

CERTIFICATION OF HUMANE TREATMENT OF LIVE VERTEBRATE ANIMALS

PLEASE TYPE OR PRINT

NAME OF ENTRANT	DATE OF CERTIFICATION
PROJECT TITLE	

HUMANE TREATMENT OF ANIMALS

State of California Education Code Title 2, Division 2, Part 28, Chapter 4, Article 5 51540. 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 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.

INTERNATIONAL SCIENCE AND ENGINEERING FAIR (ISEF) REGULATIONS FOR EXPERIMENTS WITH ANIMALS Prepared by Science Service, Inc.

1. The basic aims of experiments involving animals are to achieve an understanding of life processes and to further knowledge. They do not include the development of new or refinement of existing surgical techniques or experiments in toxicological studies. Experiments involving animals (live or preserved, vertebrate or invertebrate excluding **Homo sapiens**), vertebrate embryos and fetuses, and embryos of fowl within three days of hatching, must have clearly defined objectives requiring the use of animals to demonstrate a biological principle or answer scientific propositions. Such experiments must be conducted with a respect for life and an appreciation of humane considerations. Research carried to a lethal conclusion without proper euthanasia does not develop a respect for life, and being neither humane nor educational is not allowed.
2. The use of protista and other invertebrates is to be encouraged for most research involving animals. Their wide variety and the feasibility of using larger numbers than is usually possible with vertebrates makes them especially suitable.
3. To provide for humane treatment of animals, an animal care supervisor knowledgeable in the proper care and handling of experimental animals must assume primary responsibility for the conditions under which the animals are maintained. If the school faculty includes no one with adequate training in this area, the services of a qualified consultant **must** be obtained.
4. All live or preserved animals or animal parts **must** be lawfully acquired from an approved source and their care and use **must** be in compliance with local, state and federal laws.
5. The **comfort** of the animals shall be of prime concern. No research using live vertebrate animals shall be attempted unless the animals are obtained from a reliable source and the following conditions can be assured:
Appropriate, comfortable quarters; adequate food and water; humane treatment and gentle handling. Care must be provided at all times, including weekends and vacation periods. An experiment in nutritional deficiency or ingestion of hazardous or reputedly toxic materials may proceed only to the point where symptoms of the deficiency or toxicity appear. Appropriate measures shall then be taken to correct the deficiency or toxicity, if such action is feasible, or the animal(s) shall be killed by a humane method. Experiments involving stress will be permitted only when such stress does

Not produce pathological lesions. The student shall not be allowed to provide euthanasia except under the immediate supervision and in the presence of the animal care supervisor and in compliance with requirements stated in Protocol section.

6. No experiment involving anesthetics, drugs, thermal procedures, physical stress, organisms pathogenic to humans or other vertebrates, ionizing radiation, carcinogens or surgical procedures may be undertaken except under the direct supervision of an experienced and qualified biomedical scientist or designated adult supervisor. Surgical procedures may only be conducted in approved clinical facilities. *

* Experiments involving any procedures listed in paragraph 6 which are not in violation of the "painful reaction" or "injured" restrictions of the California Education Code are permitted if certified by a qualified biomedical scientist prior to the beginning of the investigation. It is permissible for the student and designated adult supervisor to consult with a biomedical scientist to obtain detailed instructions and guidance in the techniques to be used by the student under the direct continuous supervision of the designated adult supervisor (for research **not** conducted in the biomedical scientist's lab). In this instance the designated adult supervisor will be required to certify in writing jointly with the biomedical scientist. Either the biomedical scientist or adult supervisor must provide continuing supervision to. Assure compliance with the protocol. Major deviations from the approved protocol may be implemented only with the written approval of the biomedical scientist. The biomedical scientist or designated adult supervisor must be in the same locality as the student for the duration of the experimental work except for short trips. This means that a project started in one city may not be continued in another unless an alternate designated adult supervisor, approved by the biomedical scientist prior to the continuation of the experimental work, agrees to supervise the project. A biomedical scientist is defined as one who possesses an earned doctoral degree in science or medicine and who has current working knowledge of the techniques to be used in the research under consideration. A designated adult supervisor is defined as an individual who has been properly trained in the techniques and procedures to be used in the investigation. The biomedical scientist must certify that the designated adult supervisor has been so trained

RESEARCH PLAN

PURPOSE OF THE PROJECT	STARTING DATE OF PROJECT
NAME AND ADDRESS OF SITE AT WHICH INVESTIGATION WILL TAKE PLACE	
NUMBER, SPECIES AND SOURCE (S). OF ANIMALS TO BE USED (IF ANIMAL PARTS ARE TO BE USED, PLEASE SPECIFY)	
List objectives of the experiment and describe fully the methods and techniques involved (including planned use of anesthetics, drugs, thermal procedures, physical stress, organisms pathogenic to humans or other vertebrates, radiation, carcinogens or surgical procedures). When the use of electrical current laser beams, sound stimuli or other artificial stimuli are an integral part of the Research Plan. They must not exceed the normal tissue tolerances for the species concerned (as indicated in the Biology Data Handbook, 2nd Edition; editors, P. O. Altman and D. S. Dittmer; publisher, Federation of American Societies for Experimental Biology).	
Describe proposed methods of animal care (i.e. cage dimensions, type of bedding used, temperature range of cage room, and frequency of feeding, watering and cage cleaning).	

