

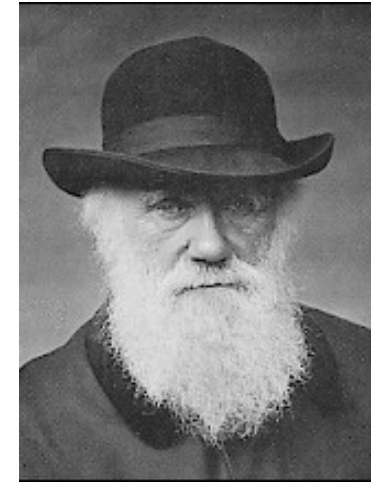
# Evolution: Be An Advocate

## A Guide for Promoting Evolution Education



The Federation of American Societies for Experimental Biology

# What is Evolution?



*Charles Darwin*

- Process by which the diversity of life on earth developed over time from common ancestors
- Over time, the genetic makeup of a population changes, resulting in changes in the distribution of characteristics in that population
- These changes result in differences within species (microevolution) as well as the emergence of new species (macroevolution)

# Evolution is Science!

- Evolution is one of the most thoroughly studied concepts in the biological sciences
- Evolution is based on volumes of scientific evidence obtained through experimentation and observation of the natural world
- Evolutionary principles have been rigorously tested using the scientific method
- Evolution is accepted by the scientific community as the only scientific account for the diversity of species

# So What's The Problem?

Assaults on teaching evolution are still taking place over 80 years after the Scopes trial!



Clarence Darrow cross-examines William Jennings Bryant in Dayton, Tennessee during the 1925 "Scopes Monkey Trial" that tested a law that prohibited teaching evolution.



# Challenges to Evolution Education Take Many Forms

- Teaching **creationism**, including **intelligent design**, as science
- Censoring teachers who teach evolution
- Mandating the **critical analysis** of evolution, but not of other scientific concepts
- Removing or downplaying evolution in textbooks and in science education standards
- Proposals to “**teach the controversy**” surrounding evolution

# Challenges to Evolution Education Take Many Forms

This textbook contains material on evolution. Evolution is a theory, not a fact, regarding the origin of living things. This material should be approached with an open mind, studied carefully, and critically considered.

*Approved by  
Cobb County Board of Education  
Thursday, March 28, 2002*

Textbook disclaimers – evolution is “just a theory”

# What Can You Do?

- Gather information
- Write to your local newspapers and policy makers
- Serve as a resource for science teachers
- Testify at school board meetings
- Work with your policy makers

# Effective Advocacy Starts with Informed Advocates

Scientific and educational organizations have gathered a wealth of resources to help you make the case for teaching evolution and to respond to anti-evolution proponents. Take advantage of this information and make sure you understand and can discuss:

- What evolution is
- Why evolution education is critical
- What's wrong with teaching “alternatives” to evolution



# Links to Evolution Resources

## Scientific and Educational Organizations

[National Center for Science Education](#)

[National Academy of Sciences](#)

[American Institute of Biological Sciences](#)

[American Association for the Advancement of Science](#)

[National Association of Biology Teachers](#)

[National Science Teachers Association](#)

[FASEB and FASEB member organizations](#)

## Legal Organizations

[Americans United for Separation of Church and State](#)

[American Civil Liberties Union](#)

# Most Threats to Evolution Education Are Local, So Make Sure to:

- Follow news in the local media
- Attend school board/PTA meetings
- Get to know school board members and other local politicians
- Talk to local science teachers
- Talk to your children and other students about their science classes
- Share information with your community by joining an evolution network (e.g., [AIBS/NCSE network](#))



# Communicating with the Public

## Keep it Simple

Most people are not experts in evolution or in science. Whether you are writing a letter or preparing a talk, you should draw upon evidence but avoid scientific jargon.

## Keep it Short

Limit letters to the editor to between 200 and 300 words and op-eds and letters to officials to a page or less. Always stick to one issue!

