TITLE: Using Preserved and Live Organisms in Science

Classes

NUMBER: REF-6003.1

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MAJOR This revision replaces Reference Guide (REF-6003.0) Using Preserved and Live

CHANGES: Organisms in Science Classes, dated May 21, 2013. The content has been updated to

reflect current contact information.

PURPOSE: This Reference Guide summarizes guidelines for the use of preserved and live

organisms in science classes.

GUIDELINES: I. PRESERVED AND LIVE ORGANISMS IN SCIENCE INSTRUCTION

A. Required Alternatives to Dissection and Other Uses of Animals

Community organizations, parent or guardians, and students have expressed concerns regarding student participation in science laboratory activities involving the dissection of preserved organisms. California state legislation, effective January 1, 1989, recognizes their concern and requires that students with a moral objection to participation in science laboratory instruction in which animals are used must be informed of the opportunity to be excused or provided with alternative activities. California Education Code Section 32255 describes the use of animals in science instruction.

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B. Authorized Use of Preserved Organisms and Other Uses of Animals

District required and elective science courses in the life and biological sciences may involve activities that use vertebrate and invertebrate animals in laboratory instruction. District course of study and adopted textbooks in the biological science include activities involving dissections of preserved invertebrate and vertebrate animals that are purchased from scientific supply companies for distribution to schools. These publications also include other laboratory activities, which use invertebrate animals.

Dissection of preserved organisms and the use of animals are practiced nationally in science education today and have long been an integral part of study in the biological sciences. They provide students with an understanding of the functions of internal structures and relationships of internal structures more effectively than through the use of models, charts, textbooks, or other instructional materials. Dissection of commercially obtained specimens and the use of invertebrate animals in the study of life processes also provide an introduction to laboratory procedures for students who will pursue higher educational programs in the biological sciences.

C. Alternate Activities

Teachers may wish to consider any one of the following alternatives to substitute for dissection or other activities involving the use of animals:

- 1. The study of reference books, charts, and models
- 2. Drawing and labeling diagrams with names of systems, organs, tissues
- 3. Constructing models and labeling parts of organisms, systems, organs, or tissues
- 4. Writing projects on organisms explaining the structural and functional interrelationships of systems, organs, tissues, and life processes
- 5. The use of virtual labs, video recordings, internet resources, and other digital media

Teachers must require effort, which is equivalent to activities involving dissection, and accept these activities for equal credit.

The amount of work required must not be excessive, punitive, or require students time exceeding the time spent on the entire dissection or other activity involving the use of animals.

For science courses in which animals are used, teachers must provide, at the beginning of the course, a list of activities in which dissection or other uses of animals will occur.

D. Procedures for Assigning Alternative Activities

At the beginning of the first semester or quarter of the regular school term, parents or guardians must be notified regarding their rights and responsibilities under current legislation as described in Section II of this bulletin. In all classes with biological and life science, content a course description with requirements and expectations must be sent to parents or guardians of students in these classes. If animals are to be used in the manner described in current legislation, the course description should include a statement such as:

"Laboratory experiments will be conducted in this course. Since one of the goals of the course is to have students understand the structures in various organisms and the relationships between those structures, laboratory activities involving dissections of preserved invertebrate and vertebrate animal specimen will be conducted. If you, your son, or daughter has a moral objection to participation in these activities, please ask the teacher for a form that will permit your son or daughter to be excused from the activity. Consent of the parent or guardian must be given for students to be excused from these activities. The teacher will assign an alternative activity. The completion of this activity will ensure that the student's mark in the course will not be adversely affected. If the student's objection is based only on a statement of distaste for the activity, you may wish to consider encouraging your son or daughter to observe the activity. Experience has shown that students who work in the laboratory with preserved specimen learn a great deal from the activity."

Attachment A is a suggested form for the school letterhead for parents or guardians whose son or daughter objects to participation in science activities involving certain uses of animals.

II. LEGISLATION ON ORGANISMS IN SCIENCE INSTRUCTION

The following legislation on the treatment of animals in schools or school sponsored activities appears in Section 51540 of the California Education Code under the title "Humane Treatment of Animals":

In the public elementary and high schools or in public elementary and high school-sponsored activities and classes held elsewhere than on school premises, live vertebrate animals shall not, as a part of a scientific experiment or any purpose whatever:

- (a) Be experimentally medicated or drugged in a manner to cause painful reactions or induce painful or lethal pathological conditions.
- (b) Be injured through any other treatments including but not limited to anesthetization or electric shock.

Live animals on the premises of a public elementary or high school shall be housed and cared for in a humane and safe manner.

The provisions of this section are not intended to prohibit or constrain vocational instruction in the normal practices of animal husbandry.

Additional legislation on the use of animals in schools appears in the California Education Code in Chapter 2.3 (commencing with Section 32255) titled "Pupils' Right to Refrain From the Harmful or Destructive Use of Animals."

According to Chapter 2.3 of the Education Code, "animal" means any living organisms of the Kingdom Animalia. No distinction is made between living and preserved animals.

If a student expresses a moral objection to participation in a portion of the course of instruction involving the harmful or destructive use of animals, the teacher will work with the student to develop and agree upon any alternative education project as a method of obtaining the required learning. The alternative education project must require a comparable time and effort investment by the student, and must not be more arduous than the original education project. Students choosing an alternative educational project must pass all examination of the respective course of study in order to receive credit for that course of study. However, if tests require the harmful or destructive use of animals, a student must be given alternative tests.

The Education Code also indicates that in order to have an alternative assignment, a student must have a note from his or her parent or guardian, that each teacher teaching a course that makes use of animals or animal parts must inform student enrolled in that course of their rights in objecting to assignments involving animals. Teachers or administrators must not discriminate against students for their exercise of those rights.

RESOURCES: BUL-797 Study, Care, and Treatment of Live Animals in the Classroom (2/23/2004)

Science Safety Handbook for California Public Schools 2014 Edition MEM-2092 Avian Influenza (Bird Flu) Pandemic Precautions (11/7/2005)

ASSISTANCE: For assistance or further information contact a science coordinator in the Division of

Instruction at (213) 241-6444 or visit http://science.lausd.net.

Attachment A

(Sample letter for the school's letterhead)

FORM FOR PARENTS OR GUARDIANS WHOSE SON OR DAUGHTER OBJECTS TO PARTICIPATION IN SCIENCE ACTIVITIES INVOLVING CERTAIN USES OF ANIMALS

Dear Parent or Guardian:

Your son or daughter is enrolled in a course in science at our school, which includes dissection of preserved invertebrate or vertebrate organisms. If your son or daughter has moral objections to participation in these activities, alternative activities not involving dissections or the use of other animals may be assigned. Alternative activities will require equivalent effort, and upon the successful completion of these activities, students will receive credit equal to that received in activities involving dissection or the use of animals in other ways.

Please indicate by signing below if you wish your son or daughter to be excused from science instructional activities involving dissection or the use of animals in other ways. Your consent is required for your son or daughter to be excused and for an alternative educational project to be assigned.

Tear-Off	Principal
TO:(Name of Principal)	DATE:
(Name of School)	-
Science Course:	
Name of the Teacher:	
I request my son or daughter to be excused from science in dissection of preserved organisms or the use of animals in must be completed for equivalent credit.	
Name of Son/Daughter	
Name of Parent/Guardian	Phone:
Signature of Parent/Guardian	