



ADMINISTRATIVE PROCEDURE

ANIMALS IN THE SCHOOL SETTING

6131

Procedure No.

July 1, 1991

Date

- I. **PURPOSE:** To clarify the procedures for having both vertebrate and invertebrate animals in the classroom and to set standards for alternatives to dissections by students.

- II. **DEFINITIONS:**
 - A. Animal: The use of the work “animal” in this administrative procedure unless otherwise stated refers primarily to members of the phyla Vertebrata (animals with bones) and Arthropoda (invertebrates – insects and crustaceans, for example).

 - B. Any venomous (poisonous) animal: This includes but is not limited to: rattlesnakes, copperheads, water moccasins, coral snakes, gila monsters, black widow spiders, brown recluse spiders, bees, wasps, hornets, lionfish, stinging jellyfish, scorpions, and tarantulas.

 - C. Any wild mammal: These include but are not limited to: bats, skunks, raccoons, foxes, minks, weasels, ferrets, opossums, un-owned or unvaccinated dogs or cats, ground squirrels, mice, rats, chipmunks, groundhogs, moles, and shrews.

- III. **INFORMATION: Use of Live Animals**
 - A. General Rules (Elementary): In elementary schools live animals should be used in the classroom only for observational studies leading to the appreciation and understanding of various life forms and processes.
 1. Teachers and students should consider studying plants, non-harmful bacteria, fungi, protozoa worms, snails, insects and other invertebrates, farm animals, zoo animals, wild animals, domestic pets, and themselves.

 2. Whenever possible, animals should be observed in the wild. Teachers could plan lessons which involve students in the study of normal animal functions such as:
 - a. communication
 - b. genetics
 - c. special senses
 - d. metabolism
 - e. nerve reflexes
 - f. activity cycles
 - g. learning processes



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- h. reproduction
 - i. growth
 - j. behavior
 - k. interrelationships of organisms
- B. General Rules (Secondary): In secondary school science programs, live animals may be used for observational studies as in A. above and also for experimental studies according to the following guidelines:
1. In biological procedures involving living organisms, species of plants, bacteria, fungi, protozoa, worms, snails, insects, and other invertebrate animals should be used whenever possible.
 2. Some sample plant, protozoan, and/or invertebrate projects include: field studies and natural history (life cycle, incidence in nature, social structure, etc.); germination, genetics; reproduction; effect of light; temperature, other environmental factors, and hormones on growth and development; feeding behavior; nutritional requirements; circulation of nutrients to tissues; metabolism; water balance; excretion; movement; activity cycles and biological clocks; responses to gravity and light; perception to touch, humidity, and vibration; learning and maze running; habitation, communication; pheromones; observations of food chains and interdependence of one species on another.
 3. No experimental procedures shall be attempted on mammals, birds, reptiles, amphibians, or fish that cause the animal pain or distinct discomfort, or that interfere with its health. As a rule of thumb, a teacher shall only undertake those procedures on vertebrate animals that could be done on humans without pain or hazard to health.
 4. Neither teachers nor students shall perform surgery on live vertebrate animals.
 5. Examples of non-painful, non-hazardous projects on some vertebrate species (including, in some instances, human beings) include some already mentioned under item (2) and also: group behavior; normal growth and development, properties of hair, pulse rate, and blood pressure; various normal animal behaviors such as grooming; reaction to novelty or alarm; nervous reflexes and conditioned responses; special senses (touch, hearing, taste, smell, and proprioceptive responses); and respiration.



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6. Experimental procedures shall not involve use of microorganisms which can cause disease in humans or animals, ionizing radiation, cancer-producing agents, or administration of alcohol or other harmful drugs or chemicals known to produce toxic or painful reactions or capable of producing birth defects.
7. Behavioral studies should use only reward (such as providing food) and not punishment (such as electric shock) in training programs. Food, when used as reward, shall not be withdrawn for periods of longer than 12 hours.
8. Diets deficient in essential nutrients are prohibited.
9. If bird embryos are subjected to invasive experimental manipulations, the embryo must be destroyed humanely two days prior to hatching. If normal embryos are to be hatched, satisfactory humane provisions must be made for the care of the young birds.
10. On rare occasions it may be appropriate to pith a live frog for an educational demonstration. The correct procedure is rapid and virtually painless, and the animal should never recover consciousness. However, if done incorrectly, this procedure can cause pain. The technique should be learned initially using dead animals. Pithing live animals should only be undertaken by a teacher knowledgeable in the technique. Maximum efforts should be made to study many biological principles and utilize as many body tissues as possible from a single animal.
11. No procedure requiring euthanasia and/or the administration of anesthesia, including the pithing of a frog, should be done in the classroom in front of students.
12. Science fair or other research projects involving animals should be reviewed in advance of the start of work by a qualified adult supervisor (teacher, parent scientist, others). Extracurricular vertebrate projects should be conducted in a suitable area in the school or scientist's laboratory, but not in the student's home.
13. High school students may wish to take assistant positions with professional scientists working in established, USDA-registered research institutions.



