

ANIMAL DISSECTION VS. NON-ANIMAL ALTERNATIVES

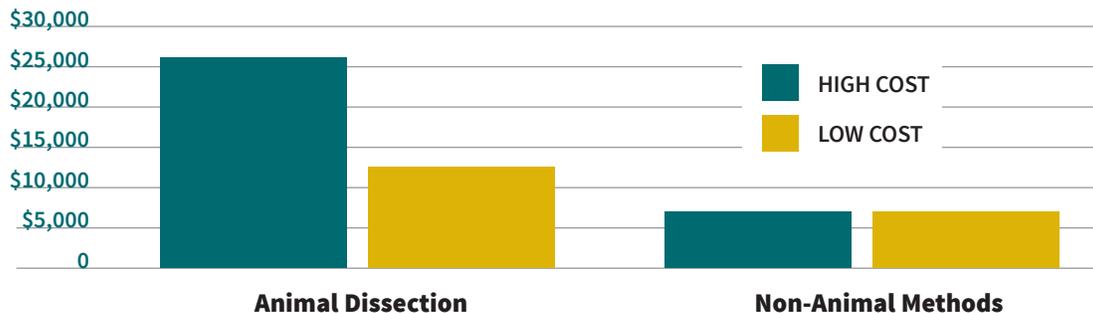
A COST COMPARISON

Non-animal methods of teaching anatomy and physiology have many benefits, including cost savings. As the chart below outlines, alternatives consistently cost less than animal dissections, in part because they are less wasteful, more versatile, and last longer, once the initial purchase has been made.

“Without a doubt, dissection of animal cadavers is on its way out, if for no other reason than the cost.”

Lynette Hart, Professor UC Davis

**Cost Comparison of Using Animals Vs. Non-Animal Methods
(Three Year Period)**



	CAT				
	Cat Specimens		Cat Alternative		Cost Savings
	High cost for cat specimens \$148 x 135 =	\$19,980	VR Cat site license \$600 + Altay Cat Models (45) \$13,725 =	\$14,325	\$5,655
Low cost for cat specimens \$65 x 135 =	\$8,775	eMind Cat site license \$199 x 3 = \$597 + 3D Cat Scienctrucable (Getting Nerdy) \$24.95 =	\$621.95	\$8,153.05	

**Using non-animal alternatives for cats can save
\$5,655-\$621.95 over a three-year period**

	FETAL PIG				
	Fetal Pig Specimens		Pig Alternatives		Cost Savings
	High cost for pig specimens \$29.50 x 135 =	\$3,982.50	VR Pig site license \$600 + 4D Vision Pig Model \$39.99 x 45 = \$1,799.55 =	\$2,399.55	\$1,582.95
Low cost for pig specimens \$22.00 x 135 =	\$2,970.00	eMind Pig site license \$199 x 3 = \$597 + Pig paper dissection model = \$19.95 =	\$616.95	\$2,353.05	

**Using non-animal alternatives for pigs can save
\$1,582.95-\$2,353.05 over a three-year period**

SHARK				
Dogfish Shark Specimens		Shark Alternative		Cost Savings
	High cost for shark specimens \$19.50 x 135 =	\$2,632.50	4D Vision Great White shark model = \$15.99 x 45 = \$719.55 + eMind Fish site license \$199 x 3 = \$597	\$1,316.55 \$1,315.95
	Low cost for shark specimens \$14.65 x 135 =	\$1,977.75	eMind Fish site license \$199 x 3 = \$597 + Shark Paper Dissection = \$19.95 =	\$616.95 \$1,360.80

Using non-animal alternatives for sharks can save \$1,315.95-\$1,360.80 over a three-year period

FROG				
Frog Specimens		Frog Alternatives		Cost Savings
	High cost for frog specimens \$20.75 x 135 =	\$2,801.25	Froguts (FREE) + 4D Vision Frog Model \$30.95 x 45 =	\$1,392.75 \$1,408.50
	Low cost for frog specimens \$5.40 x 135 =	\$729	eMind Frog site license \$199 x 3 = \$597 + Frog paper dissection model = \$19.95 =	\$616.95 \$112.05

Using non-animal alternatives for frogs can save \$1,392.75-\$616.95 over a three-year period

**TOTAL COST SAVED BY USING ALTERNATIVES
\$9,946.65-\$4,952.75 OVER A THREE YEAR PERIOD**

This analysis is based on:

- The needs of a typical biology department over a three-year period
- Examples of four of the most commonly dissected species — the cat, fetal pig, dogfish shark, and frog.
- Three anatomy/physiology classes composed of 30 students each or 90 students total.
- If using animal specimens, we assume that a pair of students will dissect the specimen. So, 45 cats, 45 fetal pigs, 45 dogfish, or 45 frogs needed annually, or 135 (45x3) of each over a three-year period.
- If using alternative methods, we assume that a pair of students will perform a virtual dissection; i.e. equipping 45 students/year. The alternative methods used would be software, in conjunction with a model

The low and high prices of the preserved animals were obtained from the Carolina Biological Supply Company catalog (2020). The alternative prices were obtained from a variety of sources including Carolina Biology Supply Company (2020) Virtual Reality Cat and Pig site licenses, eMind software, Altay Cat Model; Getting Nerdy with Mel and Gerdy 3D paper models; Amazon.com 4D Vision Models; Animalearn's The Science Bank to access Froguts for free.