## Personalize

Personal anecdotes get people's attention and make it easier to relate to your argument. Let people know why evolution education is important to you.



# Communicating with the Public

## Draw Upon Your Expertise

Are you a local scientist or teacher? If so, say so. This will lend credibility to your arguments and send a message that local experts in science and education oppose the weakening of evolution education.

## Be Respectful

You should never be threatening or disrespectful. Always be polite to your audience even if you disagree with them.

## Discussing Science and Faith

Many people are concerned that evolution stands in opposition to their religious beliefs. If you see no contradiction between faith and accepting the evidence for evolution, let people know.

# Writing to Local Papers



## Make it Relevant

Relate your letter to a recent story or to community events.

## Reach Local Publications

Letters submitted to local papers are more likely to be published and will have more local impact than those submitted to national papers.

## Do Not Duplicate

Do not send the same letters to multiple papers and do not send more than one letter to the same paper—Editors won't print them!

## Check Submission Guidelines

Make sure that your submissions conform to the paper's guidelines and that you have included all of the necessary information.

# Links to Letter Writing Resources



## [FASEB's Guide to the Media](#)

Use this to find the name and contact information of newspapers, editors, and reporters in your area.

## [FASEB's Tips For Communicating Science](#)

A collection of resources for communicating science to the public, the press, and policy makers.

## [NCSE's 10 Tips for Writing Letters to the Editor](#)

Provides tips specifically for writing letters about evolution education.

# Science Teachers Need Scientists

## Work with Local Teachers

Ask local teachers if they need assistance. You may be able to help them confront challenges to science education by providing them with teaching resources or by talking with their students about evolution or science in general.

## Your Scientific Society Can Help

Check if your scientific society has a mentor network, a speakers bureau, or other programs to put scientists in touch with teachers.



Education sessions at meetings are also great places to connect teachers and scientists. Work with your society to plan an event! Check out [NCTE's Teacher Workshop Blueprint](#) for more information.

# School Board Meetings

## Find out when and how meetings are conducted

Most school board meetings allow time for public comment. Check your school board's website or call the district office to find out what the procedure is.

## Bring handouts

This will allow you to provide more detailed information and will keep people thinking about the issue after they leave.

## Bring Supporters

Encourage neighbors, scientists, teachers, clergy, and community leaders who share your views to attend. This demonstrates broad public support for your position.

# School Board Meetings

## Network!

Arrive early and stay late so that you can meet and talk with others; you may discover supporters that you didn't know about.

Talk cordially with opponents as well; you may find more common ground than you think.

Pass around a sign-up sheet for people interested in receiving and sharing evolution-related information.

Click on **NCSE's** [12 Tips for Testifying at School Board Meetings](#)

# Communicating with Policy Makers

## Make a connection

Whether writing, calling, or meeting with policy makers, it's important to establish a connection. Are you a constituent? A supporter? A parent with children in the school district? Let your officials know why your views should matter to them.

## Be specific

If you are referring to a specific piece of legislation make sure to cite it correctly. State the action you expect your official to take, such as voting for or against a bill.

## Organize

Decision makers are more likely to heed an organized group. Work with existing social networks and create new ones. Draw on these groups to ensure a steady stream of letters and phone calls.

# Developing Pro-Science Legislation

Work with friendly legislators and other scientists to develop a policy or piece of legislation that supports science education.



University of Wisconsin Scientists, Mike Cox (left) and Alan Attie (right), worked with educators, lawyers, and with State Representative, Therese Berceau (center), to craft the [Integrity of Science Protection Act](#) to protect science education in Wisconsin public schools.

# Developing Pro-Science Legislation

For more information on how scientists can work with their legislators, click on this article:



## Defending science education against intelligent design: a call to action

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For More Information  
Please Visit:

[www.evolution.FASEB.org](http://www.evolution.FASEB.org)