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14. Laboratory-bred or non-native species should not be released into the wild. For instance, in some climates, *Xenopus* frogs or gerbils, if released, can disturb the normal ecosystem or become pests.
 15. No animal or animal products from recognized endangered species should be kept and displayed.
- C. Prohibited Animals: Because some animals present a high risk of infection or injury to humans, the animals listed below are prohibited in the classrooms or laboratories of the Prince George's County Public Schools.
1. Any venomous (poisonous) animal.
 2. Any wild animal species that presents a high risk of carrying rabies or causing injury.
 3. Any species of sub-human primate including, but not limited, to apes, monkeys, marmosets, and lemurs, because of the capability of inflicting severe injury and of carrying a wide variety of simian viruses.
 4. Any turtle under 4 inches of length, because of the possibility of *Salmonella* infection.
 5. Any wild rodent because of the possibility of carrying fleas and ticks which may transmit serious bacterial or rickettsial infection.
 6. Any wild (non-domestic) rabbit or hare because of the possibility of transmitting the bacterial disease *Tularemia* (rabbit fever) to humans.
 7. Any animal which causes an allergic (i.e. skin or respiratory) reaction to a student assigned continuously to that classroom.
(Check with school Health Aide.)

Exceptions to these prohibited animal procedures may be made only for components of specialized programs at the Howard B. Owens Science Center and the William S. Schmidt Environmental Educational Center. An exception must have approval of the appropriate supervisor.



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- D. Live Animal Care and Safety Factors in the School Setting: When using animals not included on the previous prohibited list, it is the responsibility of the teacher to seek the approval of the principal prior to bringing animals into the classroom.
1. Preparations should include acquisition of knowledge on care appropriate for that species, as well as housing and other equipment needs and food, and planning for care of the living creatures after completion of study.
 2. The purpose of having an animal in the school setting is to enhance the learning process for students. The teacher has the responsibility to:
 - a. Assure that the animal is obtained from a qualified animal distributor, licensed pet shop, or breeder.
 - b. Provide a safe and healthful area to maintain the animal in the classroom.
 - c. Assure that the adult/teacher caring for the animal knows how to properly feed, water, and handle the animal.
 - d. Maintain a latched or locked cage for the animal, as appropriate.
 - e. Assure that the animal is properly immunized including a current rabies vaccination, as appropriate.
 - f. Monitor daytime and nighttime classroom temperatures as appropriate for specific animals.
 - g. Design a plan for animal care over weekends, holidays, and on those days when schools are not in session.
 - h. Develop a plan for care of the animals in the event the regular caregiver is not on duty or during emergency school closing.
 - i. Verify that the animal is certified by the vendor to be free of CM (lymphocytic choriomeningitis). LCM is an uncommon but potentially serious viral disease transmitted to humans by infected guinea pigs, hamsters, and mice.

IV. **INFORMATION: Use of Dead Animals**

- A. Wild mammals recently killed by motor vehicle often referred to as “road kill” are inappropriate for use in the classroom.



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- B. Fresh fish or butchered meats (such as beef-heart, brain, or stomach; pig intestines, etc.) should be placed in a preserving solution or placed on ice until used for classroom instruction.
- C. Preserved animals purchased from an educational supply source should be kept in sealed containers until ready to use.

V. **PERSONAL HEALTH BEHAVIORS WHEN CARING FOR ANIMALS:**

Common sense precautions when caring for animals.