Describe planned disposition of all animals used in experiments. (Note: Euthanasia, if conducted, should be performed by the biomedical scientist the designated adult supervisor or the animal care supervisor. The following methods are acceptable: administration of barbituric acid derivatives in conformance with the provisions of applicable laws,* inhalation of ether or chloroform, induction of hypoxia with carbon dioxide or nitrogen and cervical dislocation. The following methods are unacceptable: injection of air into the brain and injection of any product containing strychnine, curare, succinylcholine or other neuromuscular **blocking agents**.)

NAME OF ANIMAL CARE SUPERVISOR		NAME OF BIOMEDICAL STUDENT	
NAME OF DESIGNATED ADULT SUPERVISOR		NAME OF PERSON WHO WILL PERFORM EUTHANASIA, IF NEEDED	
NAME OF STUDENT	SIGNATURE OF STUDENT		DATE SIGNED:

*Local, state and federal laws including the Comprehensive Drug Abuse Prevention and Control Act of 1970, Public Law 91-513, 91st Congress, HR 18533, October 27, 1970, as amended (available at federal depository libraries or other large libraries).

CERTIFICATIONS

THE FIRST TWO CERTIFICATIONS MUST BE COMPLETED FOR ALL PROJECTS INVOLVING LIVE VERTEBRATE ANIMALS*

*CERTIFICATION BY TEACHER/ADVISOR (required). *I agree to sponsor the above named student and assume responsibility for compliance with the existing rules and regulations pertaining to experiments with animals.*

TYPE OR PRINT NAME OF TEACHER/ADVISOR		SIGNATURE OF TEACHER/ADVISOR		DATE SIGNED
NAME OF INSTITUTION			POSITION /TITLE	
ADDRESS OF INSTITUTION				TELEPHONE NUMBER
HOME ADDRESS •				HOME TELEPHONE

*CERTIFICATION BY ANIMAL CARE SUPERVISOR (required) of compliance with California Education Code and Paragraph 3 of the ISEF Regulations for Experiments with Animals. (Must be completed prior to receipt of **animals** by the student.) *I certify that I have reviewed and approved the Research Plan and will supervise and accept primary responsibility for the quality of care and handling of the live vertebrate animals used by the designated student. I further certify that I am knowledgeable in the proper care and handling of experimental animals, meet prevailing animal care supervisory requirements and that, if an animal **must be euthanized**, I will be present and will **perform or direct the procedure using such agents as are recommended**.*

TYPE OR PRINT NAME OF ANIMAL CARE SUPERVISOR _____		SIGNATURE OF ANIMAL CARE SUPERVISOR		DATE SIGNED
NAME OF INSTITUTION			POSITION/TITLE	
ADDRESS OF INSTITUTION				TELEPHONE NUMBER
HOME ADDRESS- V				HOME TELEPHONE

CERTIFICATION BY BIOMEDICAL SCIENTIST (if required) of compliance with California Education Code and Paragraph 6 of the ISEF Regulations for Experiments with Animals. (Must be completed prior to the start of the project.) *I certify that I have reviewed and approved the Research Plan; that if the student or designated adult supervisor is not trained in necessary procedures I will ensure his/her training; that I will assure that the requirements of the California Education Code and the ISEF Regulations for Experiments with Animals are fully met; that I will provide advice and supervision personally or through a designated adult supervisor throughout the project; and that I am a qualified scientist with a working knowledge of the techniques to be used by the student in this research.*

TYPE OR PRINT NAME OF BIOMEDICAL SCIENTIST		SIGNATURE OF BIOMEDICAL SCIENTIST		DATE SIGNED
NAME OF INSTITUTION			POSITION/TITLE	
ADDRESS OF INSTITUTION				TELEPHONE NUMBER
HOME ADDRESS				HOME TELEPHONE

BRIEF SUMMARY OF EXPERIENCE IN THE FIELD COVERED BY THE PROTOCOL

CERTIFICATION BY DESIGNATED ADULT SUPERVISOR (if required)

/ Certify that I have been trained in the techniques to be used by this student and will provide direct supervision for the research.

TYPE OR PRINT NAME OF DESIGNATED ADULT SUPERVISOR		SIGNATURE OF DESIGNATED ADULT SUPERVISOR		DATE SIGNED
NAME OF INSTITUTION			POSITION/TITLE	
ADDRESS OF INSTITUTION				TELEPHONE NUMBER
HOME ADDRESS				HOME TELEPHONE

This form, properly completed, must be part of the carefully planned procedures for experimentation with live vertebrate animals or animal parts. It must accompany any such project exhibited at, or when presented for any public display associated with the Los Angeles County Science Fair. All sections must be completed except the "Certification by Biomedical Scientist" and the "Certification by Designated Adult Supervisor" which need be completed only by those students carrying on experiments involving anesthetics, drugs, thermal procedures, physical stress, organisms pathogenic to humans or other vertebrates, ionizing radiation, carcinogens, nutritional deficiencies, toxicity, or surgical procedures as specified on the reverse side of this form