

## Oklahomans for Excellence in

## Science Education, Inc.

is a non-profit educational organization that promotes the education of the public about the methods and values of science and advocates excellence in the science curriculum. Activities include participation in educational and scientific organization conferences, workshops for science teachers, operation of a speakers' bureau, and related activities.

The current controversy about climate change includes much anti-science content and bears some resemblance to the coverage of evolution in the popular press. Oklahomans for Excellence in Science Education decided to include climate change as an emphasis in addition to evolution and other science subjects.



**The formation of OESE** was prompted by the attempts in the Oklahoma State Textbook Committee in 1999 to diminish the teaching of evolution by the introduction of creationist textbook disclaimers to be inserted into any textbook used in public schools that discussed evolution. There have been bills introduced almost every year since 1999 for legislation that would allow teaching creationism in science courses; OESE has opposed all such attempts.

## OU Department of Biology

### Statement on Evolution

Science is a powerful way of generating new knowledge about the natural world through observation and hypothesis testing. If our children are to tackle the increasingly complex biological challenges facing society, both medical and environmental, they need the best possible science education. Sadly, even as Oklahoma seeks new economic opportunities in biotechnology, we are hobbled by some of the weakest science standards in the nation.

Biological evolution, defined as genetic change in species over time, is an observable fact... Furthermore, the evidence based on facts from molecular biology and geology clearly indicates that all living species, including our own, share a common ancestor that is over 3 billion years old.

In science, not all explanations are equal. By the rigorous criteria of science, supernatural mechanisms, including Intelligent Design creationism, offer no scientific alternative to evolution because they do not generate testable predictions about how species change or diversify.

We thus oppose any attempt to exclude evolution from the science curricula or to redefine science to include the supernatural. In this, we stand with our colleagues in the National Academy of Sciences, the American Association for the Advancement of Science, and other scientific organizations. We urge all citizens to learn about science and work to ensure that our children receive a first-class science education.

OKLAHOMANS FOR EXCELLENCE IN SCIENCE EDUCATION



**Oklahomans For Excellence In Science Education  
(OESE)**

PO BOX 721454,  
NORMAN, OK 73070.

[www.oklascience.org](http://www.oklascience.org)

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## Reasons to Support Teaching Evolution in Oklahoma Schools:

- There is no controversy whatsoever among scientists about whether evolution has occurred. Most major professional scientific societies, including the National Academy of Sciences USA and the American Association for the Advancement of Science, have issued official statements explicitly supporting the teaching of evolution.
- It is absolutely true that the explanation of how evolution occurs is a theory. But contrary to popular usage, a scientific theory is the pinnacle of explanatory power and the most well-supported of all scientific ideas. Evolution has as much or more supporting evidence as other theories including: germ theory of disease, atomic theory of matter, genetic theory of inheritance, quantum theory, theory of gravity, and plate tectonic theory (continental drift). That evolution has occurred is an established fact.
- Opponents of evolution are either unfamiliar with the scientific evidence or willfully ignore it. Ignorance or denial should not form the basis of scientific instruction.
- Science is not a threat to faith or spirituality. Clergy of all of the world's major religions, including most forms of Christianity, have issued official statements clearly indicating religion and evolution are not incompatible.
- So-called alternatives to evolution are not scientific. This is not an issue of fairness. None of these, including "intelligent-design", have any credible supporting evidence nor can they be tested via the methods of science.
- Evolutionary principles are increasingly important in human health (e.g., antibiotic resistance, emerging diseases, function of the human genome) and agriculture (e.g., crop and livestock improvement), among many other disciplines.
- Our students should study hard and keep an open mind. Healthy skepticism is at the core of a good scientific education. But this does not mean that false or unscientific ideas should be taught in science classrooms or that we should pretend to know less than we do about the natural history of our planet.
- Science courses are, by definition, about science—only valid science should be taught in science classrooms.

## TEACHERS' EVOLUTION WORKSHOP

### Evolution in Oklahoma and Texas Science Classes

**Who:** High school science teachers and college majors in science education from Oklahoma and northern Texas

**Where:** The University of Oklahoma Biological Station on Lake Texoma, OK

#### Topics:

- The nature of science and public misconceptions about science
- Understanding evolution, climate change, and the evidence.
- Curriculum development and state standards
- Seeing evolution in nature
- Teaching resources for the nature of science, evolution, climate change, etc.
- Opportunities to share favorite lesson plans and classroom experiences
- Answering questions and dealing with classroom and community controversy
- Legislation and the political landscape.



#### Participants may earn professional development credit.

All materials (including two books on teaching evolution), accommodations, and meals at the UOBS are included with registration.

The workshop is usually held in the fall. Early registration is advised as places are limited to 30 registrants.

Further information, registration forms and payment information are on-line at:

**[www.oklascience.org/teachers.pdf](http://www.oklascience.org/teachers.pdf)  
and  
[www.ou.edu/uobs/teachers.htm](http://www.ou.edu/uobs/teachers.htm)**

**Presented by** Oklahomans for Excellence in Science Education, the National Science Foundation (NSF-0845314), and the University of Oklahoma Biological Station.

## Join OESE

Memberships are available for \$10.

Name: \_\_\_\_\_

Mailing address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Email address: \_\_\_\_\_

#### Optional information

Occupation: \_\_\_\_\_

Relevant training or experience: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Specific interests related to science/education and additional comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Make your check or money order for \$10 payable to **Oklahomans For Excellence In Science Education (OESE)**

#### Send it to:

OESE  
PO BOX 721454,  
NORMAN, OK 73070.

**Alternatively**, you can give your application with a check or cash to an OESE officer in person at a meeting or event. Donation is tax-deductible as allowable by law. Please consult a tax professional regarding your particular tax situation. If you are not already subscribed, and with your permission, we will add you to the *Oklahoma Evolution/Climate Change List Serve*—a means of notifying you of news, events, meetings, calls to action, etc. Subscribers may unsubscribe at any time. Any information you provide will never be made public.

**Thank you for supporting OESE!**