whether or not God created the world. It is about the scientific evidence. And the scientific evidence clearly indicates that the universe changes over time, that the galaxies, solar systems, and planets of today have changed over time, that life on earth was different in the past, and that animals and plants today are descended from earlier forms and are different from them.

**6. Watch your words.** Be careful using the words *belief*, *theory*, and *fact*. *Belief* is frequently associated with faith, so do not say that you believe in evolution, say instead that you *accept* evolution—as the best scientific explanation for the facts of astronomy, biology, geology, and other areas of science. Explain that in science *theories* are not guesses or hunches but *explanations*: evolution is the theory that *explains* the facts, including the fossil record, the geological strata, and the genealogical relationships among the species. *Fact* frequently connotes certainty and dogmatism, so do not say that evolution is a *fact* without explaining that you mean only that it is overwhelmingly supported by the scientific evidence.

**7. Challenge creationist doublespeak.** After teaching "creation-science" in the public schools was ruled unconstitutional, creationists tried to rescue it by renaming it: abrupt appearance theory, initial complexity theory, and, recently, intelligent design theory. Also popular is the idea that students should be taught, in addition to evolution, the "evidence against evolution"—which turns out to be creation science all over again. It is harder to counter these strategies because they are less obviously religious. In your testimony, try to demonstrate the parallels between old-fashioned creation science and new-fangled intelligent design theory.

**8. Highlight the scientific consensus.** Cite the statements in support of evolution from scientific organizations reprinted in NCSE's *Voices for Evolution*. Also cite the National Academy of Science's *Science and Creationism: A View from the National Academy of Sciences*. Find scientists in your area to testify that creationism (or intelligent design theory, abrupt appearance theory, and so forth) is bad science.

**9. Call on the clergy.** Pro-evolution clergy are essential to refuting the idea that evolution is incompatible with faith. *Voices for Evolution* contains useful statements from mainline religious organizations (Catholic, Protestant, Jewish) affirming that evolution is compatible with their theology. If no member of the clergy is available to testify, be sure to have someone do so—*the religious issue must be addressed in order to resolve the controversy successfully*.

**10. Rebut the "fairness" argument.** If the opposition argues that it is only fair to teach creationism if evolution is taught, cite the statements from educational organizations in *Voices for Evolution*—the succinct statement from the National Science Supervisors Association (p. S-6 in the Addendum) is especially useful. Teachers can testify on the following points:

\* Science is not democratic. We do not decide what to teach based on the desires of pressure groups. We teach what has stood the test of time and been accepted by the scientific community: evolution, not creationism.

\* There is precious little time in the curriculum for science already. Why waste it by teaching ideas, like creationism, that have no scientific validity?

\* Not teaching students about evolution leaves them unprepared for college. Evolution is presented matter-of-factly at every decent college and university in the United States, including religious institutions such as Brigham Young, Baylor, and Notre Dame.

**11. Mention the legal issues.** In 1987, the United States Supreme Court held in *Edwards v. Aguillard* (482 U.S. 578) that it is unconstitutional to require the teaching of creation science. In subsequent rulings, district courts held that individual teachers may not advocate creation science (for example, *Webster v. New Lenox School District* #122, 917 F. 2d. 1004; *John E. Pelozo v. Capistrano Unified School District*, 37 F. 3d. 517). Gently remind the school board that including creationism in the science curriculum is likely to provoke a lawsuit—and lawsuits are expensive.

**12. Stay in touch.** Keep NCSE informed about your situation. We are here to help—and we love to spread the good news about ideas that work!

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