

CUT IT OUT DISSECTION

School science programs have a unique chance to teach kids empathy along with biology. But many still dissect animals. With the advent of cruelty-free models such as 3-D interactive computer software, no school needs dissection in its curriculum. Non-animal tools are safer (no toxic formaldehyde handling), more affordable and educationally relevant.

Origin of Animals Used To Dissect

Roughly 170 species wind up in lab settings for dissection or vivisection (experimented upon while alive). Animals most often (but not exclusively) dissected are: frogs, fetal pigs, cats, dogfish sharks, perch, rats, pigeons, salamanders, rabbits, mice, turtles, snakes, mink, foxes and bats. It is guesstimated that 6 million vertebrate plus another 6 million invertebrate animals are dissected in U.S. high schools each year. The tally of animals used in colleges, middle and elementary schools is undefined.

Some animals are taken from the wild. Others come from breeders/dealers, pounds, ranches, or slaughterhouses. Biological supply firms purchase animals and sell them to schools for use as lab models. Animals obtained for dissection are the “leftovers” of factory farms, fur ranches, kill shelters and other inhumane industries.

FETAL PIGS, commonly seen in biology labs, are extracted from the wombs of pregnant sows killed in slaughterhouses. **RABBITS** for the purpose of dissection are often drowned in barrels of water. **CATS** may begin as lost or stolen family animals. In Mexico, cats have been trapped by the thousands and subsequently drowned, embalmed and dispatched to U.S. schools. Most **DOGS** used in dissection are lost or homeless companions acquired via pet theft, pounds and shelters. **TURTLES** are snared in the wild, bagged live, marked as “seafood,” and shipped to biological purveyors. Supply firms store them in congested cement ponds or aluminum tubs piled 10-15 feet deep.

FROGS are annually captured by the millions for dissection and other exploits. Their mass removal from natural habitats has led to the loss of entire



rat dissection



dissection of a fetal pig



formaldehyde cats: cats are embalmed and prepped for dissection



species. **FISH** are wild-caught. Pregnant sharks seized from oceans are killed and “processed” for dissection. **STARFISH** (part of survey kits that pack earthworms, grasshoppers, crayfish, perch, frogs, mussels, sponges) die by lingering suffocation. **MINKS** and animals farmed for fur live inside tiny cages until killed by genital electrocution, cervical dislocation, gas or poison. Those sold for dissection are embalmed and shipped to lab suppliers.

The Animal, Plant and Health Inspection Service (APHIS) arm of the USDA regulates animal industries. This financially strapped agency employs a handful of inspectors to monitor thousands of **Class A licensees (breeders)**, **Class B licensees (brokers)**, **Class C licensees (exhibitors)**, **handlers**, and **biomedical researchers**. USDA-APHIS is charged with enforcing the Animal Welfare Act (AWA) — a federal law that mandates licensing and inspection for all animal dealers. Class B dealers derive most of their income from the purchase and resale of live/dead animals. They amass dogs and cats from “random sources” such as “free to a good home” ads and pound seizure (shelters that sell unclaimed animals). Some employ “bunchers” to steal animals or round-up strays. Class B

dealers profit from contracts with research laboratories and research supply firms (also categorized as Class B dealers). With scant AWA enforcement, an animal’s path to dissection can be laced with cruelty.

Big Deal? They’re Already Dead.

The Broward County, FL school district eliminated cat dissection a decade ago because kids had a traumatic connection between embalmed cats in class and “pet” cats at home. Slicing into dead and sometimes pregnant animals can disturb students — turning them off to science altogether. Moreover, dissection objectifies animals and shows students that cruelty is no big deal. Indeed, a troubled child who dismembers an “already dead” animal may gain the confidence to torture a live one. Florida’s serial cat killer, Tyler Weinman, dissected cats at his Miami-Dade high school before brutally killing 19 companion cats. Teens like Weinman who “practice” on animals statistically graduate to violent crimes against humans. Schools that buy bodies for dissection also establish commercial demand for the very industries that abuse animals in the first place (fur farms, slaughterhouses, Class B dealers). **With so many cruelty-free options, the study of life can foster respect for life.**

