

PENNSSTATE



The National Survey of High School Biology Teachers

**Tell us about your
experiences. Share
your opinions.**

We are inviting you to participate in a study of high school science teachers. Your name was selected from a database of science teachers from all fifty states and the District of Columbia. Your participation in this study is very important to the success of this project and without your participation we will not be able to accurately describe the opinions and experiences of teachers in schools and communities such as yours.

Please use a blue or black ink pen to answer the questions and mail your completed questionnaire back to us in the postage-paid envelope.

A Confidential Survey of High School Science Teachers
conducted by the Survey Research Center at Penn State
and supported by a grant from the National Science Foundation

The National Survey of High School Biology Teachers

Thank you for participating in this survey! Many questions ask about your biology class. If you teach different kinds of biology classes (such as AP biology), please give answers that refer to the class with the largest enrollment at your high school.

- Thinking about how you lay out your Biology course for the year, please indicate how many class hours you typically spend on each of the following areas.

	Not Covered	1 - 2 hours	3 - 5 hours	6 - 10 hours	11 - 15 hours	16 - 20 hours	20 hours or more
Human evolution	<input type="radio"/>						
Ecology	<input type="radio"/>						
Human health/disease	<input type="radio"/>						
General evolutionary processes	<input type="radio"/>						
Intelligent design or creationism	<input type="radio"/>						

- Please indicate your level of agreement with each of the following statements if they apply to your classes in biology or life sciences (otherwise select "Not applicable").

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not applicable
When I do teach evolution, I focus heavily on what students need to know to meet state science standards.	<input type="radio"/>				
When I do teach evolution (including answering student questions), I emphasize the possibility that portions of evolutionary theory may be proven wrong.	<input type="radio"/>				
When I do teach evolution (including answering student questions), I emphasize the broad consensus that evolution is fact even as scientists disagree about the specific mechanisms through which evolution occurred.	<input type="radio"/>				
When I do teach evolution (including answering student questions), I deliberately avoid making statements that might be deemed offensive by some students or their parents.	<input type="radio"/>				
Evolution serves as the unifying theme for the content of the course.	<input type="radio"/>				
I frequently do not cover evolution because we run out of time at the end of the course.	<input type="radio"/>				
When I do teach about creationism or intelligent design (including answering student questions), I emphasize that this is a valid, scientific alternative to Darwinian explanations for the origin of species.	<input type="radio"/>				
When I do teach creationism or intelligent design (including answering student questions), I emphasize that almost all scientists reject these as valid accounts of the origin of species.	<input type="radio"/>				

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not applicable
When I do teach creationism or intelligent design (including answering student questions), I acknowledge them as valid religious perspectives, but which are not appropriate for a science class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When I do teach creationism or intelligent design (including answering student questions), I emphasize that many reputable scientists view these as valid alternatives to Darwinian theory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe it is possible to offer an excellent general biology course for high school students that includes no mention of Darwin or evolutionary theory.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. For each of the following, select all that apply.

	No One	School Administrator	Local Religious Leader	Parent(s)	School Board Member(s)	Other
I have received pressure to teach evolution from:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have received pressure to teach creationism or intelligent design from:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have received pressure to NOT teach evolution from:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have received pressure to NOT teach creationism or intelligent design from:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Now, regardless of what you do in the classroom, we would like to ask about your own personal views.

4. Which of the following statements comes closest to your views on the origin and development of human beings?
- Human beings have developed over millions of years from less advanced forms of life, but God guided this process.
 - Human beings have developed over millions of years from less advanced forms of life, but God had no part in this process.
 - God created human beings pretty much in their present form at one time within the last 10,000 years or so.

5. Which of the following terms best describe how you think about yourself as a professional?

I think of myself as:	I think of myself this way				
	Everyday	Often	Sometimes	Rarely	Never
a mentor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a scientist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
an ecologist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a role model	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
a biologist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
an educator	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Now we have some questions on your state's standards and assessments, and textbooks that you use.

