DISSECTION
OF ANIMALS
IN SCHOOLS

Animal Ethics Committee
Department of Education and Children’s Services

Level 6, 31 Flinders Street
Adelaide
Ph: 8207-1806
Foreword

This book is not a manual on how to perform dissections. Rather it is a guide for teachers involved in making decisions about dissections of animals in schools.

There are also certain procedural requirements to be observed, including seeking approval to use animals for experiments such as dissection. Lack of observance of such procedures could be considered as being in contravention of the Animal Welfare Act 1985, thereby endangering both the Department’s credibility and its licence to keep and use animals in schools.

FORM AEC 120 – Request for Approval to Use Animals for Dissections

can be obtained by phoning the Executive Officer on 8207-1806
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DISSECTIONS AND DECISION MAKING

To dissect or not?
The decision to dissect an animal or animals for educational purposes is a professional one best made by the teacher in consultation with the school’s animal ethics focus person or committee.

FURTHER FACTORS FOR CONSIDERATION

If the decision has been made to conduct dissections, certain other factors need to be considered by teachers before any planned dissections can be performed.

These factors are discussed below. Departmental requirements are included where appropriate.

The rights of students
Some students may request not to participate in a dissection. Parents and students should be informed of the right to refuse. Genuine requests from students or parents to this effect should be respected and the matter treated sensitively.

Requirement
Students should be informed that a dissection will be taking place and provided with sufficient time to consider their participation and discuss this with their guardians. If they choose not to participate, an alternative activity should be arranged. Students are not to be educationally disadvantaged by their non-participation.

Which animals are suitable for dissection?
The most suitable animals for dissection are those which can be produced in large numbers and are not protected by conservation laws. Simpler, non-vertebrate forms of life should be used in preference to vertebrates when appropriate. Native animals, wild animals or pets must not be used. In general, of the vertebrates, laboratory bred rodents (rats) best fit these criteria.

Requirement
The only vertebrate animals to be used for dissection are those that have been bred specifically for that purpose or, in the case of agricultural education, designated for that purpose.

Ways of obtaining animals
Rats for dissection can be purchased from Adelaide University on 8303-5340

Only frozen rats will be approved for dissection by the Animal Ethics Committee.

No animals are to be euthanased on school sites for dissection purposes.
At which year levels should dissections be performed?
As stated, the decision to dissect is a professional one made by the teacher.

Teacher demonstrated dissections are acceptable in the lower secondary levels and students performing dissections in pairs in years 11 or 12.

Requirement
No dissections are to be performed in years R – 7.

What numbers are acceptable?
The Committee considers the overall number of animal dissections performed in schools is not excessive. Consequently it will not apply any strict formula at this time regarding the number of animals a school may seek to dissect. Rather it will continue to consider each application individually. The ongoing monitoring of school practices will help the Committee to decide in the future whether or not tighter controls are necessary.

Consideration should be given, certainly in years 8 – 10, to sharing animals for dissection on the basis of one animal between two or more students. By using videos, photographs and models, the number of animals needed may be further reduced.

Requirement
Teachers should endeavour to use the minimum number of animals necessary to achieve their aims. It is further recommended that students be familiar with the organs and anatomy of the animal they are going to dissect prior to the dissection taking place. This will ensure they receive maximum benefit from the experience.
ALTERNATIVES TO DISSECTIONS

Teachers who perform dissections should also consider the alternative strategies in order to minimise the number of animals used for educational purposes and to maximise the learning experiences for students. The following suggestions may assist in providing materials available to teachers which can be used instead of, or in conjunction with dissections.

Visual
Videos

Darlington Materials Development Centre AV Resources Catalogue provides a list of current audio visual materials.

Biological teaching Aids, Loxton, will supply visual education material, *Dissection of a Rat*, in two forms:

- a set of slides with scripting
- a video with soundtrack produced from the slides.

Films
The South Australian Film Corporation has films dealing with human body systems:

- Human anatomy
- Lungs
- The mammalian heart
- The human digestive system
- The circulatory system
- The reproductive system
- The skeletal system
- Blood

Other

Pic-a-paks
The following Pic-a-paks have been produced by Darlington Materials Development Centre.

No 61, Sheep Anatomy, 14 colour slides
No 103, Plant and Animal Tissues, 19 colour slides.

Photographs and diagrams
Southern Biological Services, has a series illustrating the internal organs of the rat.
**Book**

**Websites**
NORINA computer database lists more than 3600 alternatives to the use of animals in teaching and is available free of charge on the internet – [http://oslovet.veths.no](http://oslovet.veths.no)

There are many sites offering information on alternatives if you (or your students) browse the net eg on-line dissections are available at [http://biology.about.com/library/weekly/aa061302a.htm](http://biology.about.com/library/weekly/aa061302a.htm) (accessed 25 July 2003)

**Software**
The Humane Society International’s loan program (HELP) offers a range of multimedia educational resources, which can be borrowed at no cost by educational institutions. These are alternatives to the traditional teaching methods used in studies involving the use of animals. Phone 02 99731728. [http://www.his.org.au/](http://www.his.org.au/)

The *Rat Stack* is an interactive computer program, which allows students to learn the functional anatomy of the rat. It is written for the MacIntosh computer and available from Sheffield Bioscience Programs, 11 Robinson Drive, Harrogate, HG2 D9Dj, United Kingdom.

