

RELIGION IN THE PUBLIC SCHOOLS

RELIGIOUS DOCTRINE IN THE SCIENCE CLASSROOM

Religious explanations for humankind, the diversity of life on earth, or the universe, including Creationism, Creation Science, or Intelligent Design may not be taught as science under any circumstances. Evolution - the only scientific explanation for the history of life on earth - must only be taught as scientific fact.

SPECIFIC ISSUES & QUESTIONS

What is Science? According to the National Academy of Sciences (NAS), science is limited to explanations “that can only be inferred from confirmable data — the results obtained through observations and experiments that can be substantiated by other scientists.” This process is called the scientific method. Explanations that cannot be based on empirical evidence resulting from observation and experiment are not a part of science.

What is Evolution? Evolution, also called “descent with modification,” is the only scientific explanation for the history of life on earth. It states that over time, human beings and other species have evolved through processes including natural selection. This scientific theory provides understanding of the immense “complexity, diversity and activity” of life on earth. The term “scientific theory” does not mean the same thing to scientists as it does to the layman. According to the NAS, it refers not to a “guess’ or ‘hunch’,” but rather to “explanations of natural phenomena” based on “testable observations and hypotheses.” And scientific fact can mean a theory that “has been tested or observed so many times that there is no longer a compelling reason to keep testing or looking for examples.” In this sense, evolution is a fact. It has overwhelming support from the scientific community and is based on compelling evidence from “the fossil record, genetic information, the distribution of plants and animals, and similarities across species of anatomy and development.” As a result, “[s]cientists no longer question whether descent with modification occurred because the evidence supporting the idea is so strong.”

What are Creationism, Creation Science and Intelligent Design? Creationism is a religious belief that God or a divine being created the universe or humankind. Typically, creationists subscribe to the account of creation presented in the Bible’s Book of Genesis. Creation science attempts to prove that God created the world by refuting evolution and offering interpretations of scientific data to “prove” the creation account in Genesis.

The idea known as Intelligent Design is not specifically based on the Bible's account of creation, though it also is a religious or supernatural explanation for life on earth. Intelligent Design states that – due to the very complexity and organization of life and the failure of science to explain it all completely – the intervention of an intelligent designer was a critical component of life on earth. For many of its adherents, the intelligent designer is God or a supreme being. In 2005, a court specifically determined that Intelligent Design is a form of Creationism, and other courts have found that Intelligent Design is religious in nature.¹

According to the NAS, Intelligent Design is not science because it cannot be tested by the scientific method. Intelligent Design does “not offer hypotheses that are subject to change in light of new data, new interpretations, or demonstrations of error.” Rather, the concept makes observable data inferior to doctrine. Intelligent Design reverses the scientific process by setting forth an assumed conclusion — an intelligent designer is responsible for the universe — and only seeking evidence in support of this conclusion. In contrast, a scientific theory “always remains subject to the possibility of rejection or modification in light of new knowledge.”

May a public school science teacher's right to teach Evolution be restricted? No. The United States Supreme Court has determined that it is unconstitutional to restrict an educator's right to teach Evolution.²

May a science teacher who teaches Evolution also teach Creationism or Intelligent Design? No. Educators may not teach, as fact, religious explanations for humankind or the history of life on earth. In science classes, educators must present only scientific explanations for life on earth and scientific critiques of Evolution. Furthermore, schools may not refuse to teach Evolution in an effort to avoid offending religious individuals. The United States Supreme Court has held that it is unconstitutional to require educators who teach Evolution also to teach Creationism.³ Furthermore, a U.S. District court has held that it is unconstitutional to teach Intelligent Design as science.⁴

In addition, disclaimers regarding the theory of Evolution as the only explanation for the development of humankind have been found to be unconstitutional. In *Freiler v. Tangipahoa Parish Board of Education*, 185 F. 3d 337 (5th Cir 1999), cert. denied, 530 U. S. 1251 (2000), the court struck down a school board rule requiring teachers to read a disclaimer that said that the teaching of Evolution is “not intended to influence or dissuade the Biblical version of Creation or any other concept.”