6. So far as you know, do your state's science standards include evolution?

- Yes, but not human evolution
- Yes, including human evolution
- No
- I am not sure

7. Does your state currently have an assessment test covering high school biology?

- No
- Yes, a test where scores are reported for school districts but not individual schools
- Yes, a test where scores are reported for individual schools
- Yes, a high stakes test students must pass to graduate

8. What is the primary textbook that you use in your biology class?

Title: _____

Publisher: _____

Author: _____

9. The textbook selection is made by (select all that apply):

- State board of education or state textbook selection committee
- School district
- School
- Instructor
- Other (please specify): _____

10. In preparing this questionnaire, we talked to a large number of teachers and other science educators. They have told us about many strategies that teachers use in teaching their high school biology classes and they shared many experiences they have had. Some of these appear below. Please tell us whether you have ever done the following:

	Never	Once or twice	A few times	Frequently
I have been nervous about an open house event or a meeting with parents because I believed that I would receive complaints about the teaching of evolution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have paced my class so that the evolution chapters in my textbook would be covered only minimally at the end of the academic term.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have encouraged students to consider how unlikely it is that complex organs (e.g., the eye) or biological processes (blood clotting) could have occurred simply by random mutation and natural selection.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have encouraged discussions of creationism in order to firmly explain why creationism is not science.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have received questions from students that seemed like they were suggested by an adult (e.g., parent, youth group leader, etc.).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Finally, we have some background questions.

11. Please indicate the number of years you have been teaching.

- 0-2 years
- 3-5 years
- 6-10 years
- 11-20 years
- More than 20 years

12. What is your gender?

- Male
- Female

13. What college degrees do you hold? (select all that apply)

- Associate Degree
- Bachelor of Arts
- Bachelor of Science
- Master's Degree in Education
- Master's Degree in Science
- Doctorate of Education or Ph.D. in Education
- Ph.D. in Science

14. What is your age?

- 21-30
- 31-40
- 41-50
- 51-60
- 61 or older

15. What type of teaching certificate do you hold?

- Regular or standard state certificate or advanced professional certificate
- Probationary certificate (the initial certificate issued after satisfying all requirements except the completion of a probationary period)
- Provisional or other type of certificate given to persons who are still participating in what the state calls an "alternative certification program"
- Temporary certificate (requires some additional college course work and/or student teaching before regular certification can be obtained)
- Emergency certificate or waiver (issued to persons with insufficient teacher preparation who must complete a regular certification program in order to continue teaching)
- No certificate

16. How many credit-hours do you have in the biological sciences (undergraduate and graduate)?

- 12 or less
- 13-24
- 25-40
- over 40

17. Have you had a specific college-level course in evolution?

- Yes
- No

18. Did you have a major, minor, or special emphasis in any of the following subjects as part of your undergraduate course work? Fill in one oval on each line.

	Yes, a Major	Yes, a Minor	No
Science education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Biology or other life science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other science	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Statistics, math or engineering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education (including secondary education)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

19. How well would you say you have kept up with scientific debates and advances during the last 5 years?

Select all that apply.

- I keep up by noting additions and changes to the textbooks I use.
- I keep up through science journalism such as television programs like Nova, magazines like National Geographic, and the science sections of the daily newspapers.
- I keep up by visiting science education web sites such as the NSTA, and the National Academy of Sciences.
- I keep up through browsing scientific journals such as Nature, Cell, etc.
- I keep up by taking science courses (not science education) as part of my continuing education.

20. I would rate my knowledge of the scientific evidence bearing on the validity of evolutionary theory as:

- Exceptional, on par with many college-level instructors
- Very good compared to most high school biology teachers
- Typical of most high school biology teachers
- I know less about this topic than many other high school biology teachers

Thank you very much for completing our survey. If you would like to add anything, please use the space provided below. We are very interested in any comments, suggestions or anecdotes that you would like to share.

**Please return the survey to the Penn State
Survey Research Center in the envelope
provided.**