A computer program, *Operation Frog*, has been produced by Scholastic Inc. USA, 1984. It is suitable for Apple 11 Plus, 11e and 11c. Frog dissection can be done on-line at the Virginia University site [http://curry.edschool.virginia.edu/go/frog/](http://curry.edschool.virginia.edu/go/frog/)

ANZCCART provides a useful resource library for the biomedical sciences and maintains a network of persons who may be able to assist with advice or educational resources. [http://www.adelaide.edu.au/ANZCCART/](http://www.adelaide.edu.au/ANZCCART/)

**Specimens**
Animal parts
Parts of animals already killed for food could be used as substitutes. They include offal, chicken wings and fish pieces. Caution is necessary as certain organs have the potential to create health risks.

**Preserved Specimens**
Bioplastic mounts of the rat digestive system and urinogenital system may be purchased from Southern Biological Services, Victoria. This company also has preserved mice and rats with veins and arteries injected with dye for students to dissect. Chicken embryos embedded in plastic are also available. Their use may be considered preferable to the practice of breaking incubated eggs.
THE APPROVAL PROCESS

Teachers wishing to perform dissections as part of their educational program must seek approval in the following way:

1. Decide the quantity of animals required for dissection in consultation with the school's animal ethics focus person or committee.

2. Complete form AEC 120 – Request for Approval to Use Animals for Dissections and/or Specific Experiments. Copies can be obtained from the AEC Executive Officer by phoning 8207-1806.

3. Have the form signed by the Principal.

4. Keep a copy for the school records.

5. Send the form to the Executive Officer, Animal Ethics Committee (address at the front of this booklet).

6. Wait for written approval from the Animal Ethics Committee before commencing the dissection.

NB The Animal Ethics Committee meets quarterly (March, June, September and November). The application should reach the committee two weeks prior to a scheduled meeting.

Note
1. Approval to perform a dissection should be sought regardless that the animals are supplied dead. This information is to be included on form AEC 120.

2. School records of all dissections performed need to be kept in order to include the annual number of dissections on form AEC 110D Animal Ethics Annual Return for Schools Dissection / Experimentation Only to be completed at the end of each year.

3. The school's animal ethics focus person may submit an application on behalf of the whole school at the start of the year and/or make individual requests for approval as and when the need arises during the year.
EUTHANASIA

Euthanasing of animals on school sites for the purposes of dissection is not approved by the Animal Ethics Committee and should not be carried out.

Only animals especially purchased ethanased from a reputable supplier will be approved for the use of dissection.

Animals on site that become seriously injured should be taken to a Veterinary Surgeon immediately for assessment and euthanased by the Vet.

Animals on school sites where farm animals are kept and are seriously injured should also be attended to by a Veterinary Surgeon, however a staff member may euthanize any animal in an emergency situation (e.g. dog attack of a sheep or a kangaroo with a broken leg) if the staff member has the skills and appropriate equipment to do so in a humane manner.

If at all avoidable, students must not be present when the animal is killed. The euthanasia and reasons for it must be reported to the Principal and to the Animal Ethics Committee immediately.
DISPOSAL OF DISSECTED ANIMALS

The following is a summary of information provided by the SA Waste Management Commission and PIRSA regarding the disposal of dead animals. Teachers may choose one of the following methods:

- Waste disposal bins, for collection by council or a waste disposal service
- Local dump
- Incineration
- Deep burial

Small animals
The preferred method of disposal of small laboratory animals such as rats and mice is placement into a waste disposal bin. The SA Waste Management Commission advises that one of the following methods should be employed.

- Wrap the remains in sufficient paper to prevent spillage and tie securely. Place the wrapped remains in a plastic bag or bags and refrigerate until the day of normal weekly school garbage collection by local council or private contractor as appropriate. Remove the parcel from the plastic bag and place in the school garbage.
  OR
- Place the wrapped remains in suitable sealed double-strength plastic bags and store in a cool place until the day of garbage collection by local council or private contractor as appropriate (this method is suitable for small quantities only).
  OR
- Take the remains in a sealed plastic bag direct to the local dump.

Large animals
Responsibility for the disposal of larger animals lies with the school. Disposal procedures must conform with the local council by-laws. As local councils are not obliged to remove dead animals, schools must negotiate for collection and removal. Councils have the power to act in the preservation of public health, in the prevention of nuisances and in the supervision of the elimination of nuisances. Schools in rural areas may have the option of deep burial on site or on a neighbouring property.

Incineration
There are incinerators at the following sites:

- Animal Welfare League of SA Incorporated, 11 Cormack Road, Wingfield.
- Waste Management Services Pty Ltd, 50 Cavan Road, Dry Creek.
A fee is payable.

Consideration for others
Teachers need to show sensitivity and be aware of the emotional impact that unsatisfactory disposal of dead or dissected animals would have on students and the public. This can be avoided by adequate bagging and appropriate timing of disposal.

In all cases, care must be taken to prevent the spread of disease, offensive odours and damage to the environment.
FURTHER SOURCES OF INFORMATION


Code of Practice for the Care and Use of Animals For Scientific Purposes, 1997. National Health and Medical Research Council (NHMRC).

Code of Practice for the Use and Care of Animals in Schools and Early Childhood Settings, Department of Education and Children’s Services – Animal Ethics Committee.

ANZCCART News, a series of newsletters by the Australian Council for the Care of Animals in Research and Training. These are available on-line at http://www.adelaide.edu.au/ANZCCART/

Hammond Dr P., Euthanasia – Some Notes on Death and Dying, Independent Schools Board of SA – Animal Ethics Committee.


Blackshar, J. and Allan, D., Principles of Laboratory.