¹ *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005); See *Ass'n of Christian Sch. Int'l v. Stearns*, 679 F. Supp. 2d 1083 (C.D. Cal. 2008), aff'd 362 Fed. Appx. 640 (9th Cir. 2010), cert. denied, 131 S. Ct. 456 (2010).

² *Epperson v. Arkansas*, 393 U.S. 97 (1968).

³ *Aguillard v. Edwards*, 765 F.2d 1251 (5th Cir.), aff'd, 482 U.S. 578 (1987).

⁴ *Kitzmiller*, 400 F. Supp. 2d 707.

May Creationism or Intelligent Design ever be discussed in the public schools?

Yes. Human understanding is not limited to science. Throughout our history we have also advanced our understanding of ourselves and the world around us by developing religion, philosophy and myth. These subjects have traditionally struggled with questions that raise matters beyond human perception and intelligence. Creationism and Intelligent design fit squarely within this category of study; they seek to explain the mysteries of life that transcend human comprehension. Because Creationism and Intelligent Design have religious and spiritual implications, they are ideas that should be seriously discussed and considered in houses of worship, private religious schools, and in the home. In the proper context, they also warrant discussion in the public schools. But context is crucial so as not to undermine the foundations of a solid science education or to promote religious doctrine inappropriately in public schools. Thus, Creationism or Intelligent design may well be proper subjects of public school study in comparative religion, philosophy and anthropology classes, which address humankind's various attempts to explain the origins of life and the universe.

Do scientific integrity and equity require that we teach a competing theory of human origins? Some have argued that equity, intellectual honesty and scientific integrity require the teaching of Creationism, Creation Science or Intelligent Design as differing and alternative point of views. However, these concepts may not be taught as a response to the theory of Evolution. Indeed, Creationism (or "creation science") or Intelligent Design do not meet the tenets of science as scientists use the term.⁵ Moreover, it is not a matter of equity to teach a religious point of view in a public school classroom with taxpayer dollars.

SAMPLE SCENARIOS & SITUATIONS

Parent Asks Biology Teacher to Stop Teaching Evolution or Include Creationism

Mrs. Anderson teaches a seventh grade biology class which includes a section on Darwinism and Evolution. Jenny Hunter is a student in Mrs. Anderson's class. Jenny's mother was helping Jenny with her homework one night when she realized that Jenny was studying Evolution, which goes against the family's belief in divine creation. Jenny's mother asked Mrs. Anderson to either stop teaching Evolution or to also include a section on Creationism, Creation Science or Intelligent Design in her biology class.

How should Mrs. Anderson respond?

Mrs. Anderson should continue to teach Evolution and should not teach any religious explanation for humankind. While Jenny should be expected to learn and understand the theory of Evolution, she should not feel compelled to agree with the theory. Mrs. Anderson should make sure Jenny is not ridiculed because she believes in divine creation.

⁵ *Kitzmiller*, 400 F. Supp. 2d 707; *McLean v. Arkansas Board of Education*, 529 F. Supp. 1255 (E.D. Ark. 1982) (cited favorably in *Aguillard*, 482 U.S. 578).

Parent Group Petitioners School Board for Evolution Disclaimer in 10th Grade Biology Textbook

At Belmer Public High School the theory of Evolution is taught in 10th grade biology class. The textbook used for the class devotes a chapter to Evolution. Prior to the new school year, a group of parents whose children will be going into 10th grade and taking biology in the coming year petition the school board to insert a disclaimer into the biology textbook stating: "Evolution is a theory, not a fact, regarding the origins of humankind and the history of life on Earth. This material should be approached with an open mind, carefully reviewed, and critically considered in light of other theories such as Intelligent Design."

What Should the School Board Do?

The school board should deny the parents' petition. As Intelligent Design is religious in nature and has found to be a form of Creationism, the proposed disclaimer would be constitutionally impermissible.

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