

Cost Analysis of Dissection Versus Nonanimal Teaching Methods

PHYSICIANS COMMITTEE FOR RESPONSIBLE MEDICINE

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As more and more educators explore the benefits of nonanimal alternatives to dissection, software companies respond by developing ever more impressive technologies. New programs offer stunning educational advantages while reducing costs and decreasing reliance on animals. Alternatives cost thousands less than dissection, last for years, and several groups of students can use them simultaneously during each academic year. With nonanimal dissection methods, students can perform the lessons at their own speed, easily make-up missed classes, and review the programs until they have a firm grasp of the material. Students gain considerable computer experience and teachers have the flexibility to choose the anatomical detail appropriate for their class and grade level.

Although the initial cost of implementing a computer system is sometimes higher than that of dissection, over time, school systems reap financial benefits as multiple groups of students can use these same programs year after year. The following chart describes the average expense of using alternatives vs. traditional animal dissection over a 5-year period.

FROG	DISSECTIONWORKS DELUXE*	ANIMAL DISSECTION
1st year (initial purchase)	\$2099	\$1,146
2nd year	\$0	\$310.50
3rd year	\$0	\$310.50
4th year	\$0	\$310.50
5th year	\$0	\$310.50
TOTAL COSTS	\$2099	\$2,387

*DissectionWorks Deluxe is a top-end package that offers numerous dissection alternatives and can be used by various science classrooms during the same school year.

For administrators of elementary and secondary schools, budget concerns may become the greatest impetus for introducing alternatives to animal dissection. As budgets become smaller, computerized laboratories can alleviate the cost of maintaining a yearly animal supply. In the process these programs allow younger pupils to learn about animal anatomy and ecosystems at an earlier stage in science education. Instead of supplying the animals to one or two 8th grade classrooms, schools can incorporate innovative and technologically advanced teaching techniques into the science curriculum in lower grades. Students will not only have the opportunity to learn about the life sciences in early education, they will gain computer skills and see their application in the field of science.

Listed on the back are estimated cost savings for some of the most common animal dissections. Note that computer alternatives are one-time investments while animals and some dissection materials must be purchased every year. For more information on the alternatives listed on the back, please visit www.DissectionAlternatives.org, or contact the Physicians Committee for Responsible Medicine at 202-686-2210.

Estimated cost savings for some of the most common animal dissections

ANIMAL	ALTERNATIVE AND COST	DISSECTION AND COST (30 STUDENTS)	COST SAVINGS AFTER 5 YEARS**
Frog*	DissectionWorks Deluxe* \$2,099 The Digital Frog2 \$899 Operation: Frog (Deluxe) \$659 VisiFrog \$559	Dissection Set \$444 Dissection Pans \$385 Dissection Pins \$6 30 Frogs (per year for 5 years) \$1,552 Total Cost \$2,387	TOTAL SAVINGS: \$288 - \$1,828
Fetal Pig*	DissectionWorks Deluxe* \$2,099 Fetal Pig by Ventura \$560	Dissection Set \$444 Dissection Pans \$568 Dissection Pins \$6 Hook and Chain Set \$66 30 Fetal Pigs (per year for 5 years) \$2,100 Total Cost \$3,184	TOTAL SAVINGS: \$1,085 - \$2,624
Cat	Cat Dissection Lab \$5,500 CatWorks \$1,500 Cat Lab \$1,500	Dissection Set \$444 Dissection Pans \$568 Dissection Pins \$6 Hook and Chain Set \$66 30 Cats (per year for 5 years) \$4,650 Total Cost \$5,734	TOTAL SAVINGS: \$234 - \$4,234
Earthworm*	Earthworm by Ventura \$560	Dissection Set \$444 Dissection Pans \$385 Dissection Pins \$6 30 Earthworms (per year for 5 years) \$130 Total Cost \$965	TOTAL SAVINGS: \$405
Crayfish and Perch*	Marine Life: Anatomy of a Fish \$560	Dissection Set \$444 Dissection Pans \$385 Dissection Pins \$6 30 Crayfish (per year for 5 years) \$1,095 Total Cost \$1,930	TOTAL SAVINGS: \$1,370

* DissectionWorks Deluxe includes five animal dissection simulations: frog, fetal pig, earthworm, crayfish, and perch.

** Assumes annual replacement of animals and no replacement of equipment.