- A. Wash hands and exposed areas with hot water and soap immediately after handling or feeding animals and after cleaning cages.
- B. Avoid hand-to-mouth contact when handling animals or cages.
- C. Clean and disinfect cages as appropriate to the animals' requirements to insure clean and odor-free cages.
- D. Dispose of feces and bedding in a sanitary manner by flushing into toilet or sealing in plastic bag and placing in a dumpster for removal to sanitary landfill.
- E. Do not place animals, animal feed, or cages in areas where food for human consumption is stored, prepared, or consumed.
- F. Keep all animal food in rodent resistant containers.
- G. Report any bite, scratch, or equipment-inflicted injury of a student including allergies or illness to the health aide and principal at once.
- H. Clean thick gloves and appropriate clothing are recommended when handling animals to prevent bites or scratches.

VI. **SAFETY ASPECTS FOR ANIMALS IN THE SCHOOLS:**

- A. Cages
 - 1. Cages should be constructed of ¼ inch metal mesh (hardware cloth) to prevent finger insertion.
 - 2. Students should not place bare hands into cages.
 - 3. Keep cages clean of wastes.



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4. Cages and paraphernalia should be sterilized before and after use, and frequently during use. Use 5% sodium hypochlorite (Clorox) or Lysol. Rinse cage thoroughly with tap water.

B. Aquaria and Terraria

Careful cleaning is essential so that organic materials do not act as a reservoir for microorganisms. Remove mineral accumulation with a vinegar solution and rinse. Do not store glass aquaria at the floor level.

C. Insect Collections

A killing jar for insects can be prepared by taping a swab of cotton moistened with ethyl acetate, acetone, or fingernail polish remover into the lid. Potassium cyanide is not permitted.

D. Chick Embryos and Baby Chicks

1. In producing embryos for study, no embryo developed more than 18 days should be used. If chick eggs are to be hatched, the teacher must abide by Maryland Law described in item 4.
2. Do not work with virus-injected eggs.
3. Dispose of dead embryos because of the possibility of the presence of pathogenic bacteria.
4. In the state of Maryland it is unlawful for any person, firm, or corporation to sell, offer for sale, barter, or give away baby chickens, ducklings, or other fowl, (under three weeks of age) as pets, toys, premiums or novelties or to color, dye, stain, or otherwise change the natural color of the baby chickens, ducklings, or other fowl.

E. Develop a fire evacuation procedure for the animals kept in the building.

VII. ALTERNATIVES TO ANIMAL DISSECTION:

- A. It is recommended that science teachers carefully consider alternative ways to achieve the objectives of teaching about the biology of organisms. These objectives should include the following:



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1. establishment of an understanding of the organism and its role in the environment.
 2. respect and appreciation for living things.
 3. humane treatment of animals.
 4. strict consideration for the safety and welfare of students and teachers.
 5. sensitivity to others' value conflicts.
- B. A student's refusal to participate (supported by a written notification from parent or guardian) in an activity involving animals such as dissection or experiments involving live animals, particularly vertebrates, should be recognized and accommodated with alternative methods of learning. The teacher should work with the student to develop an alternative for obtaining the required knowledge or experience. The alternative activity should require the student to invest a comparable amount of time and effort.
- C. Under no condition is the student who requests alternative activities to be penalized. Assessment, evaluation, or testing on the material/objectives covered shall also be provided by alternative methods.
- D. If a student chooses not to participate in activities with animals, alternate and comparable assignments are to be given to the student. Some alternative activities could include:
1. Textbook diagrams or pictures.
 2. Videotape or film.
 3. Computer simulation software.
 4. Models.
- E. Science teachers of courses where animals are utilized for study shall:
1. inform the student in writing at the beginning of a course that uses animals (living or dead) for dissection during the course.



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2. provide alternative educational activities for students whose parents request same in writing. Requests must be made to the school principal at least one week prior to the activity.
3. properly pith a frog if one needs to be sacrificed to meet the objectives of the course. Such courses include Physiology, Biology, and Advanced Placement Biology. The teacher must be experienced in this technique. No student is allowed to pith a frog for study or to observe the pithing process.

VIII. **RELATED PROCEDURES:** None.

IX. **MAINTENANCE AND UPDATE OF THESE PROCEDURES:** The Division of Instruction will maintain and update these procedures as necessary.

X. **EFFECTIVE DATE:** July 1, 1991.

Approved by:
Edward M. Felegy
Superintendent of Schools

Distribution: All Administrative Handbook Holders