

TO HARM OR NOT TO HARM:



ANIMALS

AND YOUR

HIGHER EDUCATION



This brochure can help
you obtain an
education in accordance
with your sensitivities and
moral principles regarding the
treatment of animals.

It presents information on
humane alternatives to
activities that harm animals
and provides suggestions
for implementing those
alternatives in your school.



Dissection remains a common classroom exercise, even though humane, educationally sound alternatives are readily available.

Every year in the United States and Canada, more than a million animals are harmed and/or killed in college and university courses such as general biology, anatomy, physiology, and psychology. Rats, mice, cats, dogs, fetal pigs, frogs, pigeons, turtles, and dogfish sharks are among those commonly used. Most are killed and *dissected* (cut apart). Others are *visected* (subjected to invasive procedures while alive) in demonstrations such as muscle function in physiology laboratories. Still other animals are used in experiments involving harm and/or death, as when they are deprived of food or water to demonstrate behavioral conditioning, injected with substances that alter their behavior, or killed to obtain dividing cells for a genetics exercise.

Today students are protesting, and educators questioning, the way we use animals in the name of education. Their objections include unnecessary suffering and death, environmental disruption, risks to human health, and the deterioration of social values that results from teaching students to accept the destruction of other creatures. Effective nonanimal and/or noninvasive alternatives are readily available for use in courses that have traditionally involved harming and/or killing animals.

If you are a student planning to take any college or university life-science courses, you will probably be expected to use animals. However, whether you use animals ultimately is your decision. As a student, you are entitled to an education compatible with your moral values.

WHAT'S WRONG WITH HARMING ANIMALS FOR EDUCATION?

Animal Suffering

Like humans, all nonhuman vertebrates have complex nervous systems. Few people doubt that these animals can suffer pain and distress. At least some invertebrates also appear to have similar capacities. We have an obligation to spare all animals unnecessary suffering, such as that caused by harming them for educational uses. For the dog who experiences fear when being prepared for a demonstration of surgical procedures, the frog who feels the sudden assault of the pithing probe or scissors used to induce brain death, and the pigeon who endures hunger or thirst in the Skinner box, the suffering caused by such procedures is very real.



Killing animals, as for dissection, may also entail

Suffering also occurs outside the classroom: these cats were crammed into overcrowded crates and slated for a painful death to provide dissection subjects.

considerable suffering. Although students do not ordinarily witness or participate in the animal's death, death necessarily precedes any dissection. Supplying animals for dissection is big business. Routinely the animals suffer during capture and/or killing. For example, dogfish sharks suffocate in the nets that trap them or die, gasping, after being dragged from the water. Investigations in Mexico in 1994 and 1995 uncovered operations supplying cats to the United States for dissection. These suppliers killed thousands of cats by drowning them ten at a time or by slitting their throats.

Environmental Costs

Many of the animals harmed or killed for classroom use are caught in the wild. Populations of wild frogs have declined dramatically in recent years. Although it is not known to what extent capture for use in education affects such populations, the impact is certainly negative. In just one week, a single supplier may obtain 3,000 or more frogs for use in schools. Devastation of any free-living population can have far-reaching consequences for the surrounding ecological community.

A subtler environmental harm arises from the message traditional specimen-collection practices convey to students. If we are to nurture future generations of environmental stewards, then our education systems must lead by example. But an education system that condones removing wild animals from their habitats, killing

them, infusing them with chemicals, and throwing their mangled bodies into the garbage is apt to degrade rather than cultivate environmental sensitivity.

Social Costs

One of education's most important goals is to instill a sense of compassion and respect for others. Dissection and other harmful uses of animals undermine this goal because they involve treating animals as expendable commodities.

Some procedures performed on animals in education are openly violent, particularly those that entail killing. *Pithing* involves inserting a sharp object into the animal's braincase and moving it around vigorously to scramble the brain. It remains a common method of rendering frogs and turtles brain-dead for physiology laboratory exercises. The effects of such procedures on students' sensibilities are difficult to assess, but critics have expressed concern about the devaluing of life implicit in exercises that treat feeling animals as mere tools, as well as the tendency of such exercises to alienate sensitive students from the life sciences or further harden those who are less sensitive.



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The widespread use of frogs in dissection and vivisection contributes to the decline of frog populations in the wild.

Availability of Alternatives

Quite apart from its cost in animal suffering, environmental damage, and undermining of positive social values, the destruction of animals for education is simply unnecessary. Abundant materials are available for learning anatomy, physiology, toxicology, and other biological disciplines that do not require the suffering

and/or death of animals. Studies have found that the test performance of those students who use humane alternatives equals or surpasses that of those students who use animals. Furthermore, alternative materials—unlike most dissection specimens—are durable and reusable; a school can save thousands of dollars each year by using alternatives.



ANDY LEVIN/PHOTO RESEARCHERS, INC.

Biology projects involving no harm to animals can teach students how to design a study, formulate hypotheses, and analyze data.

Of course, humane alternatives need not exclude live animals; there are many ways to study animals without causing them harm. The best place to appreciate animals, and their evolutionary history, is in their natural habitat. Many informative and fascinating field studies have been designed for biology students, and the possibilities for novel studies are unlimited. Domesticated animals can also be studied in appropriate situations. Numerous noninvasive

experiments can be performed with living animals or with students themselves to illustrate a wide variety of physiological and other phenomena.