FREE LOAN LIBRARIES

Dissection Options For Schools

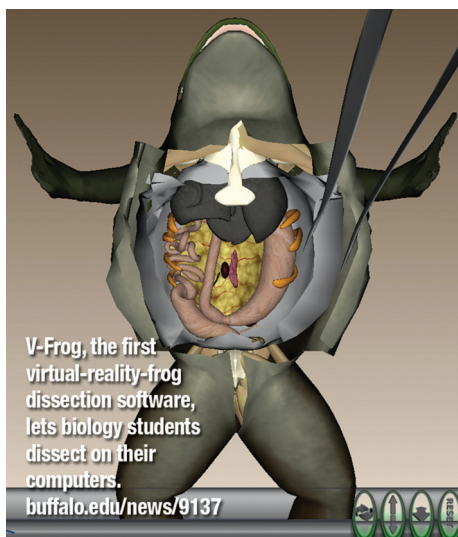
AnimaLearn — The Science Bank FREE LOAN PROGRAM from American Anti-Vivisection Society (AAVS)

- Vast source for dissection alternatives
- Searchable by species, purpose, age-appropriateness...
- www.animalearn.org/sciencebank.php
- www.humanestudent.org
- 800-729-2287; 215-887-0816
- info@animalearn.org
- 801 Old York Road, #204
- Jenkintown, PA 19046

BioLeap Lending Library of Life Science Materials

FREE LOAN PROGRAM from National Anti-Vivisection Society (NAVS)

- Info hotline; PDF age-suitable handbooks
- 3-D plastic models, software, videos, color transparencies, etc. for wide variety of species
- Guidelines for passage of student choice policy
- www.navs.org/site/PageServer?pagename=ain_edu_dissection_loan_program
- 800-888-NAVS (6287); 312-427-6065
- 53 West Jackson Blvd., Suite 1552
- Chicago, IL 60604



Ethical Science & Education Coalition FREE LOAN LIBRARY from New England Anti-Vivisection Society (NEAVS)

- 400+ books, 200 videos
- Models, computer programs
- Free catalog: *Beyond Dissection* with 400+ humane education alternatives
- Access to ESEC's Resource Room for Boston-area students; 9am-5pm weekdays
- www.neavs.org/esec/alternatives/alt_Loan_Library-Page-1.htm
- 617-523-6020; 617-367-9143
- esec@ma.neavs.com
- www.neavs.org/resources/loanlibrary/dissectionalternatives_availability.htm
- 333 Washington St., Suite 850
- Boston, MA 02108-5100

Humane Society of the U.S. (HSUS) HELP, Humane Education Loan Program

- Extensive collection of cruelty-free options for middle school through university.
- Comparative studies on dissection, legal information, videos
- www.humanesociety.org/parents_educators/humane_education_loan_program.html
- 301-258-3046; 202-452-1100
- 2100 L Street NW / Washington DC 20037
- Humane Society Youth
- 67 Norwich Essex Turnpike
- East Haddam, CT 06423
- ph: 860-434-8666; fax: 860-434-9579
- youth@humanesociety.org

InterNICHE Alternatives Loan System

FREE LOANS from broad selection of non-animal dissection tools

- Search by discipline and alternative type
- Humane science/medical tools for: anatomy, physiology, surgery
- www.interniche.org/alt_loan.html

Physicians Committee For Responsible Medicine (PCRM)

- Physician-composed fact sheets
- Physician commentaries on dissection
- Assistance for schools and students with non-animal alternatives
- www.pcrm.org/resch/anexp/dissection_alternatives.html
- 202-686-2210; dissection@pcrm.org
- 5100 Wisconsin Ave. NW, Suite 400
- Washington, D.C. 2001

