

Intelligent Design: It's Not Science

In the 21st Century, high-quality education is the key to success for our children and our nation. The dependence of future success on accessibility to a quality education means that parents, educators and others must carefully consider controversies involving the academic scholarship that our children are taught. One of these recent controversies is the teaching of intelligent design in our nation's public schools. Here are some answers to the central questions surrounding the issue of intelligent design.

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 Intelligent Design?

According to Michael J. Behe - one of the leading proponents of intelligent design - "Darwin's mechanism for evolution does not explain much of what is seen under a microscope. Cells are simply too complex to have evolved randomly; intelligence was required to produce them." Thus, the idea of intelligent design is 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.

Why Is Evolution an Essential Component of Science Education?

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's the Controversy about Teaching Intelligent Design in Public Schools?

Many who believe in intelligent design want to teach this idea as science - either alongside the scientific theory of evolution or in place of it. This effort has been opposed by concerned parents, teachers, administrators, community leaders, politicians and scientists because intelligent design is not science and

teaching it as such undermines science education. The push to teach intelligent design in the science classroom has resulted in lawsuits, and has created tremendous tension within local communities. Trying to circumvent controversy, some public school administrators have even resorted to discouraging their teachers from providing instruction on evolution - and teachers themselves have chosen either to minimize its instruction or to avoid it altogether.

Does Teaching Intelligent Design as Science Undermine the Public School Science Curriculum?

Yes - the scientific method is the basis for science literacy. It teaches students how to observe data, perform experiments and form scientific theories - the fundamentals of science. Students need these essential skills to succeed in advanced science classes, at university and medical school, and in all science-based careers. Intelligent design is not a part of science - it cannot be confirmed or denied by the scientific method. Teaching it as science confuses and misinforms students about the scientific method, thereby depriving them of a high-quality science education and possible career options.

Is it Constitutional to Teach Intelligent Design in the Public School Science Classroom?

No - After a six-week trial and in a highly detailed decision, a federal court in 2005 determined that intelligent design is not science, but rather a form of creationism. See *Kitzmiller v. Dover Area Sch. Dist.*, 400 F. Supp. 2d 707 (M.D. Pa. 2005). Based on this factual determination, the court ruled that teaching intelligent design in public-school science class violates the First Amendment's Establishment Clause, which mandates separation of church and state. Furthermore, in *Aguillard v. Edwards* the U.S. Supreme Court decided that requiring public school science instructors to teach creationism violated the Establishment Clause. See 482 U.S. 578 (1987). Because intelligent design is a form of creationism, teaching it in the science classroom would also run afoul of this Supreme Court decision, which is binding in all 50 states.

Are There Appropriate Settings for Teaching Intelligent Design?

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. Intelligent design fits squarely within this category of study; it seeks to explain the mysteries of life that transcend human comprehension. Because intelligent design has spiritual and religious implications, it is an idea that may be seriously discussed and considered in houses of worship, private religious schools, and in the home. In the proper context, it also warrants discussion in the public schools. But context is crucial so as not to undermine the foundations of a solid science education for our children or to promote religious doctrine inappropriately in public schools. Thus, the concept of intelligent design may well be a proper subject of public school study in non-science classes such as comparative religion, philosophy or anthropology, which address humankind's various non-scientific attempts to explain the origins of life and the universe.

Did Evolution or Darwinism lead to the Holocaust?

Some people argue that without Darwin, there would have been no Hitler or Holocaust or, at least, that evolution was somehow pivotal to Hitler's thinking. Typically, this argument is offered by those who wish

to score political points in the debate over the teaching of intelligent design in the classroom.

Such oversimplification trivializes the many complex factors that led to the mass extermination of European Jewry. Hitler did not need Darwin or evolution to devise his heinous plan to exterminate the Jewish people, and Darwin and evolutionary theory cannot explain Hitler's genocidal madness. Moreover, anti-Semitism existed long before Darwin ever wrote a word.

A number of authors have invoked Hannah Arendt to defend this position. However, as Arendt wrote in the *Origins of Totalitarianism*, Darwin's theory "... could be used for, as well as against, race discrimination." *Origins* at 178 (Harvest Books, 1973).

Conclusion

Our children must have access to the best scholarship in a broad spectrum of subjects - literature, history, mathematics, the arts, science, foreign languages, comparative religion and philosophy. Teaching ideas, concepts and information that misinform students in any of these areas only undermines their education and future achievement. Based on decades of study and compelling evidence, evolution is the only scientific explanation for the appearance of humankind and the broad variety of life on earth. Other explanations such as intelligent design and the profound questions raised by them may be a part of our children's education within the non-science curriculum and outside the public school setting. But in the science classroom, teachers must present the best scientific scholarship to ensure that no door is closed to our children's successful future.

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