HUMANE ALTERNATIVES

The alternative techniques listed below have proven effective in teaching a variety of subjects that have traditionally involved harming and/or killing animals. In combination these techniques may also complement each other. These methods avoid any direct animal suffering, environmental degradation, health risks, or potential for ethical desensitization.

Observation of Animals

Careful observation is the scientist's most basic and important skill, whether in biology or any other discipline. Studying animals "in the field" provides challenging opportunities to develop practical skills and scientific methods. Well-designed observation projects can teach you how to design a study; formulate hypotheses; collect, analyze, and present data; and draw conclusions.



ANDY LEVIN/PHOTO RESEARCHERS, INC.

The best place to learn about plants and animals, and their evolutionary history, is in their natural habitat. Field studies develop students' observational skills.

Computer Programs

Programs available on CD-ROMs and standard computer disks allow you to learn interactively while controlling the lesson's focus, direction, and pace. Like most dissection alternatives, but not dissection itself, they permit unlimited repetition of the learning exercise. Many also incorporate questions and problems to be solved, allowing you to monitor your mastery of the information.



CHARLES E. BRANCH

CD-ROMs present high-resolution diagrams, photos, and moving images. Via computer, students determine a lesson's focus and pace.

Available programs include simulations of the anatomy and/or physiology of humans, rats, frogs, fetal pigs, sharks, and crayfish and other invertebrates. CD-ROMs can offer still, animated, and live-action images, substantial text, and a soundtrack. CD-ROMs can store a great deal of information in a small package.

Physiological Self-Study

This approach takes advantage of the life processes in which your own body is constantly engaged and allows you to monitor and study noninvasively such phenomena as heart function, sensory perception, respiration, and muscle physiology. The presentation and analysis of real data allow you to compare and appreciate variation among different students in your class.

Models

Usually made of plastic, models typically have removable, labeled parts that provide high detail and realism. Whereas preserved specimens are usually faded and are used only once, models are colored to reflect the appearance of a living organism and can be used year after year. Available models include those of the entire human body, rat, shark, fetal pig, frog, and invertebrates.

Videos

Videos can provide much the same visual information as an actual specimen. Moreover, the camera can provide perspectives and the narration explain details that dissecting tools cannot. Currently available videos cover the physiology and anatomy of a wide range of organisms, including the human, cat, rat, fetal pig, frog, perch, shark, crayfish, clam, earthworm, and starfish.


Books and Manuals

Modern biology textbooks are filled with up-to-date information and excellent illustrations. The illustrations that accompany medical manuals and texts provide detail, realism,



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Increasingly, videos are replacing the use of live dogs in laboratory demonstrations—for example, demonstrations of cardiovascular physiology.



and a more comprehensive view of an organism's anatomy than a dissected specimen. These resources are an indispensable supplement to any study of anatomy.

WHAT YOU CAN DO

If you do not wish to harm or kill animals during your education, you are not alone. Surveys indicate that most students have reservations concerning the harmful use of animals in education.

Unfortunately, few students express their objections to their teachers; most probably believe they should not question what they are told to do in class. In speaking out about your education, however, you are showing that you take your education very seriously. Remember: you are not trying to avoid learning the material; you are seeking more humane, and often more effective, ways to learn.

To complete your education without harming or killing animals, you can take these steps:

1. Find Out

As soon as possible, preferably before the term starts, find out if any course in which you are enrolling involves any animal use. If so, what animals will be used? How will they be used? For what educational purpose? The course supervisor can provide the most reliable information. Also ask whether your college has a policy exempting concerned students from harming or killing animals. If so, obtain

a copy of the policy statement. If not, contact The HSUS for help in drafting one.

2. Consider Your Objections

Consider the reasons for which you do not wish to harm animals in your education. It will probably help to write down your thoughts. Also, compile information on suitable humane alternatives for the particular course in which you are enrolled.

3. Talk to Others

Talk to other students in your course to see if they share your concerns. Most likely, other students too have reservations about the harming and killing of animals in education. Ask them if they also would prefer a humane alternative.

4. Suggest an Alternative

Politely but firmly tell your professor that you do not wish to participate in harmful animal use. Explain your willingness to learn the material using nonanimal alternatives. Be prepared to express your particular objections to the way animals are to be used in the course. If your professor cannot suggest any nonanimal alternatives, offer some suggestions, bearing in mind the course's learning objectives.

5. Go Higher Up

Ideally you and your professor can agree on a mutually satisfactory solution. If, however, he/she is unwilling to accommodate you, take your request to the appropriate dean or department head.



6. Seek Outside Assistance

At any point during this process, feel free to contact The HSUS for information or advice. We can give you specific information on alternatives and, if necessary, some guidance about seeking legal counsel. Remember, the earlier you contact us, the more help we can provide. Keep a record of all correspondence and meetings and any other contacts you make.

ALTERNATIVES FOR LOAN

Don't let a lack of resources stand between you and your ethical beliefs. The HSUS has established the Humane Education Loan Program (HELP) to provide students and educators (elementary through college) with up-to-date alternatives to classroom dissection and live animal experimentation. We have a variety of CD-ROMs, computer simulations, models, videotapes, and charts. The only cost to you is the return postage.

For more information about using nonanimal and noninvasive alternatives in your education, contact The Humane Society of the United States, Animal Research Issues, 2100 L St., NW, Washington, DC 20037; 301-258-3042; fax: 301-258-7760; e-mail: ari@hsus.org.



Promoting the
protection of
all animals

**THE HUMANE SOCIETY
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Printed on recycled paper.
Revised 2001.