



NABT Position Statement: The Use of Animals in the Biology Education

High quality life science education requires students to be immersed in the study of life and living systems. Educators and schools across the education spectrum should develop programs, policies, and procedures that give students the broadest opportunity to learn the life sciences through field and laboratory experiences that incorporate living and formerly living organisms.

NABT strongly supports teaching which allows for student interaction with organisms, both living and dead, that provides enriched, meaningful learning experiences. The involvement of students in first-hand interactions with living animals provides opportunities for increased understanding of content knowledge, the care of living organisms, and appreciation for the value of life. In like manner, the engagement of students in well-crafted dissections is a total sensory experience that removes abstraction as students learn about structure, function, adaptation and diversity.

While the increased quality and accessibility of dissection simulation software has helped address concerns from students and parents opposed to dissection, these alternatives are not without limitations. Utilizing a software-only approach may constitute a disservice to many students and does not acknowledge the well-documented educational benefits of hands-on dissection. Simultaneously, teachers must be sensitive to the beliefs of each student and their right to make informed decisions concerning participation in dissection and, if possible, provide meaningful alternatives in keeping with course goals and objectives.

Teachers are the primary role model of respect for living and preserved specimens used in the classroom and for the conservation of organisms both in the classroom and in the field. As such, whenever utilizing organisms for instructional programming, they must employ their expertise to design and execute well-crafted lessons.

Teachers have the responsibility to develop and maintain their training on the care and maintenance of living organisms. Likewise, educational institutions have the responsibility to ensure facilities, policies, and procedures are in place for the proper handling of living and non-living organisms. This includes understanding and complying with federal, state, and local laws regarding animal welfare and the use of biological materials and knowing and utilizing established professional standards and guidelines as applicable.

Professional guidelines may include, but are not limited to:

- *Guide for the Care and Use of Laboratory Animals* from the National Research Council.
- *Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals* from the Office of Laboratory Animal Welfare (OLAW of the National Institutes of Health)
- *Principles and Guidelines for the Use of Animals in Precollege Education* from the Institute of Laboratory Animal Research (ILAR)

- *Guidelines for Ethical Conduct in the Care and Use of Animals* from the American Psychological Association (APA)

The proper and ethical use of animals in science classrooms must always be matched to the stated standards and objectives for the course, the age and previous experiences of the intended student audience, and the expected educational outcomes. It is, therefore, the professional and science educators in the classroom and in their professional learning community who are in the best position to make the determination for the use of animals in life science classes.

As an organization of professional educators representing classroom teachers as well as professional scientists and education researchers, NABT urges state, provincial, and local school systems to enact and maintain policies concerning animals and other biological materials that allow students the opportunity to learn through the processes and practices of science utilizing all tools and methodologies available to them.

Revised and adopted by the NABT Board of Directors, July 2019. This policy supersedes and replaces all previous NABT statements regarding the use of animals in biology education.