SAMPLING OF ONLINE Humane Tools, Facts, Resources

- ▶ **Anatomy in Clay® Learning System:** www.anatomyinclay.com
- ▶ **Glencoe Interactive Dissections:** www.glencoe.com/sites/common_assets/science/dissection/html/glenintdissdemo.html
- ▶ **Kidwings:** www.kidwings.com/index.htm
- ▶ **ScienceWorks:** Frog dissection CD-ROMs starting at \$59.95 + many programs. www.scienceclass.com
- ▶ **ZeroBio:** Dissection videos, photos, slideshows, worksheets, quizzes. Videos fore fetal pig, frog, and sheep heart. www.zerobio.com/dissect.htm
- ▶ **Tangent Scientific's DryLab:** Interactive programs for studying frog, crayfish, perch, rat, fetal pig, earthworm for about \$125. Company offers virtual human anatomy programs too. www.tangentscientific.com
- ▶ **Online Cat Dissection:** Interactive pictures, videos, diagrams quizzes. <http://library.thinkquest.org/15401/learn.html>
- ▶ **Virtual Cat Dissection:** <http://bio.bd.psu.edu/cat>
- ▶ **The ITG Catlab:** Complete virtual dissection cat anatomy — simulated dissections of every system, quizzes, and over 300 lab-quality images. www.itgworld.com/catlabonline/_index.html
- ▶ **NeoTek:** In-depth virtual laboratory CD-ROMs for cat, frog, fetal pig, crayfish, perch, rat, earthworm, from about \$85 - \$149. www.neotek.com
- ▶ **Froguts:** Virtual frog dissection free online demo. CD-ROM software on virtual dissections of frog, fetal pig, squid, starfish, cow eye, and owl pellet. Can access every species on unlimited number of computers, \$300 per year. www.froguts.com/flash_content/index.html www.froguts.com/flash_content/demo/frog.html
- ▶ **Digital Frog 2:** Award-winning. In-depth "dissection" of computerized frog with digital scalpel. Also: animations, quizzes, videos, and info about frog behavior, ecology, environmental issues. www.digitalfrog.com
- ▶ **Study, George Mason University researchers, find:** Digital Frog teaches students anatomy lessons more effectively — in less time — than traditional animal dissection. www.dissectionalternatives.org/alternatives/GeorgeMasonDF2studyabstract.pdf
- ▶ **Net Frog:** Interactive dissection, with images, movies, and text. <http://frog.edschool.virginia.edu/Frog2>
- ▶ **Virtual Frog Dissection Kit:** Dissect a frog and use Virtual Frog Builder game to put one back together. Interactive pages available in 7 languages. <http://froggy.lbl.gov/virtual>
- ▶ **Frog Dissection Lab:** View photos of external features and internal organs and systems. www.ofsd.k12.wi.us/science/frogdiss.htm
- ▶ **Operation Frog:** Award-winning. Pre-lab, frog dissection lab simulations, post-lab materials, teacher's guide with worksheets, puzzles, activities. Prices begin \$39. www.tomsnyder.com/products/product.asp?SKU=OPEFRO
- ▶ **Virtual Pig Dissection (VPD):** www.whitman.edu/biology/vpd
- ▶ **Virtual Pig Dissection:** www.whitman.edu/biology/vpd/main.html
- ▶ **Digestive System of the Rat:** Images from muscular and digestive systems of the rat. www.umanitoba.ca/faculties/science/biological_sciences/lab15
- ▶ **Virtual Mouse Necropsy:** Step-by-step dissection. www.geocities.com/virtualbiology/necropsy.html
- ▶ **Sheep Brain Dissection Guide:** <http://academic.uofs.edu/departments/psych/sheep>
- ▶ **Earthworm Dissection:** http://sps.k12.ar.us/massengale/earthworm_dissection.htm
- ▶ **Ventura Educational Systems:** CD-ROM alternatives for frog, fetal pig, earthworm. www.venturaes.com
- ▶ **Wellesley College:** Online videos of crayfish, frog, and sheep brain dissection. www.wellesley.edu/Biology/Concepts/Html/adultcrayfishbrain.html
- ▶ **Cornell University:** Info and detailed images about the morphology and physiology of frogs; video/quiz links. http://biog-101-104.bio.cornell.edu/Biog101_104/tutorials/frog.html
- ▶ **State University of New York at Buffalo:** In-depth info and graphics about wide variety of species. <http://ublib.buffalo.edu/libraries/asl/guides/bio/dissections.html#earthworm>

